

CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company	A.L. Abercrombie Inc.	Test No.	1
Well Name & Number	McBee 32	Zone Tested	Kansas City "140-160"
Company Address	801 Union Center Wichita, Ks.	Date	1/10/85
Company Rep.	Mark Galyon	Tester	Bill Nichols
Contractor	Abercrombie Drilling Company	Elevation	2703 GL
Location: Sec. 29 Twp. 17s Rge. 27w Co. Lane State Ks.		Est. Feet of Pay	

Recorder No. 11091 Type AK-1 Range 4200 PSI

Recorder Depth 4203 Clock # 23938

(A) Initial Hydrostatic Mud 2274 PSI

(B) First Initial Flow Pressure 72 PSI

(C) First Final Flow Pressure 72 PSI

(D) Initial Shut-in Pressure 1112 PSI

(E) Second Initial Flow Pressure 94 PSI

(F) Second Final Flow Pressure 94 PSI

(G) Final Shut-in Pressure 1008 PSI

(H) Final Hydrostatic Mud 2210 PSI

Temperature 112

Mud Weight 10.0 Viscosity 48

Fluid Loss 7.2

Interval Tested 4149-4212

Anchor Length 63

Top Packer Depth 4144

Bottom Packer Depth 4149

Total Depth 4212

Drill Pipe Size 4 FH

Wt. Pipe I. D. 2.7 Ft. Run 441

Recovery-Total Feet 120

Recovered 60 Feet Of Oil specked mud: 1% oil & 99% mud.

Recovered 60 Feet Of Slightly oil specked mud with trace of oil: 100% mud on

Recovered Feet Of gassy oil.

Recovered Feet Of

Recovered Feet Of

Recovered Feet Of

Extra Equipment Price of Job \$675.00

Recorder No. 13222 Type AK-1 Range 4000 PSI

Recorder Depth 4207 Clock # 26193

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 @ 4:21 PM

Blow Remarks 1st open: Weak steady blow,
1 inch.

2nd open: No blow, flushed too, very
weak surface blow returned.

Mud Chlorides- 40,000 PPM

Recovery Chlorides- 58,000 PPM

Resistivity- 0.120 ohms @ 75° F.

INITIAL SHUT-IN

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RECORDER NO: 11091 DEPTH: 4212 FT.
INITIAL FLOW TIME (T): 30 MIN.

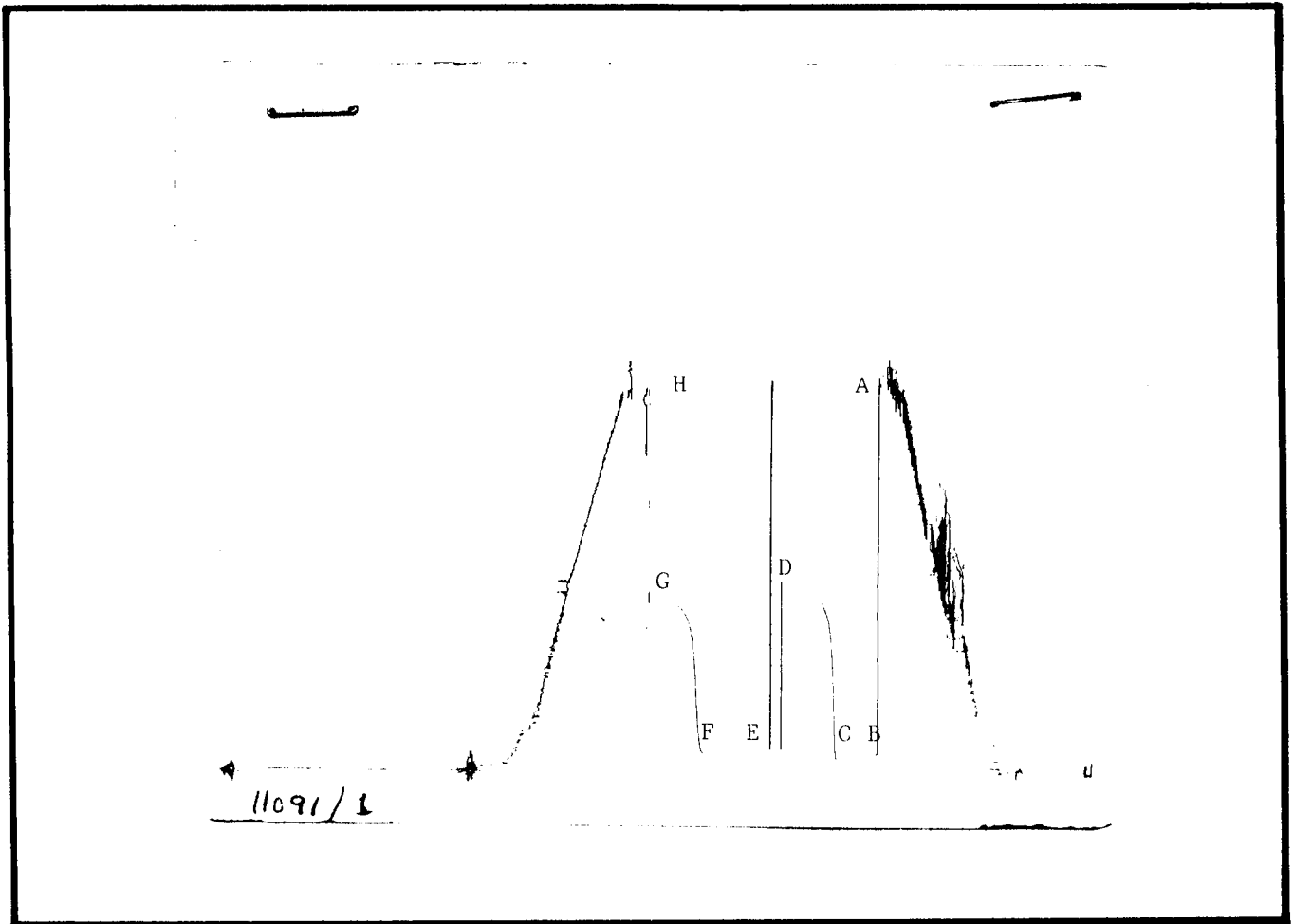
DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	76.6
5	0.845	690.2
10	0.602	917.8
15	0.477	986.0
20	0.398	1023.8
25	0.342	1046.8
30	0.301	1066.8
35	0.269	1080.4
40	0.243	1093.0
45	0.222	1099.3

FINAL SHUT-IN

=====

RECORDER NO: 11091 DEPTH: 4212 FT.
TOTAL FLOW TIME: 90 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	103.8
5	1.279	225.5
10	1.000	685.0
15	0.845	878.0
20	0.740	940.9
25	0.663	969.2
30	0.602	990.2
35	0.553	1004.9
40	0.512	1020.6
45	0.477	1032.2



