

WELL NAME: Hannah Louise #1-23
COMPANY: Amoco Production Company
LOCATION - SEC: 23 TWP: 30S
COUNTY: Haskell STATE: KS
DATE: 10/26/95

RGE: 33W

TRILOBITE TESTING L.L.C.

OPERATOR : Amoco Production Company
 WELL NAME: Hannah Louise #1-23
 LOCATION : 23-30S-33W, Haskell Cty
 INTERVAL : 4590.00 To 4652.00 ft

DATE 10/22/95

KB 2937.00 ft TICKET NO: 8523 DST #1
 GR 2925.00 ft FORMATION: Kansas City "A"
 TD 4652.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 10 Rec.	24174	24174	10994			PF Fr. 0914 to 0924 hr
SI 60 Range(Psi)	3050.0	3050.0	0.0	0.0	0.0	IS Fr. 0924 to 1024 hr
SF 120 Clock(hrs)	AK-1	AK-1	AK-1			SF Fr. 1024 to 1224 hr
FS 120 Depth(ft)	4592.0	4592.0	4618.0	0.0	0.0	FS Fr. 1224 to 1424 hr

	Field	1	2	3	4	
A. Init Hydro	2561.0	2543.0	0.0	0.0	0.0	T STARTED 0626 hr
B. First Flow	149.0	152.0	0.0	0.0	0.0	T ON BOTM 0912 hr
B1. Final Flow	149.0	152.0	0.0	0.0	0.0	T OPEN 0914 hr
C. In Shut-in	1311.0	1305.0	0.0	0.0	0.0	T PULLED 1424 hr
D. Init Flow	172.0	178.0	0.0	0.0	0.0	T OUT 1710 hr
E. Final Flow	377.0	380.0	0.0	0.0	0.0	
F. Fl Shut-in	1273.0	1276.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2466.0	2442.0	0.0	0.0	0.0	Tool Wt. 0.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 140000.00 lbs
						Initial Str Wt 80000.00 lbs
						Unseated Str Wt 80000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 628.00 ft
						D.P. Length 3931.00 ft

RECOVERY

Tot Fluid 780.00 ft of 628.00 ft in DC and 152.00 ft in DP
 82.00 ft of Oil specked watery mud -
 2% oil, 8% water, 90% mud
 70.00 ft of Oil specked watery mud -
 2% oil, 18% water, 80% mud
 628.00 ft of Slightly muddy water

RW .11 @ 80 F

SALINITY 62000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Blow -
 Surging 1" blow building to bottom of bucket in 7 min
 Initial Shutin -
 Weak surface blow, died in 10 min
 Final Blow -
 6" blow building to bottom of bucket in 6 min
 Final Shutin -
 Surface blow building to 3"; Gas to surface 10 min into FSI, too small to measure

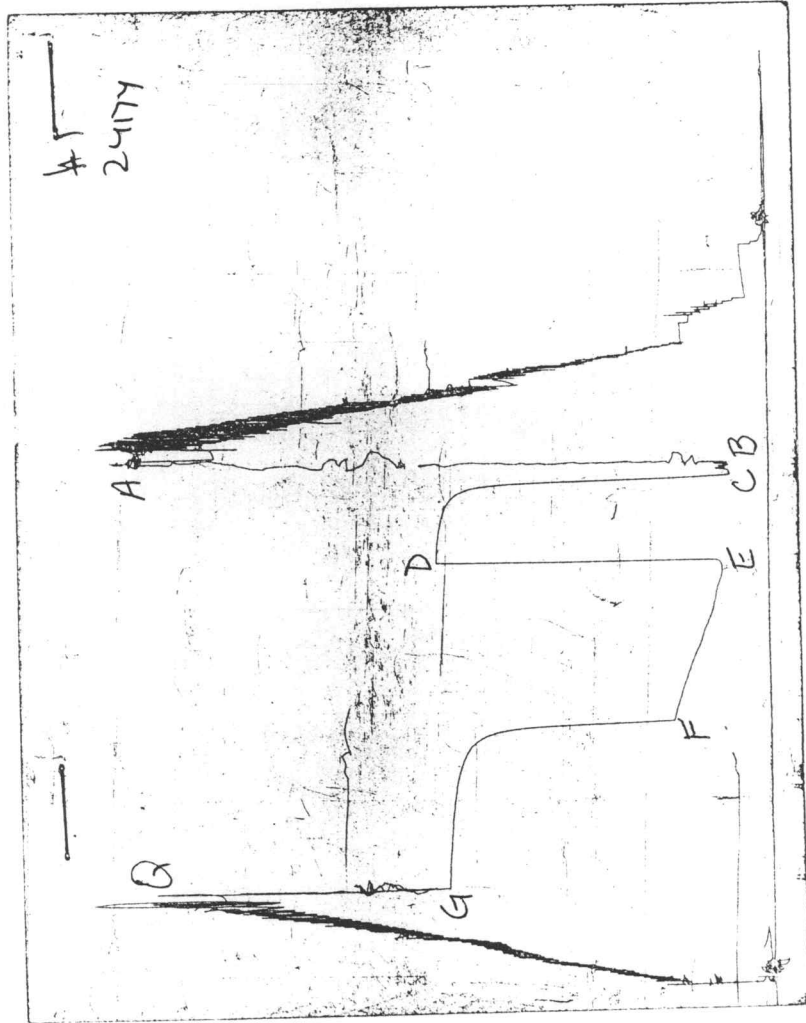
SAMPLES:
 SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.10 lb/c
Vis.	50.00 S/L
W.L.	12.90 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	124.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Paul Simpson
Co. Rep.	Austin Garner
Contr.	Cheyenne
Rig #	4
Unit #	
Pump T.	

Test Successful: Y

CHART PAGE



This is an actual photograph of recorder chart

FLUID SAMPLER DATA

Ticket No.: 8523

Date: 10/22/95

Company: Hannah Louise #1-23

Lease: Amoco Production Co

Test No.: 1

County: Haskell

Sec.: 23

Twp.: 30S

Rng.: 33W

SAMPLER RECOVERY

Gas	1.5	cu ft
Oil	150	ML
Mud		ML
Water	3500	ML
Other		ML
Pressure	700	PSI
TOTAL	4000	ML

SAMPLER ANALYSIS

Resistivity	0.11	ohms@	80	F
Chlorides		62000		ppm.
Gravity		corrected @60F		

PIT MUD ANALYSIS

Chlorides				
Resistivit		ohms@		F
Viscosity				
Mud Wt.				
Filtrate				
Other				

PIPE RECOVERY

TOP

Resistivit	0.15	ohms@	82	F
Chlorides		44000		ppm.

MIDDLE

Resistivit	0.145	ohms@	82	F
Chlorides		46000		ppm.

BOTTOM

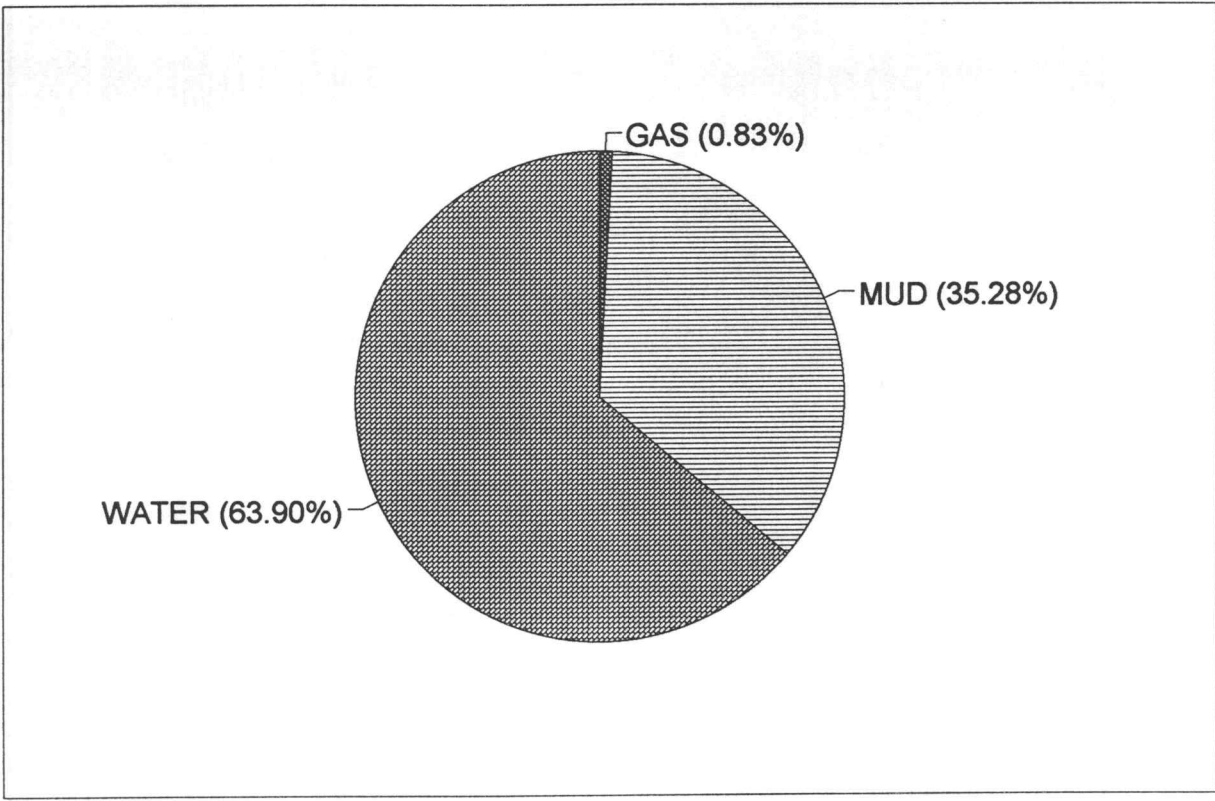
Resistivit	0.11	ohms@	80	F
Chlorides		62000		ppm.

CALCULATED RECOVERY ANALYSIS

DST # 1

TICKET # 8523

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL PIPE									
1	82	2	1.64	0	0	8	6.56	90	73.8
2	70	2	1.4	0	0	18	12.6	80	56
3			0	0	0	0	0		0
4			0	0	0	0	0		0
5			0	0	0	0	0		0
6			0	0	0	0	0		0
WEIGHT PIPE									
1			0	0	0	0	0		0
2			0	0	0	0	0		0
3			0	0	0	0	0		0
4			0	0	0	0	0		0
DRL COLLAR									
1	628		0	0	0	100	628		0
2			0	0	0	0	0		0
3			0	0	0	0	0		0
4			0	0	0	0	0		0
5			0	0	0	0	0		0
TOTAL	780	0.389744	3.04	0	0	82.96923	647.16	16.64103	129.8
		HRS OPE BBL/DAY							
BBL OIL=	0	*	2.17	0					
BBL WATER=	3.343375	*		37.02861					
BBL MUD=	1.845756								
BBL GAS =	0.043229								



INITIAL FLOW

DST # 1
RECORDER 24174

<u>TIME(MIN)</u>	<u>PRESSURE</u>	<u><></u> <u>PRESSURE</u>
0	152.2	152.2
3	152.2	0.0
6	152.2	0.0
9	152.2	0.0

FINAL FLOW

DST # 1
RECORDER 24174

<u>TIME(MIN)</u>	<u>PRESSURE</u>	<u><></u> <u>PRESSURE</u>
0	177.8	177.8
6	177.8	0.0
12	177.8	0.0
18	191.4	13.6
24	199.7	8.3
30	205.0	5.3
36	212.6	7.6
42	219.4	6.8
48	230.8	11.4
54	246.0	15.2
60	255.1	9.1
66	264.9	9.9
72	279.4	14.4
78	293.1	13.7
84	306.0	12.9
90	315.9	9.9
96	325.8	9.9
102	338.0	12.2
108	345.6	7.6
114	357.8	12.2
120	366.2	8.4
126	376.9	10.7

INITIAL SHUT-IN

HANNAH LOUISE #1-23

DST # 1

INITIAL FLOW TIME 10

<u>TIME(MIN)</u>	<u>Pws (psi)</u>	Log <u>Horn T</u>	<> <u>PRESSURE</u>	<u>Horn T</u>
3	309.8	0.637	309.8	4
6	1003.7	0.426	693.9	3
9	1164.6	0.325	160.9	2
12	1206.9	0.263	42.2	2
15	1235.5	0.222	28.7	2
18	1250.6	0.192	15.1	2
21	1262.6	0.169	12.1	1
24	1268.7	0.151	6.0	1
27	1274.0	0.137	5.3	1
30	1278.5	0.125	4.5	1
33	1281.5	0.115	3.0	1
36	1284.5	0.106	3.0	1
39	1289.8	0.099	5.3	1
42	1292.8	0.093	3.0	1
45	1295.8	0.087	3.0	1
48	1295.8	0.082	0.0	1
51	1299.6	0.078	3.8	1
54	1300.3	0.074	0.8	1
57	1301.8	0.070	1.5	1
60	1303.4	0.067	1.5	1
63	1305.6	0.064	2.3	1

FINAL SHUT-IN

HANNAH LOUISE #1-23

DST # 1

TOTAL FLOW TIME 130

<u>TIME(MIN)</u>	<u>Pws (psi)</u>	Log <u>Horn T</u>	<> <u>PRESSURE</u>	<u>Horn T</u>
6	1005.3	1.355	1005.3	23
12	1131.4	1.073	126.2	12
18	1171.4	0.915	40.0	8
24	1189.5	0.807	18.1	6
30	1205.3	0.727	15.8	5
36	1216.7	0.664	11.3	5
42	1224.2	0.612	7.5	4
48	1231.7	0.569	7.5	4
54	1236.3	0.532	4.5	3
60	1241.5	0.501	5.3	3
66	1243.0	0.473	1.5	3
72	1246.1	0.448	3.0	3
78	1251.3	0.426	5.3	3
84	1254.4	0.406	3.0	3
90	1256.6	0.388	2.3	2
96	1258.1	0.372	1.5	2
102	1261.1	0.357	3.0	2
108	1263.4	0.343	2.3	2
114	1265.7	0.330	2.3	2
120	1267.2	0.319	1.5	2
126	1271.7	0.308	4.5	2

TRILOBITE TESTING L.L.C.

