(303) 522-8387

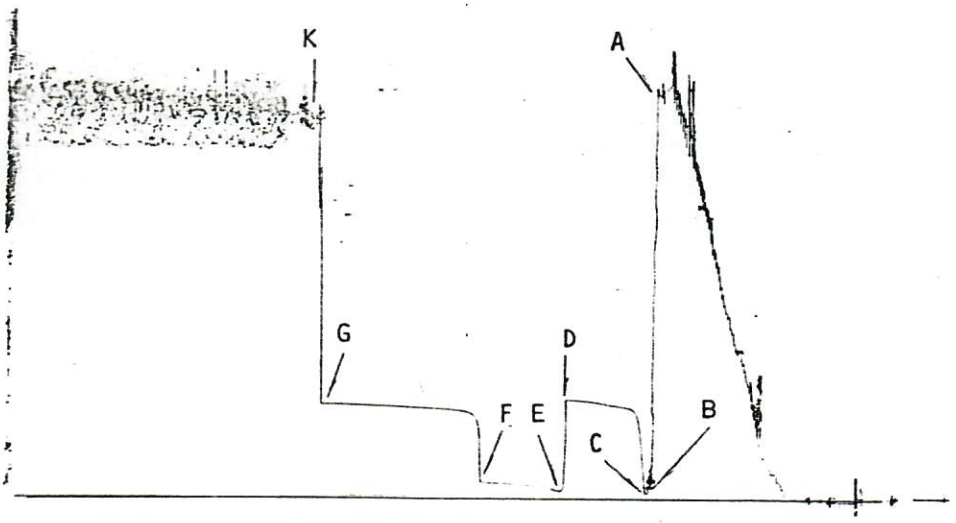
PICK TESTERS

Box 341
Sterling, CO 80751

Contractor	Gear Drilling Co.	Surface Choke	1"	Mud Type	Polymer/Gel
Rig No.	1	Bottom Choke	3/4"	Weight	9.4
Spot	SE/SE	Hole Size	7 7/8"	Viscosity	65
Sec.	14	Core Hole Size	--	Water Loss	--
Twp.	8 N	DP Size & Wt.	4 1/2" 16.60	Filter Cake	--
Rng.	54 W	Wt. Pipe	None	Resistivity	3.0 @ 76 °F
Field	Lodge	I.D. of DC	2 1/4"		1,685 Ppm. NaCl
County	Logan	Length of DC	375'	B.H.T.	148 °F
State	Colorado	Total Depth	5196'		
Elevation	4251' KB	Type Test	Straddle	Co. Rep.	Ted Sheldon
Formation	"J" Sand	Interval	5083'- 5108'	Tester	David Pickering

Operator: PULPAN EXPLORATION
Ticket No. 1323
Date 12/29/89
Well Name & No. EDENS #44-14
Location SE/SE S-14 T-8N R-54W
County, State LOGAN COUNTY, CO
DST No. 1
Interval 5083' - 5108'
Formation "J" SAND

00252409



	REPORTED	CORRECTED	
Opened Tool @	12:52		hrs.
Flow No. 1	5	5	min.
Shut-in No. 1	60	59	min.
Flow No. 2	60	61	min.
Shut-in No. 2	120	118	min.
Flow No. 3	None Taken		min.
Shut-in No. 3	"	"	min.

Recorder Type Kuster AK-1
No. 13338 Cap. 4950 psi
Depth 5099 feet
Inside X Outside

Initial Hydrostatic	A	2560.0
Final Hydrostatic	K	2399.7
Initial Flow	B	92.2
Final Initial Flow	C	40.4
Initial Shut-in	D	624.5
Second Initial Flow	E	63.8
Second Final Flow	F	105.8
Second Shut-in	G	593.7
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	

Pipe Recovery: 127' Total fluid = 0.62 bbl., consisting of:
96' Mud w/slight oil scum = 0.47 bbl.
31' Slightly water cut mud w/slight oil scum = 0.15 bbl.

Resistivity:
Top: 3.5 @ 60°F - 1.51 @ Res Temp = 1,796 ppm NaCl., 1,092 ppm Cl.
Middle: 3.0 @ 68°F - 1.45 @ Res Temp = 1,875 ppm NaCl., 1,140 ppm Cl.
Bottom: 4.0 @ 70°F - 1.98 @ Res Temp = 1,348 ppm NaCl., 819 ppm Cl.