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2274	2269	PSI
(B) First Initial Flow Pressure	72	76.6	PSI
(C) First Final Flow Pressure	72	76.6	PSI
(D) Initial Closed-in Pressure	1112	1099.3	PSI
(E) Second Initial Flow Pressure	94	103.8	PSI
(F) Second Final Flow Pressure	94	103.8	PSI
(G) Final Closed-in Pressure	1008	1032.2	PSI
(H) Final Hydrostatic Mud	2210	2205	PSI

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

FOR: A.L. ABERCROMBIE INC. DST # 1
MCBEE #2 FORMATION: KANSAS CITY "140-160"
SEC 29-17S-27W ELEVATION: 2703 KB
LANE COUNTY KANSAS

TEST PARAMETERS

TEST INTERVAL: 4149 - 4212	EST PAY: 10
TIME INTERVAL: 30 - 45 - 60 - 45	VISCOSITY OF FLUID: 3.5
INITIAL FLOW PRESS: 76.6- 76.6	HOLE SIZE: 7.875
FINAL FLOW PRESS: 103.8- 103.8	D.C. CAPACITY:0.00000
SHUT-IN PRESS(I-F):1099.3-1032.2	W.P. CAPACITY:0.00708
BOTTOM HOLE TEMPERATURE: 112	D.P. CAPACITY:0.01026
TOTAL FEET OF RECOVERY: 120	TOTAL BARRELS RECOVERY: 0.8494

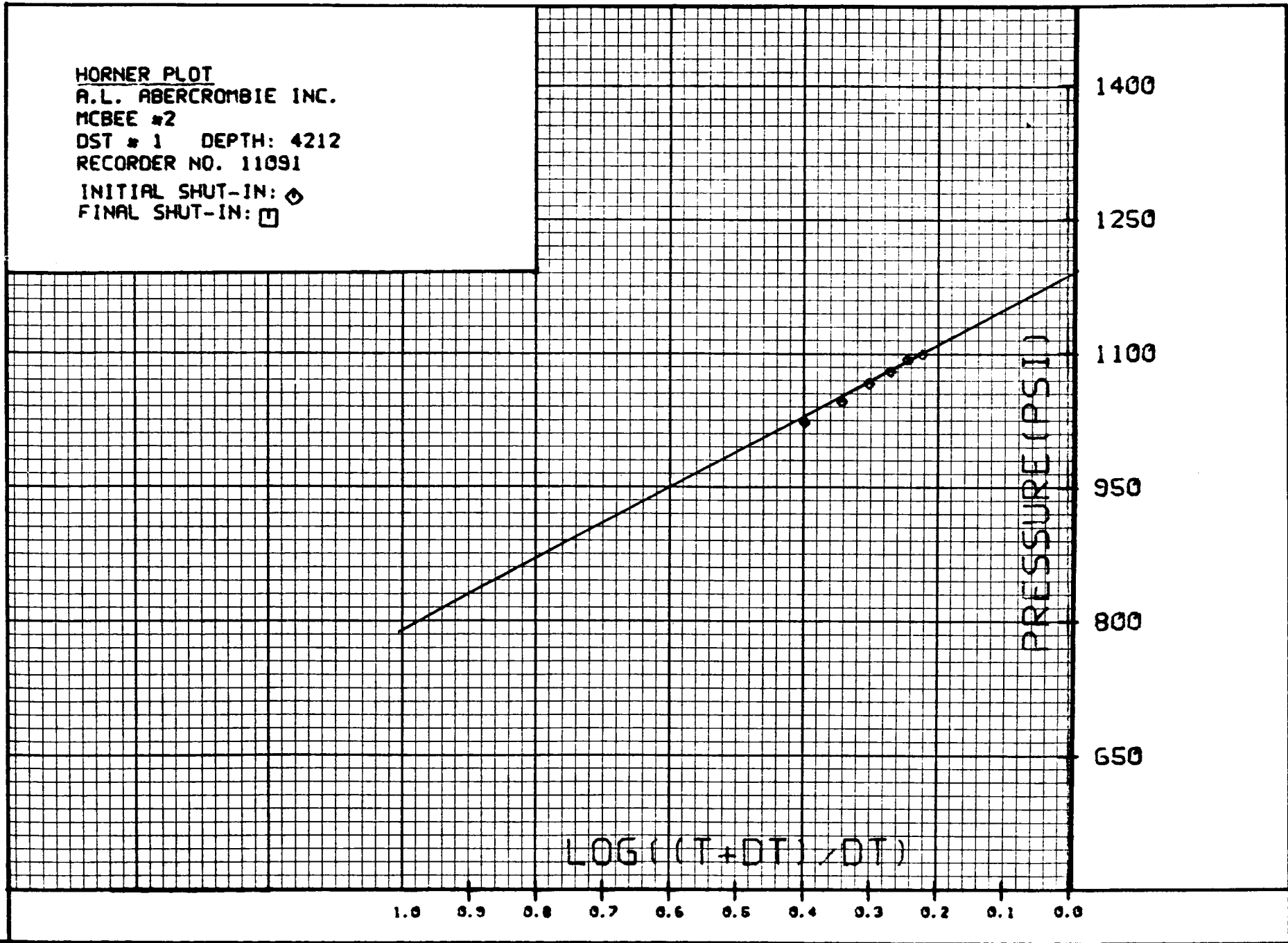
EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1190
SLOPE (PSI-CYCLE): 403 POINTS USED: 4

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1195
SLOPE (PSI-CYCLE): 348 POINTS USED: 6

CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 13.59
TRANSMISSIBILITY (MD-FT/CP)	: 6.35
PERMEABILITY (MD)	: 2.22
PRODUCTIVITY INDEX (B/D/PSI)	: 0.0072
DAMAGE RATIO	: 0.511
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 14.1
DRAWDOWN FACTOR (%)	: -0.420
POTENTIOMETRIC SURFACE (FT)	: 1262.21

HORNER PLOT
A.L. ABERCROMBIE INC.
MCBEE #2
DST # 1 DEPTH: 4212
RECORDER NO. 11091
INITIAL SHUT-IN: \diamond
FINAL SHUT-IN: \square



HORNER PLOT

A.L. ABERCROMBIE INC.