OPERATOR : Amoco Production Company
 WELL NAME: Hannah Louise #1-23
 LOCATION : 23-30S-33W, Haskell Cty
 INTERVAL : 4653.00 To 4700.00 ft

DATE 10/23/95

KB 2937.00 ft TICKET NO: 8524 DST #2
 GR 2925.00 ft FORMATION: Kansas City "B"
 TD 4700.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 10 Rec.	24174	24174	10994			PF Fr. 1324 to 1334 hr
SI 60 Range(Psi)	3050.0	3050.0	0.0	0.0	0.0	IS Fr. 1334 to 1434 hr
SF 120 Clock(hrs)	AK-1	AK-1	AK-1			SF Fr. 1434 to 1634 hr
FS 120 Depth(ft)	4655.0	4655.0	4665.0	0.0	0.0	FS Fr. 1634 to 1834 hr

	Field	1	2	3	4	
A. Init Hydro	2506.0	2492.0	0.0	0.0	0.0	T STARTED 1110 hr
B. First Flow	134.0	151.0	0.0	0.0	0.0	T ON BOTM 1322 hr
B1. Final Flow	172.0	169.0	0.0	0.0	0.0	T OPEN 1324 hr
C. In Shut-in	1311.0	1308.0	0.0	0.0	0.0	T PULLED 1834 hr
D. Init Flow	209.0	211.0	0.0	0.0	0.0	T OUT 2055 hr
E. Final Flow	446.0	441.0	0.0	0.0	0.0	
F. Fl Shut-in	1288.0	1285.0	0.0	0.0	0.0	
G. Final Hydro	2316.0	2319.0	0.0	0.0	0.0	
Inside/Outside	I	I	O			

TOOL DATA-----
 Tool Wt. 0.00 lbs
 Wt Set On Packer 20000.00 lbs
 Wt Pulled Loose 135000.00 lbs
 Initial Str Wt 80000.00 lbs
 Unseated Str Wt 88000.00 lbs
 Bot Choke 0.75 in
 Hole Size 7.88 in
 D Col. ID 2.25 in
 D. Pipe ID 3.80 in
 D.C. Length 628.00 ft
 D.P. Length 4000.00 ft

RECOVERY

Tot Fluid 870.00 ft of 628.00 ft in DC and 242.00 ft in DP
 1390.00 ft of Gas in pipe
 60.00 ft of Gassy slightly oil & water cut mud -
 25% gas, 5% oil, 10% water, 60% mud
 60.00 ft of Gassy slightly oil & water cut mud -
 25% gas, 5% oil, 30% water, 40% mud
 60.00 ft of Oil specked watery mud - 40% water, 60% mud
 690.00 ft of Salt water - 100% water
 RW .18 @ 40 F
 SALINITY 75000.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----
 Mud Type Chemical
 Weight 8.80 lb/c
 Vis. 44.00 S/L
 W.L. 12.00 in3
 F.C. 0.00 in
 Mud Drop

BLOW DESCRIPTION

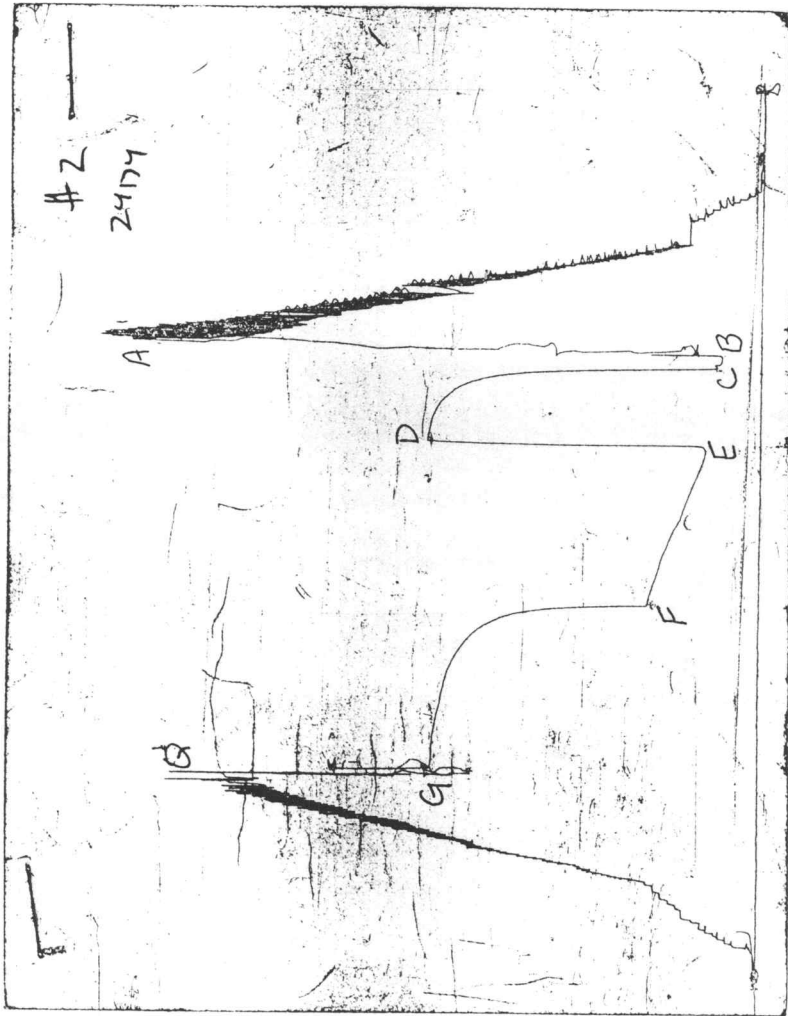
Initial Blow -
 1" blow building to bottom of bucket
 in 4 min
 Initial Shutin -
 .25" blow
 Final Blow -
 .5" blow building to bottom of bucket
 in 10 min

Amt. of fill 0.00 ft
 Btm. H. Temp. 124.00 F
 Hole Condition
 % Porosity 0.00
 Packer Size 6.75 in
 No. of Packers 2
 Cushion Amt. 0.00
 Cushion Type
 Reversed Out
 Tool Chased
 Tester Paul Simpson
 Co. Rep. Austin Garner
 Contr. Cheyenne
 Rig # 4
 Unit #
 Pump T.

SAMPLES:
 SENT TO:

Test Successful: Y

CHART PAGE



This is an actual photograph of recorder chart

CALCULATED RECOVERY ANALYSIS

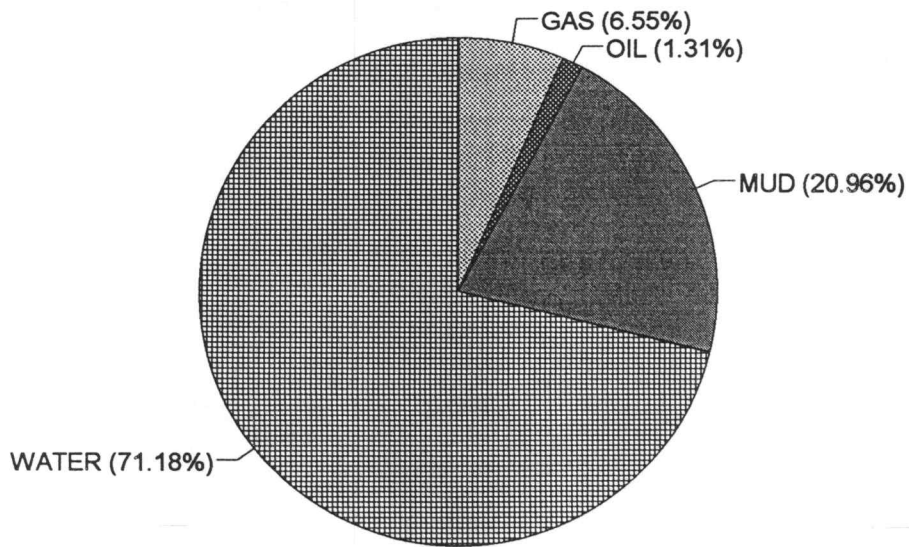
DST # 2

TICKET # 8524

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD		
		%	FEET	%	FEET	%	FEET	%	FEET	
DRILL PIPE	1	60	25	15	5	3	10	6	60	36
	2	60	25	15	5	3	30	18	40	24
	3	60		0		0	40	24	60	36
	4	62		0		0	100	62		0
	5			0		0		0		0
	6			0		0		0		0
WEIGHT PIPE	1			0		0		0		0
	2			0		0		0		0
	3			0		0		0		0
	4			0		0		0		0
DRL COLLAR	1	628		0		0	100	628		0
	2			0		0		0		0
	3			0		0		0		0
	4			0		0		0		0
	5			0		0		0		0
TOTAL	870	3.448276	30	0.689655	6	84.82759	738	11.03448	96	

HRS OPE BBL/DAY

BBL OIL= 0.08532 * 2.17 0.943631
 BBL WATER= 4.63512 * 51.264
 BBL MUD= 1.36512
 BBL GAS = 0.4266



FLUID SAMPLER DATA

Ticket No.: 8524

Date: 10/23/95

Company: Hannah Louise #1-23

Lease: Amoco Production Co

Test No.: 2

County: Haskell

Sec.: 23

Twp.: 30S

Rng.: 33W

SAMPLER RECOVERY

Gas 1.6 cu ft

Oil 150 ML

Mud ML

Water 3600 ML

Other ML

Pressure 550 PSI

TOTAL 4000 ML

SAMPLER ANALYSIS

Resistivity 0.18 ohms@ 40 F

Chlorides 75000 ppm.

Gravity corrected @60F

PIT MUD ANALYSIS

Chlorides 2400

Resistivit ohms@ F

Viscosity 44

Mud Wt. 8.8

Filtrate 12

Other

PIPE RECOVERY

TOP

Resistivit 0.21 ohms@ 41 F

Chlorides 65000 ppm.

MIDDLE

Resistivit 0.18 ohms@ 40 F

Chlorides 75000 ppm.

BOTTOM

Resistivit 0.18 ohms@ 40 F

Chlorides 75000 ppm.

INITIAL FLOW

DST # 2
RECORDER 24174

<u>TIME(MIN)</u>	<u>PRESSURE</u>	<u>PRESSURE</u>
0	150.7	150.7
3	150.7	0.0
6	164.2	13.6
9	168.8	4.5

FINAL FLOW

DST # 2
RECORDER 24174

<u>TIME(MIN)</u>	<u>PRESSURE</u>	<u>PRESSURE</u>
0	211.1	211.1
6	211.1	0.0
12	214.1	3.0
18	220.2	6.1
24	232.3	12.1
30	246.0	13.6
36	262.7	16.7
42	271.8	9.1
48	282.4	10.6
54	293.1	10.7
60	296.9	3.8
66	322.0	25.1
72	335.7	13.7
78	349.4	13.7
84	358.6	9.2
90	376.9	18.3
96	384.6	7.6
102	392.2	7.6
108	404.4	12.2
114	412.0	7.6
120	424.2	12.2
126	436.5	12.2

INITIAL SHUT-IN

HANNAH LOUISE #1-23

DST # 2

INITIAL FLOW TIME 10

<u>TIME(MIN)</u>	<u>Pws (psi)</u>	Log <u>Horn T</u>	<> <u>PRESSURE</u>	<u>Horn T</u>
3	825.6	0.637	825.6	4
6	1002.2	0.426	176.7	3
9	1092.2	0.325	89.9	2
12	1136.0	0.263	43.8	2
15	1173.7	0.222	37.7	2
18	1196.3	0.192	22.6	2
21	1212.9	0.169	16.6	1
24	1230.2	0.151	17.3	1
27	1246.1	0.137	15.8	1
30	1258.1	0.125	12.1	1
33	1268.7	0.115	10.6	1
36	1277.0	0.106	8.3	1
39	1281.5	0.099	4.5	1
42	1285.3	0.093	3.8	1
45	1286.0	0.087	0.8	1
48	1286.8	0.082	0.8	1
51	1287.5	0.078	0.8	1
54	1288.3	0.074	0.8	1
57	1288.3	0.070	0.0	1
60	1303.4	0.067	15.1	1
63	1305.6	0.064	2.3	1

FINAL SHUT-IN

HANNAH LOUISE #1-23

DST # 2

TOTAL FLOW TIME 130

<u>TIME(MIN)</u>	<u>Pws (psi)</u>	<u>Log Horn T</u>	<u><> PRESSURE</u>	<u>Horn T</u>
6	851.4	1.355	851.4	23
12	1009.8	1.073	158.4	12
18	1073.3	0.915	63.5	8
24	1112.6	0.807	39.3	6
30	1142.0	0.727	29.4	5
36	1163.9	0.664	21.9	5
42	1182.0	0.612	18.1	4
48	1201.6	0.569	19.6	4
54	1216.7	0.532	15.1	3
60	1221.9	0.501	5.3	3
66	1229.5	0.473	7.5	3
72	1236.3	0.448	6.8	3
78	1242.3	0.426	6.0	3
84	1246.8	0.406	4.5	3
90	1255.9	0.388	9.0	2
96	1261.1	0.372	5.3	2
102	1265.7	0.357	4.5	2
108	1270.2	0.343	4.5	2
114	1275.5	0.330	5.3	2
120	1277.7	0.319	2.3	2
126	1284.5	0.308	6.8	2

TRILOBITE TESTING L.L.C.