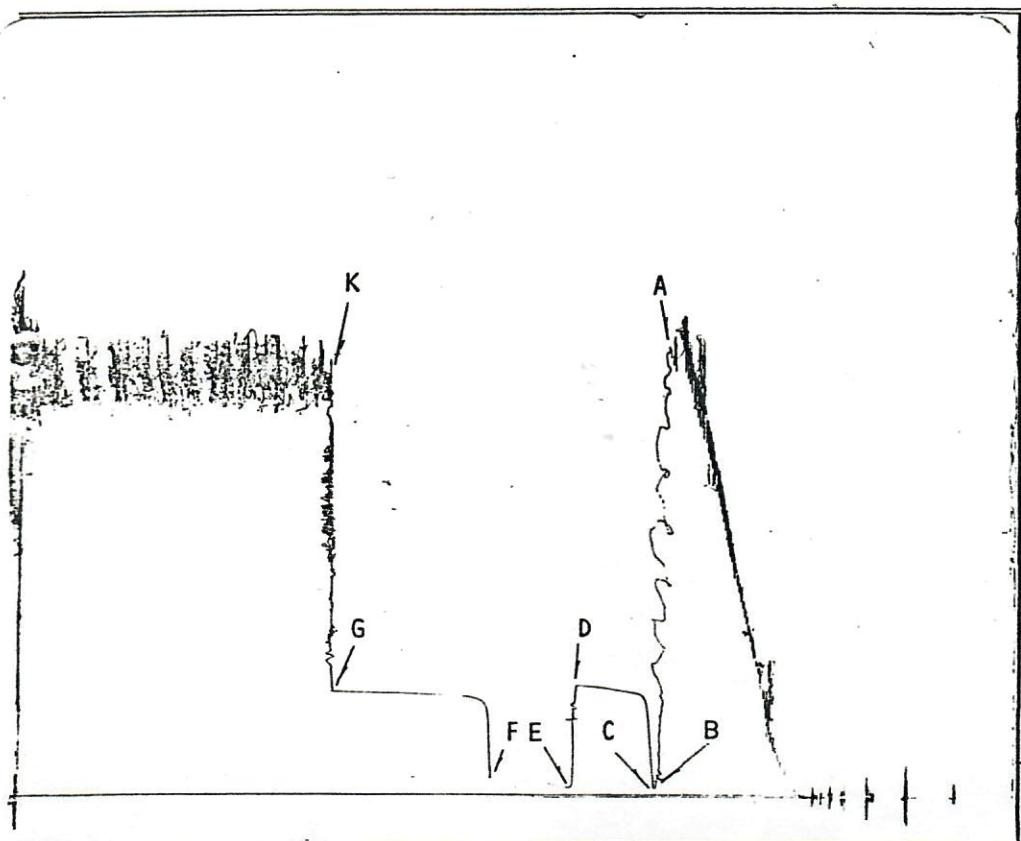
1st Flow: Tool opened with a 1" blow, increased to a strong blow off bottom of bucket in 2 minutes and remained thru flow period.

2nd Flow: Tool opened with a strong blow. Gas to surface in 10 minutes; see gas volume report.

Polfam Exploration — Operator

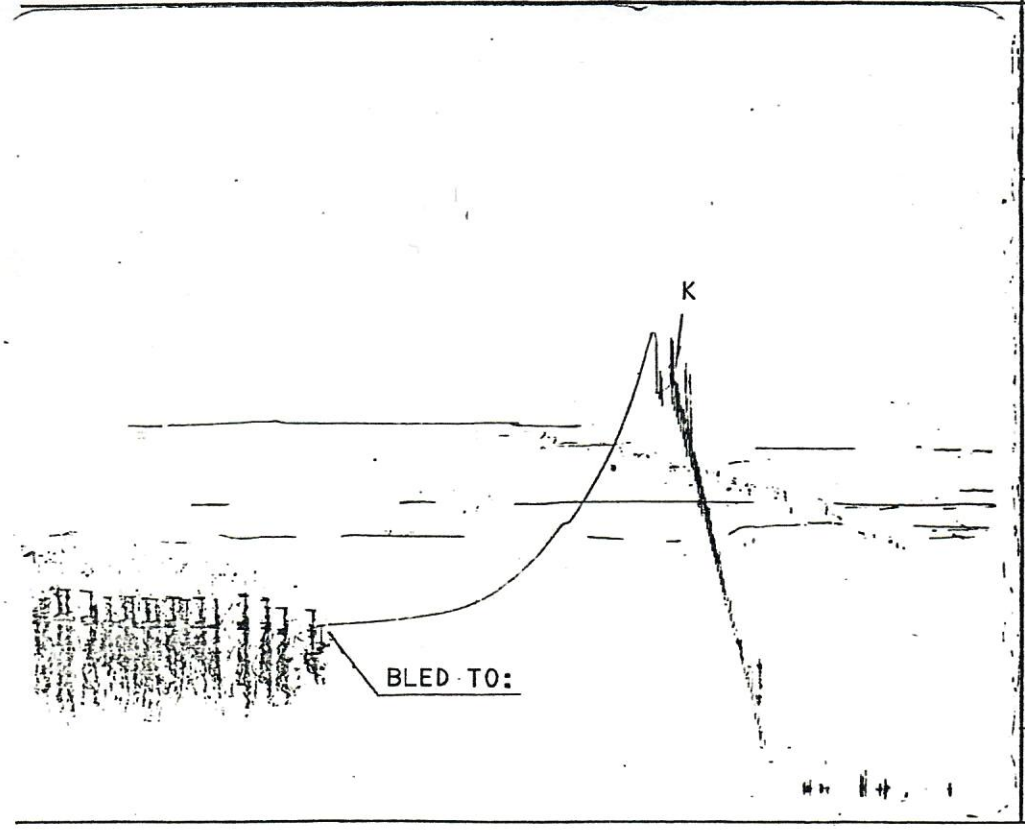
Edens #44-14 — Well Name and No.

1 — DST No.



Recorder Type Kuster AK-1
No. 13617 Cap. 4550 psi
Depth 5089 feet
Inside X Outside

Initial Hydrostatic	A	2525.1
Final Hydrostatic	K	2439.9
Initial Flow	B	53.6
Final Initial Flow	C	49.0
Initial Shut-in	D	631.7
Second Initial Flow	E	59.4
Second Final Flow	F	102.0
Second Shut-in	G	598.1
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	



Recorder Type Kuster AK-1
No. 6249 Cap. 4950 psi
Depth 5117 feet
Inside Outside X

Initial Hydrostatic	A	2530.2
Final Hydrostatic	K	
Initial Flow	B	
Final Initial Flow	C	
Initial Shut-in	D	
Second Initial Flow	E	
Second Final Flow	F	
Second Shut-in	G	
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-in	J	

Bled to: 1065.3

PICK TESTERS

GAS VOLUME REPORT

Polfam Exploration	Edens #44-14	1
Operator	Well Name and No.	DST No.

