

WELL NAME: KISTLER #1-14
COMPANY: ABERCROMBIE DRILLING INC.
LOCATION: Sec. 14 Twp. 9S Rge. 34W
Thomas County Kansas
DATE: 03/14/97

TRILOBITE TESTING L.L.C.

OPERATOR : Abercrombie Drilling Inc
 WELL NAME: Kistler #1-14
 LOCATION : 14-9-34 Thomas KS
 INTERVAL : 4243.00 To 4281.00 ft

DATE 3/9/97
 KB 3173.00 ft TICKET NO: 10105 DST #1
 GR 3168.00 ft FORMATION: Lansing KC 'H'
 TD 4281.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13754	13754	13249			PF Fr. 1448 to 1518 hr
SI 45 Range(Psi)	4000.0	4000.0	4500.0	0.0	0.0	IS Fr. 1518 to 1603 hr
SF 60 Clock(hrs)	12 HR	12 HR	12 HR			SF Fr. 1603 to 1703 hr
FS 45 Depth(ft)	4246.0	4246.0	4278.0	0.0	0.0	FS Fr. 1703 to 1748 hr

	Field	1	2	3	4	
A. Init Hydro	2137.0	2132.0	0.0	0.0	0.0	T STARTED 1330 hr
B. First Flow	29.0	46.0	0.0	0.0	0.0	T ON BOTM 1440 hr
B1. Final Flow	49.0	74.0	0.0	0.0	0.0	T OPEN 1448 hr
C. In Shut-in	1186.0	1224.0	0.0	0.0	0.0	T PULLED 1748 hr
D. Init Flow	78.0	100.0	0.0	0.0	0.0	T OUT 1950 hr
E. Final Flow	147.0	155.0	0.0	0.0	0.0	
F. Fl Shut-in	1156.0	1174.0	0.0	0.0	0.0	
G. Final Hydro	2026.0	2125.0	0.0	0.0	0.0	
Inside/Outside	I	I	O			

RECOVERY

Tot Fluid 270.00 ft of 270.00 ft in DC and 0.00 ft in DP
 0.00 ft of
 20.00 ft of Clean Oil
 0.00 ft of
 60.00 ft of Slightly Oil Cut Muddy Water
 0.00 ft of 5%oil 70%water 25%mud
 0.00 ft of
 190.00 ft of Muddy Water
 0.00 ft of 90%water 10%mud
 SALINITY 31000.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA-----
 Tool Wt. 1000.00 lbs
 Wt Set On Packer 20000.00 lbs
 Wt Pulled Loose 45000.00 lbs
 Initial Str Wt 42000.00 lbs
 Unseated Str Wt 42000.00 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 0.00 ft
 D.P. Length 3613.00 ft
 H.W. I.D 2.70 in
 H.W. Length 631.00 ft

MUD DATA-----

Mud Type Chemical
 Weight 9.10 lb/cf
 Vis. 45.00 S/L
 W.L. 10.40 in3
 F.C. 0.00 in
 Mud Drop

BLOW DESCRIPTION

Initial Flow:

Initial Shut In:

Final Flow:

Weak blow, building to 2" fair blow

Final Shut In:

Amt. of fill 0.00 ft
 Btm. H. Temp. 111.00 F
 Hole Condition
 % Porosity 0.00
 Packer Size 6.75 in
 No. of Packers 2
 Cushion Amt. 0.00