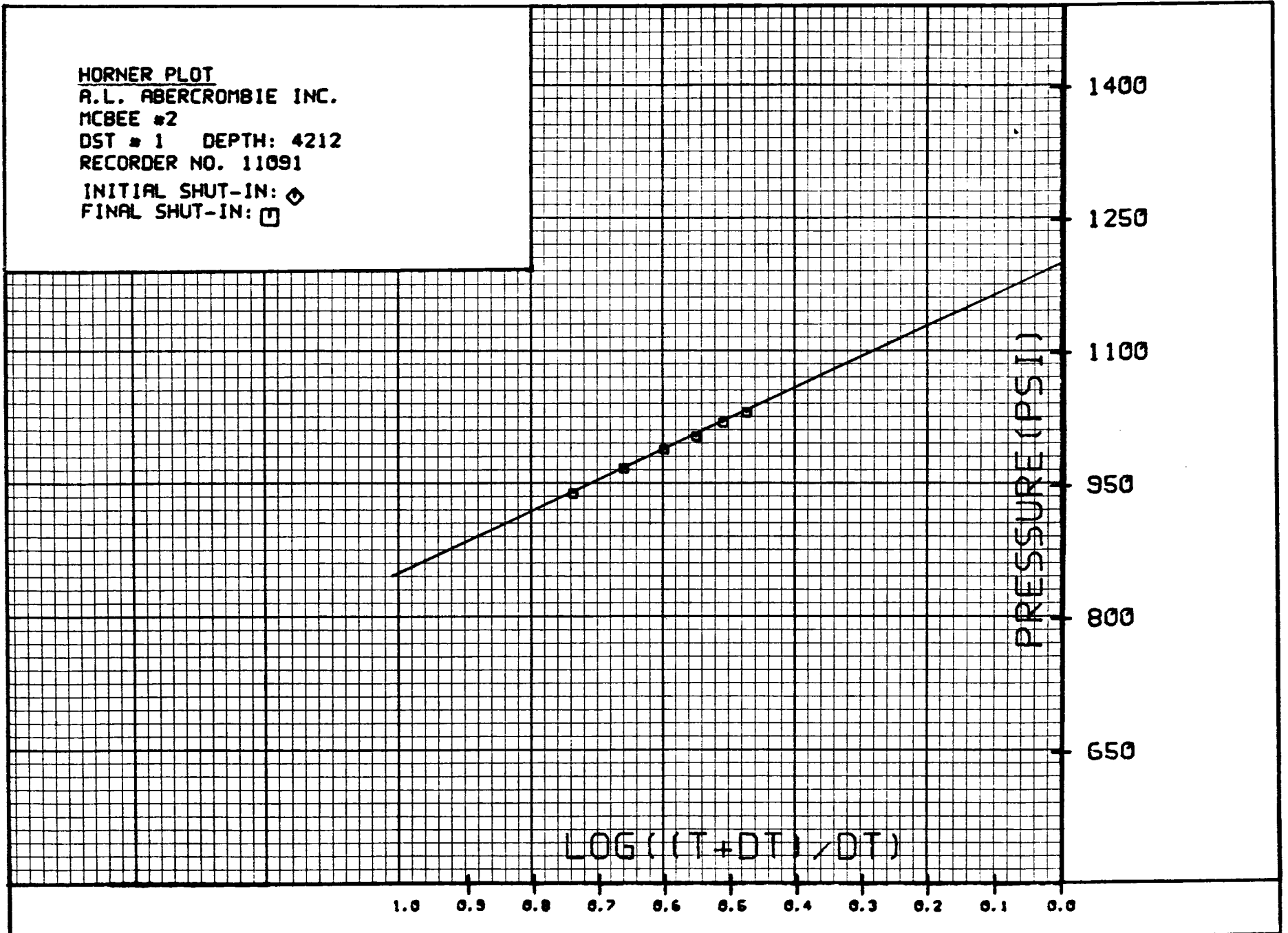
MCBEE #2

DST # 1 DEPTH: 4212

RECORDER NO. 11091

INITIAL SHUT-IN: \diamond

FINAL SHUT-IN: \square



INITIAL SHUT-IN

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RECORDER NO: 11091 DEPTH: 4265 FT.
 INITIAL FLOW TIME (T): 30 MIN.

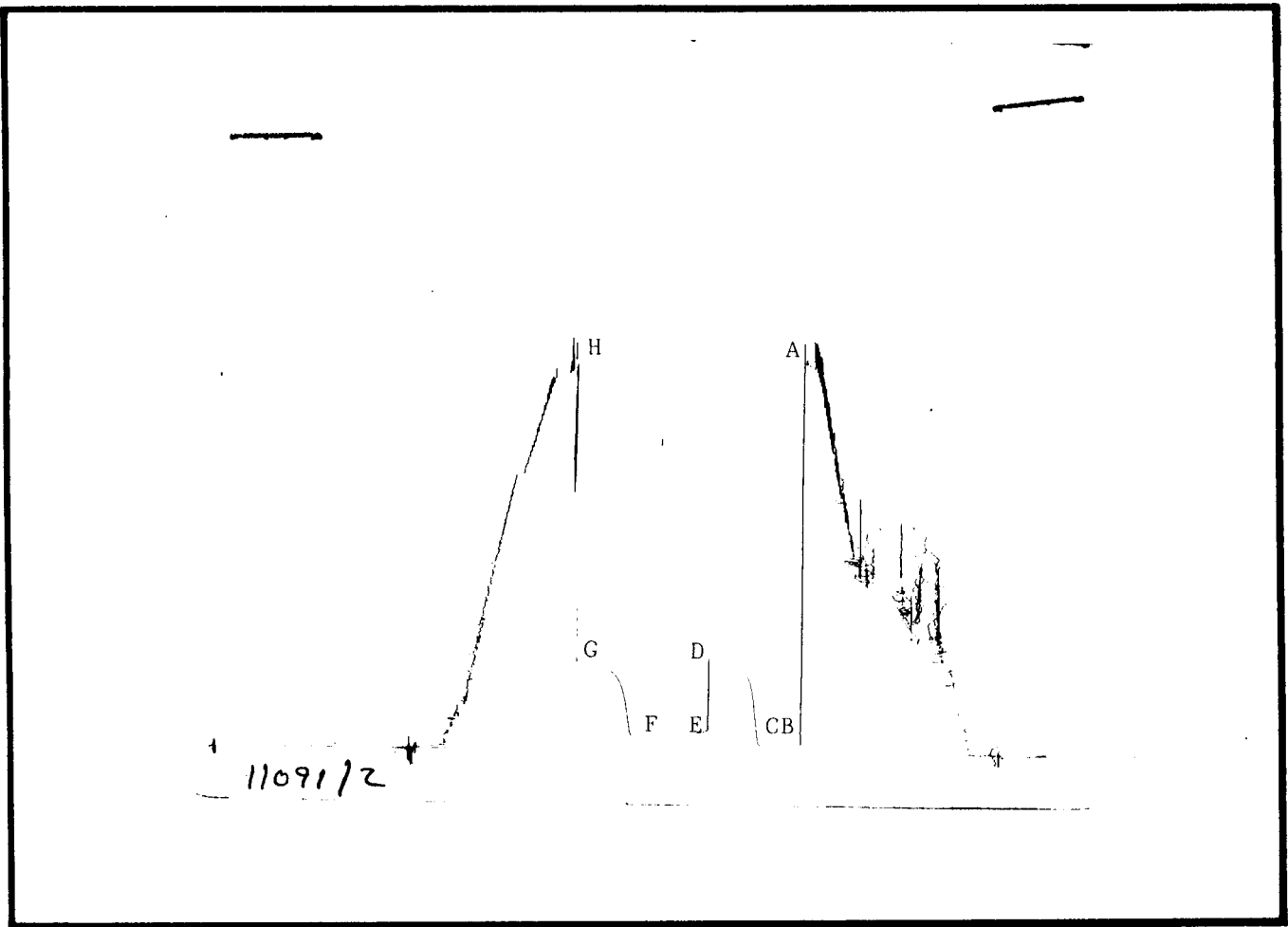
DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	32.5
5	0.845	39.9
10	0.602	321.0
15	0.477	443.7
20	0.398	482.5
25	0.342	505.6
30	0.301	519.2
35	0.269	528.7
40	0.243	536.0
45	0.222	539.2