2nd Flow:

Min.	PSIG	Orifice Size	MCF/D	Min.	PSIG	Orifice Size	MCF/D
10	5.0 oz	1"	77.0				
20	9.0		140.0				
30	15.0		161.0				
40	2.75 psi		302.0				
50	2.75		302.0				
60	2.75		302.0				

Remarks: Gas to surface 10 minutes into the second flowing period.
Gas measured with a 1" Pitot Tube.

PICK TESTERS

SAMPLER REPORT

Company: Polfam Exploration — Date: 12/29/89

Well Name & No.: Edens #44-14 — Ticket No.: 1323

County: Logan — State: Colorado

Test Interval: 5083'- 5108' — DST No.: 1

Pressure in Sampler: 80 psig

Total Volume of Sampler: 2150 cc.

Total Volume of Sample: 600 cc.

Oil: 100 cc.

Water: Trace cc.

Mud: 500 cc.

Gas: 0.57 cu. ft.

Other: None

Sample R W: 3.5 @ 66°F - 1.65 @ Res Temp = 1,640 ppm NaCl., 997 ppm Cl.

Resistivity

Make Up Water _____ @ _____ °F of Chloride Content _____ ppm.

Mud Pit Sample 3.0 @ 76 °F of Chloride Content 1,685 ppm.

Gas/Oil Ratio 912/1 cu.ft./bbl. Gravity _____ °API @ _____ °F

Where was sample drained On location.

Remarks:

PICK TESTERS

Polfam Exploration	Edens #44-14	1
Operator	Well Name and No.	DST No.

This analysis has been made on the basis of the gas recovery and equations applicable to gas recovery tests and the Horner extrapolation method.

The pressure extrapolation plot indicates a maximum initial reservoir pressure of 650 psi and a maximum final reservoir pressure of 615 psi which is equivalent to a subsurface pressure gradient of 0.12 psi/ft at the recorder depth of 5099 feet. The difference between the extrapolated initial and final reservoir pressures (35 psi) may be due to the presence of dual porosity which is indicated by the character of the build-up curves on the extrapolation plots.

The Average Production Rate which was used in this analysis, 302.0 MCF/D is the stabilized gas flow rate which was gauged during the final flowing period.

The calculated Total Effective Transmissibility of 1921.56 md.-ft./cp. indicates an Average Permeability to gas of 2.8823 md. for the estimated 10 feet of effective porosity within the total 25 feet of tested interval.

The calculated Skin Factor of -3.3 indicates no significant well-bore damage was present at the time of this formation test and is indicative of dual porosity.

The evaluation criteria used in the drillstem test analysis system indicate this is a good mechanical test and the results obtained in this analysis should be reliable within reasonable limits relative to the assumptions which have been made.

PICK TESTERS

Polfam Exploration	Edens #44-14	1
Operator	Well Name and No.	DST No.

TEST PARAMETERS

RECORDER NUMBER	13338	HOLE SIZE	7.875 IN
RECORDER DEPTH	5099 FT	TEMPERATURE	608 DEG R
ELEVATION	4251 FT (KB)	COMPRESSIBILITY	0.85
DATUM	-848 FT	1ST FLOW TIME	5 MIN
PAY THICKNESS	10 FT (EST)	1ST SHUT-IN TIME	59 MIN
VISCOSITY	0.015 CP	2ND FLOW TIME	61 MIN
POROSITY FRACTION	0.12	2ND SHUT-IN TIME	118 MIN

CALCULATIONS

EXTRAPOLATED INITIAL SHUT-IN PRESSURE (PSI)	649.5
NUMBER OF POINTS USED	5
SLOPE (PSI SQUARED/LOG CYCLE)	891543.8
EXTRAPOLATED FINAL SHUT-IN PRESSURE (PSI)	614.5
NUMBER OF POINTS USED	8
SLOPE (PSI SQUARED/LOG CYCLE)	132961.0
AVERAGE PRODUCTION RATE (MCF/DAY)	302.00
TRANSMISSIBILITY (MD.-FT./CP.)	1921.56
FLOW CAPACITY (MD.-FT.)	28.82
PERMEABILITY (MD.)	2.8823
PRODUCTIVITY INDEX (MCF/DAY/PSI)	0.594
ESTIMATED DAMAGE RATIO (EDR)	0.6
SKIN FACTOR (S)	-3.3
PRESSURE DROP DUE TO SKIN (PSI)	0.0
APPROXIMATE RADIUS OF INVESTIGATION (FT.)	33.8
DRAWDOWN FACTOR (%)	5.4
POTENTIOMETRIC SURFACE (FT.)	583.8

PICK TESTERS

Polfam Exploration	Edens #44-14	1
Operator	Well Name and No.	DST No.

RECORDER NO. 13338 DEPTH 5099 FT.

INITIAL FLOW

DT(MIN)	PRESSURE(PSIG)
0	92.2
5	40.4

RECORDER NO. 13338 DEPTH 5099 FT.