OPERATOR : Amoco Production Company
 WELL NAME: Hannah Louise #1-23
 LOCATION : 23-30S-33W, Haskell Cty
 INTERVAL : 4789.00 To 4817.00 ft

DATE 10-24-95

KB 2937.00 ft TICKET NO: 8525 DST #3
 GR 2925.00 ft FORMATION: Marmaton
 TD 4817.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 10	Rec.	10994	10994	2341			PF Fr. 1320 to 1330 hr
SI 60	Range(Psi)	4200.0	4200.0	4995.0	0.0	0.0	IS Fr. 1330 to 1430 hr
SF 120	Clock(hrs)	AK-1	AK-1	Alpin			SF Fr. 1430 to 1630 hr
FS 120	Depth(ft)	4812.0	4812.0	4812.0	0.0	0.0	FS Fr. 1630 to 1830 hr

	Field	1	2	3	4	
A. Init Hydro	2573.0	2571.0	2379.0	0.0	0.0	T STARTED 1115 hr
B. First Flow	53.0	48.0	18.0	0.0	0.0	T ON BOTM 1318 hr
B1. Final Flow	53.0	57.0	55.0	0.0	0.0	T OPEN 1320 hr
C. In Shut-in	1420.0	1421.0	1429.0	0.0	0.0	T PULLED 1830 hr
D. Init Flow	85.0	98.0	59.0	0.0	0.0	T OUT 2115 hr
E. Final Flow	308.0	317.0	327.0	0.0	0.0	
F. Fl Shut-in	1409.0	1397.0	1413.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2437.0	2441.0	2356.0	0.0	0.0	Tool Wt. 1500.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 160000.00 lb
						Initial Str Wt 86000.00 lbs
						Unseated Str Wt 88000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 658.00 ft
						D.P. Length 4125.00 ft

RECOVERY

Tot Fluid 610.00 ft of 610.00 ft in DC and 0.00 ft in DP
 10.00 ft of Mud
 600.00 ft of Slightly muddy salt water

RW .13 @ 54 F

SALINITY 76000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Blow -
 Weak, .25" blow building to 3.5"

Initial Shutin -
 No blow

Final Blow -
 Surface blow building to 10"

SAMPLES:
 SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	8.80 lb/
Vis.	60.00 S/L
W.L.	7.20 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	131.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased Y	20.00 ft
Tester	Paul Simpson
Co. Rep.	Austin Garner
Contr.	Cheyenne
Rig #	4
Unit #	
Pump T.	

Test Successful: Y

TEST HISTORY

8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

Flag Points

t (Min.) P (PSig)

A:	0.00	2379.35
B:	0.00	17.53
C:	10.00	54.63
D:	62.00	1428.61
E:	0.00	59.16
F:	121.00	327.39
G:	120.00	1413.34
Q:	0.00	2356.10

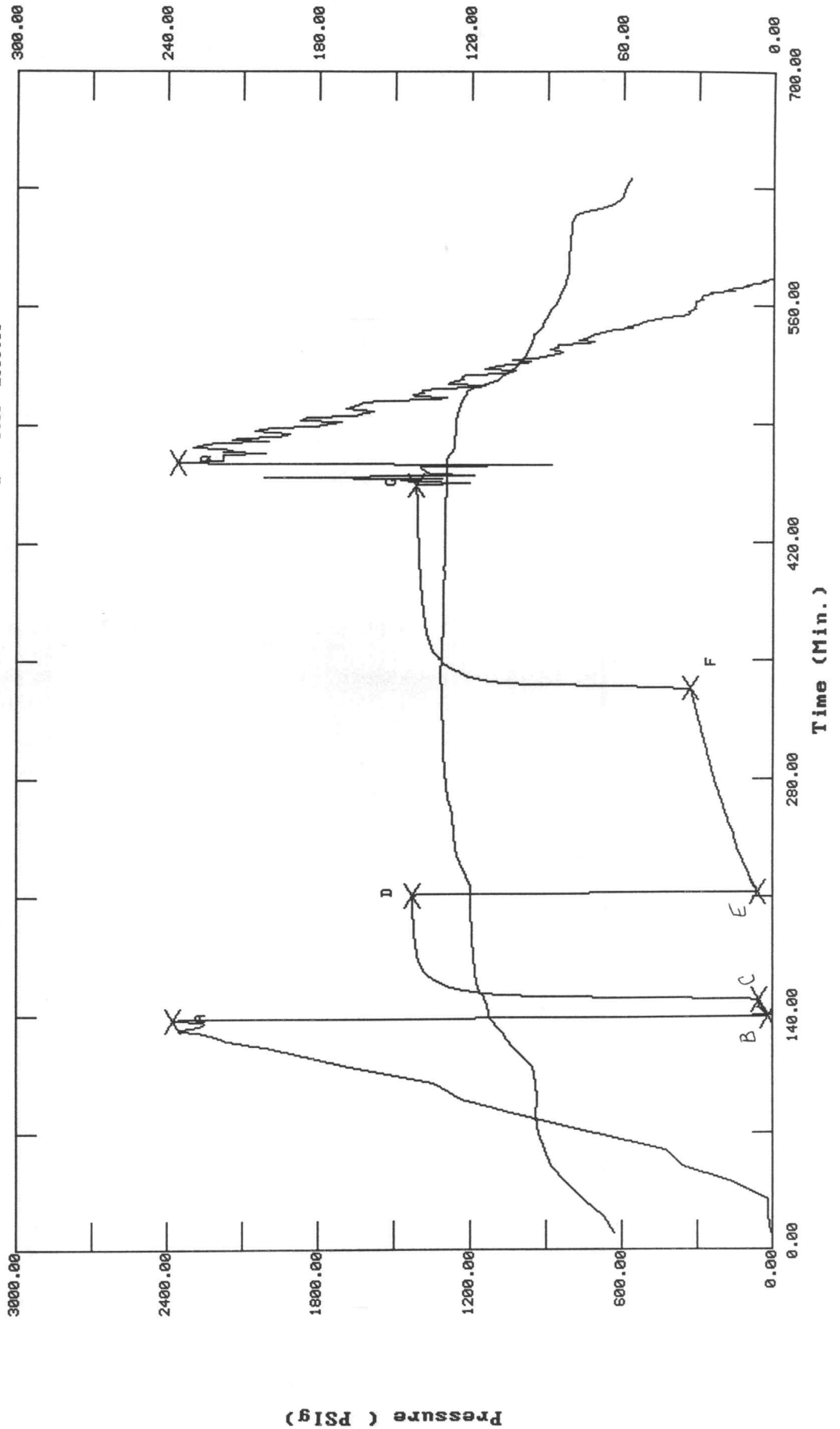
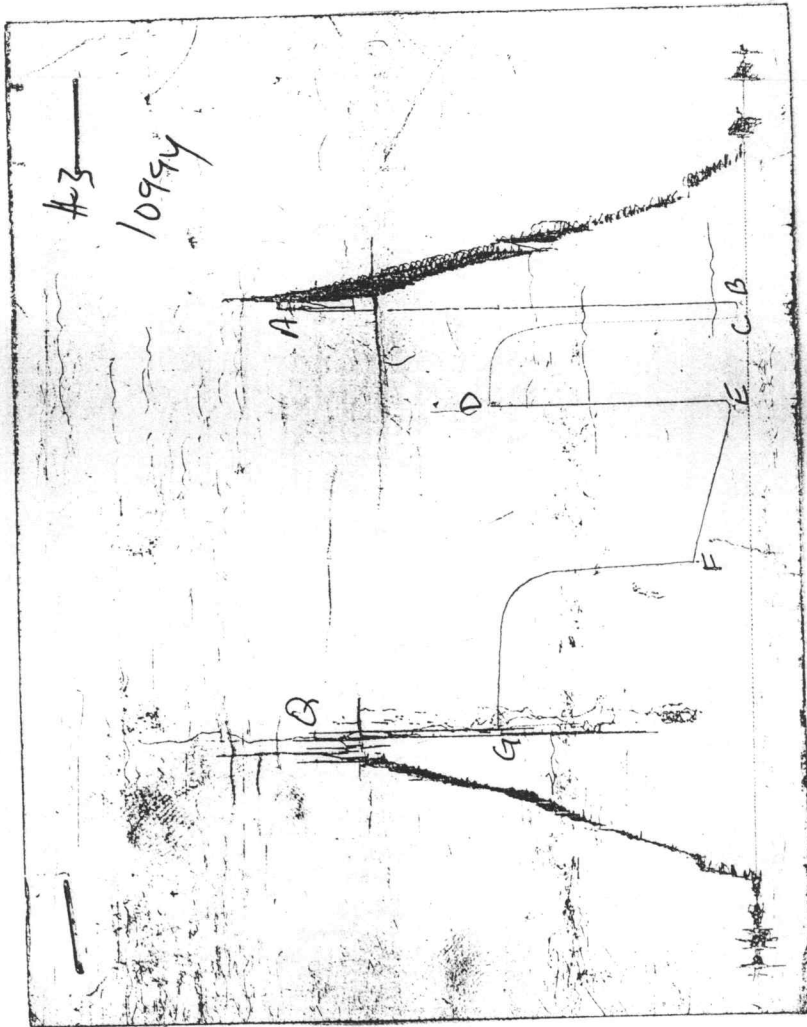


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This is an actual photograph of recorder chart

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

DATE: 10/24/95 TIME: 11:01:55

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	137.00	2379.3	0.0	111.38		
***** Start Flow 1	0.00	17.5	0.0	112.10		
	1.00	24.0	6.5	112.46		
	2.00	28.9	11.3	112.64		
	3.00	34.3	16.8	112.82		
	4.00	47.3	29.8	113.00		
	5.00	59.5	42.0	113.18		
	6.00	49.0	31.5	113.36		
	7.00	49.7	32.1	113.36		
	8.00	52.6	35.1	113.54		
	9.00	52.8	35.2	113.72		
***** End Flow 1	10.00	54.6	37.1	114.08		
***** Start Shutin 1	0.00	54.6	0.0	114.08	0.0000	0.003
	1.00	125.0	70.3	114.44	11.0000	0.016
	2.00	910.9	856.2	114.80	6.0000	0.830
	3.00	1086.9	1032.3	115.34	4.3333	1.181
	4.00	1145.8	1091.1	115.70	3.5000	1.313
	5.00	1189.0	1134.4	116.06	3.0000	1.414
	6.00	1224.2	1169.5	116.42	2.6667	1.499
	7.00	1253.3	1198.7	116.78	2.4286	1.571
	8.00	1277.8	1223.2	116.96	2.2500	1.633
	9.00	1298.2	1243.6	117.14	2.1111	1.685
	10.00	1315.4	1260.8	117.32	2.0000	1.730
	11.00	1329.8	1275.2	117.50	1.9091	1.768
	12.00	1342.0	1287.4	117.68	1.8333	1.801
	13.00	1352.2	1297.6	117.68	1.7692	1.829
	14.00	1361.0	1306.3	117.86	1.7143	1.852
	15.00	1368.4	1313.7	117.86	1.6667	1.872
	16.00	1374.6	1320.0	118.04	1.6250	1.890
	17.00	1380.1	1325.5	118.04	1.5882	1.905
	18.00	1384.7	1330.1	118.22	1.5556	1.917
	19.00	1388.8	1334.2	118.22	1.5263	1.929
	20.00	1392.4	1337.7	118.40	1.5000	1.939
	21.00	1395.5	1340.9	118.40	1.4762	1.948
	22.00	1398.3	1343.7	118.58	1.4545	1.955
	23.00	1400.7	1346.1	118.58	1.4348	1.962
	24.00	1402.9	1348.3	118.58	1.4167	1.968
	25.00	1404.9	1350.3	118.76	1.4000	1.974
	26.00	1406.7	1352.1	118.76	1.3846	1.979
	27.00	1408.2	1353.6	118.76	1.3704	1.983
	28.00	1409.6	1355.0	118.94	1.3571	1.987
	29.00	1411.1	1356.4	118.94	1.3448	1.991
	30.00	1412.2	1357.5	118.94	1.3333	1.994
	31.00	1413.4	1358.8	118.94	1.3226	1.998
	32.00	1414.4	1359.8	119.12	1.3125	2.001
	33.00	1415.4	1360.8	119.12	1.3030	2.003
	34.00	1416.3	1361.6	119.12	1.2941	2.006
	35.00	1417.2	1362.6	119.12	1.2857	2.008
	36.00	1418.0	1363.3	119.30	1.2778	2.011
	37.00	1418.6	1364.0	119.30	1.2703	2.012
	38.00	1419.4	1364.8	119.30	1.2632	2.015

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

DATE: 10/24/95

TIME: 11:01:55

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
39.00	1420.0	1365.3	119.30	1.2564	2.016
40.00	1420.6	1365.9	119.30	1.2500	2.018
41.00	1421.1	1366.5	119.30	1.2439	2.020
42.00	1421.7	1367.1	119.48	1.2381	2.021
43.00	1422.2	1367.6	119.48	1.2326	2.023
44.00	1422.7	1368.1	119.48	1.2273	2.024
45.00	1423.2	1368.5	119.48	1.2222	2.025
46.00	1423.6	1368.9	119.48	1.2174	2.027
47.00	1424.0	1369.4	119.66	1.2128	2.028
48.00	1424.4	1369.8	119.66	1.2083	2.029
49.00	1424.8	1370.2	119.66	1.2041	2.030
50.00	1425.3	1370.6	119.66	1.2000	2.031
51.00	1425.5	1370.9	119.66	1.1961	2.032
52.00	1425.8	1371.2	119.66	1.1923	2.033
53.00	1426.2	1371.5	119.84	1.1887	2.034
54.00	1426.5	1371.9	119.84	1.1852	2.035
55.00	1426.8	1372.2	119.84	1.1818	2.036
56.00	1427.1	1372.5	119.84	1.1786	2.037
57.00	1427.4	1372.7	119.84	1.1754	2.037
58.00	1427.6	1373.0	119.84	1.1724	2.038
59.00	1427.9	1373.2	119.84	1.1695	2.039
60.00	1428.1	1373.5	119.84	1.1667	2.039
61.00	1428.4	1373.7	120.02	1.1639	2.040
62.00	1428.6	1374.0	120.02	1.1613	2.041