FINAL SHUT-IN

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RECORDER NO: 11091 DEPTH: 4265 FT.
 TOTAL FLOW TIME: 90 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	89.2
5	1.279	249.6
10	1.000	396.5
15	0.845	448.9
20	0.740	475.2
25	0.663	492.0
30	0.602	505.6
35	0.553	514.0
40	0.512	521.3
45	0.477	525.5



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2239	2234	PSI
(B) First Initial Flow Pressure	40	32.5	PSI
(C) First Final Flow Pressure	70	32.5	PSI
(D) Initial Closed-in Pressure	566	539.2	PSI
(E) Second Initial Flow Pressure	80	89.2	PSI
(F) Second Final Flow Pressure	101	89.2	PSI
(G) Final Closed-in Pressure	536	525.5	PSI
(H) Final Hydrostatic Mud	2219	2214	PSI

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

FOR: A.L. ABERCROMBIE INC. DST # 2
MCBEE #2 FORMATION: KANSAS CITY "200"
SEC 29-17S-27W ELEVATION: 2703 KB
LANE COUNTY KANSAS

TEST PARAMETERS

TEST INTERVAL: 4247 - 4265	EST PAY: 5
TIME INTERVAL: 30 - 45 - 60 - 45	VISCOSITY OF FLUID: 3.5
INITIAL FLOW PRESS: 32.5- 32.5	HOLE SIZE: 7.875
FINAL FLOW PRESS: 89.2- 89.2	D.C. CAPACITY:0.00000
SHUT-IN PRESS(I-F): 539.2- 525.5	W.P. CAPACITY:0.00708
BOTTOM HOLE TEMPERATURE: 113	D.P. CAPACITY:0.01026
TOTAL FEET OF RECOVERY: 180	TOTAL BARRELS RECOVERY: 1.2741

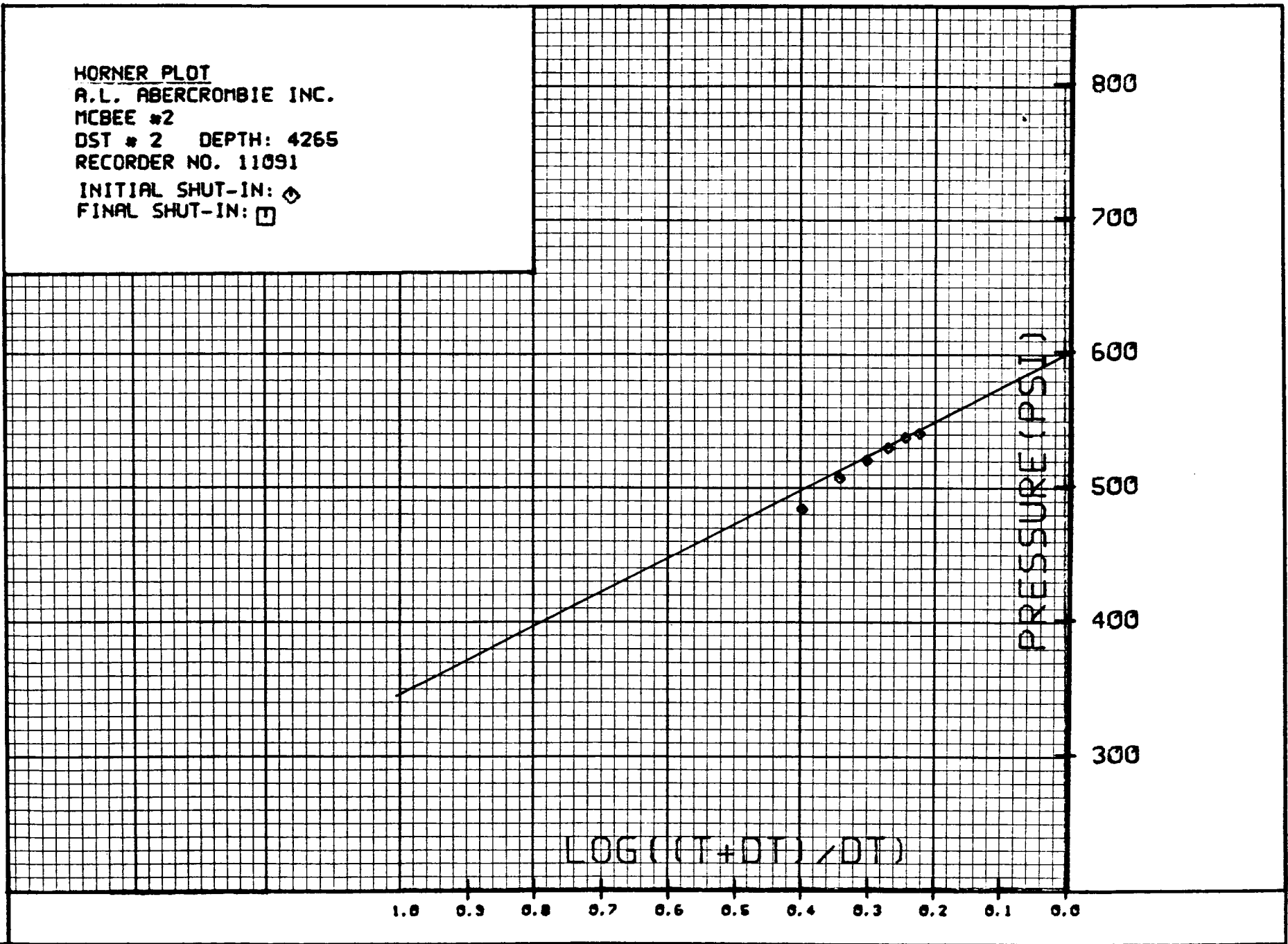
EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 600
SLOPE (PSI-CYCLE): 253 POINTS USED: 3

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 602
SLOPE (PSI-CYCLE): 158 POINTS USED: 3