FINAL FLOW

DT(MIN)	PRESSURE(PSIG)
0	63.8
5	53.9
10	65.0
15	73.7
20	77.4
25	83.6
30	88.5
35	92.2
40	95.9
45	98.4
50	100.8
55	102.1
60	104.5
61	105.8

PICK TESTERS

Polfam Exploration	Edens #44-14	1
Operator	Well Name and No.	DST No.

RECORDER NO. 13338 DEPTH 5099 FT.

INITIAL SHUT-IN

INITIAL FLOW TIME: T = 5 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)	DP(PSIG)	P SQR X .001
0		40.4	0.0	1.6
1	0.778	102.1	61.7	10.4
2	0.544	217.0	176.6	47.1
3	0.426	319.6	279.2	102.1
4	0.352	414.7	374.3	172.0
5	0.301	474.0	433.6	224.6
6	0.263	515.9	475.6	266.2
7	0.234	534.5	494.1	285.6
8	0.211	550.5	510.2	303.1
9	0.192	559.1	518.8	312.6
10	0.176	566.5	526.2	321.0
12	0.151	571.5	531.1	326.6
14	0.133	576.4	536.1	332.3
16	0.118	580.1	539.8	336.5
18	0.106	582.6	542.2	339.4
20	0.097	586.3	545.9	343.7
22	0.089	588.8	548.4	346.6
24	0.082	591.2	550.9	349.5
26	0.076	593.7	553.3	352.5
28	0.071	596.2	555.8	355.4
30	0.067	599.9	559.5	359.8
35	0.058	607.3	566.9	368.8
40	0.051	613.4	573.1	376.3
45	0.046	617.1	576.8	380.8
50	0.041	620.8	580.5	385.4
55	0.038	623.3	582.9	388.5
59	0.035	624.5	584.2	390.0

EXTRAPOLATED PRESSURE: 649.5 PSI
SLOPE: 891543.8 PSI SQUARED/LOG CYCLE
POINTS USED: 5

PICK TESTERS

Polfam Exploration	Edens #44-14	1
Operator	Well Name and No.	DST No.

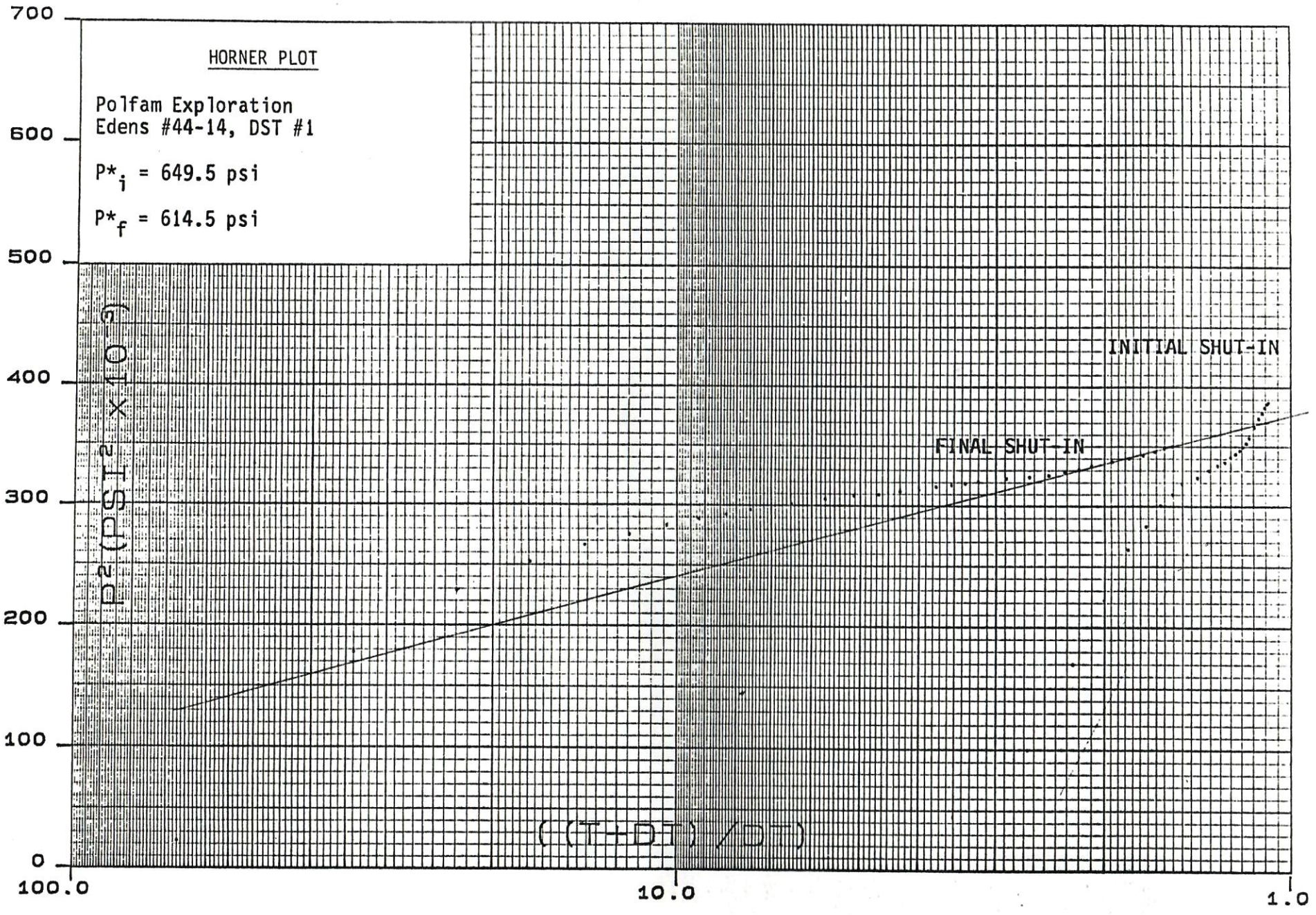
RECORDER NO. 13338 DEPTH 5099 FT.