***** End Shut-in 1

***** Start Flow 2

0.00	59.2	0.0	119.84		
1.00	62.8	3.6	120.02		
2.00	66.2	7.1	120.02		
3.00	70.2	11.0	120.02		
4.00	73.9	14.8	120.20		
5.00	77.7	18.5	120.38		
6.00	80.7	21.6	120.56		
7.00	83.8	24.7	120.92		
8.00	86.8	27.6	121.10		
9.00	89.8	30.6	121.46		
10.00	92.6	33.5	121.82		
11.00	95.5	36.3	122.18		
12.00	98.7	39.5	122.54		
13.00	101.8	42.6	122.72		
14.00	105.2	46.0	123.08		
15.00	108.3	49.1	123.44		
16.00	110.9	51.7	123.62		
17.00	113.8	54.6	123.98		
18.00	116.8	57.7	124.16		
19.00	119.9	60.8	124.52		
20.00	122.9	63.7	124.70		
21.00	125.4	66.2	125.06		
22.00	128.3	69.2	125.24		
23.00	131.2	72.0	125.42		
24.00	134.0	74.9	125.60		
25.00	136.8	77.6	125.78		
26.00	139.7	80.6	125.96		

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

DATE: 10/24/95 TIME: 11:01:55

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
27.00	141.6	82.4	125.96		
28.00	143.4	84.3	126.14		
29.00	145.4	86.3	126.14		
30.00	147.2	88.0	126.14		
31.00	149.0	89.9	126.32		
32.00	150.9	91.7	126.32		
33.00	152.7	93.6	126.32		
34.00	154.6	95.4	126.50		
35.00	156.7	97.5	126.50		
36.00	159.4	100.2	126.50		
37.00	162.1	103.0	126.68		
38.00	164.8	105.7	126.68		
39.00	167.5	108.4	126.68		
40.00	170.1	111.0	126.68		
41.00	172.4	113.2	126.86		
42.00	175.1	115.9	126.86		
43.00	177.7	118.5	126.86		
44.00	180.1	120.9	126.86		
45.00	182.6	123.5	126.86		
46.00	185.2	126.1	127.04		
47.00	187.0	127.8	127.04		
48.00	189.2	130.0	127.22		
49.00	191.4	132.3	127.58		
50.00	193.6	134.5	127.76		
51.00	195.8	136.6	127.94		
52.00	197.9	138.7	128.12		
53.00	200.1	140.9	128.30		
54.00	201.9	142.8	128.48		
55.00	204.4	145.2	128.66		
56.00	206.9	147.7	128.84		
57.00	209.4	150.2	129.02		
58.00	211.8	152.7	129.02		
59.00	214.3	155.1	129.20		
60.00	216.4	157.2	129.38		
61.00	218.6	159.5	129.38		
62.00	221.1	162.0	129.56		
63.00	223.5	164.3	129.56		
64.00	225.9	166.8	129.56		
65.00	228.3	169.1	129.74		
66.00	230.6	171.5	129.74		
67.00	232.5	173.3	129.74		
68.00	234.4	175.2	129.92		
69.00	236.3	177.2	129.92		
70.00	238.4	179.3	129.92		
71.00	240.4	181.2	130.10		
72.00	242.3	183.1	130.10		
73.00	244.5	185.3	130.10		
74.00	246.5	187.3	130.10		
75.00	248.0	188.8	130.28		
76.00	249.4	190.3	130.28		
77.00	251.2	192.0	130.28		

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

DATE: 10/24/95 TIME: 11:01:55

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
78.00	252.9	193.7	130.46		
79.00	254.6	195.5	130.46		
80.00	256.0	196.8	130.46		
81.00	257.9	198.7	130.46		
82.00	259.5	200.3	130.46		
83.00	261.0	201.8	130.46		
84.00	262.4	203.3	130.64		
85.00	264.5	205.4	130.64		
86.00	266.6	207.5	130.64		
87.00	268.6	209.4	130.64		
88.00	270.4	211.2	130.64		
89.00	272.5	213.3	130.64		
90.00	274.3	215.1	130.82		
91.00	276.2	217.0	130.82		
92.00	277.9	218.7	130.82		
93.00	279.6	220.5	130.82		
94.00	281.2	222.1	130.82		
95.00	283.1	223.9	130.82		
96.00	284.5	225.3	130.82		
97.00	286.6	227.4	131.00		
98.00	288.3	229.1	131.00		
99.00	289.9	230.7	131.00		
100.00	291.6	232.5	131.00		
101.00	293.3	234.2	131.00		
102.00	295.1	235.9	131.00		
103.00	296.8	237.7	131.18		
104.00	298.7	239.5	131.18		
105.00	300.4	241.2	131.18		
106.00	302.0	242.8	131.18		
107.00	303.6	244.5	131.18		
108.00	305.7	246.6	131.18		
109.00	307.5	248.3	131.18		
110.00	308.9	249.8	131.36		
111.00	310.9	251.7	131.36		
112.00	312.6	253.5	131.36		
113.00	314.3	255.1	131.36		
114.00	316.1	256.9	131.36		
115.00	317.8	258.7	131.36		
116.00	319.6	260.4	131.36		
117.00	321.3	262.1	131.36		
118.00	322.9	263.8	131.36		
119.00	324.0	264.9	131.54		
120.00	325.8	266.6	131.54		
121.00	327.4	268.2	131.54		

***** End Flow 2

***** Start Shutin 2	0.00	327.4	0.0	131.54	0.0000	0.107
	1.00	612.2	284.8	131.54	132.0000	0.375
	2.00	955.2	627.8	131.54	66.5000	0.912
	3.00	1074.5	747.1	131.72	44.6667	1.155
	4.00	1122.2	794.8	131.72	33.7500	1.259
	5.00	1154.5	827.1	131.72	27.2000	1.333
	6.00	1181.0	853.6	131.72	22.8333	1.395

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

DATE: 10/24/95

TIME: 11:01:55

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
7.00	1203.7	876.3	131.72	19.7143	1.449
8.00	1223.2	895.8	131.72	17.3750	1.496
9.00	1240.5	913.1	131.72	15.5556	1.539
10.00	1255.6	928.2	131.72	14.1000	1.576
11.00	1268.9	941.5	131.72	12.9091	1.610
12.00	1280.6	953.3	131.72	11.9167	1.640
13.00	1291.1	963.7	131.72	11.0769	1.667
14.00	1300.0	972.6	131.54	10.3571	1.690
15.00	1308.3	980.9	131.54	9.7333	1.712
16.00	1315.9	988.5	131.54	9.1875	1.732
17.00	1322.4	995.0	131.54	8.7059	1.749
18.00	1328.3	1000.9	131.54	8.2778	1.764
19.00	1333.4	1006.0	131.54	7.8947	1.778
20.00	1338.4	1011.0	131.36	7.5500	1.791
21.00	1342.5	1015.1	131.36	7.2381	1.802
22.00	1346.4	1019.1	131.36	6.9545	1.813
23.00	1349.9	1022.5	131.36	6.6957	1.822
24.00	1352.9	1025.5	131.18	6.4583	1.830
25.00	1356.0	1028.6	131.18	6.2400	1.839
26.00	1358.8	1031.4	131.18	6.0385	1.846
27.00	1361.1	1033.7	131.18	5.8519	1.853
28.00	1363.3	1035.9	131.18	5.6786	1.859
29.00	1365.6	1038.2	131.18	5.5172	1.865
30.00	1367.5	1040.1	131.18	5.3667	1.870
31.00	1369.4	1042.0	131.00	5.2258	1.875
32.00	1371.0	1043.6	131.00	5.0938	1.880
33.00	1372.5	1045.2	131.00	4.9697	1.884
34.00	1373.8	1046.4	131.00	4.8529	1.887
35.00	1375.2	1047.8	131.00	4.7429	1.891
36.00	1376.5	1049.1	131.00	4.6389	1.895
37.00	1377.8	1050.4	130.82	4.5405	1.898
38.00	1379.0	1051.6	130.82	4.4474	1.902
39.00	1380.1	1052.7	130.82	4.3590	1.905
40.00	1381.2	1053.8	130.82	4.2750	1.908
41.00	1382.3	1054.9	130.82	4.1951	1.911
42.00	1383.3	1055.9	130.82	4.1190	1.913
43.00	1384.2	1056.8	130.82	4.0465	1.916
44.00	1385.2	1057.8	130.82	3.9773	1.919
45.00	1386.1	1058.7	130.64	3.9111	1.921
46.00	1386.8	1059.4	130.64	3.8478	1.923
47.00	1387.7	1060.3	130.64	3.7872	1.926
48.00	1388.4	1061.0	130.64	3.7292	1.928
49.00	1389.2	1061.8	130.64	3.6735	1.930
50.00	1389.8	1062.4	130.64	3.6200	1.932
51.00	1390.5	1063.1	130.64	3.5686	1.934
52.00	1391.3	1063.9	130.64	3.5192	1.936
53.00	1391.9	1064.5	130.46	3.4717	1.937
54.00	1392.5	1065.1	130.46	3.4259	1.939
55.00	1393.0	1065.6	130.46	3.3818	1.941
56.00	1393.7	1066.3	130.46	3.3393	1.942
57.00	1394.2	1066.8	130.46	3.2982	1.944

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

DATE: 10/24/95

TIME: 11:01:55

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
58.00	1394.8	1067.4	130.46	3.2586	1.945
59.00	1395.3	1067.9	130.46	3.2203	1.947
60.00	1395.9	1068.5	130.46	3.1833	1.948
61.00	1396.5	1069.1	130.46	3.1475	1.950
62.00	1396.9	1069.5	130.46	3.1129	1.951
63.00	1397.5	1070.1	130.46	3.0794	1.953
64.00	1397.9	1070.5	130.28	3.0469	1.954
65.00	1398.3	1070.9	130.28	3.0154	1.955
66.00	1398.8	1071.4	130.28	2.9848	1.957
67.00	1399.2	1071.8	130.28	2.9552	1.958
68.00	1399.7	1072.3	130.28	2.9265	1.959
69.00	1400.1	1072.7	130.28	2.8986	1.960
70.00	1400.4	1073.0	130.46	2.8714	1.961
71.00	1400.7	1073.4	130.46	2.8451	1.962
72.00	1401.3	1073.9	130.28	2.8194	1.964
73.00	1401.7	1074.3	130.28	2.7945	1.965
74.00	1402.0	1074.6	130.28	2.7703	1.966
75.00	1402.5	1075.1	130.10	2.7467	1.967
76.00	1402.7	1075.3	130.10	2.7237	1.968
77.00	1403.0	1075.6	129.92	2.7013	1.968
78.00	1403.5	1076.1	129.92	2.6795	1.970
79.00	1403.8	1076.4	129.92	2.6582	1.971
80.00	1404.1	1076.7	130.10	2.6375	1.972
81.00	1404.4	1077.0	130.10	2.6173	1.972
82.00	1404.7	1077.3	130.10	2.5976	1.973
83.00	1405.0	1077.6	130.10	2.5783	1.974
84.00	1405.3	1077.9	130.10	2.5595	1.975
85.00	1405.5	1078.1	130.10	2.5412	1.976
86.00	1405.9	1078.5	130.10	2.5233	1.976
87.00	1406.1	1078.7	130.10	2.5057	1.977
88.00	1406.5	1079.1	130.10	2.4886	1.978
89.00	1406.6	1079.2	130.10	2.4719	1.979
90.00	1407.0	1079.6	130.10	2.4556	1.980
91.00	1407.2	1079.8	129.92	2.4396	1.980
92.00	1407.5	1080.2	129.92	2.4239	1.981
93.00	1407.8	1080.4	129.92	2.4086	1.982
94.00	1408.0	1080.6	129.92	2.3936	1.982
95.00	1408.3	1080.9	129.92	2.3789	1.983
96.00	1408.5	1081.1	129.92	2.3646	1.984
97.00	1408.8	1081.4	129.92	2.3505	1.985
98.00	1409.0	1081.6	129.92	2.3367	1.985
99.00	1409.3	1081.9	129.92	2.3232	1.986
100.00	1409.4	1082.0	129.92	2.3100	1.986
101.00	1409.7	1082.3	129.92	2.2970	1.987
102.00	1410.0	1082.6	129.92	2.2843	1.988
103.00	1410.2	1082.8	129.92	2.2718	1.989
104.00	1410.4	1083.0	129.92	2.2596	1.989
105.00	1410.7	1083.3	129.92	2.2476	1.990
106.00	1410.8	1083.4	129.92	2.2358	1.990
107.00	1411.0	1083.6	129.92	2.2243	1.991
108.00	1411.2	1083.8	129.92	2.2130	1.991