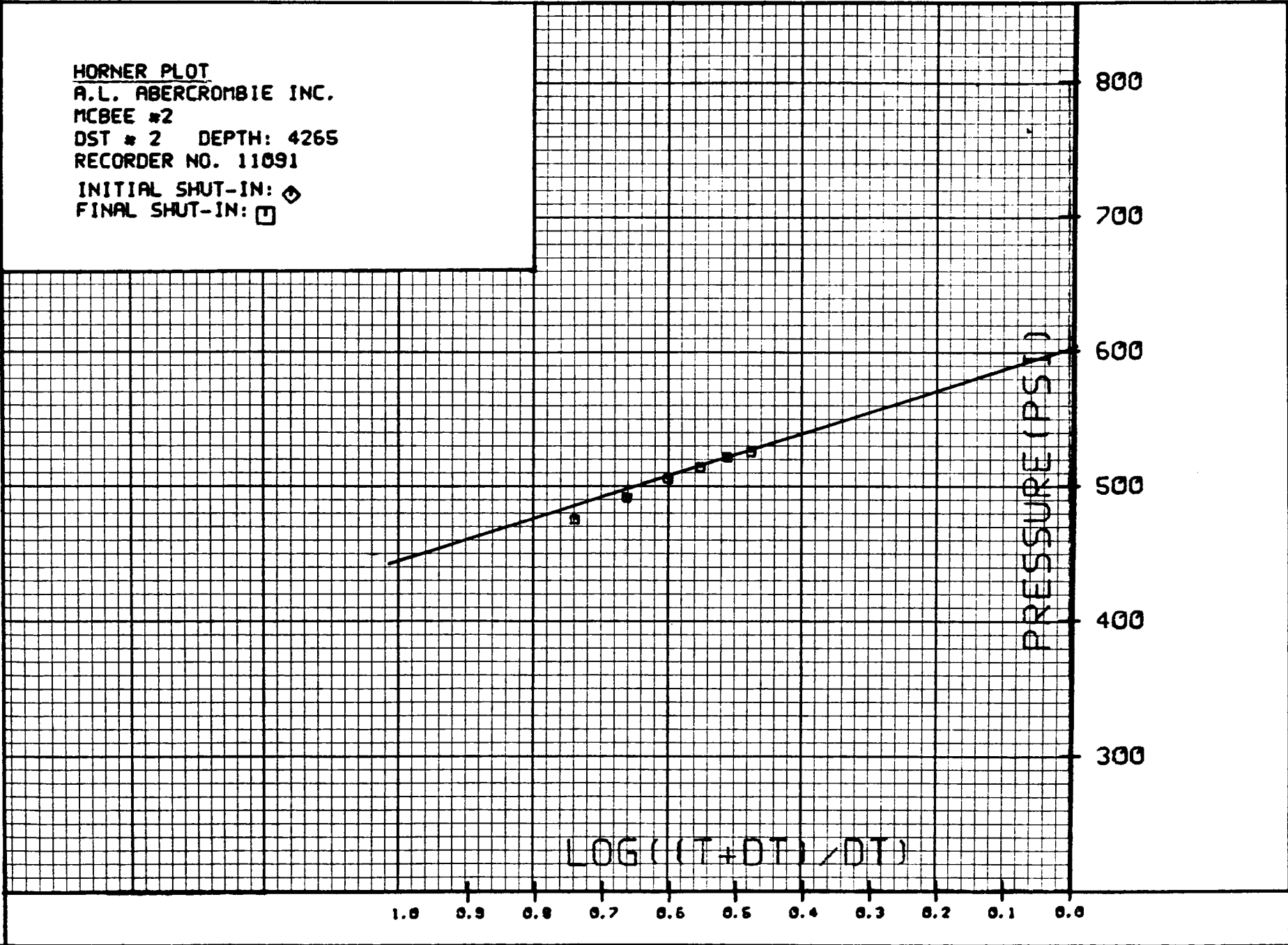
CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 20.38
TRANSMISSIBILITY (MD-FT/CP)	: 20.98
PERMEABILITY (MD)	: 14.68
PRODUCTIVITY INDEX (B/D/PSI)	: 0.0237
DAMAGE RATIO	: 0.529
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 36.4
DRAWDOWN FACTOR (%)	:-0.333
POTENTIOMETRIC SURFACE (FT)	:-165.96

HORNER PLOT
A.L. ABERCROMBIE INC.
MCBEE #2
DST # 2 DEPTH: 4265
RECORDER NO. 11091
INITIAL SHUT-IN: \diamond
FINAL SHUT-IN: \square



HORNER PLOT
A.L. ABERCROMBIE INC.
MCBEE #2
DST # 2 DEPTH: 4265
RECORDER NO. 11091
INITIAL SHUT-IN: \diamond
FINAL SHUT-IN: \square



CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company <u>A.L. Abercrombie Inc.</u>	Test No. <u>3</u>
Well Name & Number <u>McBee #2</u>	Zone Tested <u>Pawnee</u>
Company Address <u>801 Union Center Wihcita Ks.</u>	Date <u>1/13/85</u>
Company Rep. <u>Mark Galyon</u>	Tester <u>Bill Nichols</u>
Contractor <u>Abercrombie Drilling Company</u>	Elevation <u>2703 GL</u>
Location: Sec. <u>29</u> Twp. <u>17s</u> Rge. <u>27w</u> Co. <u>Lane</u> State <u>Ks.</u>	Est. Feet of Pay _____

Recorder No. 11091 Type AK-1 Range 4200 PSI
 Recorder Depth 4456 Clock # 23938
 (A) Initial Hydrostatic Mud 2340 PSI
 (B) First Initial Flow Pressure 70 PSI
 (C) First Final Flow Pressure 151 PSI
 (D) Initial Shut-in Pressure 1136 PSI
 (E) Second Initial Flow Pressure 212 PSI
 (F) Second Final Flow Pressure 344 PSI
 (G) Final Shut-in Pressure 1116 PSI
 (H) Final Hydrostatic Mud 2300 PSI
 Temperature 115
 Mud Weight 9.9 Viscosity 44
 Fluid Loss 8.0
 Interval Tested 4439-4465
 Anchor Length 26
 Top Packer Depth 4434
 Bottom Packer Depth 4439
 Total Depth 4465
 Drill Pipe Size 4 Fh
 Wt. Pipe I. D. 2.7 Ft. Run 441
 Recovery-Total Feet 790

Recorder No. 13222 Type AK-1 Range 4000 PSI
 Recorder Depth 4460 Clock # 26193
 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 @ 12:01 PM

Blow Remarks 1st open: Strong 18 inch blow.
2nd open: Strong 18 inch blow.

Mud Chlorides= 45,000 PPM
Recovery Chlorides= 68,000 PPM
Resistivity 0.990 ohms @ 75° F.

Recovered 310 Feet Of Gassy oil cut mud: 25% gas, 20% oil & 55% mud.
 Recovered 360 Feet Of Gassy oil cut watery mud: 30% gas, 7% oil, 35% water & 28% mud.
 Recovered 120 Feet Of Gassy scpeked water: 20% gas & 80% water.
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____
 Recovered _____ Feet Of _____

Extra Equipment _____ Price of Job \$675.00

INITIAL SHUT-IN

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RECORDER NO: 13222 DEPTH: 4465 FT.
INITIAL FLOW TIME (T): 30 MIN.