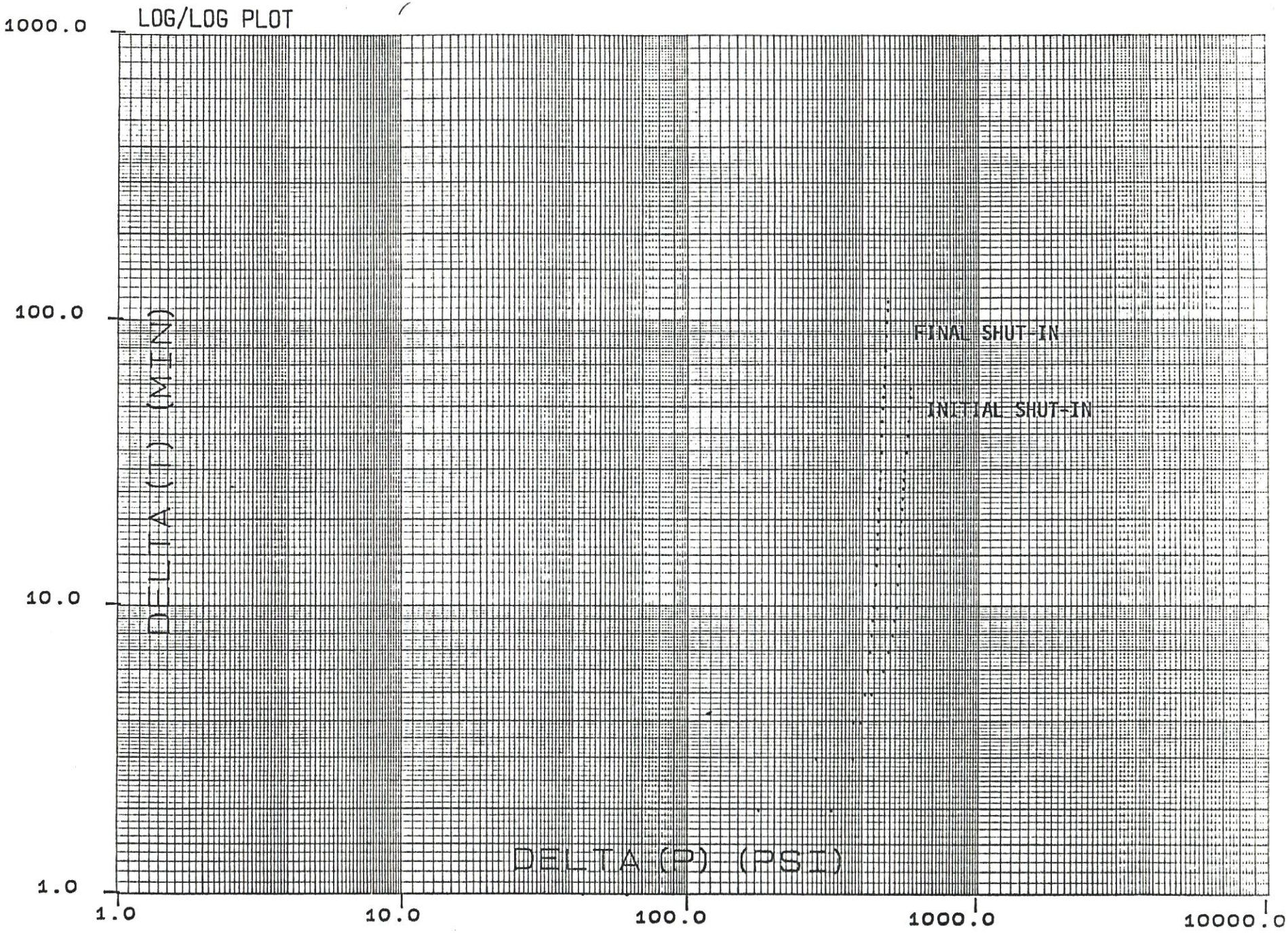
FINAL SHUT-IN

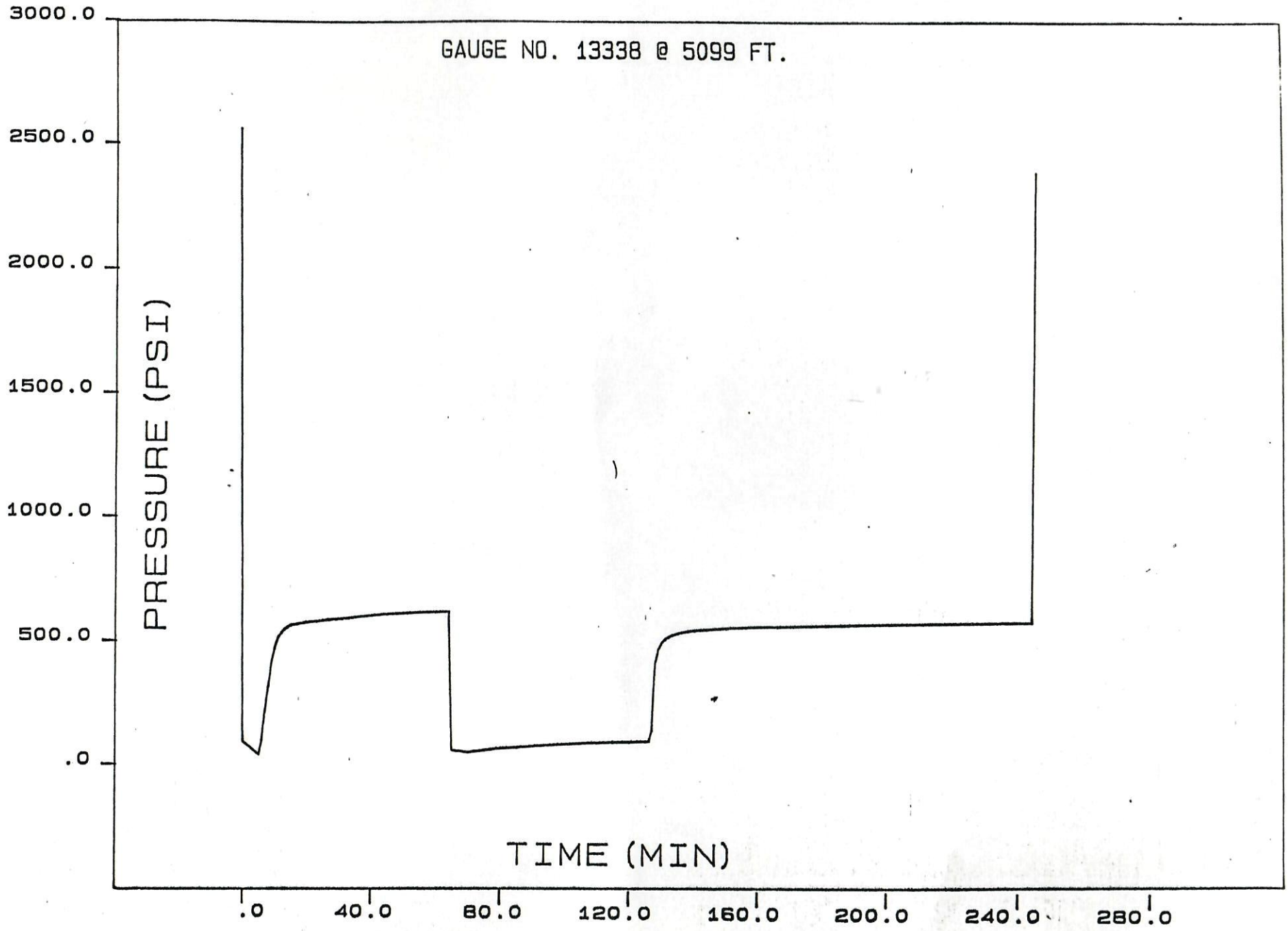
TOTAL FLOW TIME: T = 66 MIN.

DT(MIN)	LOG((T+DT)/DT)	PRESSURE(PSIG)	DP(PSIG)	P SQR X .001
0		105.8	0.0	11.2
1	1.826	149.0	43.2	22.2
2	1.531	422.1	316.3	178.2
3	1.362	478.9	373.1	229.4
4	1.243	503.6	397.8	253.6
5	1.152	517.2	411.4	267.5
6	1.079	525.8	420.0	276.5
7	1.018	533.2	427.4	284.3
8	0.966	538.2	432.4	289.6
9	0.921	541.9	436.1	293.6
10	0.881	545.6	439.8	297.6
12	0.813	550.5	444.7	303.1
14	0.757	554.2	448.4	307.1
16	0.710	556.7	450.9	309.9
18	0.669	557.9	452.1	311.3
20	0.633	560.4	454.6	314.0
22	0.602	561.6	455.8	315.4
24	0.574	564.1	458.3	318.2
26	0.549	565.3	459.5	319.6
28	0.526	566.5	460.8	321.0
30	0.505	567.8	462.0	322.4
35	0.460	570.2	464.5	325.2
40	0.423	571.5	465.7	326.6
45	0.392	572.7	466.9	328.0
50	0.365	575.2	469.4	330.8