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

DATE: 10/24/95

TIME: 11:01:55

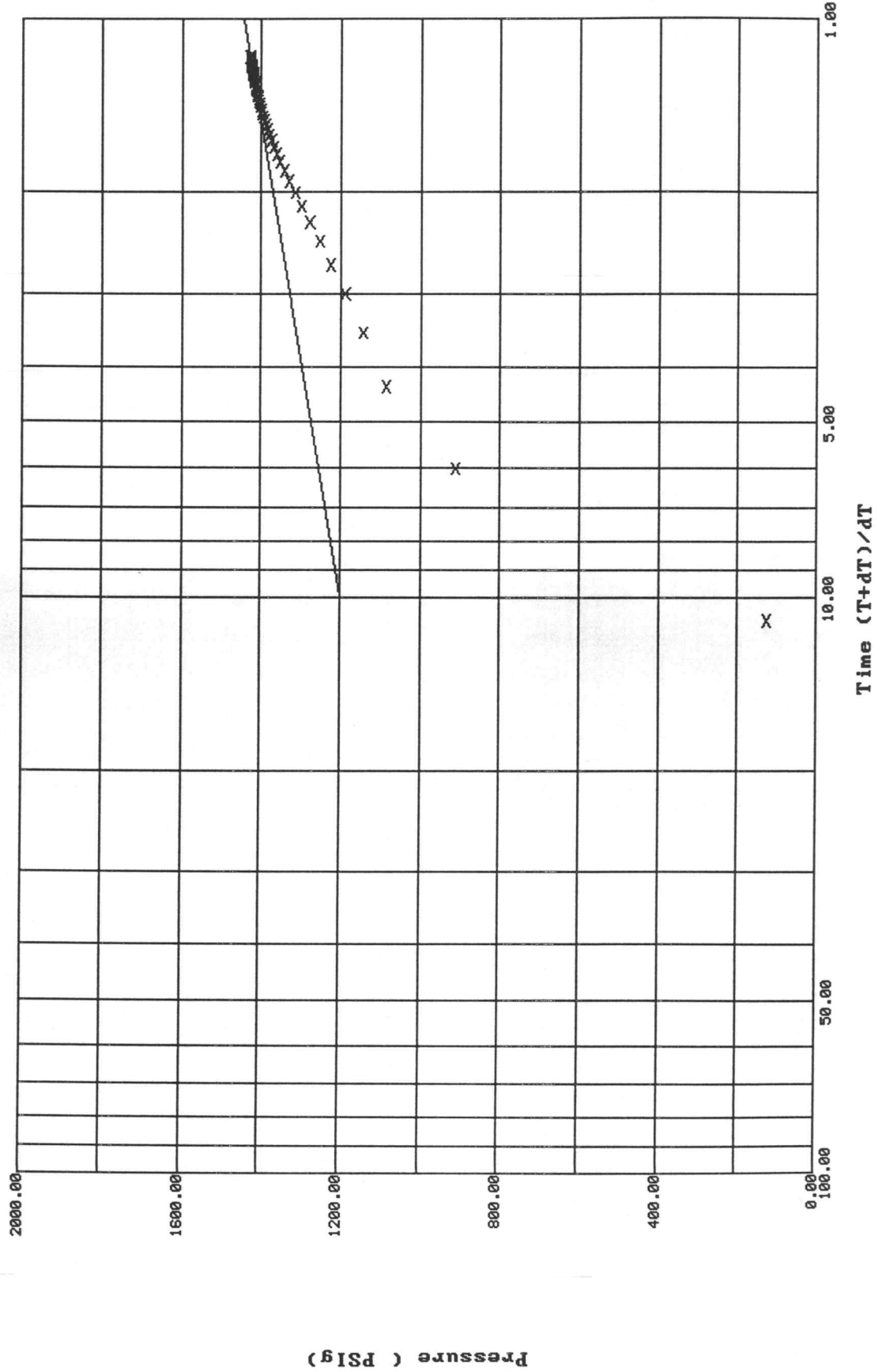
	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	109.00	1411.4	1084.0	129.92	2.2018	1.992
	110.00	1411.6	1084.2	129.92	2.1909	1.993
	111.00	1411.7	1084.3	129.92	2.1802	1.993
	112.00	1412.0	1084.6	129.92	2.1696	1.994
	113.00	1412.2	1084.8	129.74	2.1593	1.994
	114.00	1412.2	1084.9	129.74	2.1491	1.994
	115.00	1412.6	1085.2	129.74	2.1391	1.995
	116.00	1412.6	1085.2	129.74	2.1293	1.995
	117.00	1412.9	1085.5	129.74	2.1197	1.996
	118.00	1413.1	1085.7	129.74	2.1102	1.997
	119.00	1413.2	1085.8	129.74	2.1008	1.997
***** End Shut-in 2	120.00	1413.3	1085.9	129.74	2.0917	1.998
***** Final Hydro.	468.00	2356.1	0.0	129.74		

Horner Plot: shut-in #1

8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

Slope: 242.5602 PSig/cycle

Ext. Pressure: 1444.3536 PSig

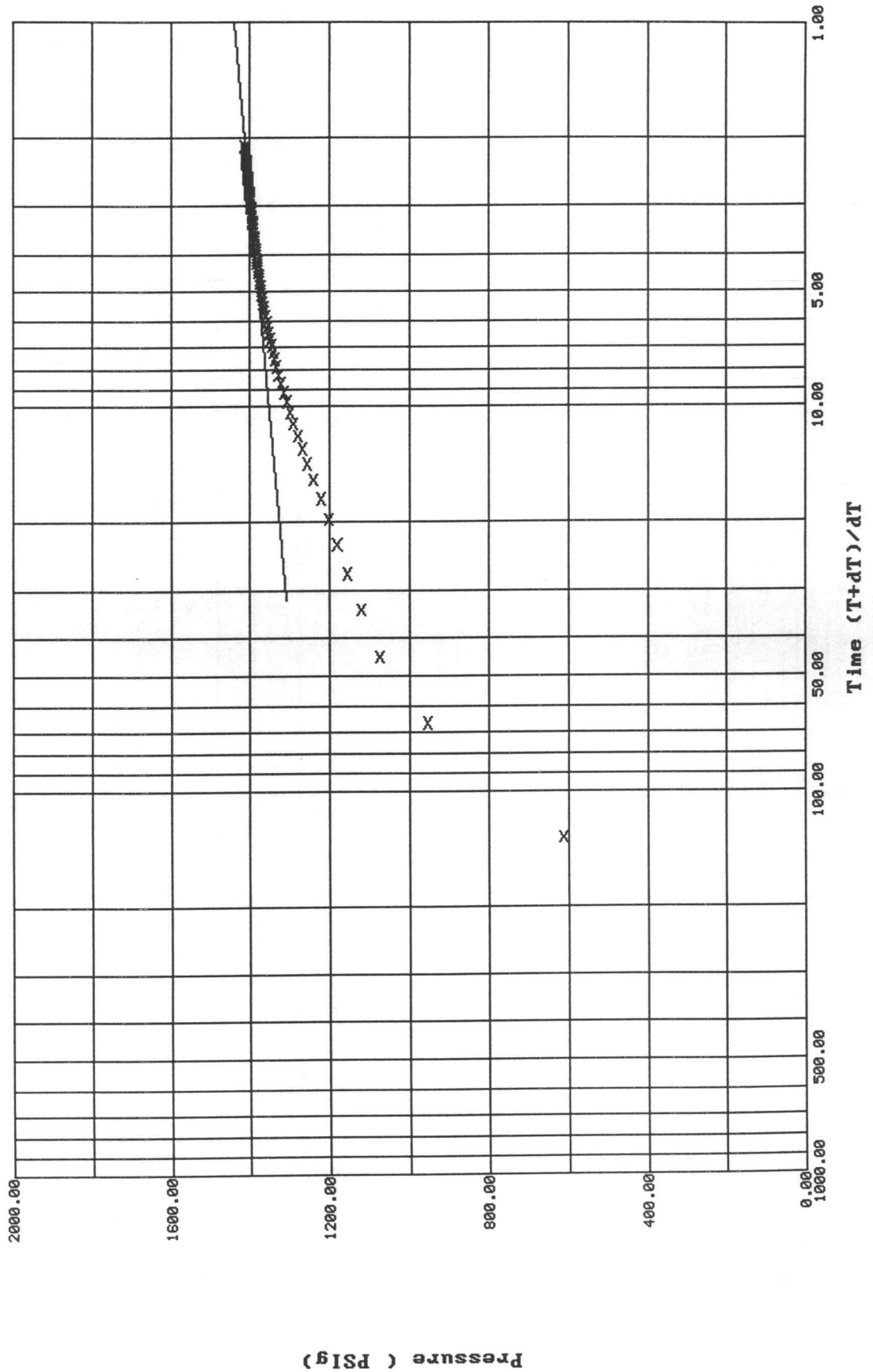


Horner Plot: shut-in #2

8525 Amoco Prod. Co Hannah Louise #1-23 DST #3

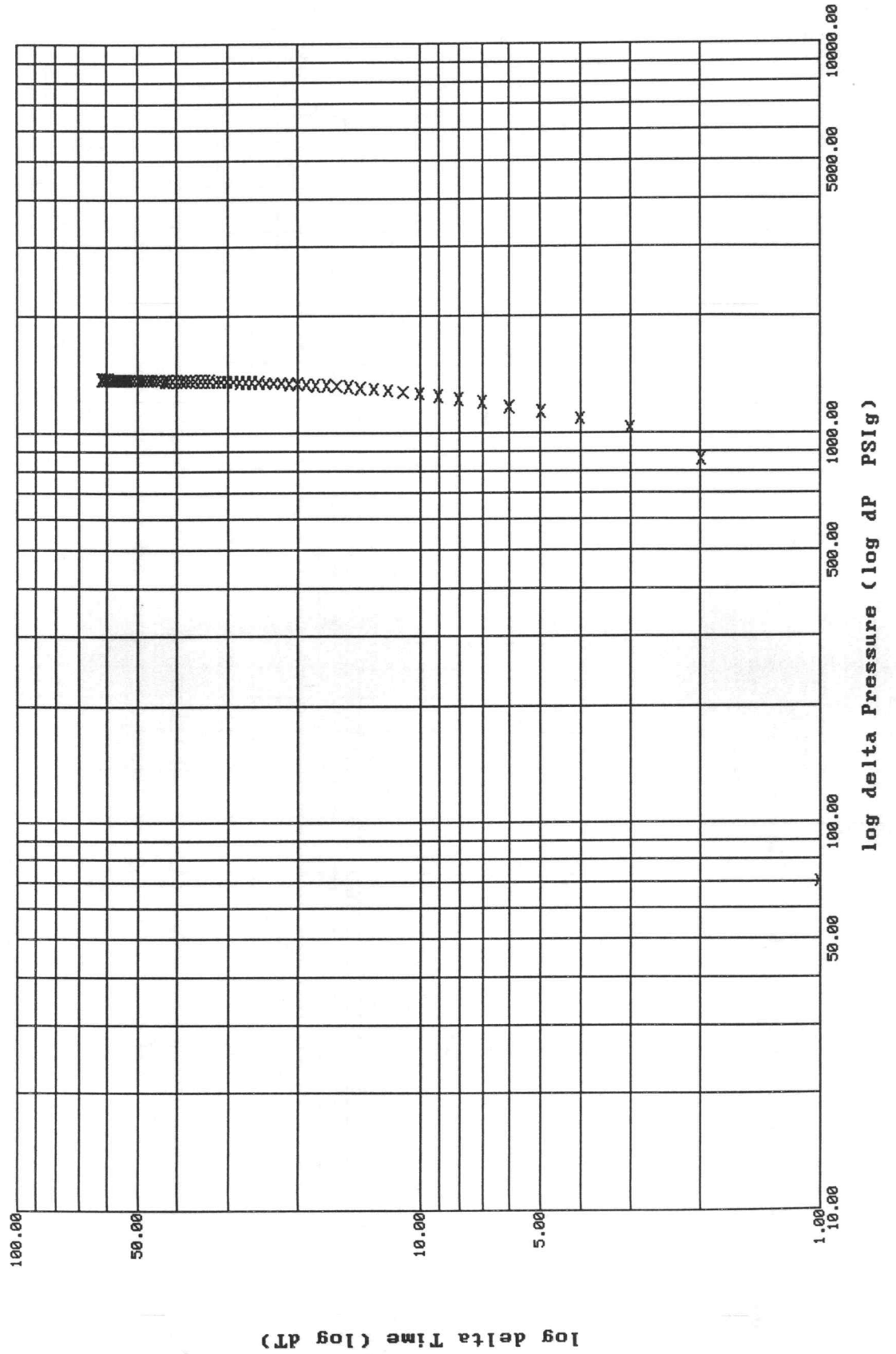
Slope: 88.6529 PSig/cycle

Ext. Pressure: 1441.7773 PSig



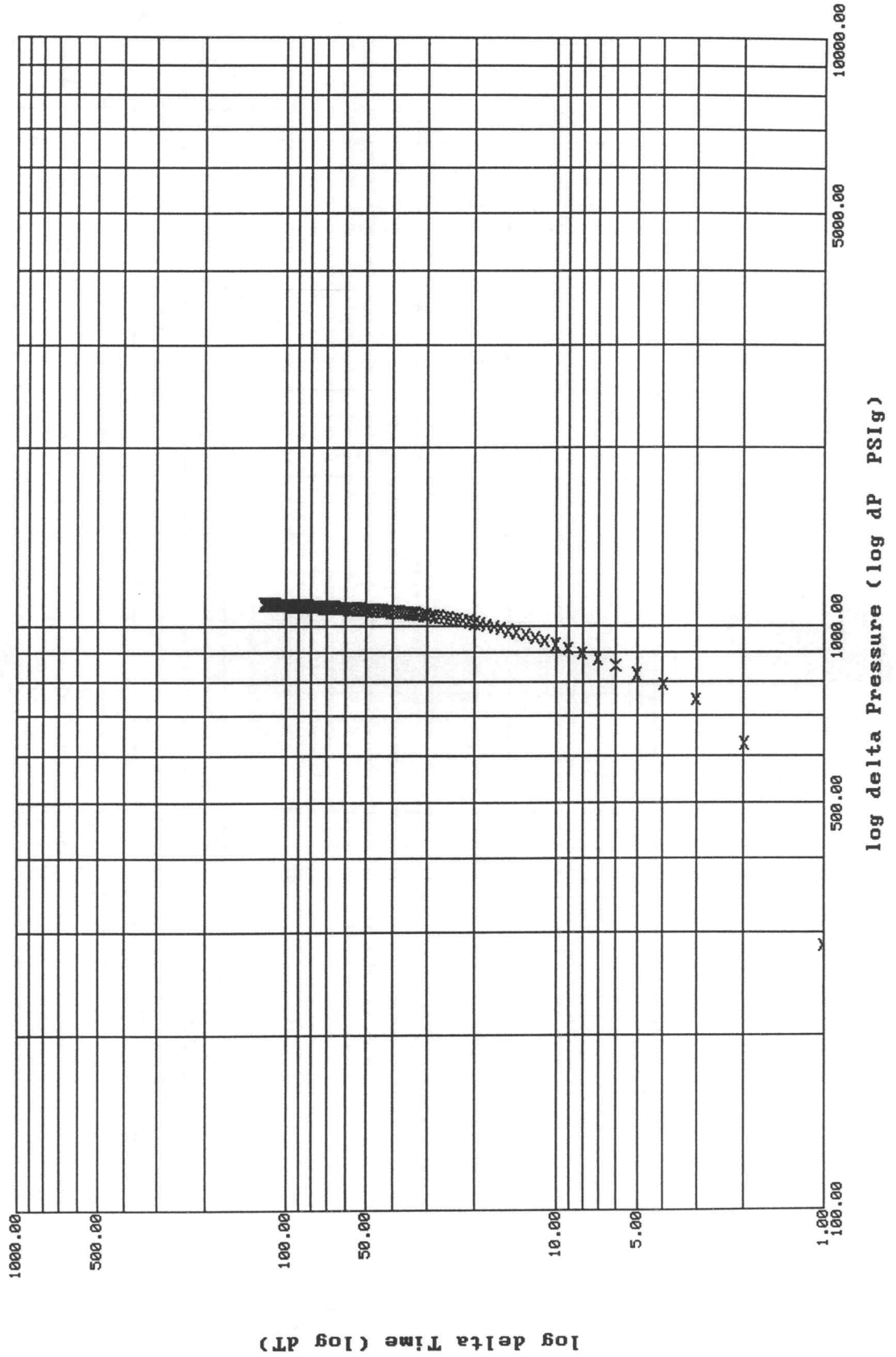
McKinley Plot: shut-in #1

8525 Amoco Prod. Co Hannah Louise #1-23 DST #3



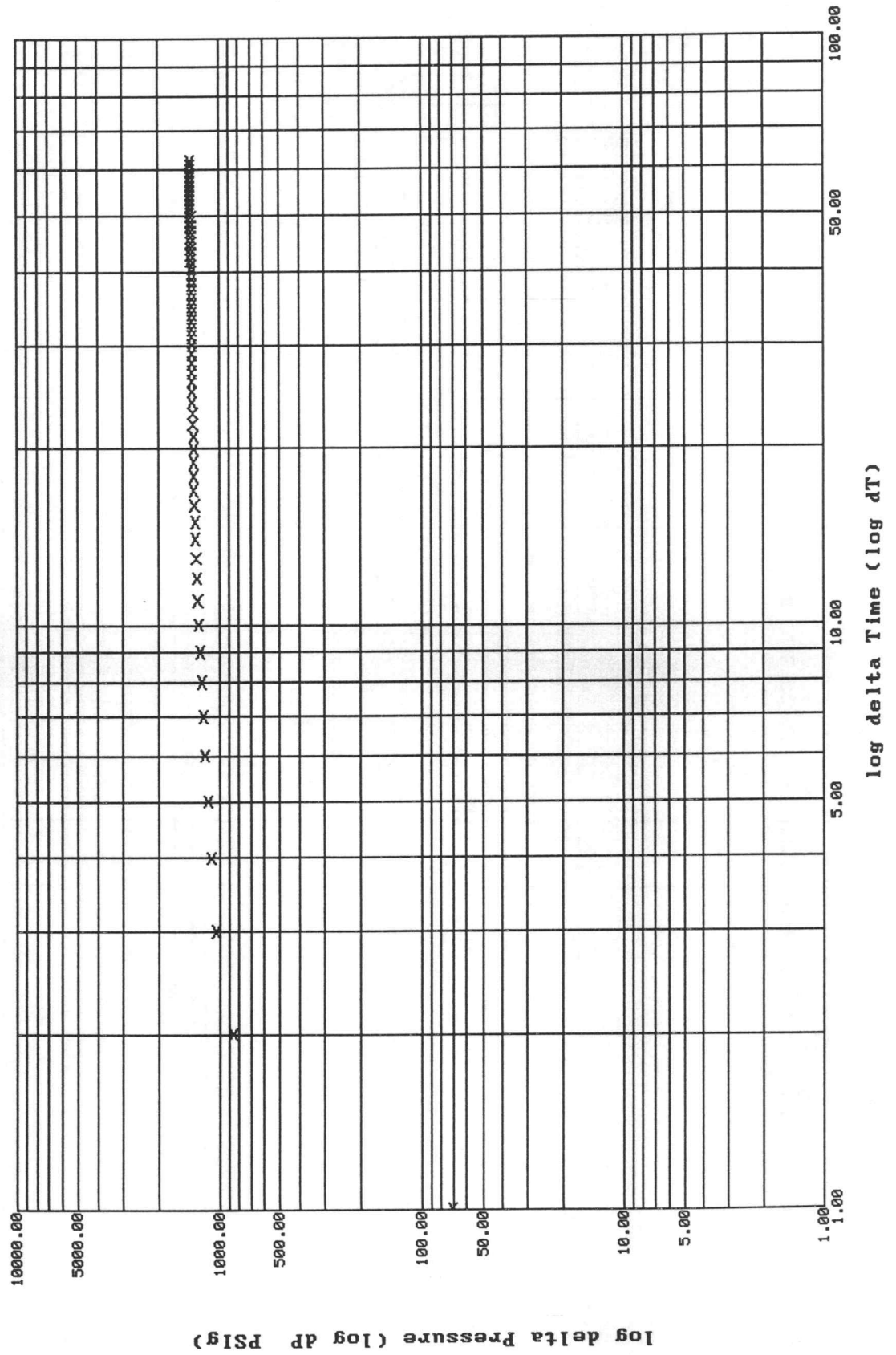
McKinley Plot: shut-in #2

8525 Amoco Prod. Co Hannah Louise #1-23 DST #3



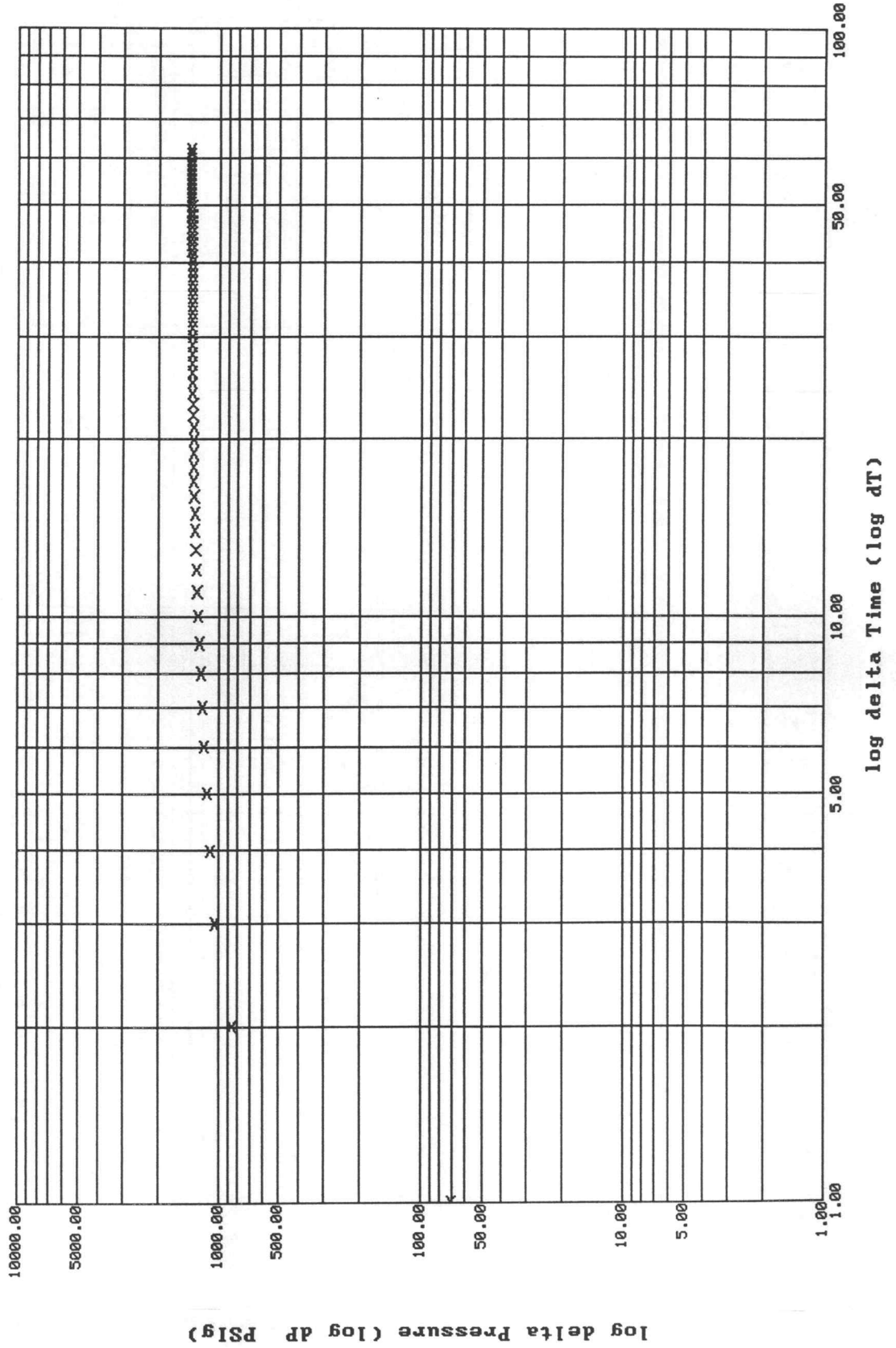
Ramey Plot: shut-in #1

8525 Amoco Prod. Co Hannah Louise #1-23 DST #3



Ramey Plot: shut-in #1

8525 Amoco Prod. Co Hannah Louise #1-23 DST #3



*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Hannah Louise #1-23

LOCATION : 23-30S-33W, Haskell Cty

BUCKET No. 8525 D.S.T. No. 3 DATE 10-24-95

TOTAL TOOL TO BOTTOM OF TOP PACKERS 30

INTERVAL TOOL

TOTAL TOOL TO BOTTOM OF TOP PACKERS AND ANCHOR 28

TOTAL TOOL 58

DRILL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STANDS Single Total

P. ANCHOR STANDS Single Total

TOTAL ASSEMBLY 58

C. ABOVE TOOLS STANDS 11 Single Total 658

P. ABOVE TOOLS STANDS 66 Single Total 4125

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4841

TOTAL DEPTH 4817

TOTAL DRILL PIPE ABOVE K.B. 24

REMARKS:

FLUID SAMPLER DATA

SAMPLER RECOVERY -

Water 3800 ml, Mud 2000 ml, Press 250 PSI,
Total 4000 ml

SAMPLER ANALYSIS -

RW .13 ohms @ 54 F; Chlorides 76000 ppm

Turned tool at 160000# to get loose

P.O. SUB	
C.O. SUB changeover sub	4760
S.I. TOOL Shutin tool	4765
Sample Chamber	4768
HMV Hydraulic tool	4773
JARS	4778
SAFETY JOINT Bowen	4780
PACKER Top Packer	4784
PACKER Bottom Packer	4789
DEPTH 4789	
STUBB 4790	
ANCHOR	
1' perf	4791
Alpine recorder	4791
5'perf	4796
5' perf	4801
T.C.	
DEPTH	
5' perf	4806
5' perf	4811
3' perf	4814
AK-1 recorder	4812
3' bullplug	
BULLNOSE to	
T.D.	4817

TRILOBITE TESTING L.L.C.

OPERATOR : Amoco Production Company
 WELL NAME: Hannah Louise #1-23
 LOCATION : 23-30S-33W, Haskell Cty
 INTERVAL : 5312.00 To 5364.00 ft

DATE 10/26/95

KB 2937.00 ft TICKET NO: 8605 DST #4
 GR 2925.00 ft FORMATION: Morrow
 TD 5364.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 10	Rec.	11038	2341				PF Fr. 1455 to 1505 hr
SI 60	Range(Psi)	5075.0	4995.0	0.0	0.0	0.0	IS Fr. 1505 to 1605 hr
SF 120	Clock(hrs)	AK-1	Alpin				SF Fr. 1605 to 1805 hr
FS 120	Depth(ft)	5361.0	5320.0	0.0	0.0	0.0	FS Fr. 1805 to 2005 hr

	Field	1	2	3	4	
A. Init Hydro	0.0	2739.0	0.0	0.0	0.0	T STARTED 1300 hr
B. First Flow	0.0	28.0	0.0	0.0	0.0	T ON BOTM 1453 hr
B1. Final Flow	0.0	34.0	0.0	0.0	0.0	T OPEN 1455 hr
C. In Shut-in	0.0	292.0	0.0	0.0	0.0	T PULLED 2005 hr
D. Init Flow	0.0	26.0	0.0	0.0	0.0	T OUT 2330 hr
E. Final Flow	0.0	33.0	0.0	0.0	0.0	
F. Fl Shut-in	0.0	1116.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	0.0	2462.0	0.0	0.0	0.0	Tool Wt. 18000.00 lb
Inside/Outside	O I					Wt Set On Packer 25000.00 lb
						Wt Pulled Loose 120000.00 lb
						Initial Str Wt 84000.00 lb
						Unseated Str Wt 90000.00 lb
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 576.00 ft
						D.P. Length 4737.00 ft

RECOVERY

Tot Fluid 60.00 ft of 60.00 ft in DC and 0.00 ft in DP
 240.00 ft of Gas in pipe
 60.00 ft of Drilling mud

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Blow -
 Fair to strong blow off bottom 1.5 min

Initial Shutin -
 No blow back

Final Blow -
 Fair to strong blow off bottom 1 min

Final Shutin -
 Weak blow, built to 2"

SAMPLES:
 SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.10 lb
Vis.	62.00 S/
W.L.	7.40 in
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	128.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	TOM HORACEK
Co. Rep.	BILL CHATHAM
Contr.	Cheyenne Drlg.
Rig #	4
Unit #	
Pump T.	

Test Successful: Y

TEST HISTORY

8605 DST #4 Hannah Louise #1-23 Amoco Prod. Co.

Flag Points

t (Min.) P (PSig)

A:	0.00	2738.56
B:	0.00	27.86
C:	8.00	34.15
D:	58.00	292.48
E:	0.00	25.76
F:	120.00	32.64
G:	118.00	1115.73
Q:	0.00	2461.51

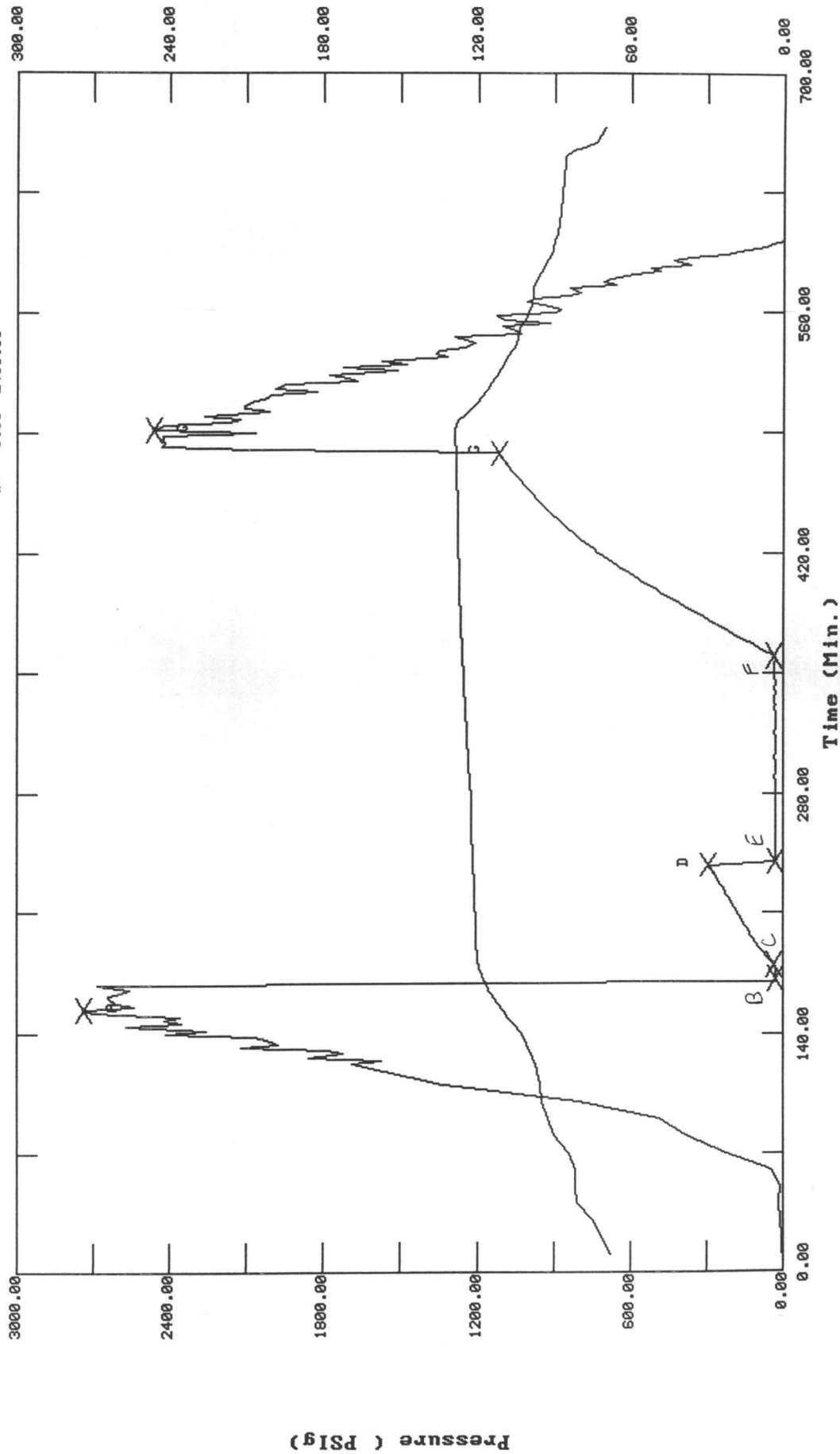
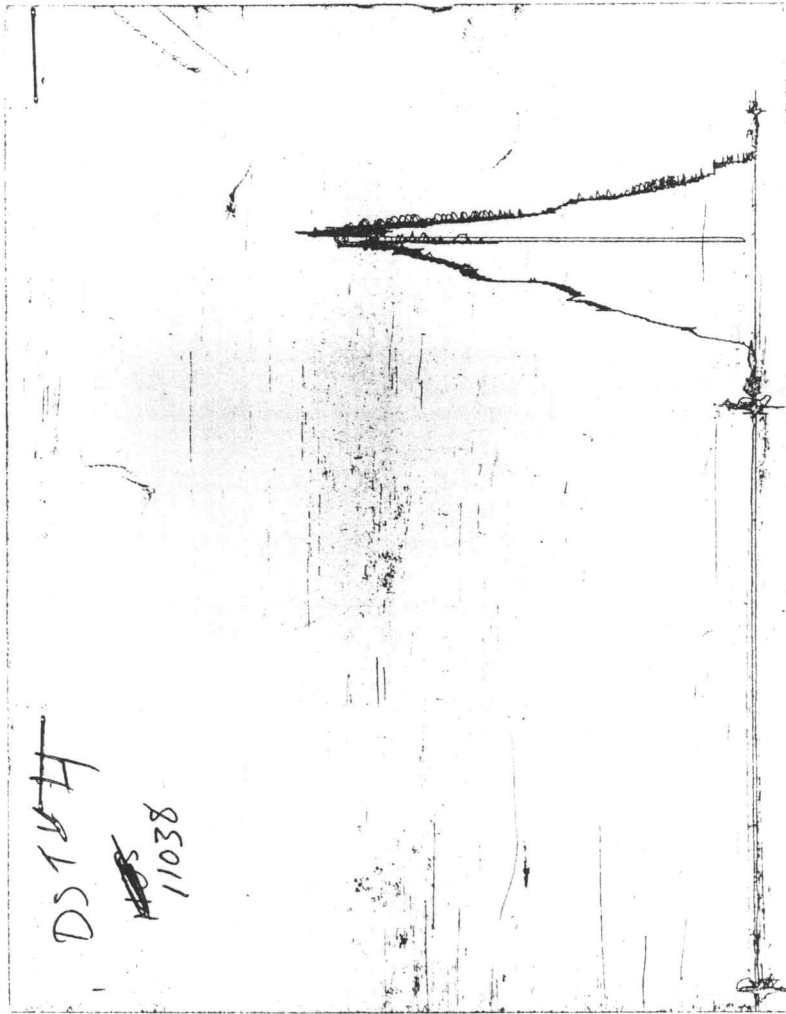


CHART PAGE



This is an actual photograph of recorder chart

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8605 DST #4 Hannah Louise #1-23 Amoco Prod. Co.

DATE: 10/26/95

TIME: 11:59:45

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	154.00	2738.6	0.0	110.21		
***** Start Flow 1	0.00	27.9	0.0	117.67		
	2.00	27.5	-0.3	118.40		
	4.00	29.3	1.4	118.94		
	6.00	28.9	1.0	119.29		
***** End Flow 1	8.00	34.2	6.3	119.60		
***** Start Shutin 1	0.00	34.2	0.0	119.60	0.0000	0.001
	2.00	48.2	14.0	119.81	5.0000	0.002
	4.00	60.8	26.7	119.95	3.0000	0.004
	6.00	72.4	38.3	120.06	2.3333	0.005
	8.00	83.2	49.1	120.15	2.0000	0.007
	10.00	93.3	59.2	120.24	1.8000	0.009
	12.00	102.9	68.7	120.32	1.6667	0.011
	14.00	111.9	77.7	120.38	1.5714	0.013
	16.00	120.8	86.6	120.43	1.5000	0.015
	18.00	129.6	95.4	120.50	1.4444	0.017
	20.00	138.0	103.8	120.56	1.4000	0.019
	22.00	145.9	111.8	120.62	1.3636	0.021
	24.00	154.1	119.9	120.67	1.3333	0.024
	26.00	162.1	128.0	120.71	1.3077	0.026
	28.00	170.1	136.0	120.76	1.2857	0.029
	30.00	178.0	143.9	120.81	1.2667	0.032
	32.00	186.2	152.1	120.86	1.2500	0.035
	34.00	194.0	159.9	120.91	1.2353	0.038
	36.00	201.9	167.8	120.97	1.2222	0.041
	38.00	210.0	175.8	121.01	1.2105	0.044
	40.00	217.9	183.7	121.06	1.2000	0.047
	42.00	225.9	191.8	121.10	1.1905	0.051
	44.00	234.0	199.8	121.15	1.1818	0.055
	46.00	242.0	207.9	121.20	1.1739	0.059
	48.00	250.3	216.1	121.25	1.1667	0.063
	50.00	258.6	224.4	121.30	1.1600	0.067
	52.00	266.8	232.6	121.37	1.1538	0.071
	54.00	275.3	241.1	121.42	1.1481	0.076
	56.00	283.8	249.7	121.47	1.1429	0.081
***** End Shut-in 1	58.00	292.5	258.3	121.52	1.1379	0.086
***** Start Flow 2	0.00	25.8	0.0	121.57		
	2.00	26.6	0.8	121.62		
	4.00	28.1	2.3	121.66		
	6.00	28.3	2.5	121.72		
	8.00	28.6	2.9	121.77		
	10.00	28.7	2.9	121.99		
	12.00	29.6	3.9	122.10		
	14.00	29.9	4.1	122.10		
	16.00	29.1	3.4	122.10		
	18.00	29.3	3.5	122.10		
	20.00	28.9	3.1	122.10		
	22.00	29.3	3.5	122.10		
	24.00	28.5	2.8	122.11		
	26.00	28.7	2.9	122.11		
	28.00	28.9	3.2	122.11		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8605 DST #4 Hannah Louise #1-23 Amoco Prod. Co.

DATE: 10/26/95

TIME: 11:59:45

	Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	30.00	29.8	4.0	122.11		
	32.00	28.6	2.9	122.11		
	34.00	29.5	3.8	122.11		
	36.00	28.2	2.4	122.11		
	38.00	28.7	2.9	122.11		
	40.00	29.8	4.0	122.23		
	42.00	30.2	4.4	122.41		
	44.00	29.0	3.3	122.65		
	46.00	28.8	3.0	122.79		
	48.00	29.2	3.4	122.94		
	50.00	31.1	5.4	123.04		
	52.00	29.1	3.4	123.15		
	54.00	29.4	3.6	123.23		
	56.00	30.5	4.8	123.33		
	58.00	30.0	4.2	123.43		
	60.00	28.9	3.1	123.51		
	62.00	31.0	5.3	123.59		
	64.00	29.4	3.6	123.70		
	66.00	29.5	3.7	123.80		
	68.00	30.0	4.3	123.88		
	70.00	29.2	3.4	123.95		
	72.00	30.5	4.8	124.03		
	74.00	30.1	4.4	124.12		
	76.00	30.8	5.0	124.19		
	78.00	29.6	3.9	124.28		
	80.00	29.3	3.5	124.35		
	82.00	29.5	3.8	124.42		
	84.00	30.0	4.3	124.52		
	86.00	30.2	4.4	124.59		
	88.00	29.6	3.9	124.67		
	90.00	31.4	5.6	124.74		
	92.00	30.0	4.2	124.82		
	94.00	31.6	5.9	124.89		
	96.00	31.3	5.5	124.96		
	98.00	30.0	4.3	125.04		
	100.00	30.2	4.4	125.11		
	102.00	30.9	5.1	125.19		
	104.00	30.2	4.4	125.26		
	106.00	30.1	4.4	125.32		
	108.00	31.1	5.4	125.40		
	110.00	30.9	5.1	125.46		
	112.00	31.4	5.6	125.53		
	114.00	31.5	5.7	125.61		
	116.00	30.7	5.0	125.66		
	118.00	30.5	4.8	125.72		
***** End Flow 2	120.00	32.6	6.9	125.78		
***** Start Shutin 2	0.00	32.6	0.0	125.78	0.0000	0.001
	2.00	60.3	27.6	125.86	65.0000	0.004
	4.00	86.6	54.0	125.90	33.0000	0.008
	6.00	112.6	80.0	125.99	22.3333	0.013
	8.00	138.4	105.7	126.08	17.0000	0.019

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8605 DST #4 Hannah Louise #1-23 Amoco Prod. Co.

DATE: 10/26/95

TIME: 11:59:45

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
10.00	163.9	131.3	126.20	13.8000	0.027
12.00	189.2	156.5	126.28	11.6667	0.036
14.00	214.2	181.5	126.34	10.1429	0.046
16.00	239.0	206.4	126.41	9.0000	0.057
18.00	263.6	231.0	126.48	8.1111	0.069
20.00	288.1	255.5	126.54	7.4000	0.083
22.00	312.2	279.6	126.60	6.8182	0.097
24.00	336.3	303.7	126.66	6.3333	0.113
26.00	360.1	327.5	126.74	5.9231	0.130
28.00	383.7	351.1	126.78	5.5714	0.147
30.00	407.1	374.5	126.83	5.2667	0.166
32.00	430.3	397.7	126.88	5.0000	0.185
34.00	453.3	420.6	126.93	4.7647	0.205
36.00	476.0	443.4	126.98	4.5556	0.227
38.00	498.4	465.8	127.03	4.3684	0.248
40.00	520.8	488.1	127.11	4.2000	0.271
42.00	542.7	510.0	127.14	4.0476	0.294
44.00	564.4	531.8	127.18	3.9091	0.319
46.00	585.8	553.2	127.22	3.7826	0.343
48.00	607.0	574.4	127.25	3.6667	0.368
50.00	627.9	595.2	127.30	3.5600	0.394
52.00	648.5	615.9	127.34	3.4615	0.421
54.00	668.7	636.1	127.38	3.3704	0.447
56.00	688.7	656.1	127.43	3.2857	0.474
58.00	708.5	675.9	127.45	3.2069	0.502
60.00	727.7	695.1	127.50	3.1333	0.530
62.00	745.5	712.9	127.54	3.0645	0.556
64.00	762.5	729.8	127.58	3.0000	0.581
66.00	779.3	746.6	127.61	2.9394	0.607
68.00	795.9	763.2	127.65	2.8824	0.633
70.00	812.2	779.6	127.70	2.8286	0.660
72.00	828.2	795.6	127.73	2.7778	0.686
74.00	843.8	811.2	127.78	2.7297	0.712
76.00	859.2	826.6	127.79	2.6842	0.738
78.00	874.3	841.6	127.79	2.6410	0.764
80.00	889.2	856.6	127.79	2.6000	0.791
82.00	903.6	871.0	127.79	2.5610	0.817
84.00	918.0	885.4	127.79	2.5238	0.843
86.00	931.9	899.3	127.80	2.4884	0.868
88.00	945.6	913.0	127.86	2.4545	0.894
90.00	959.1	926.5	127.90	2.4222	0.920
92.00	972.1	939.5	127.95	2.3913	0.945
94.00	985.1	952.4	127.97	2.3617	0.970
96.00	997.7	965.1	128.02	2.3333	0.995
98.00	1009.9	977.3	128.04	2.3061	1.020
100.00	1021.6	989.0	128.07	2.2800	1.044
102.00	1033.2	1000.6	128.10	2.2549	1.068
104.00	1044.6	1011.9	128.14	2.2308	1.091
106.00	1055.5	1022.8	128.16	2.2075	1.114
108.00	1066.1	1033.5	128.19	2.1852	1.137
110.00	1076.6	1044.0	128.22	2.1636	1.159

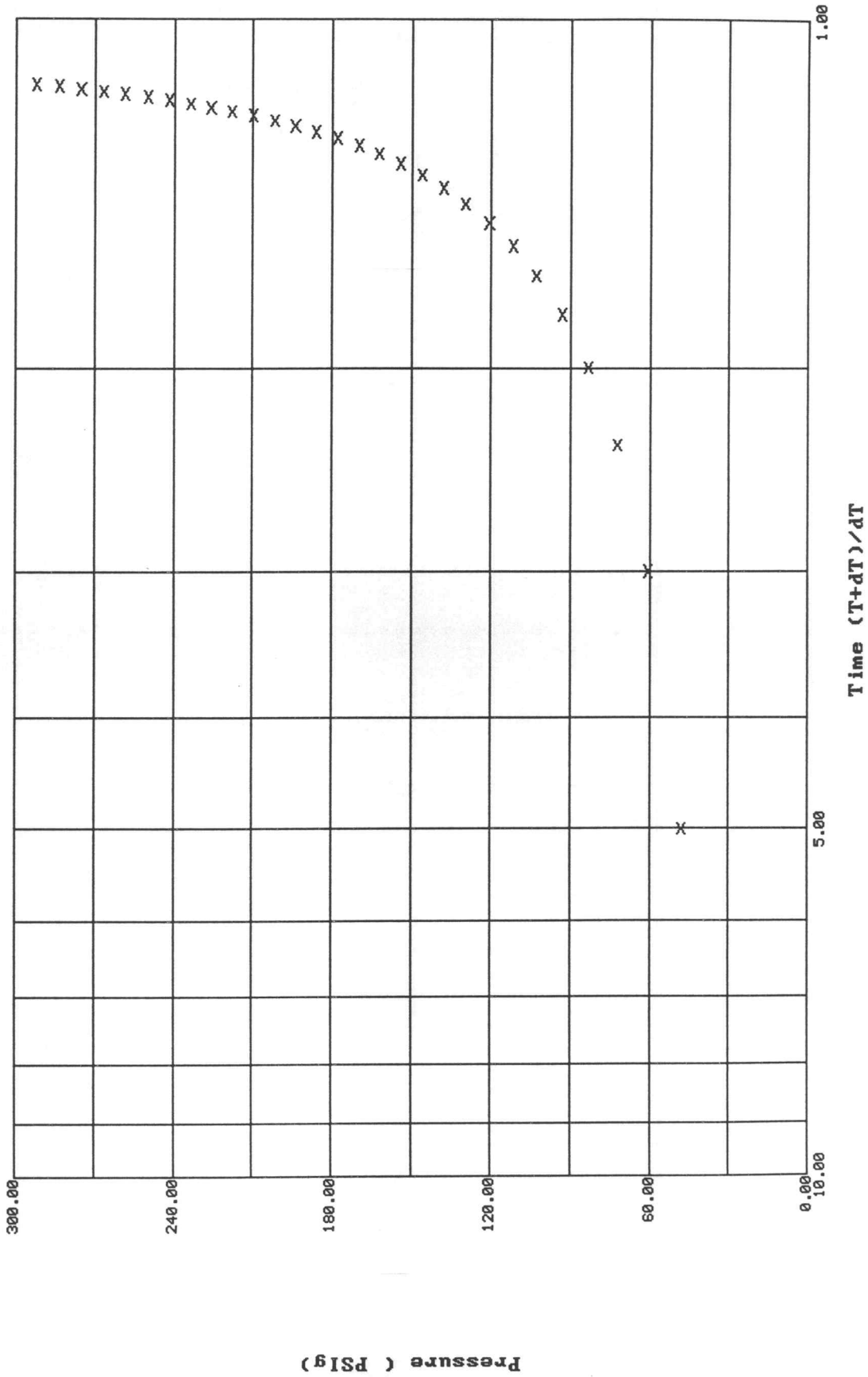
ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 8605 DST #4 Hannah Louise #1-23 Amoco Prod. Co.

DATE: 10/26/95 TIME: 11:59:45

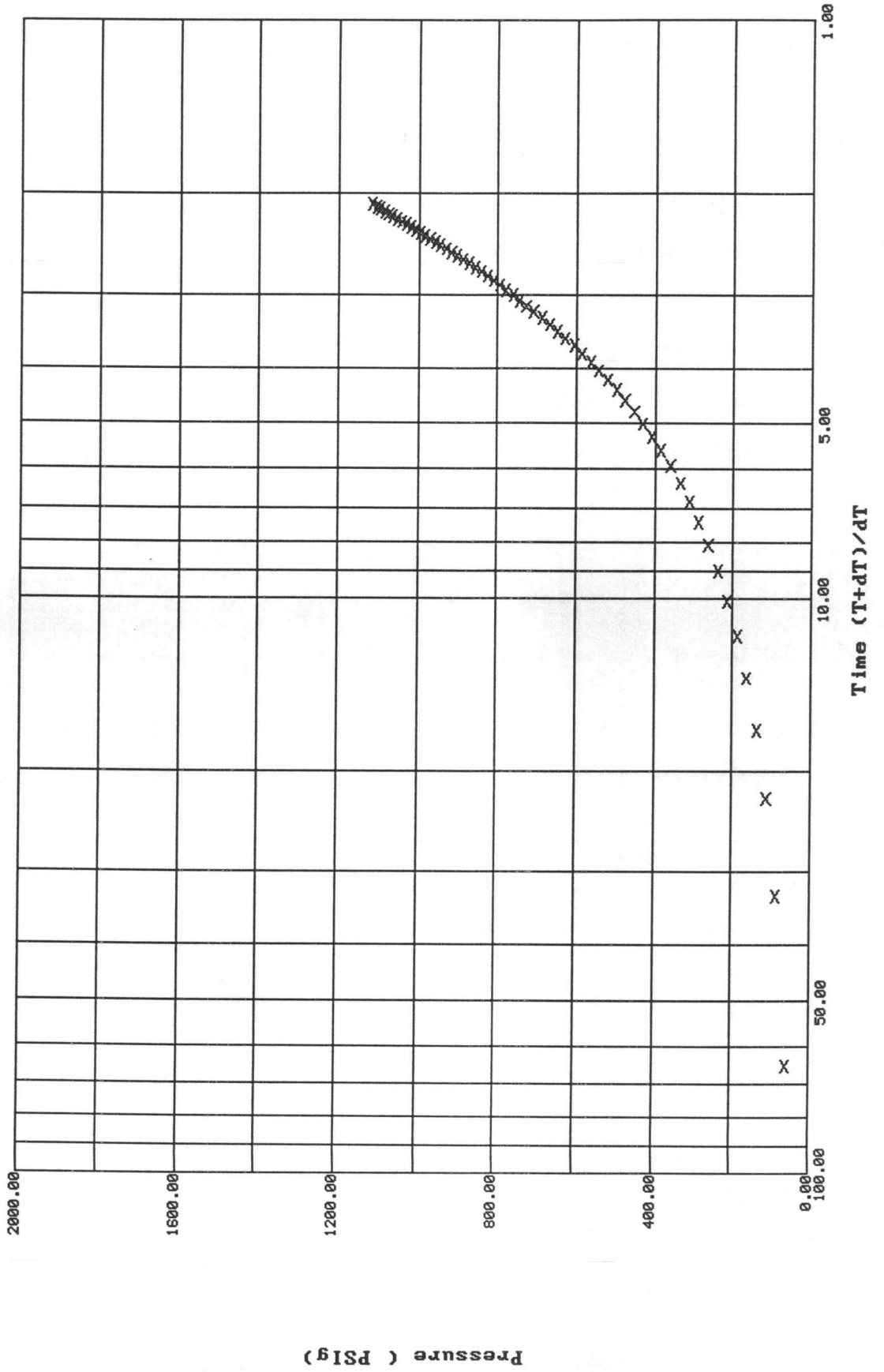
	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	112.00	1086.9	1054.2	128.24	2.1429	1.181
	114.00	1096.8	1064.1	128.27	2.1228	1.203
	116.00	1106.4	1073.8	128.28	2.1034	1.224
***** End Shut-in 2	118.00	1115.7	1083.1	128.32	2.0847	1.245
***** Final Hydro.	492.00	2461.5	0.0	128.79		

Horner Plot: shut-in #1
 8605 DST #4 Hannah Louise #1-23 Amoco Prod. Co.



Horner Plot: shut-in #2

8605 DST #4 Hannah Louise #1-23 Amoco Prod. Co.



*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Hannah Louise #1-23

LOCATION : 23-30S-33W, Haskell Cty

TICKET No. 8605 D.S.T. No. 4 DATE 10/26/95

TOTAL TOOL TO BOTTOM OF TOP PACKERS 30 ft.

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 52 ft.

TOTAL TOOL 82 ft.

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single 1 Total 29 ft.

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 52 ft.

D.C. ABOVE TOOLS.Stands9 Single 1 Total 576 ft.

D.P. ABOVE TOOLS.Stands76 Single Total 4737 ft.

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5395 ft.

TOTAL DEPTH 5364 ft.

TOTAL DRILL PIPE ABOVE K.B. 31 ft.

REMARKS:

FLUID SAMPLER DATA

SAMPLER RECOVERY -

Gas .6 cu ft, Mud 3975 ml, Pressure 950 PSI
Total 4000 ml

DRILL MUD ANALYSIS -

Chlorides 3200 ppm, Viscosity 62,
Mud Wt 9.1, Filtrate 7.4, LCM 2#

P.O. SUB	
C.O. SUB	5282
S.I. TOOL	5287
Sampler	5290
HMV Hyd. Tool	5295
JARS	5300
SAFETY JOINT	5302
PACKER	5307
PACKER	5312
DEPTH 5312	
STUBB Perf 2 ft.	5314
ANCHOR Pick up sub 5 ft.	5319
Alpine Rec.	5320
Perf 5 ft.	5324
Perf 4 ft.	5328
T.C. DEPTH	
C. O. sub 1 ft.	5329
Drill Collar 29 ft	5358
C. O. sub 1 ft.	5359
BULLNOSE AK-1 Rec.	5361
T.D. Bull Plug 5 ft.	5364