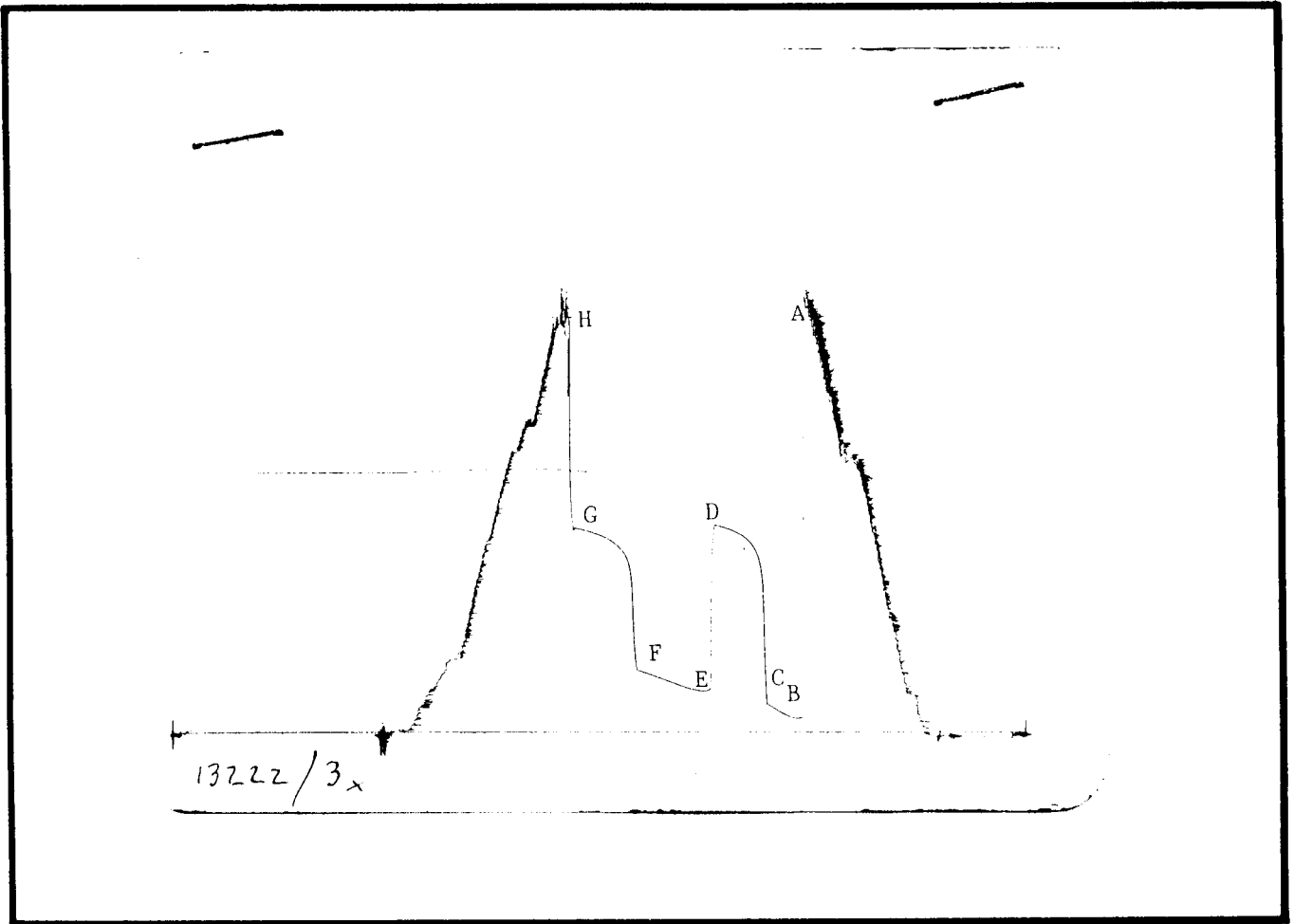
DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	150.6
5	0.845	443.8
10	0.602	945.8
15	0.477	1024.1
20	0.398	1061.3
25	0.342	1084.4
30	0.301	1102.4
35	0.269	1115.5
40	0.243	1125.5
45	0.222	1132.5

FINAL SHUT-IN

=====

RECORDER NO: 13222 DEPTH: 4465 FT.
TOTAL FLOW TIME: 90 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(P SIG)
0	0.000	339.4
5	1.279	972.9
10	1.000	1019.1
15	0.845	1045.2
20	0.740	1065.3
25	0.663	1080.3
30	0.602	1094.4
35	0.553	1104.4
40	0.512	1112.5
45	0.477	1117.5



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	Field Reading	Office Reading	
(A) Initial Hydrostatic Mud	2340	2335	PSI
(B) First Initial Flow Pressure	70	74.3	PSI
(C) First Final Flow Pressure	151	150.6	PSI
(D) Initial Closed-in Pressure	1136	1132.5	PSI
(E) Second Initial Flow Pressure	212	222.9	PSI
(F) Second Final Flow Pressure	344	339.4	PSI
(G) Final Closed-in Pressure	1116	1117.5	PSI
(H) Final Hydrostatic Mud	2300	2295	PSI

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

FOR: A.L. ABERCROMBIE INC.
MCBEE #2 DST # 3
SEC 29-17S-27W FORMATION: PAWNEE
LANE COUNTY KANSAS ELEVATION: 2703 KB

TEST PARAMETERS

TEST INTERVAL: 4439 - 4465	EST PAY: 10
TIME INTERVAL: 30 - 45 - 60 - 45	VISCOSITY OF FLUID: 3.5
INITIAL FLOW PRESS: 74.3- 150.6	HOLE SIZE: 7.875
FINAL FLOW PRESS: 222.9- 339.4	D.C. CAPACITY:0.00000
SHUT-IN PRESS(I-F):1132.5-1117.5	W.P. CAPACITY:0.00708
BOTTOM HOLE TEMPERATURE: 115	D.P. CAPACITY:0.01026
TOTAL FEET OF RECOVERY: 790	TOTAL BARRELS RECOVERY: 6.7006