55	0.342	576.4	470.6	332.3
60	0.322	578.9	473.1	335.1
70	0.288	582.6	476.8	339.4
80	0.261	585.0	479.3	342.3
90	0.239	587.5	481.7	345.2
100	0.220	590.0	484.2	348.1
110	0.204	592.5	486.7	351.0
118	0.193	593.7	487.9	352.5

EXTRAPOLATED PRESSURE: 614.5 PSI
SLOPE: 132961.0 PSI SQUARED/LOG CYCLE
POINTS USED: 8


HORNER PLOT
Polfam Exploration
Edens #44-14, DST #1
P*i = 649.5 psi
P*f = 614.5 psi
700
600
500
400
300
200
100
0
100.0
10.0
1.0
(P*2)
INITIAL SHUT-IN
FINAL SHUT-IN
((T+DT)/DT)


LOG/LOG PLOT
1000.0
100.0
10.0
1.0
DELTA(P') (MTND)
FINAL SHUT-IN
INITIAL SHUT-IN
DELTA(P) (PSI)
1.0
10.0
100.0
1000.0
10000.0


GAUGE NO. 13338 @ 5099 FT.
3000.0
2500.0
2000.0
1500.0
1000.0
500.0
.0
PRESSURE (PSI)
TIME (MIN)
.0
40.0
80.0
120.0
160.0
200.0
240.0
280.0

PICK TESTERS

Polfam Exploration	Edens #44-14	1
Operator	Well Name and No.	DST No.