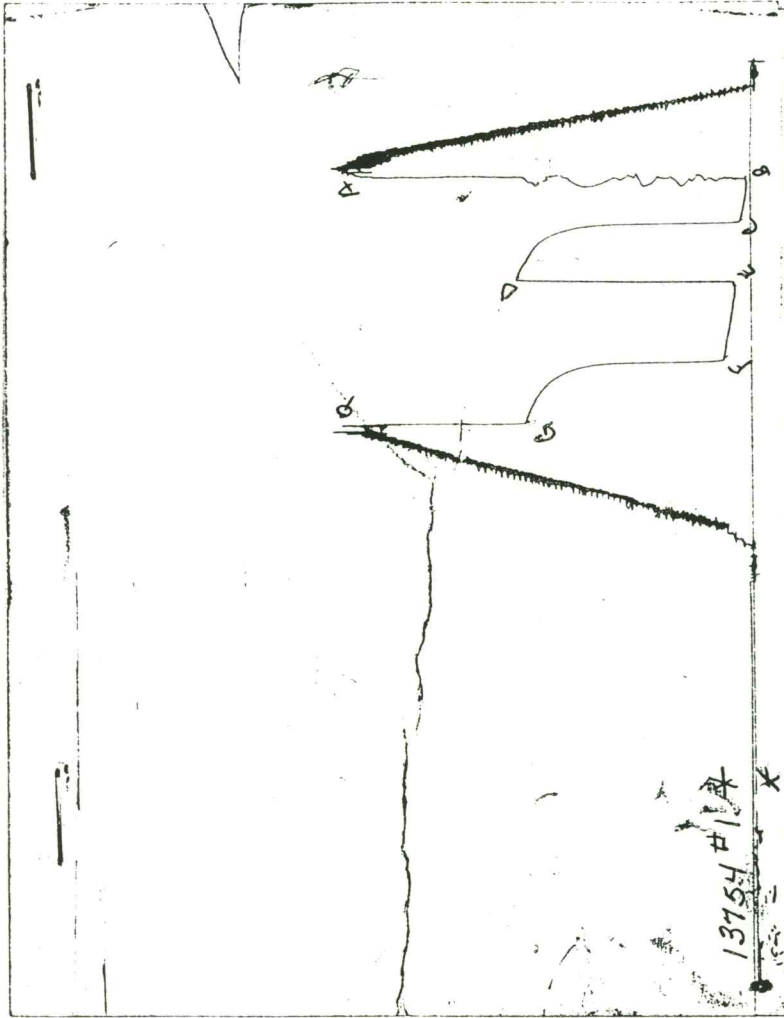
SAMPLES:

SENT TO:

Cushion Type
 Reversed Out
 Tool Chased
 Tester Dan Bangle
 Co. Rep. Tom Funk
 Contr. Abercrombie
 Rig # 8
 Unit #
 Pump T.

Test Successful: Y

CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

OPERATOR : Abercrombie Drilling Inc
 WELL NAME: Kistler #1-14
 LOCATION : 14-9-34 Thomas KS
 INTERVAL : 4325.00 To 4357.00 ft

DATE 3/10/97
 KB 3173.00 ft TICKET NO: 10106 DST #2
 GR 3168.00 ft FORMATION: Lansing KC 'K'
 TD 4357.00 ft TEST TYPE: CONV

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13754	13754	13249			PF Fr. 0947 to 1017 hr
SI 45 Range(Psi)	4000.0	4000.0	4500.0	0.0	0.0	IS Fr. 1017 to 1102 hr
SF 60 Clock(hrs)	12 HR	12 HR	12 HR			SF Fr. 1102 to 1202 hr
FS 45 Depth(ft)	4328.0	4328.0	4354.0	0.0	0.0	FS Fr. 1202 to 1247 hr

	Field	1	2	3	4	
A. Init Hydro	2137.0	2194.0	0.0	0.0	0.0	T STARTED 0805 hr
B. First Flow	98.0	119.0	0.0	0.0	0.0	T ON BOTM 0940 hr
B1. Final Flow	413.0	438.0	0.0	0.0	0.0	T OPEN 0947 hr
C. In Shut-in	1216.0	1247.0	0.0	0.0	0.0	T PULLED 1247 hr
D. Init Flow	452.0	483.0	0.0	0.0	0.0	T OUT 1515 hr
E. Final Flow	709.0	741.0	0.0	0.0	0.0	
F. Fl Shut-in	1186.0	1221.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2087.0	2126.0	0.0	0.0	0.0	Tool Wt. 1000.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 50000.00 lbs
						Initial Str Wt 44000.00 lbs
						Unseated Str Wt 49000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 0.00 in
						D. Pipe ID 3.80 in
						D.C. Length 0.00 ft
						D.P. Length 3682.00 ft
						H.W. I.D 2.70 in
						H.W. Length 631.00 ft