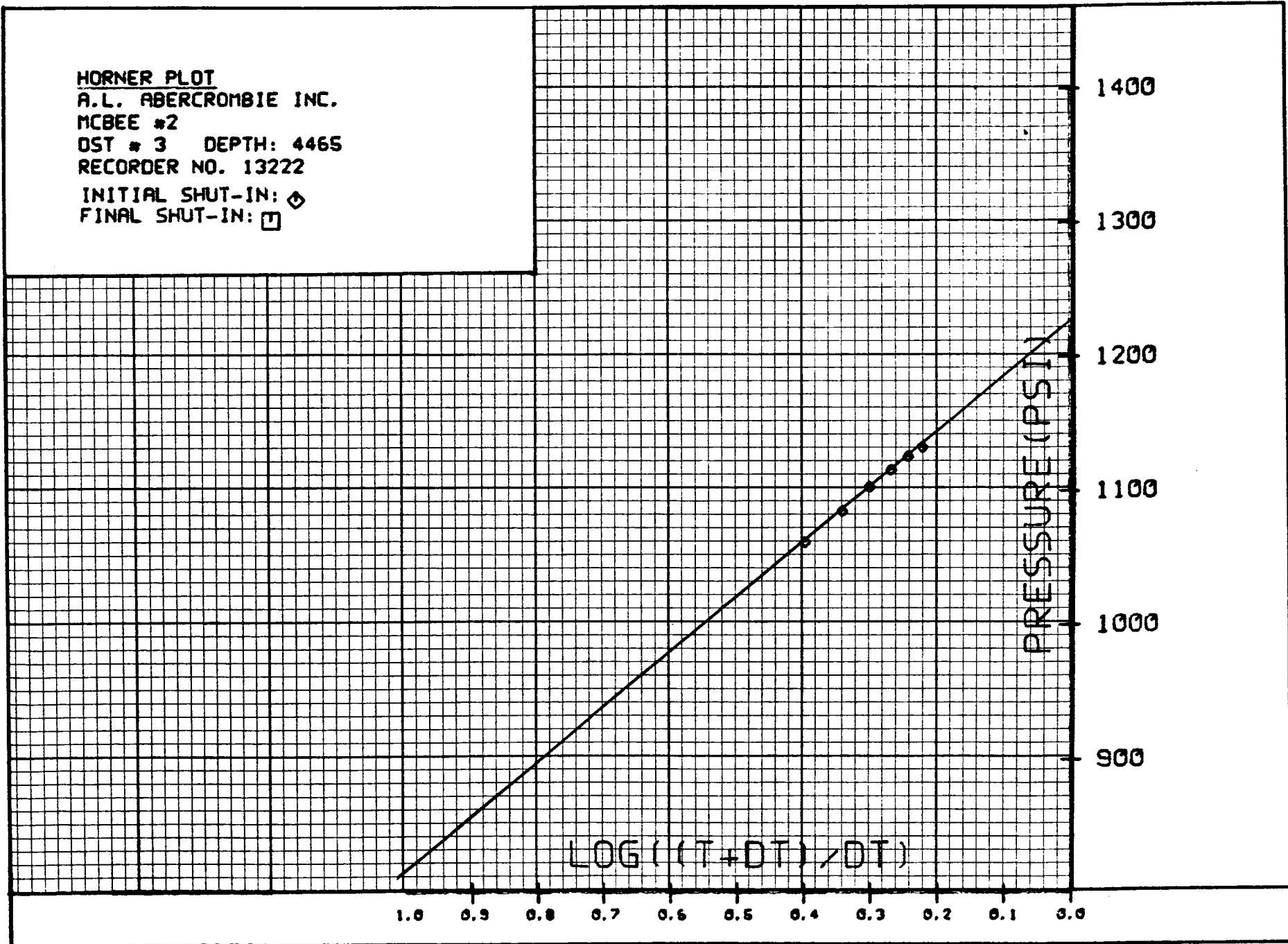
EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI): 1224
SLOPE (PSI-CYCLE): 412 POINTS USED: 6

EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI): 1217
SLOPE (PSI-CYCLE): 205 POINTS USED: 6

CALCULATIONS

AVERAGE PRODUCTION RATE (B/D)	: 107.21
TRANSMISSIBILITY (MD-FT/CP)	: 85.04
PERMEABILITY (MD)	: 29.76
PRODUCTIVITY INDEX (B/D/PSI)	: 0.0961
DAMAGE RATIO	: 0.698
APPROXIMATE RADIUS OF INVESTIGATION (FT)	: 51.8
DRAWDOWN FACTOR (%)	: 0.572
POTENTIOMETRIC SURFACE (FT)	:1060.22

HORNER PLOT
A.L. ABERCROMBIE INC.
MCBEE #2
DST # 3 DEPTH: 4465
RECORDER NO. 13222
INITIAL SHUT-IN: \diamond
FINAL SHUT-IN: \square



HORNER PLOT

A.L. ABERCROMBIE INC.

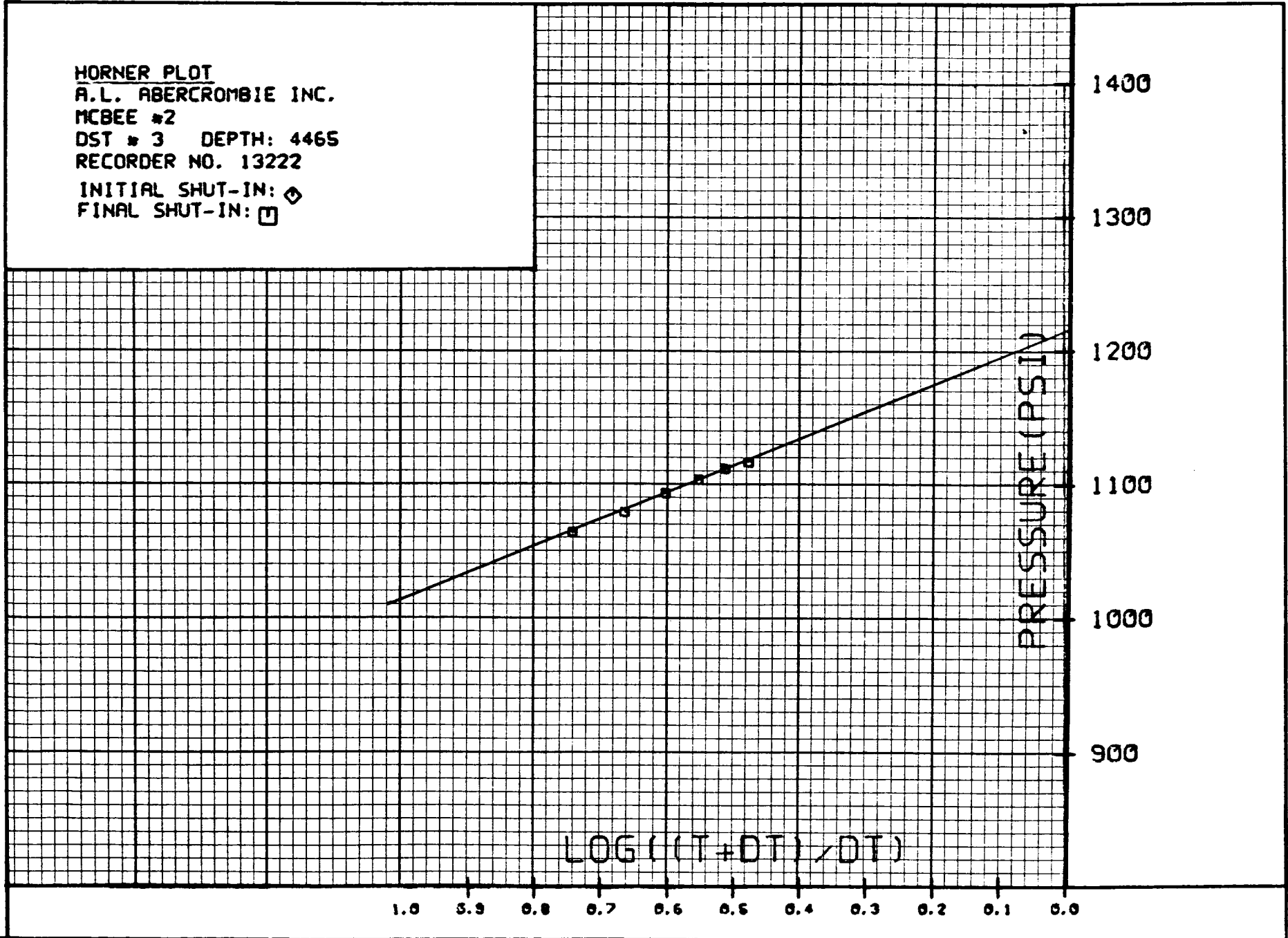
MCBEE #2

DST # 3 DEPTH: 4465

RECORDER NO. 13222

INITIAL SHUT-IN: \diamond

FINAL SHUT-IN: \square



CHENEY TESTING COMPANY, INC.

P. O. Box 367

HILL CITY, KANSAS 67642

DRILL-STEM TEST DATA

Company <u>A.L. Abercrombie Inc.</u>	Test No. <u>4</u>
Well Name & Number <u>McBee #2</u>	Zone Tested <u>Cherokee</u>
Company Address <u>801 Union Center, Wichita, Ks.</u>	Date <u>1/14/85</u>
Company Rep. <u>Mark Galyon</u>	Tester <u>Bill Nichols</u>
Contractor <u>Abercrombie Drilling Companu</u>	Elevation <u>2703 GL</u>
Location: Sec. <u>29</u> Twp. <u>17s</u> Rge. <u>27w</u> Co. <u>Lane</u> State <u>Ks.</u>	Est. Feet of Pay _____

Recorder No. 11091 Type AK-1 Range 4200 PSI

Recorder Depth 4565 Clock # 23938

(A) Initial Hydrostatic Mud 2491 PSI

(B) First Initial Flow Pressure 10 PSI

(C) First Final Flow Pressure 10 PSI

(D) Initial Shut-in Pressure 10 PSI

(E) Second Initial Flow Pressure 20 PSI

(F) Second Final Flow Pressure 20 PSI

(G) Final Shut-in Pressure 20 PSI

(H) Final Hydrostatic Mud 2480 PSI

Temperature 115

Mud Weight 9.9 Viscosity 48

Fluid Loss 8.0

Interval Tested 4556-4574

Anchor Length 18

Top Packer Depth 4551

Bottom Packer Depth 4556

Total Depth 4574

Drill Pipe Size 4 FH

Wt. Pipe I. D. 1.7 Ft. Run 441

Recovery-Total Feet 1

Recovered 1 Feet Of Mud.

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Recovered _____ Feet Of _____

Extra Equipment _____ Price of Job \$675.00

Recorder No. 13222 Type AK-1 Range 4000 PSI

Recorder Depth 4569 Clock # 26193

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

Initial Shut-in 30 Mins.

Flow Period 30 Mins.

Final Shut-in 30 Mins.

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

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

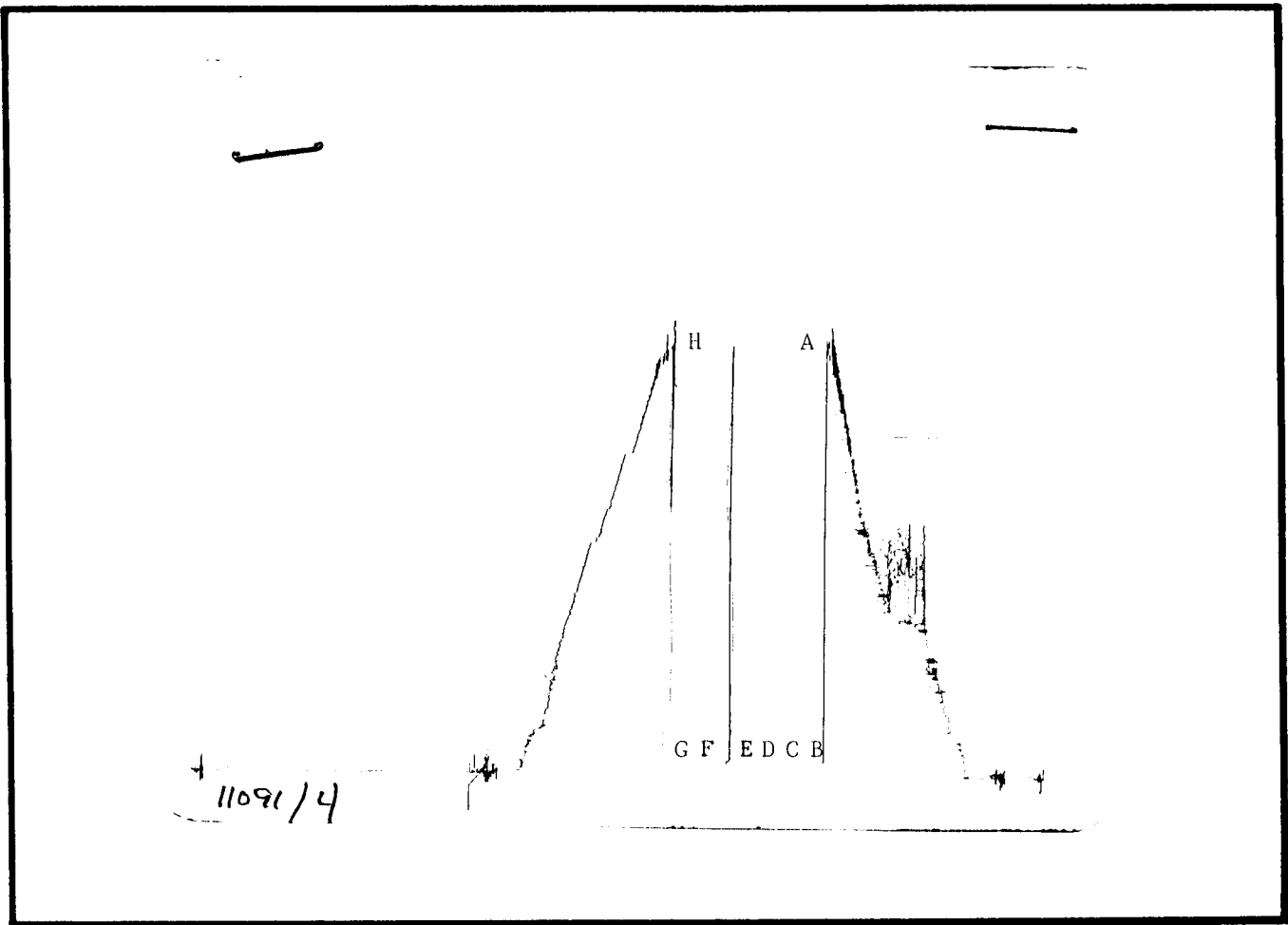
Tool Open @ 7:10 PM

Blow Remarks 1st open: Weak 1/4 inch blow, died in 11 minutes.

2nd open: No blow, flushed tool.

Mud Chlorides-46,000 PPM

Recovery Chlorides- 45,000 PPM



This is an actual photograph of recorder chart.

POINT	PRESSURE	
	Field Reading	Office Reading
(A) Initial Hydrostatic Mud	2491	PSI
(B) First Initial Flow Pressure	10	PSI
(C) First Final Flow Pressure	10	PSI
(D) Initial Closed-in Pressure	10	PSI
(E) Second Initial Flow Pressure	20	PSI
(F) Second Final Flow Pressure	20	PSI
(G) Final Closed-in Pressure	20	PSI
(H) Final Hydrostatic Mud	2480	PSI