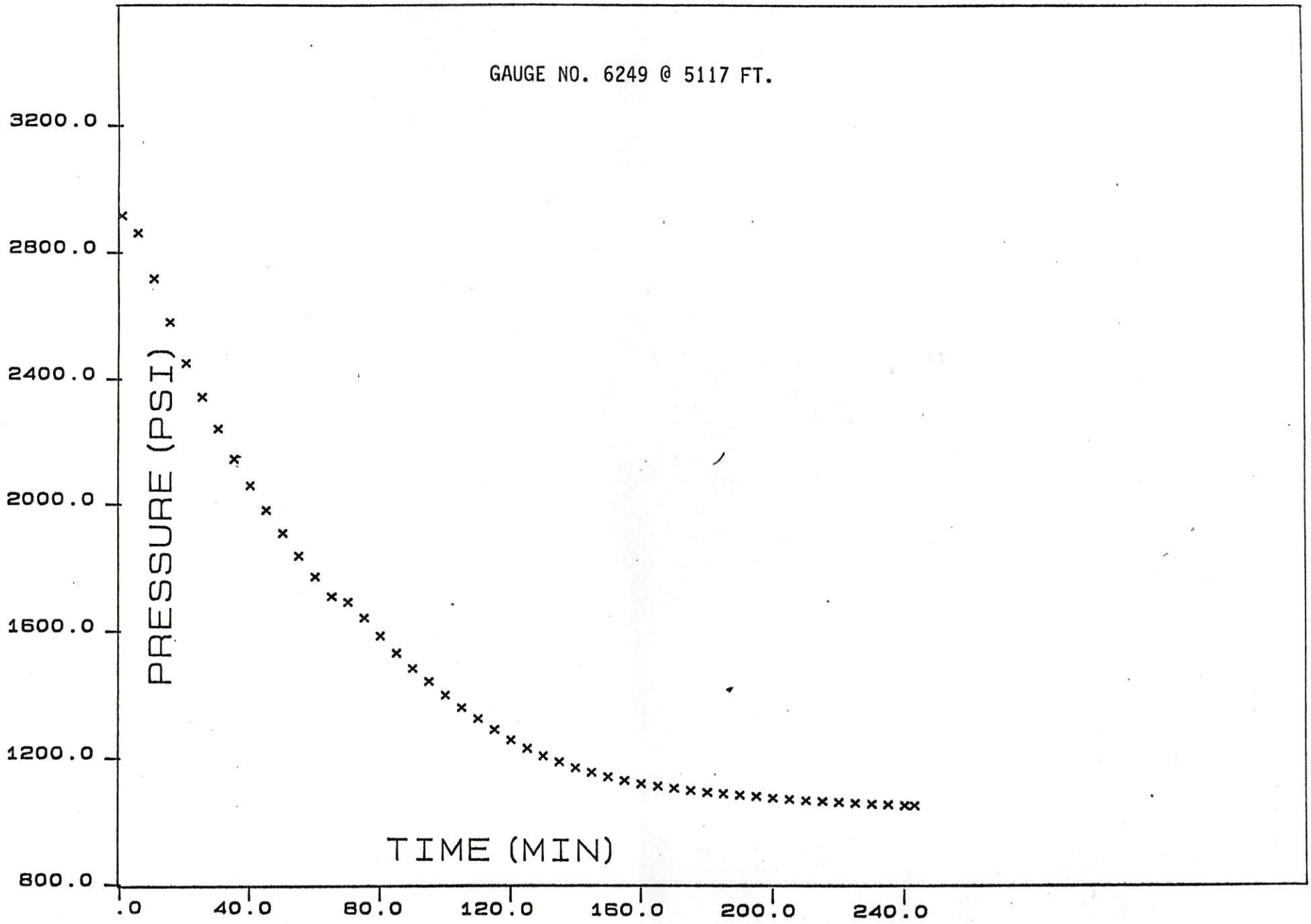
RECORDER NO. 6249 DEPTH 5117 FT.

INITIAL FLOW

DT(MIN)	PRESSURE(PSIG)
0	2917.5
5	2861.4
10	2718.1
15	2581.2
20	2451.8
25	2342.4
30	2240.6
35	2145.1
40	2060.8
45	1982.8
50	1909.8
55	1838.1
60	1772.6
65	1710.8
70	1693.5
75	1644.1
80	1588.6
85	1535.5
90	1487.4
95	1446.7
100	1403.5
105	1364.0
110	1329.5
115	1294.9
120	1262.9
125	1236.9
130	1213.5
135	1195.0
140	1176.5
145	1162.9
150	1149.3
155	1138.2
160	1128.3
165	1120.9
170	1114.7
175	1108.5
180	1102.3
185	1098.6
190	1094.9
195	1091.2
200	1086.3
205	1082.6
210	1078.9
215	1076.4
220	1073.9
225	1071.5
230	1069.0

Polfam Exploration	Edens #44-14	1
Operator	Well Name and No.	DST No.