RECOVERY

Tot Fluid 1767.00 ft of 631.00 ft in DC and 1136.00 ft in DP
 82.00 ft of Clean Gassy Oil 20%gas 80%oil
 120.00 ft of Oil Water Cut Gassy Mud
 0.00 ft of 20%gas 30%oil 20%water 30%mud
 240.00 ft of Oil water Cut Gassy Mud
 0.00 ft of 20%gas 20%oil 50%water 10%mud
 62.00 ft of Slight Oil Cut Water
 0.00 ft of 5%oil 95%water
 1263.00 ft of Water
 SALINITY 42000.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----
 Mud Type Chemical
 Weight 9.30 lb/cf
 Vis. 46.00 S/L
 W.L. 9.60 in3
 F.C. 0.00 in
 Mud Drop
 Amt. of fill 0.00 ft
 Btm. H. Temp. 126.00 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 Dan Bangle
 Co. Rep. Tom Funk
 Contr. Abercrombie
 Rig # 8
 Unit #
 Pump T.

BLOW DESCRIPTION

Initial Flow:
 Strong blow, bottom of bucket in 3 min

Initial Shut In:

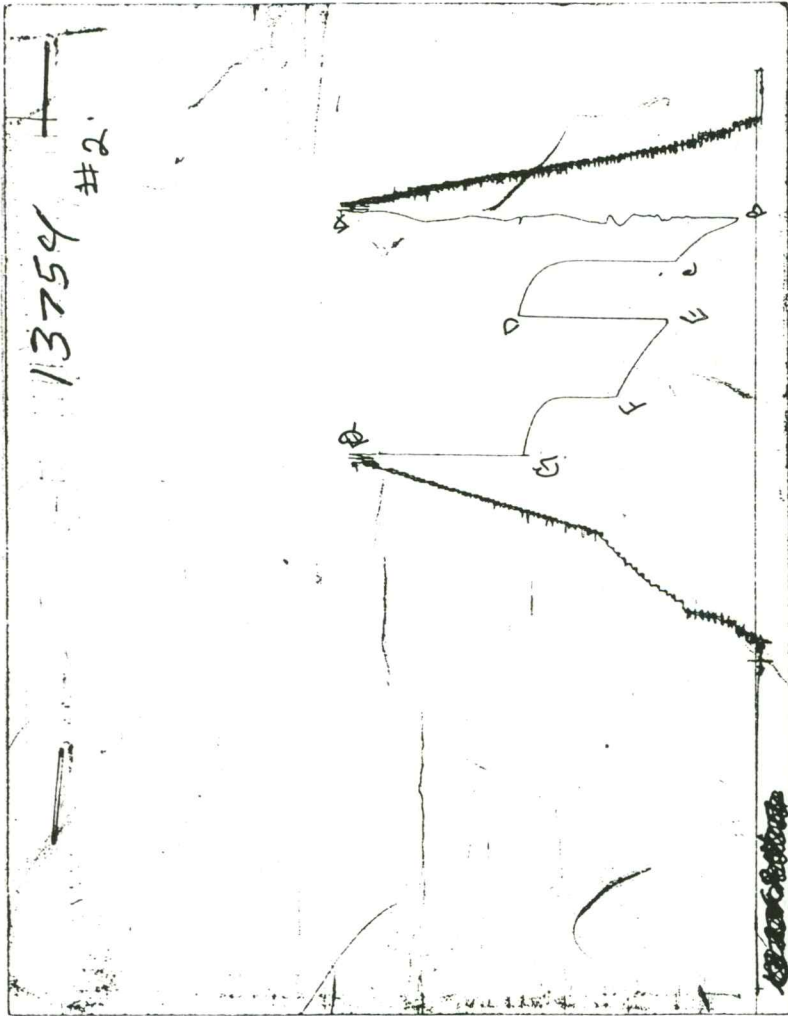
Final Flow:
 Strong blow, bottom of bucket in 4 min

Final Shut In:

SAMPLES:
 SENT TO:

Test Successful: Y

CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

OPERATOR : Abercrombie Drilling Inc
 WELL NAME: Kistler #1-14
 LOCATION : 14-9-34 Thomas KS
 INTERVAL : 4491.00 To 4567.00 ft

DATE 33-11-97
 KB 3173.00 ft
 GR 3168.00 ft
 TD 4567.00 ft

TICKET NO: 10107
 FORMATION: Pawnee
 TEST TYPE: CONV

DST #3

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	13754	13754	13249			PF Fr. 1321 to 1351 hr
SI 45	Range(Psi)	4000.0	4000.0	4500.0	0.0	0.0	IS Fr. 1351 to 1436 hr
SF 60	Clock(hrs)	12 HR	12 HR	12 HR			SF Fr. 1436 to 1536 hr
FS 45	Depth(ft)	4495.0	4495.0	4564.0	0.0	0.0	FS Fr. 1536 to 1621 hr

	Field	1	2	3	4	
A. Init Hydro	2279.0	2311.0	0.0	0.0	0.0	T STARTED 1200 hr
B. First Flow	49.0	64.0	0.0	0.0	0.0	T ON BOTM 1315 hr
B1. Final Flow	88.0	95.0	0.0	0.0	0.0	T OPEN 1321 hr
C. In Shut-in	1106.0	1103.0	0.0	0.0	0.0	T PULLED 1621 hr
D. Init Flow	108.0	133.0	0.0	0.0	0.0	T OUT 1850 hr
E. Final Flow	167.0	187.0	0.0	0.0	0.0	
F. Fl Shut-in	1086.0	1067.0	0.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2238.0	2263.0	0.0	0.0	0.0	Tool Wt. 1500.00 lbs
Inside/Outside	I	I	O			Wt Set On Packer 20000.00 lbs

RECOVERY

Tot Fluid 372.00 ft of 372.00 ft in DC and 0.00 ft in DP
 62.00 ft of Gas Cut Mud
 0.00 ft of
 248.00 ft of Oil Cut Gassy Mud
 0.00 ft of 60%gas 20%oil 20%mud
 62.00 ft of Slight Oil Cut Watery Gassy Mud
 0.00 ft of 30%gas 5%oil 25%water 40%mud
 0.00 ft of
 0.00 ft of RW .25 @ 80F
 SALINITY 20000.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA-----
 Tool Wt. 1500.00 lbs
 Wt Set On Packer 20000.00 lbs
 Wt Pulled Loose 46000.00 lbs
 Initial Str Wt 44000.00 lbs
 Unseated Str Wt 46000.00 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 0.00 ft
 D.P. Length 3916.00 ft
 H.W. I.D 2.70 in
 H.W. Length 631.00 ft

MUD DATA-----

Mud Type Chemical
 Weight 9.20 lb/cf
 Vis. 47.00 S/L
 W.L. 12.00 in3
 F.C. 0.00 in
 Mud Drop

BLOW DESCRIPTION

Initial Flow:
 Strong blow, bottom of bucket in 15min

Initial Shut In:

Final Flow:

Weak blow, building to 7" fair blow

Final Shut In:

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 Dan Bangle
 Co. Rep. Tom Funk
 Contr. Abercrombie
 Rig # 8
 Unit #
 Pump T.

SAMPLES:

SENT TO:

Test Successful: Y

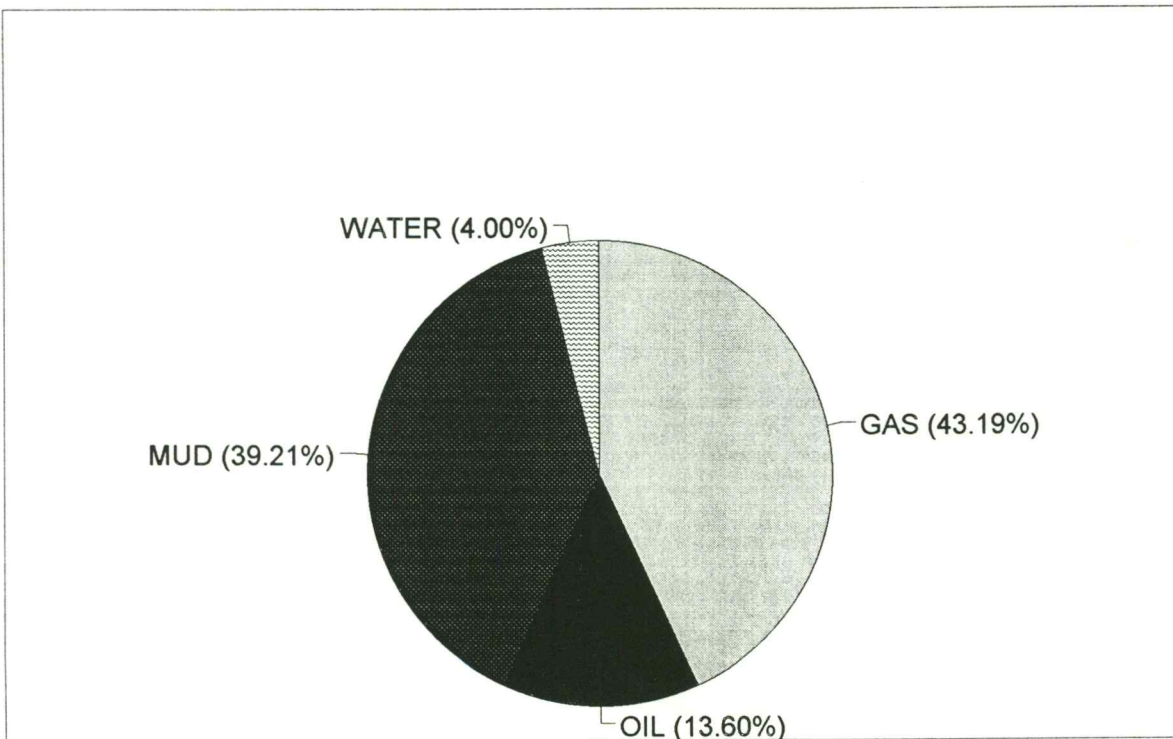
CALCULATED RECOVERY ANALYSIS - WEIGHT PIPE

DST 3

TICKET 10107

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
1	62		0		0		0	100	62
2	248	60	148.8	20	49.6		0	20	49.6
3	62	30	18.6	5	3.1	25	15.5	40	24.8
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
TOTAL	372		167.4		52.7		15.5		136.4

			HRS OPEN		BBL/DAY
BBL OIL =	0.3689	*	1.5	=	5.9024
BBL WATER =	0.1085	*		=	1.736
BBL MUD =	1.06392				
BBL GAS =	1.1718				

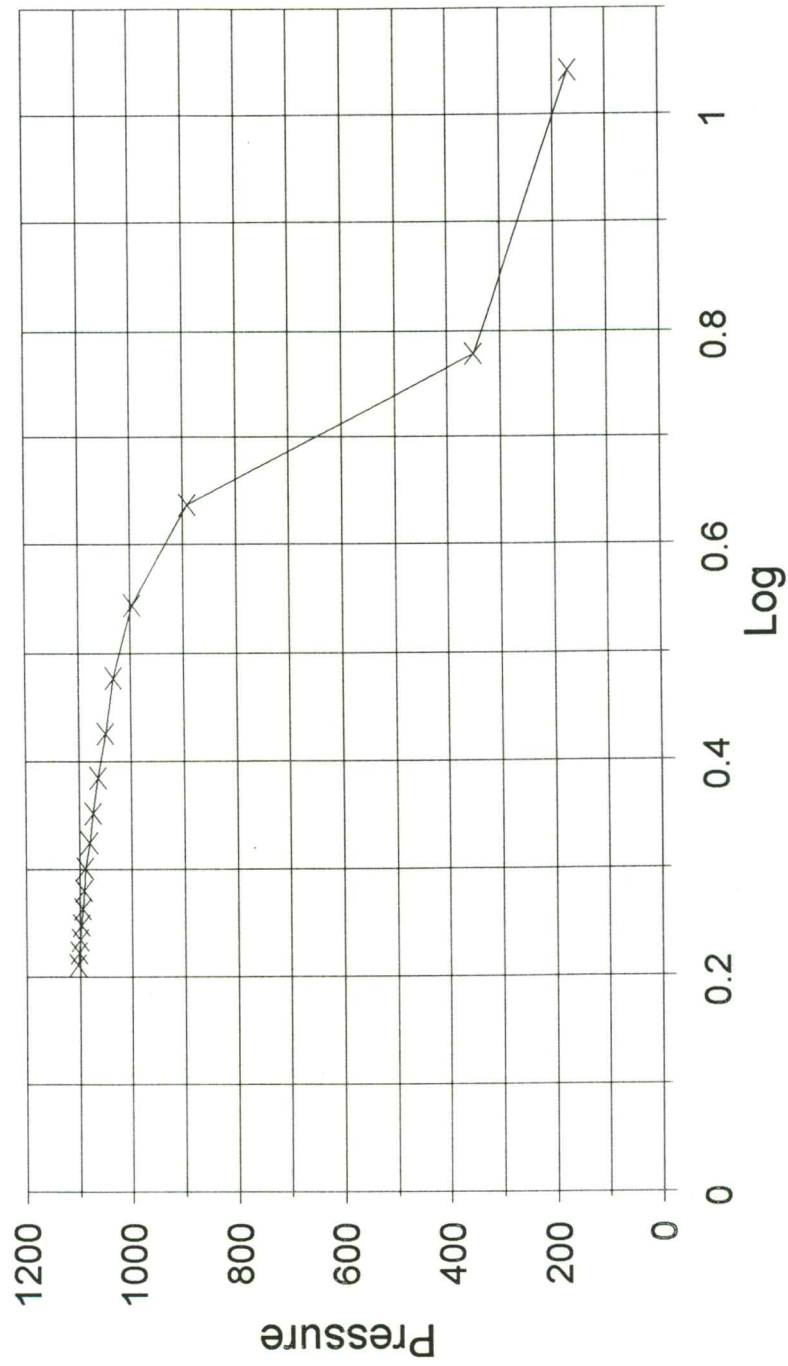


Time	Pressure PSI _g	Log Horn T	◇ Pressure	(T+dT)/dT
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***Start Shutin 1	3	170.3	1.041	170.3	11.0
	6	350.4	0.778	180.1	6.0
	9	892.3	0.637	541.9	4.3
	12	997.1	0.544	104.9	3.5
	15	1034.1	0.477	36.9	3.0
	18	1049.0	0.426	15.0	2.7
	21	1064.0	0.385	15.0	2.4
	24	1074.0	0.352	10.0	2.3
	27	1081.0	0.325	7.0	2.1
	30	1089.0	0.301	8.0	2.0
	33	1091.0	0.281	2.0	1.9
	36	1094.0	0.263	3.0	1.8
	39	1097.0	0.248	3.0	1.8
	42	1099.0	0.234	2.0	1.7
	45	1101.0	0.222	2.0	1.7
	48	1103.0	0.211	2.0	1.6

Horner Plot: Shut-in #1

P * 1143.81 Slope 193.535



	Time	Pressure PSIg	Log Horn T	◇ Pressure	(T+dT)/dT
***Start Shutin 2	3	187.0	1.491	187.0	31.0
	6	307.1	1.204	120.1	16.0
	9	881.4	1.041	574.3	11.0
	12	956.5	0.929	75.1	8.5
	15	988.2	0.845	31.6	7.0
	18	1007.1	0.778	19.0	6.0
	21	1021.1	0.723	14.0	5.3
	24	1034.1	0.677	13.0	4.8
	27	1041.0	0.637	7.0	4.3
	30	1044.0	0.602	3.0	4.0
	33	1051.0	0.571	7.0	3.7
	36	1055.0	0.544	4.0	3.5
	39	1060.0	0.520	5.0	3.3
	42	1064.0	0.497	4.0	3.1
	45	1066.0	0.477	2.0	3.0
48	1067.0	0.459	1.0	2.9	

Horner Plot: Shut-in #2

$P^* 1140.41$ Slope 160.055

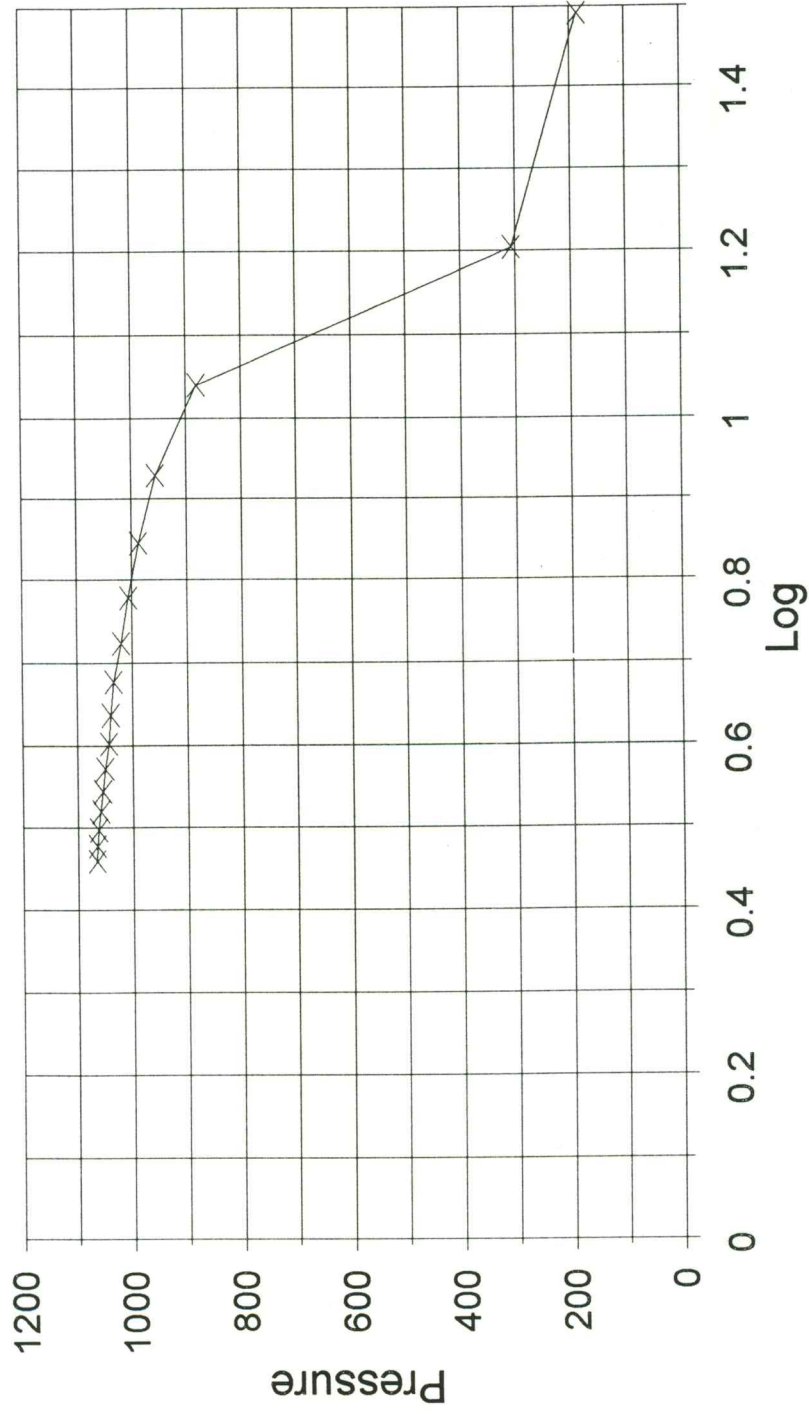
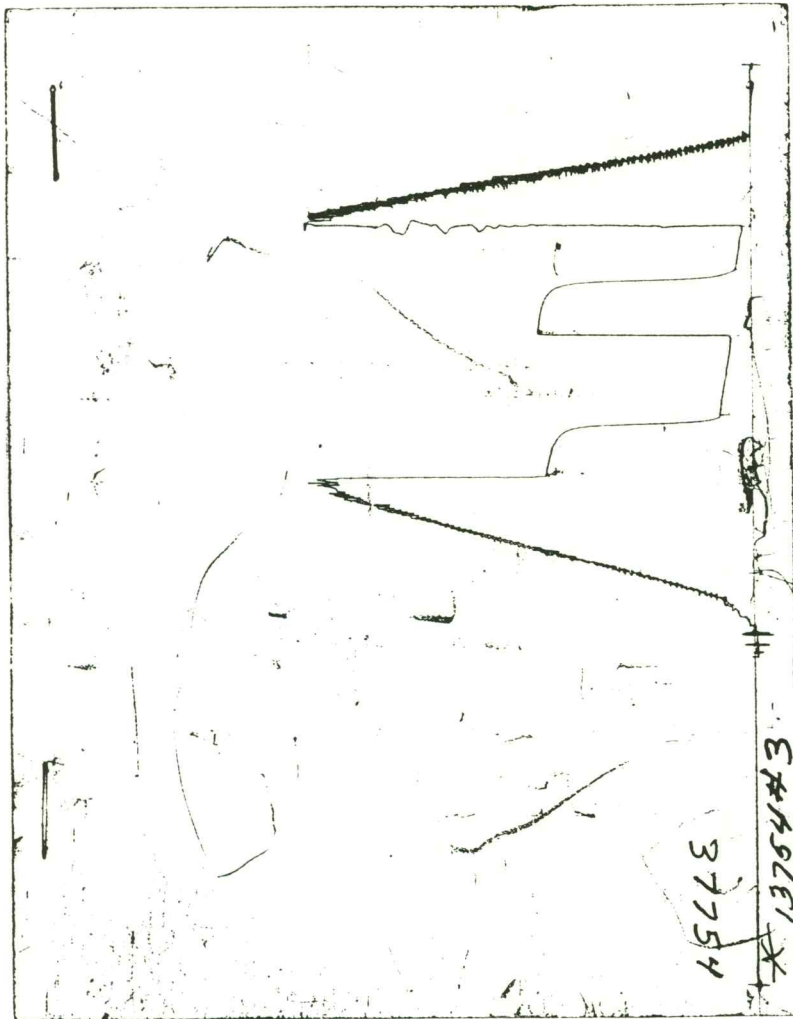


CHART PAGE



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