235	1067.8
240	1065.3
243	1065.3


GAUGE NO. 6249 @ 5117 FT.
3200.0
2800.0
2400.0
2000.0
1600.0
1200.0
800.0
PRESSURE (PSI)
.0
40.0
80.0
120.0
160.0
200.0
240.0
TIME (MIN)

Western Atlas International
A Litton Dresser Company

CORE LABORATORIES

Page 1 of 1
File ARFL-900003
Well Edens No. 44-14

HYDROCARBON ANALYSIS OF DST GAS SAMPLE

Component	Mol Percent	GPM
Hydrogen Sulfide	0.00	
Carbon Dioxide	1.51	
Nitrogen	2.71	
Methane	74.39	
Ethane	10.50	2.808
Propane	6.46	1.780
iso-Butane	0.74	0.242
n-Butane	1.82	0.574
iso-Pentane	0.48	0.176
n-Pentane	0.49	0.177
Hexanes	0.33	0.128
Heptanes plus	0.57	0.253
	100.00	6.138

Calculated gas gravity (air=1.000) = 0.774

Calculated gross heating value = 1272 BTU per cubic foot of dry gas at 14.73 psia and 60°F.

Collected at 30 psig and 90°F. on 12/29/89.

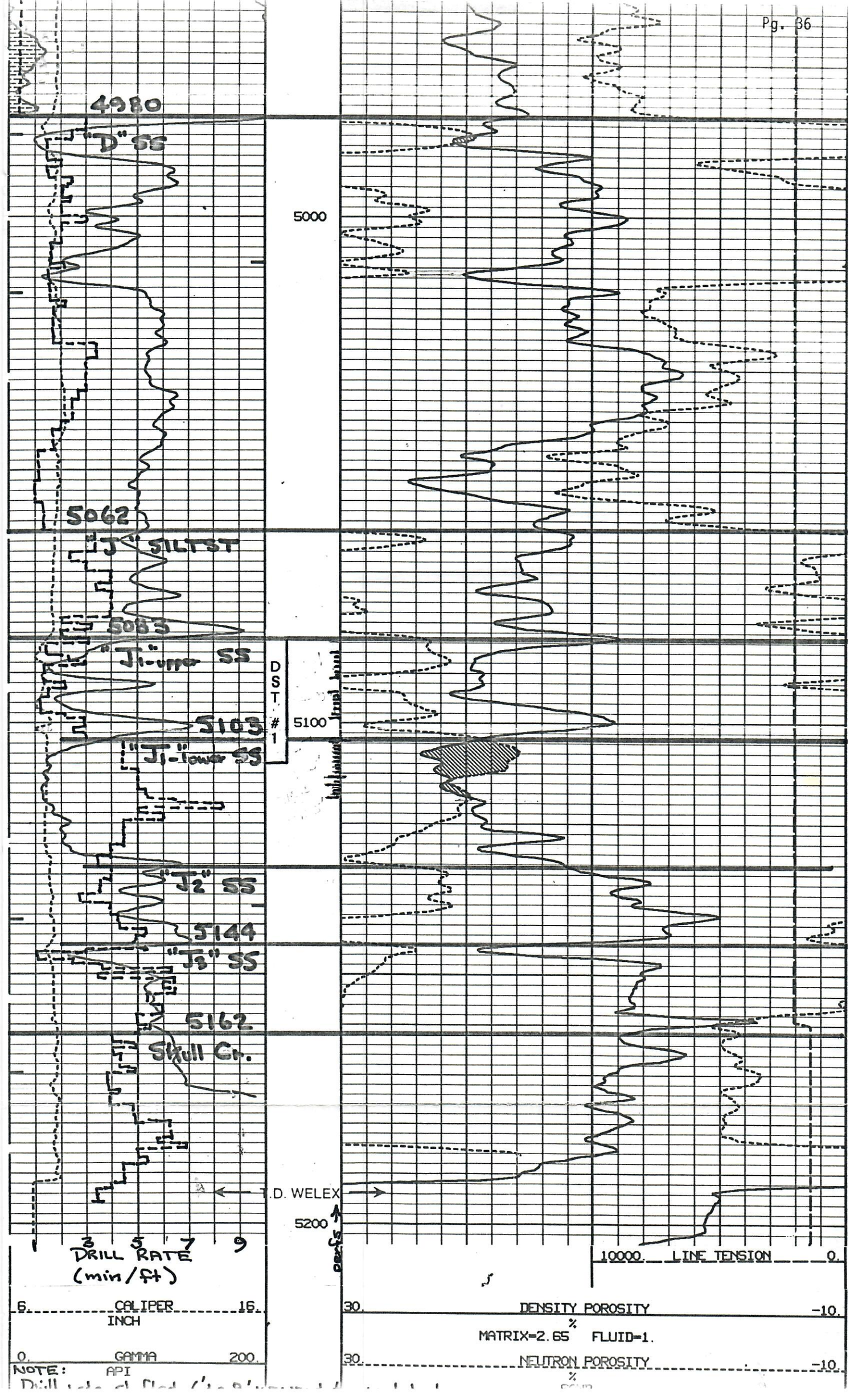
Laboratory opening pressure = 22 psig and 78°F.

Cylinder Number: 1007

Matthew W. Ostrand

Matthew W. Ostrand

Reservoir Fluids Supervisor


4980
"D" SS
5000
5062
"J" SILTST
5083
J1-upper SS
DST #1
5100
5103
J1-lower SS
J2 SS
5144
J3 SS
5162
Skull Cr.
T.D. WELEX
5200
DRILL RATE (min/ft)
3
5
7
9
6.
CALIPER
INCH
16.
0.
GAMMA
API
200.
10000.
LINE TENSION
0.
30.
DENSITY POROSITY
%
-10.
MATRIX=2.65
FLUID=1.
30.
NEUTRON POROSITY
%
-10.

NOTE: