

WELL NAME: M. Gross #1-1
COMPANY: Cross Bar Petl. Inc./L.D.
LOCATION: Sec. 1 Twp. 20S Rge. 16W
Pawnee County Kansas
DATE: 10-29-96

TRILOBITE TESTING L.L.C.

OPERATOR : Cross Bar Petl.Inc./L.D.
WELL NAME: M.Gross #1-1
LOCATION : 1-20S-16W Pawnee KS
INTERVAL : 3608.00 To 3690.00 ft

DATE 10-23-96
KB 1983.00 ft TICKET NO: 9459 DST #1
GR 1978.00 ft FORMATION: Arbuckle
TD 3690.00 ft TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 45 Rec.	10248	10248	2357			PF Fr. 1848 to 1933 hr
SI 60 Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0	IS Fr. 1933 to 2033 hr
SF 30 Clock(hrs)	12 HR	12 HR	elec.			SF Fr. 2033 to 2103 hr
FS 60 Depth(ft)	3687.0	3687.0	3613.0	0.0	0.0	FS Fr. 2103 to 2203 hr

	Field	1	2	3	4
A. Init Hydro	1821.0	1853.0	1824.0	0.0	0.0
B. First Flow	292.0	308.0	281.0	0.0	0.0
B1. Final Flow	417.0	420.0	384.0	0.0	0.0
C. In Shut-in	716.0	727.0	688.0	0.0	0.0
D. Init Flow	431.0	437.0	387.0	0.0	0.0
E. Final Flow	453.0	453.0	412.0	0.0	0.0
F. Fl Shut-in	736.0	734.0	703.0	0.0	0.0
G. Final Hydro	1775.0	1767.0	1759.0	0.0	0.0
Inside/Outside	O	O	I		

T STARTED 1712 hr
T ON BOTM 1845 hr
T OPEN 1848 hr
T PULLED 2205 hr
T OUT 0030 hr

TOOL DATA-----

Tool Wt. 2100.00 lbs
Wt Set On Packer 21000.00 lbs
Wt Pulled Loose 45000.00 lbs
Initial Str Wt 34000.00 lbs
Unseated Str Wt 38000.00 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 3588.00 ft
H.W. I.D 2.70 in

RECOVERY

Tot Fluid 970.00 ft of 0.00 ft in DC and 970.00 ft in DP
200.00 ft of Watery mud with oil specs
770.00 ft of Slightly gas cut muddy water
0.00 ft of 5% gas, 13% mud 82% water
0.00 ft of RW .44 ohms @ 58 F.
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of EST. FT. OF PAY-----20
SALINITY 24000.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----

Mud Type Chemical
Weight 9.20 lb/cf
Vis. 44.00 S/L
W.L. 10.50 in3
F.C. 0.20 in
Mud Drop

BLOW DESCRIPTION

Initial Flow -
Strong blow - bottom of bucket in 15
seconds - decreasing to 5" blow
after 45 minutes

Final Flow -

Weak to fair blow (1-5")

SAMPLES: none
SENT TO:

Amt. of fill 0.00 ft
Btm. H. Temp. 116.00 F
Hole Condition good
% Porosity 12.00
Packer Size 6.75 in
No. of Packers 2
Cushion Amt. 0.00 N
Cushion Type None
Reversed Out Y
Tool Chased N
Tester Gary Pevoteaux
Co. Rep. Steve Davis
Contr. L.D.Drlg.
Rig # 1
Unit #
Pump T.

Test Successful: Y

*** TOOL DIAGRAM *** CONV.

WELL NAME: M.Gross #1-1

LOCATION : Sec. 1 Twp.20s Rge.16w KS

TICKET No. 9459 D.S.T. No. 1 DATE 10-23-96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 26

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 21

TOTAL TOOL 47

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands 1 Single Total 61

TOTAL ASSEMBLY 108

D.C. ABOVE TOOLS.Stands Single Total

D.P. ABOVE TOOLS.Stands58 Single Total 3588

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3696

TOTAL DEPTH 3690

TOTAL DRILL PIPE ABOVE K.B. 6

REMARKS:

P.O. SUB	
C.O. SUB @ Top of Tool	3582
S.I. TOOL	3588
HMV	3593
JARS	3597
SAFETY JOINT	3599
PACKER	3603
PACKER	3608
DEPTH 3608	
STUBB 1'	3609
ANCHOR	
Alpine Recorder @	3613
14' perms & sub to	3623
T.C.	
DEPTH	
1 stand drill pipe	
to	3684
sub to	3685
AK-1 rec. @	3687
BULLNOSE 5' perforated to	3690
T.D.	

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
 TEST: 9459 DST#1 M.GROSS #1-1 CROSS BAR PETL./L.D.
 DATE: 10/23/96 TIME: 17:12:57

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	91.00	1823.6	0.0	98.51		
***** Start Flow 1	0.00	253.5	0.0	99.08		
	1.00	266.6	13.1	99.56		
	2.00	271.7	18.2	100.22		
	3.00	276.2	22.7	100.87		
	4.00	283.1	29.5	101.45		
	5.00	290.1	36.6	101.95		
	6.00	295.2	41.7	102.43		
	7.00	301.9	48.3	102.95		
	8.00	309.1	55.6	103.52		
	9.00	315.7	62.2	104.13		
	10.00	321.9	68.4	104.76		
	11.00	328.0	74.4	105.41		
	12.00	333.3	79.7	106.20		
	13.00	337.7	84.2	107.30		
	14.00	342.5	89.0	108.61		
	15.00	347.4	93.8	109.94		
	16.00	351.6	98.0	111.20		
	17.00	355.2	101.6	112.28		
	18.00	354.3	100.7	113.19		
	19.00	357.4	103.9	113.93		
	20.00	360.3	106.8	114.52		
	21.00	363.0	109.4	114.97		
	22.00	365.4	111.9	115.33		
	23.00	367.7	114.1	115.60		
	24.00	369.4	115.8	115.83		
	25.00	371.0	117.5	116.00		
	26.00	372.2	118.7	116.14		
	27.00	373.4	119.8	116.26		
	28.00	374.3	120.8	116.35		
	29.00	375.2	121.7	116.41		
	30.00	375.9	122.4	116.46		
	31.00	376.5	123.0	116.48		
	32.00	377.0	123.5	116.50		
	33.00	377.7	124.1	116.50		
	34.00	378.3	124.7	116.49		
	35.00	378.8	125.3	116.48		
	36.00	379.4	125.9	116.45		
	37.00	380.0	126.5	116.42		
	38.00	380.6	127.1	116.38		
	39.00	381.2	127.7	116.35		
	40.00	381.7	128.2	116.31		
	41.00	382.4	128.8	116.26		
	42.00	383.0	129.4	116.22		
	43.00	383.6	130.1	116.17		
***** End Flow 1	44.00	384.4	130.8	116.13		
***** Start Shutin 1	0.00	384.4	0.0	116.13	0.0000	0.148
	1.00	407.9	23.5	116.09	45.0000	0.166
	2.00	426.5	42.1	116.05	23.0000	0.182
	3.00	443.1	58.7	116.01	15.6667	0.196
	4.00	451.4	67.0	115.96	12.0000	0.204

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9459 DST#1 M.GROSS #1-1 CROSS BAR PETL./L.D.

DATE: 10/23/96

TIME: 17:12:57

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
5.00	473.0	88.6	115.92	9.8000	0.224
6.00	489.5	105.1	115.88	8.3333	0.240
7.00	504.6	120.2	115.85	7.2857	0.255
8.00	516.1	131.7	115.81	6.5000	0.266
9.00	526.8	142.4	115.76	5.8889	0.278
10.00	536.4	152.0	115.72	5.4000	0.288
11.00	543.7	159.3	115.68	5.0000	0.296
12.00	550.8	166.4	115.64	4.6667	0.303
13.00	557.2	172.8	115.60	4.3846	0.310
14.00	561.9	177.5	115.56	4.1429	0.316
15.00	568.3	183.9	115.52	3.9333	0.323
16.00	573.7	189.3	115.48	3.7500	0.329
17.00	578.6	194.2	115.44	3.5882	0.335
18.00	583.5	199.1	115.41	3.4444	0.340
19.00	587.4	203.0	115.36	3.3158	0.345
20.00	591.3	207.0	115.34	3.2000	0.350
21.00	594.7	210.3	115.30	3.0952	0.354
22.00	597.9	213.5	115.26	3.0000	0.357
23.00	601.0	216.6	115.23	2.9130	0.361
24.00	604.1	219.7	115.21	2.8333	0.365
25.00	607.7	223.3	115.17	2.7600	0.369
26.00	610.5	226.1	115.14	2.6923	0.373
27.00	613.2	228.8	115.11	2.6296	0.376
28.00	615.1	230.7	115.08	2.5714	0.378
29.00	617.0	232.6	115.04	2.5172	0.381
30.00	619.6	235.2	115.02	2.4667	0.384
31.00	622.7	238.3	114.98	2.4194	0.388
32.00	625.8	241.4	114.95	2.3750	0.392
33.00	628.8	244.4	114.91	2.3333	0.395
34.00	632.1	247.8	114.88	2.2941	0.400
35.00	635.5	251.1	114.86	2.2571	0.404
36.00	638.9	254.6	114.83	2.2222	0.408
37.00	641.8	257.4	114.81	2.1892	0.412
38.00	644.1	259.7	114.78	2.1579	0.415
39.00	646.6	262.2	114.77	2.1282	0.418
40.00	649.0	264.6	114.74	2.1000	0.421
41.00	651.4	267.1	114.72	2.0732	0.424
42.00	653.1	268.7	114.70	2.0476	0.427
43.00	654.8	270.4	114.68	2.0233	0.429
44.00	650.7	266.3	114.66	2.0000	0.423
45.00	657.6	273.2	114.64	1.9778	0.432
46.00	660.3	275.9	114.62	1.9565	0.436
47.00	662.2	277.8	114.61	1.9362	0.438
48.00	663.3	278.9	114.59	1.9167	0.440
49.00	665.6	281.2	114.57	1.8980	0.443
50.00	668.6	284.2	114.55	1.8800	0.447
51.00	670.9	286.5	114.53	1.8627	0.450
52.00	673.6	289.2	114.52	1.8462	0.454
53.00	676.4	292.1	114.49	1.8302	0.458
54.00	679.1	294.8	114.48	1.8148	0.461
55.00	681.7	297.4	114.46	1.8000	0.465

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING
 TEST: 9459 DST#1 M.GROSS #1-1 CROSS BAR PETL./L.D.
 DATE: 10/23/96 TIME: 17:12:57

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	56.00	683.2	298.9	114.45	1.7857	0.467
	57.00	685.0	300.6	114.43	1.7719	0.469
	58.00	686.5	302.1	114.43	1.7586	0.471
	59.00	687.4	303.1	114.41	1.7458	0.473
***** End Shut-in 1	60.00	688.4	304.0	114.40	1.7333	0.474
***** Start Flow 2	0.00	387.2	0.0	114.38		
	1.00	388.6	1.4	114.36		
	2.00	389.6	2.4	114.33		
	3.00	390.5	3.4	114.29		
	4.00	391.4	4.3	114.27		
	5.00	392.3	5.1	114.25		
	6.00	393.2	6.0	114.23		
	7.00	394.2	7.0	114.21		
	8.00	395.0	7.9	114.21		
	9.00	395.8	8.6	114.19		
	10.00	396.6	9.4	114.19		
	11.00	397.4	10.2	114.18		
	12.00	398.0	10.8	114.18		
	13.00	398.7	11.6	114.18		
	14.00	399.7	12.5	114.18		
	15.00	400.6	13.4	114.19		
	16.00	401.8	14.6	114.19		
	17.00	402.8	15.6	114.20		
	18.00	403.7	16.5	114.22		
	19.00	404.5	17.4	114.22		
	20.00	405.4	18.3	114.23		
	21.00	406.3	19.1	114.25		
	22.00	407.0	19.9	114.23		
	23.00	407.9	20.7	114.24		
	24.00	408.8	21.7	114.25		
	25.00	409.6	22.4	114.25		
	26.00	410.2	23.1	114.26		
	27.00	411.0	23.8	114.27		
***** End Flow 2	28.00	411.7	24.6	114.27		
***** Start Shutin 2	0.00	411.7	0.0	114.27	0.0000	0.170
	1.00	502.0	90.2	114.29	73.0000	0.252
	2.00	578.3	166.5	114.30	37.0000	0.334
	3.00	625.7	213.9	114.30	25.0000	0.391
	4.00	652.5	240.8	114.31	19.0000	0.426
	5.00	667.7	256.0	114.31	15.4000	0.446
	6.00	676.7	265.0	114.31	13.0000	0.458
	7.00	682.2	270.4	114.31	11.2857	0.465
	8.00	685.7	273.9	114.31	10.0000	0.470
	9.00	688.4	276.6	114.31	9.0000	0.474
	10.00	689.7	278.0	114.31	8.2000	0.476
	11.00	691.4	279.6	114.30	7.5455	0.478
	12.00	692.7	281.0	114.29	7.0000	0.480
	13.00	693.7	282.0	114.29	6.5385	0.481
	14.00	694.8	283.1	114.30	6.1429	0.483
	15.00	695.3	283.6	114.30	5.8000	0.483
	16.00	695.8	284.1	114.30	5.5000	0.484

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9459 DST#1 M.GROSS #1-1 CROSS BAR PETL./L.D.

DATE: 10/23/96

TIME: 17:12:57

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6	
	17.00	696.3	284.5	114.31	5.2353	0.485	
	18.00	696.4	284.7	114.31	5.0000	0.485	
	19.00	696.8	285.1	114.31	4.7895	0.486	
	20.00	697.1	285.4	114.31	4.6000	0.486	
	21.00	697.3	285.5	114.31	4.4286	0.486	
	22.00	697.9	286.2	114.31	4.2727	0.487	
	23.00	699.0	287.3	114.31	4.1304	0.489	
	24.00	699.5	287.8	114.31	4.0000	0.489	
	25.00	699.6	287.9	114.30	3.8800	0.489	
	26.00	699.9	288.1	114.30	3.7692	0.490	
	27.00	700.0	288.3	114.29	3.6667	0.490	
	28.00	700.4	288.6	114.29	3.5714	0.491	
	29.00	700.5	288.7	114.29	3.4828	0.491	
	30.00	700.7	289.0	114.29	3.4000	0.491	
	31.00	700.8	289.0	114.29	3.3226	0.491	
	32.00	700.9	289.1	114.28	3.2500	0.491	
	33.00	701.0	289.2	114.26	3.1818	0.491	
	34.00	701.1	289.4	114.26	3.1176	0.492	
	35.00	701.1	289.4	114.26	3.0571	0.492	
	36.00	701.5	289.7	114.26	3.0000	0.492	
	37.00	702.3	290.6	114.26	2.9459	0.493	
	38.00	702.8	291.1	114.27	2.8947	0.494	
	39.00	702.9	291.1	114.26	2.8462	0.494	
	40.00	702.7	291.0	114.25	2.8000	0.494	
	41.00	703.1	291.3	114.26	2.7561	0.494	
	42.00	702.9	291.1	114.25	2.7143	0.494	
	43.00	702.5	290.7	114.25	2.6744	0.493	
	44.00	702.6	290.9	114.24	2.6364	0.494	
	45.00	702.5	290.7	114.24	2.6000	0.493	
	46.00	702.6	290.8	114.23	2.5652	0.494	
	47.00	703.1	291.3	114.24	2.5319	0.494	
	48.00	703.2	291.5	114.23	2.5000	0.495	
	49.00	703.5	291.8	114.22	2.4694	0.495	
	50.00	703.5	291.8	114.22	2.4400	0.495	
	51.00	703.4	291.7	114.21	2.4118	0.495	
	52.00	703.4	291.7	114.20	2.3846	0.495	
	53.00	703.4	291.7	114.21	2.3585	0.495	
	54.00	703.3	291.6	114.20	2.3333	0.495	
	55.00	702.8	291.1	114.20	2.3091	0.494	
	56.00	702.7	291.0	114.20	2.2857	0.494	
	57.00	702.9	291.2	114.19	2.2632	0.494	
	58.00	702.9	291.2	114.20	2.2414	0.494	
	59.00	702.8	291.1	114.19	2.2203	0.494	
	60.00	703.2	291.4	114.19	2.2000	0.494	
	61.00	703.2	291.4	114.18	2.1803	0.494	
	62.00	703.2	291.4	114.19	2.1613	0.494	
	63.00	703.1	291.3	114.19	2.1429	0.494	
*****	End Shut-in 2	64.00	703.0	291.2	114.19	2.1250	0.494
*****	Final Hydro.	293.00	1758.6	0.0	113.92		

TEST HISTORY

9459 DST#1 M.GROSS #1-1 CROSS BAR PETL./L.D.

Flag Points

t (Min.) P (PSig)

A: 0.00 1823.58
B: 0.00 253.54
C: 44.00 384.38
D: 60.00 688.37
E: 0.00 387.15
F: 28.00 411.74
G: 64.00 702.97
Q: 0.00 1758.61

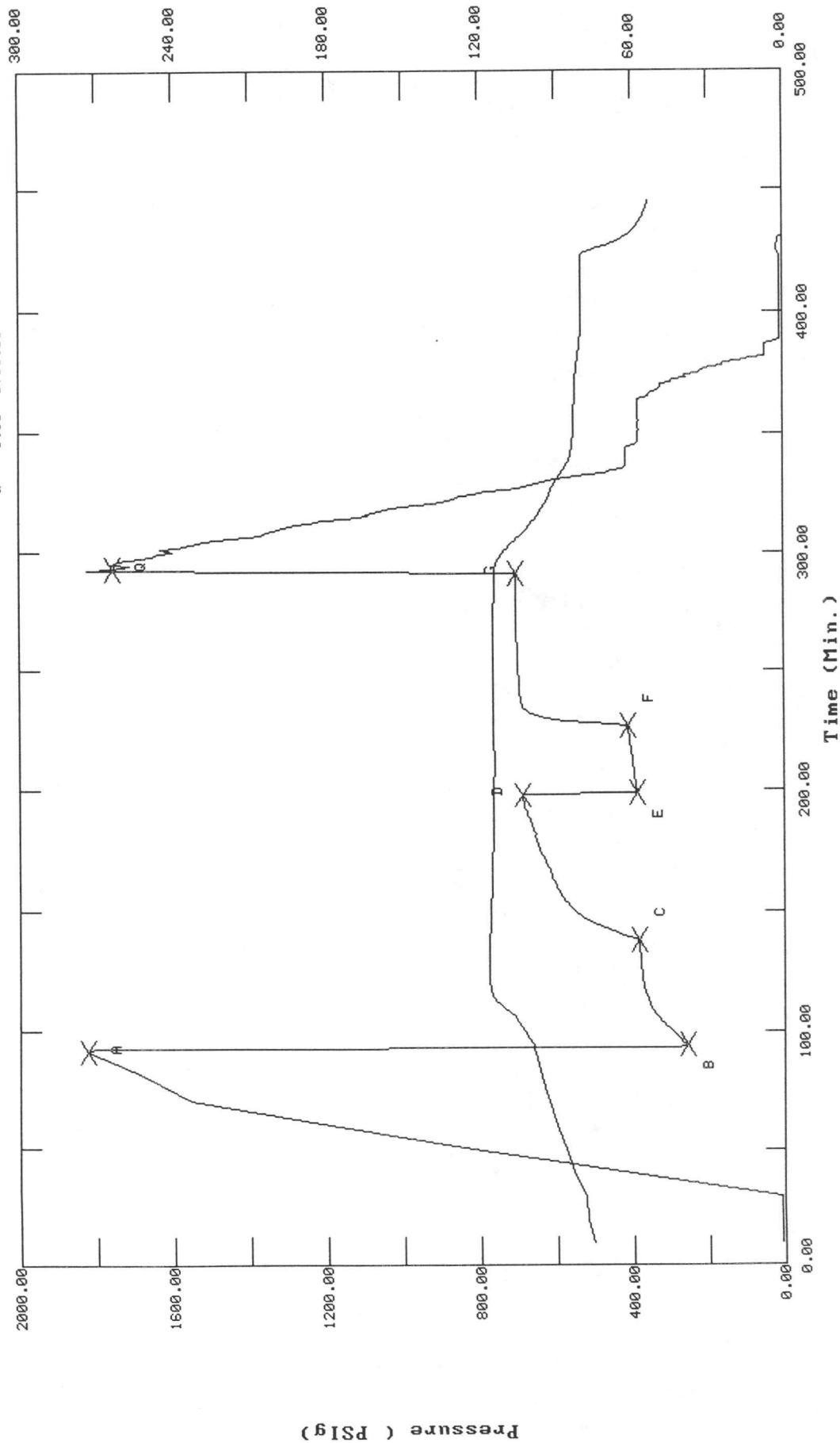
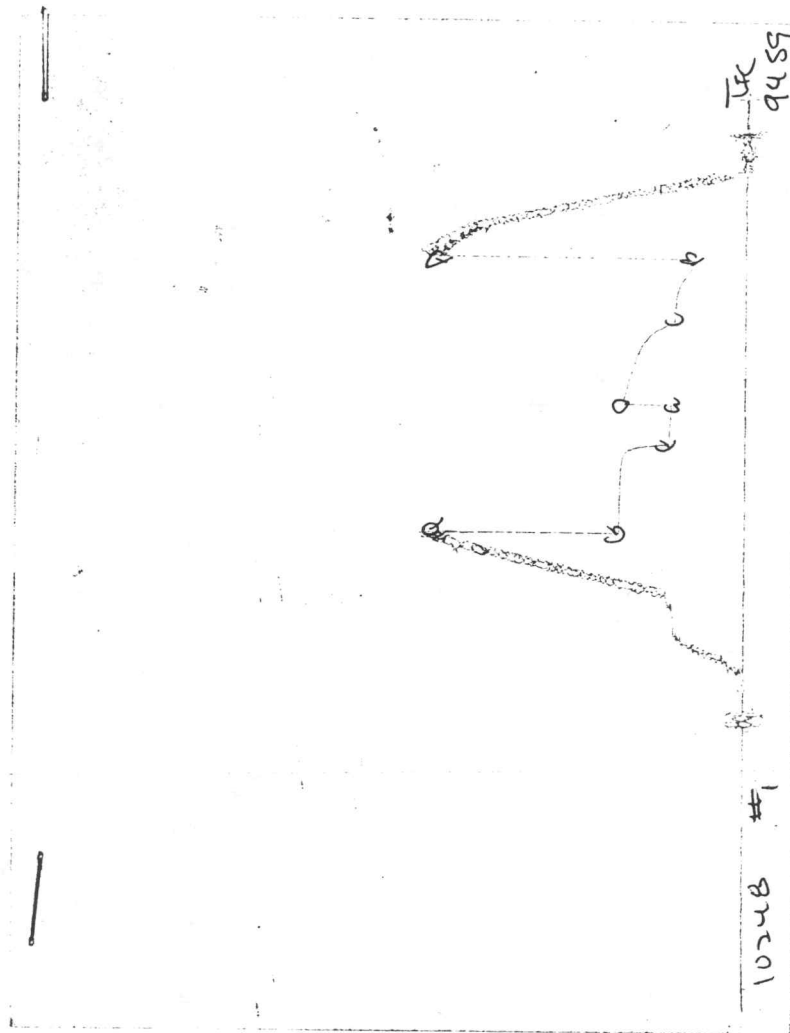


CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Cross Bar Petl.Inc./L.D.
WELL NAME: M.Gross #1-1
LOCATION : 1-20S-16W Pawnee KS
INTERVAL : 3708.00 To 3720.00 ft

DATE 10-24-96
KB 1983.00 ft TICKET NO: 9460 DST #2
GR 1978.00 ft FORMATION: Arbuckle
TD 3720.00 ft TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 45 Rec.	10248	10248	2357			PF Fr. 0949 to 1034 hr
SI 60 Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0	IS Fr. 1034 to 1134 hr
SF 37 Clock(hrs)	12 HR	12 HR	elec.			SF Fr. 1134 to 1211 hr
FS 90 Depth(ft)	3717.0	3717.0	3715.0	0.0	0.0	FS Fr. 1211 to 1341 hr

	Field	1	2	3	4	
A. Init Hydro	1848.0	1865.0	1853.0	0.0	0.0	T STARTED 0817 hr
B. First Flow	125.0	121.0	116.0	0.0	0.0	T ON BOTM 0945 hr
B1. Final Flow	404.0	408.0	422.0	0.0	0.0	T OPEN 0949 hr
C. In Shut-in	1049.0	1050.0	1053.0	0.0	0.0	T PULLED 1341 hr
D. Init Flow	451.0	453.0	436.0	0.0	0.0	T OUT 1604 hr
E. Final Flow	630.0	621.0	628.0	0.0	0.0	
F. Fl Shut-in	1056.0	1048.0	1054.0	0.0	0.0	
G. Final Hydro	1799.0	1811.0	1799.0	0.0	0.0	
Inside/Outside	O	O	I			

RECOVERY

Tot Fluid 1450.00 ft of 0.00 ft in DC and 1450.00 ft in DP
5.00 ft of Clean Oil
130.00 ft of Heavy oil & gas cut mud
0.00 ft of 10% gas 28% oil 62% mud
120.00 ft of Oil cut muddy water
0.00 ft of 5% oil 20% mud 75% water
1195.00 ft of Salt water with a few oil specs
0.00 ft of (Rw .22 ohms @ 65 F.)
0.00 ft of EST. FT. OF PAY-----12
SALINITY 37000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial flow -
Strong blow - bottom of bucket in 5
secs. Gas to surface in 12 minutes
(see gas volume report)

Final Flow -

Strong blow - bottom of bucket in 5
mins.) (see gas volume report)

SAMPLES: 1 gas bottle

SENT TO:Caraway / Liberal Ks

Test Successful: Y

TOOL DATA-----
Tool Wt. 2100.00 lbs
Wt Set On Packer 21000.00 lbs
Wt Pulled Loose 52000.00 lbs
Initial Str Wt 34000.00 lbs
Unseated Str Wt 39000.00 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 3708.00 ft
H.W. I.D 2.70 in

MUD DATA-----
Mud Type Chemical
Weight 9.10 lb/cf
Vis. 46.00 S/L
W.L. 8.20 in3
F.C. 0.20 in
Mud Drop

Amt. of fill 0.00 ft
Btm. H. Temp. 122.00 F
Hole Condition good
% Porosity 12.00
Packer Size 6.75 in
No. of Packers 2
Cushion Amt. 0.00 N
Cushion Type None
Reversed Out N
Tool Chased N
Tester Gary Pevoteaux
Co. Rep. Steve Davis
Contr. L.D.Drlg.
Rig # 1
Unit #
Pump T.

*** TOOL DIAGRAM *** CONV.

WELL NAME: M.Gross #1-1

LOCATION : Sec. 1 Twp.20s Rge.16w KS

PICKET No. 9460 D.S.T. No. 2 DATE 10-24-96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 26

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 12

TOTAL TOOL 38

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 38

D.C. ABOVE TOOLS.Stands Single Total

D.P. ABOVE TOOLS.Stands60 Single Total 3708

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3746

TOTAL DEPTH 3720

TOTAL DRILL PIPE ABOVE K.B. 26

REMARKS:

P.O. SUB	
C.O. SUB @ Top of Tool	3682
S.I. TOOL	3688
HMV	3693
JARS	3697
SAFETY JOINT	3699
PACKER	3703
PACKER	3708
DEPTH 3708	
STUBB 1'	3709
ANCHOR	
Alpine Recorder @	3715
T.C. DEPTH	
6 ft. perfs to	3715
AK-1 rec. @	3717
BULLNOSE 5' perforated to T.D.	3720

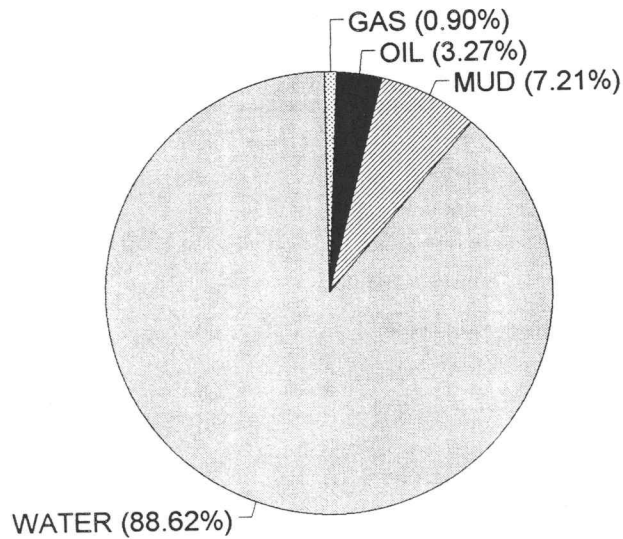
CALCULATED RECOVERY ANALYSIS - DRILL PIPE

DST 2

TICKET 9460

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
1	5		0	100	5		0		0
2	130	10	13	28	36.4		0	62	80.6
3	120		0	5	6	75	90	20	24
4	1195		0		0	100	1195		0
5			0		0		0		0
6			0		0		0		0
TOTAL	1450		13		47.4		1285		104.6

			HRS OPEN		BBL/DAY
BBL OIL =	0.674028	*	1.25	=	12.94134
BBL WATER =	18.2727	*		=	350.8358
BBL MUD =	1.487412				
BBL GAS =	0.18486				



GAS RECOVERY

COMPANY: Cross Bar Petl.Inc./L.D. DATE: 10-24-96
 WELL NAME: M.Gross #1-1 KB Elev: 1983.00 ft TICKET #9460 DST #2
 WELL LOCATION: Sec. 1 Twp.20s Rge.16w KS GR Elev: 1978.00 ft FORMATION: Arbuckle
 INTERVAL Fr.: 3708.00 To 3720.00 T.D.: 3720.00 ft TEST TYPE: CONV.

GAS RECOVERY MEASURED WITH MERLA

***** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
20	0.50	0	8	17200.0
30	0.50	0	5	14100.0
40	0.50	0	4	11900.0

***** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
20	0.25	0	4	3190.0
30	0.25	0	4	3190.0
37	0.25	0	5	3580.0

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9460 DST#2 M.GROSS #1-1 CROSS BAR PETL.INC./L.D.

DATE: 10/24/96

TIME: 08:17:23

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	88.00	1852.9	0.0	98.64		
***** Start Flow 1	0.00	115.6	0.0	99.80		
	1.00	105.5	-10.2	101.33		
	2.00	107.5	-8.1	103.74		
	3.00	114.3	-1.3	106.44		
	4.00	121.8	6.1	109.01		
	5.00	131.3	15.6	111.26		
	6.00	136.6	21.0	113.16		
	7.00	145.8	30.1	114.73		
	8.00	155.0	39.4	116.01		
	9.00	165.8	50.2	117.03		
	10.00	176.0	60.3	117.86		
	11.00	184.5	68.9	118.52		
	12.00	193.9	78.3	119.07		
	13.00	202.4	86.8	119.51		
	14.00	210.7	95.0	119.86		
	15.00	219.6	104.0	120.14		
	16.00	227.8	112.1	120.40		
	17.00	236.0	120.4	120.68		
	18.00	244.6	129.0	120.68		
	19.00	251.5	135.9	120.86		
	20.00	259.5	143.9	120.98		
	21.00	269.5	153.8	121.08		
	22.00	278.2	162.6	121.16		
	23.00	284.7	169.0	121.23		
	24.00	291.5	175.8	121.29		
	25.00	299.1	183.5	121.35		
	26.00	305.4	189.8	121.39		
	27.00	312.2	196.6	121.44		
	28.00	320.8	205.1	121.48		
	29.00	326.9	211.2	121.53		
	30.00	333.5	217.9	121.57		
	31.00	341.2	225.6	121.61		
	32.00	346.5	230.9	121.65		
	33.00	353.7	238.0	121.69		
	34.00	360.5	244.8	121.74		
	35.00	365.7	250.0	121.78		
	36.00	374.8	259.2	121.81		
	37.00	380.1	264.5	121.84		
	38.00	386.6	271.0	121.86		
	39.00	393.2	277.5	121.89		
	40.00	400.1	284.4	121.92		
	41.00	405.8	290.1	121.94		
	42.00	410.2	294.6	121.97		
	43.00	416.0	300.4	122.00		
***** End Flow 1	44.00	421.9	306.3	122.03		
***** Start Shutin 1	0.00	421.9	0.0	122.03	0.0000	0.178
	1.00	864.9	443.0	122.06	45.0000	0.748
	2.00	933.9	512.0	122.09	23.0000	0.872
	3.00	965.2	543.3	122.13	15.6667	0.932
	4.00	984.0	562.1	122.15	12.0000	0.968

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9460 DST#2 M.GROSS #1-1 CROSS BAR PETL.INC./L.D.

DATE: 10/24/96

TIME: 08:17:23

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
5.00	996.4	574.5	122.18	9.8000	0.993
6.00	1005.2	583.3	122.19	8.3333	1.010
7.00	1011.7	589.8	122.21	7.2857	1.024
8.00	1016.9	595.0	122.21	6.5000	1.034
9.00	1021.2	599.3	122.23	5.8889	1.043
10.00	1024.7	602.8	122.22	5.4000	1.050
11.00	1027.5	605.6	122.21	5.0000	1.056
12.00	1030.0	608.1	122.20	4.6667	1.061
13.00	1032.0	610.1	122.19	4.3846	1.065
14.00	1033.7	611.8	122.17	4.1429	1.069
15.00	1035.3	613.4	122.14	3.9333	1.072
16.00	1036.8	614.9	122.11	3.7500	1.075
17.00	1037.9	616.0	122.08	3.5882	1.077
18.00	1039.0	617.1	122.05	3.4444	1.080
19.00	1039.9	618.0	122.01	3.3158	1.081
20.00	1040.8	618.9	121.98	3.2000	1.083
21.00	1041.6	619.7	121.95	3.0952	1.085
22.00	1042.4	620.5	121.90	3.0000	1.087
23.00	1043.1	621.2	121.86	2.9130	1.088
24.00	1043.7	621.8	121.82	2.8333	1.089
25.00	1044.2	622.3	121.78	2.7600	1.090
26.00	1044.8	622.9	121.73	2.6923	1.092
27.00	1045.2	623.3	121.68	2.6296	1.093
28.00	1045.7	623.8	121.63	2.5714	1.094
29.00	1046.2	624.3	121.59	2.5172	1.095
30.00	1046.6	624.7	121.55	2.4667	1.095
31.00	1046.9	625.0	121.50	2.4194	1.096
32.00	1047.3	625.4	121.46	2.3750	1.097
33.00	1047.6	625.7	121.43	2.3333	1.097
34.00	1047.8	625.9	121.39	2.2941	1.098
35.00	1048.2	626.3	121.35	2.2571	1.099
36.00	1048.4	626.5	121.31	2.2222	1.099
37.00	1048.8	626.9	121.28	2.1892	1.100
38.00	1048.9	627.0	121.24	2.1579	1.100
39.00	1049.3	627.4	121.21	2.1282	1.101
40.00	1049.5	627.6	121.18	2.1000	1.101
41.00	1049.7	627.8	121.15	2.0732	1.102
42.00	1049.9	628.0	121.11	2.0476	1.102
43.00	1050.1	628.2	121.09	2.0233	1.103
44.00	1050.3	628.4	121.06	2.0000	1.103
45.00	1050.4	628.5	121.04	1.9778	1.103
46.00	1050.6	628.7	121.01	1.9565	1.104
47.00	1050.8	628.9	120.98	1.9362	1.104
48.00	1051.0	629.1	120.95	1.9167	1.105
49.00	1051.1	629.2	120.93	1.8980	1.105
50.00	1051.2	629.3	120.90	1.8800	1.105
51.00	1051.4	629.5	120.87	1.8627	1.106
52.00	1051.6	629.7	120.85	1.8462	1.106
53.00	1051.8	629.9	120.81	1.8302	1.106
54.00	1051.9	630.0	120.81	1.8148	1.106
55.00	1051.9	630.0	120.75	1.8000	1.107

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9460 DST#2 M.GROSS #1-1 CROSS BAR PETL.INC./L.D.

DATE: 10/24/96

TIME: 08:17:23

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	56.00	1052.0	630.1	120.72	1.7857	1.107
	57.00	1052.2	630.3	120.69	1.7719	1.107
	58.00	1052.3	630.4	120.68	1.7586	1.107
	59.00	1052.4	630.5	120.68	1.7458	1.108
***** End Shut-in 1	60.00	1052.5	630.6	120.68	1.7333	1.108
***** Start Flow 2	0.00	436.2	0.0	120.68		
	1.00	439.6	3.4	120.68		
	2.00	447.1	10.9	120.68		
	3.00	454.5	18.3	120.78		
	4.00	461.6	25.4	120.97		
	5.00	468.5	32.3	121.15		
	6.00	474.9	38.8	121.33		
	7.00	481.7	45.6	121.50		
	8.00	488.1	52.0	121.64		
	9.00	494.5	58.3	121.76		
	10.00	500.4	64.2	121.90		
	11.00	506.4	70.2	121.96		
	12.00	512.2	76.0	122.03		
	13.00	518.1	81.9	122.10		
	14.00	523.8	87.6	122.14		
	15.00	529.4	93.2	122.19		
	16.00	535.0	98.9	122.22		
	17.00	540.5	104.3	122.25		
	18.00	545.9	109.8	122.28		
	19.00	550.9	114.7	122.29		
	20.00	556.3	120.1	122.32		
	21.00	560.4	124.2	122.34		
	22.00	564.1	127.9	122.35		
	23.00	568.9	132.7	122.36		
	24.00	573.1	137.0	122.37		
	25.00	577.4	141.3	122.37		
	26.00	582.3	146.1	122.39		
	27.00	586.7	150.6	122.39		
	28.00	590.9	154.8	122.40		
	29.00	595.0	158.9	122.40		
	30.00	599.7	163.6	122.40		
	31.00	603.8	167.6	122.40		
	32.00	608.1	172.0	122.41		
	33.00	613.0	176.8	122.41		
	34.00	616.8	180.6	122.41		
	35.00	621.6	185.4	122.42		
***** End Flow 2	36.00	627.7	191.5	122.42		
***** Start Shutin 2	0.00	627.7	0.0	122.42	0.0000	0.394
	1.00	935.8	308.1	122.43	81.0000	0.876
	2.00	977.7	350.0	122.43	41.0000	0.956
	3.00	996.5	368.8	122.44	27.6667	0.993
	4.00	1007.7	380.0	122.45	21.0000	1.015
	5.00	1015.3	387.6	122.44	17.0000	1.031
	6.00	1020.8	393.1	122.49	14.3333	1.042
	7.00	1025.0	397.3	122.43	12.4286	1.051
	8.00	1028.3	400.6	122.42	11.0000	1.057

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9460 DST#2 M.GROSS #1-1 CROSS BAR PETL.INC./L.D.

DATE: 10/24/96

TIME: 08:17:23

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
9.00	1031.0	403.4	122.39	9.8889	1.063
10.00	1033.2	405.5	122.37	9.0000	1.068
11.00	1035.1	407.4	122.36	8.2727	1.071
12.00	1036.7	409.0	122.34	7.6667	1.075
13.00	1038.0	410.3	122.33	7.1538	1.077
14.00	1039.2	411.5	122.33	6.7143	1.080
15.00	1040.3	412.6	122.31	6.3333	1.082
16.00	1041.2	413.5	122.29	6.0000	1.084
17.00	1042.0	414.4	122.28	5.7059	1.086
18.00	1042.7	415.0	122.26	5.4444	1.087
19.00	1043.4	415.7	122.24	5.2105	1.089
20.00	1044.0	416.3	122.21	5.0000	1.090
21.00	1044.6	416.9	122.19	4.8095	1.091
22.00	1045.1	417.4	122.19	4.6364	1.092
23.00	1045.5	417.8	122.16	4.4783	1.093
24.00	1045.9	418.2	122.14	4.3333	1.094
25.00	1046.2	418.5	122.10	4.2000	1.095
26.00	1046.7	419.0	122.09	4.0769	1.095
27.00	1047.0	419.3	122.07	3.9630	1.096
28.00	1047.3	419.6	122.05	3.8571	1.097
29.00	1047.6	419.9	122.01	3.7586	1.097
30.00	1047.9	420.2	122.00	3.6667	1.098
31.00	1048.2	420.5	121.98	3.5806	1.099
32.00	1048.4	420.7	121.95	3.5000	1.099
33.00	1048.7	421.0	121.93	3.4242	1.100
34.00	1048.8	421.1	121.91	3.3529	1.100
35.00	1049.0	421.3	121.89	3.2857	1.100
36.00	1049.2	421.5	121.86	3.2222	1.101
37.00	1049.4	421.7	121.85	3.1622	1.101
38.00	1049.6	421.9	121.83	3.1053	1.102
39.00	1049.8	422.1	121.81	3.0513	1.102
40.00	1049.9	422.2	121.79	3.0000	1.102
41.00	1050.1	422.4	121.78	2.9512	1.103
42.00	1050.3	422.6	121.75	2.9048	1.103
43.00	1050.3	422.7	121.74	2.8605	1.103
44.00	1050.6	422.9	121.73	2.8182	1.104
45.00	1050.7	423.0	121.71	2.7778	1.104
46.00	1050.8	423.1	121.69	2.7391	1.104
47.00	1050.9	423.2	121.68	2.7021	1.104
48.00	1051.0	423.3	121.66	2.6667	1.105
49.00	1051.1	423.4	121.65	2.6327	1.105
50.00	1051.2	423.5	121.63	2.6000	1.105
51.00	1051.3	423.6	121.63	2.5686	1.105
52.00	1051.5	423.8	121.61	2.5385	1.106
53.00	1051.6	423.9	121.60	2.5094	1.106
54.00	1051.6	423.9	121.58	2.4815	1.106
55.00	1051.7	424.0	121.57	2.4545	1.106
56.00	1051.9	424.2	121.56	2.4286	1.106
57.00	1051.9	424.3	121.54	2.4035	1.107
58.00	1052.0	424.3	121.53	2.3793	1.107
59.00	1052.0	424.3	121.52	2.3559	1.107

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9460 DST#2 M.GROSS #1-1 CROSS BAR PETL.INC./L.D.

DATE: 10/24/96

TIME: 08:17:23

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	60.00	1052.2	424.5	121.51	2.3333	1.107
	61.00	1052.3	424.6	121.50	2.3115	1.107
	62.00	1052.4	424.7	121.49	2.2903	1.107
	63.00	1052.4	424.7	121.48	2.2698	1.107
	64.00	1052.4	424.8	121.47	2.2500	1.108
	65.00	1052.5	424.8	121.46	2.2308	1.108
	66.00	1052.6	424.9	121.45	2.2121	1.108
	67.00	1052.6	424.9	121.43	2.1940	1.108
	68.00	1052.7	425.0	121.43	2.1765	1.108
	69.00	1052.9	425.2	121.42	2.1594	1.109
	70.00	1052.9	425.3	121.42	2.1429	1.109
	71.00	1052.9	425.3	121.40	2.1268	1.109
	72.00	1053.0	425.3	121.39	2.1111	1.109
	73.00	1053.0	425.3	121.39	2.0959	1.109
	74.00	1053.2	425.5	121.37	2.0811	1.109
	75.00	1053.2	425.5	121.37	2.0667	1.109
	76.00	1053.3	425.6	121.35	2.0526	1.109
	77.00	1053.4	425.7	121.36	2.0390	1.110
	78.00	1053.4	425.7	121.34	2.0256	1.110
	79.00	1053.4	425.7	121.34	2.0127	1.110
	80.00	1053.4	425.8	121.33	2.0000	1.110
	81.00	1053.5	425.8	121.32	1.9877	1.110
	82.00	1053.6	425.9	121.32	1.9756	1.110
	83.00	1053.6	425.9	121.31	1.9639	1.110
	84.00	1053.7	426.0	121.30	1.9524	1.110
	85.00	1053.6	425.9	121.29	1.9412	1.110
	86.00	1053.8	426.1	121.28	1.9302	1.110
	87.00	1053.8	426.1	121.28	1.9195	1.110
	88.00	1053.8	426.1	121.27	1.9091	1.110
	89.00	1053.9	426.2	121.27	1.8989	1.111
	90.00	1053.9	426.2	121.26	1.8889	1.111
***** End Shut-in 2	91.00	1054.0	426.3	121.25	1.8791	1.111
***** Final Hydro.	330.00	1799.2	0.0	120.92		

TEST HISTORY

9460 DST#2 M. GROSS #1-1 CROSS BAR PETL. INC./L.D.

Flag Points

t (Min.) P (PSIg)

A: 0.00 1852.95
 B: 0.00 115.64
 C: 44.00 421.90
 D: 60.00 1052.53
 E: 0.00 436.16
 F: 36.00 627.69
 G: 92.00 1054.04
 Q: 0.00 1799.24

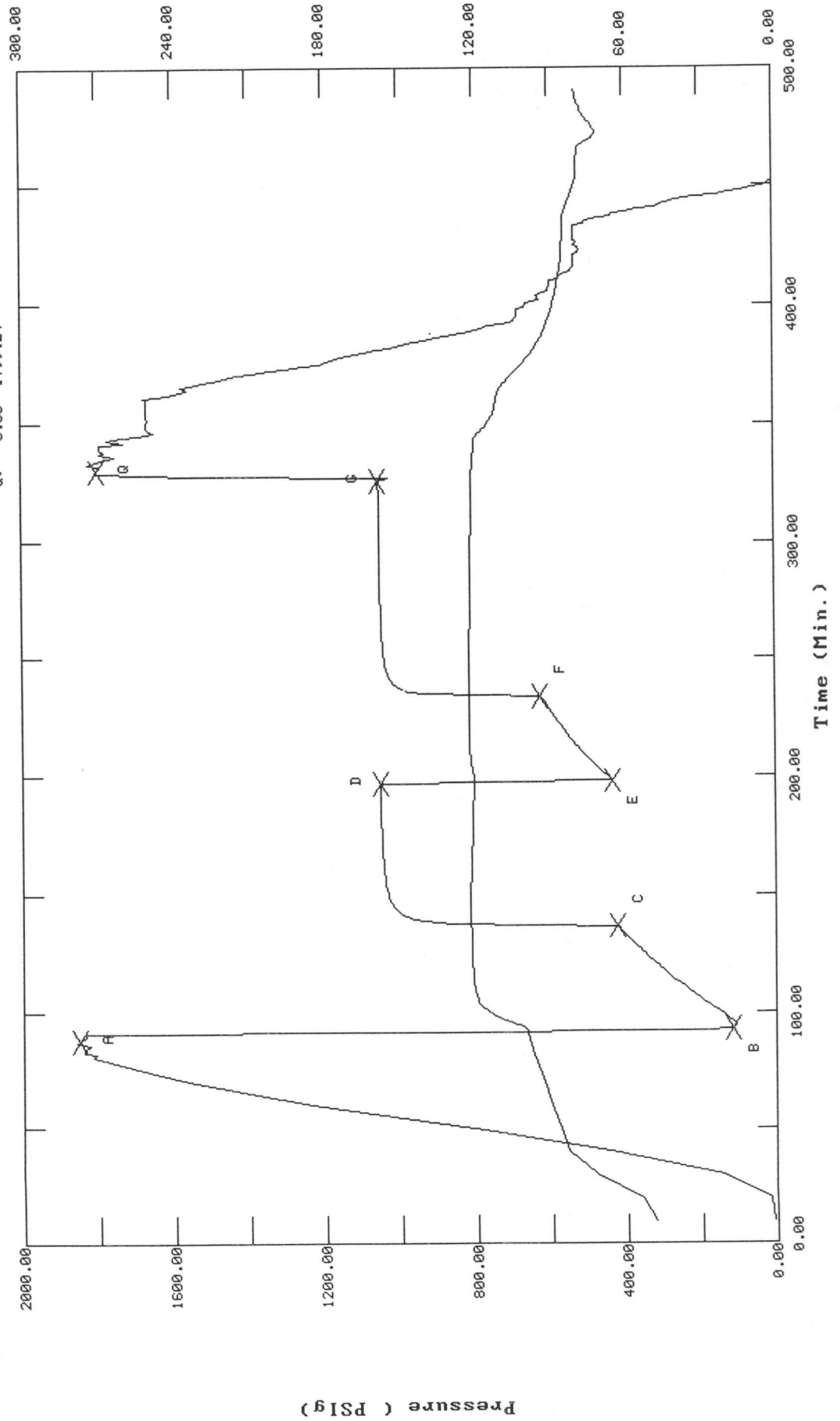
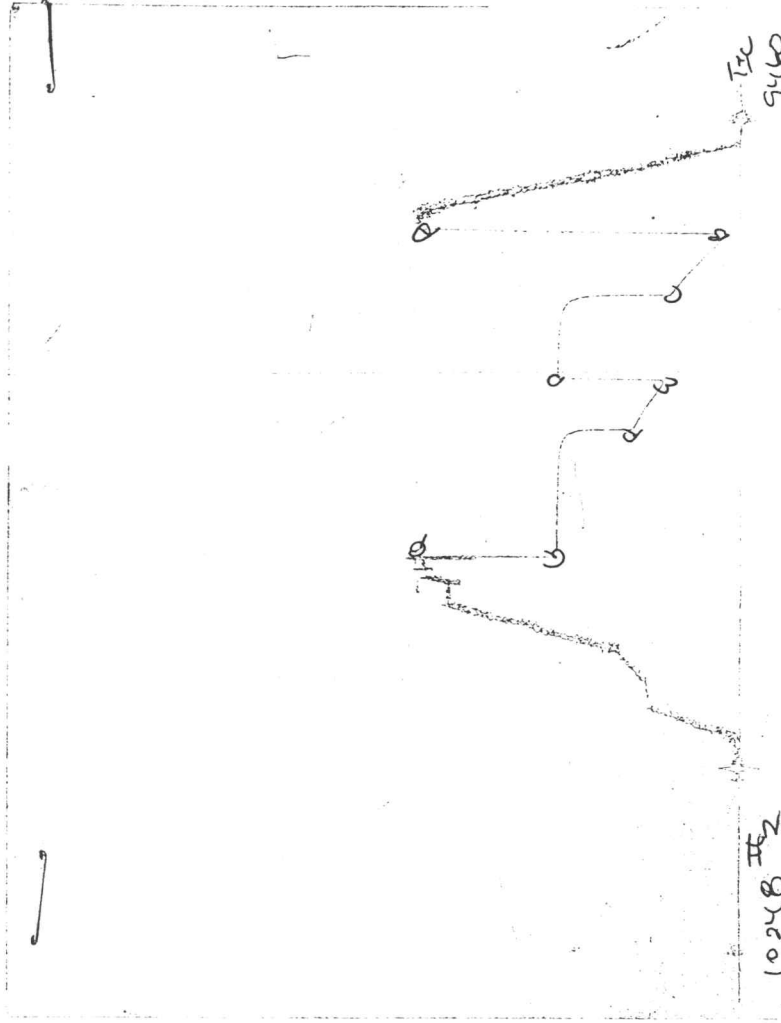


CHART PAGE



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

TRILOBITE TESTING L.L.C.

OPERATOR : Cross Bar Petl.Inc./L.D.

DATE 10-25-96

WELL NAME: M.Gross #1-1

KB 1983.00 ft

TICKET NO: 9461

DST #3

LOCATION : 1-20S-16W Pawnee KS

GR 1978.00 ft

FORMATION: Arbuckle

INTERVAL : 3730.00 To 3744.00 ft

TD 3744.00 ft

TEST TYPE: CONV.

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 45 Rec.	10248	10248	2357			PF Fr. 0024 to 0109 hr
SI 60 Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0	IS Fr. 0109 to 0209 hr
SF 45 Clock(hrs)	12 HR	12 HR	elec.			SF Fr. 0209 to 0254 hr
FS 60 Depth(ft)	3741.0	3741.0	3736.0	0.0	0.0	FS Fr. 0254 to 0354 hr

	Field	1	2	3	4	
A. Init Hydro	1832.0	1886.0	1844.0	0.0	0.0	T STARTED 2245 hr
B. First Flow	34.0	32.0	56.0	0.0	0.0	T ON BOTM 0021 hr
B1. Final Flow	78.0	74.0	89.0	0.0	0.0	T OPEN 0024 hr
C. In Shut-in	1058.0	1065.0	1068.0	0.0	0.0	T PULLED 0354 hr
D. Init Flow	87.0	97.0	94.0	0.0	0.0	T OUT 0604 hr
E. Final Flow	141.0	137.0	139.0	0.0	0.0	
F. Fl Shut-in	1056.0	1047.0	1066.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1821.0	1863.0	1827.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	O	O	I			Wt Set On Packer 21000.00 lbs
						Wt Pulled Loose 44000.00 lbs
						Initial Str Wt 34000.00 lbs
						Unseated Str Wt 36000.00 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 3710.00 ft
						H.W. I.D 2.70 in

RECOVERY

Tot Fluid 285.00 ft of 0.00 ft in DC and 285.00 ft in DP
 435.00 ft of Gas in pipe
 1.00 ft of Clean Oil
 29.00 ft of Oil Cut Watery Mud 18%Oil 18%Water 64%Mud
 120.00 ft of Slightly Oil Cut Muddy Water 2%O 88%W 10%M
 125.00 ft of Salt Water with a few specs.
 0.00 ft of Rw .20 ohms @ 65 F.
 0.00 ft of
 0.00 ft of EST. FT. OF PAY-----14
 SALINITY 40000.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA-----

Mud Type	Chemical
Weight	9.20 lb/cf
Vis.	48.00 S/L
W.L.	8.80 in3
F.C.	0.20 in
Mud Drop	

BLOW DESCRIPTION

Initial Flow -
 Fair to strong blow - bottom of
 bucket in 5 min.

Final Flow -
 Fair to strong blow - bottom of
 bucket in 15 min.

Amt. of fill	5.00 ft
Btm. H. Temp.	121.00 F
Hole Condition	good
% Porosity	12.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out N	
Tool Chased Y	5.00 ft
Tester	Gary Pevoteaux
Co. Rep.	Steve Davis
Contr.	L.D.Drlg.
Rig #	1
Unit #	
Pump T.	

SAMPLES: none

SENT TO:Caraway / Liberal Ks

Test Successful: Y

*** TOOL DIAGRAM *** CONV.

WELL NAME: M.Gross #1-1

LOCATION : 1-20S-16W Pawnee KS

TICKET No. 9461 D.S.T. No. 3 DATE 10-25-96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 26

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 14

TOTAL TOOL 40

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 40

D.C. ABOVE TOOLS.Stands Single Total

D.P. ABOVE TOOLS.Stands60 Single Total 3710

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3750

TOTAL DEPTH 3744

TOTAL DRILL PIPE ABOVE K.B. 6

REMARKS:

P.O. SUB	
C.O. SUB @ Top of Tool	3704
S.I. TOOL	3710
HMV	3715
JARS	3719
SAFETY JOINT	3721
PACKER	3725
PACKER	3730
DEPTH 3730	
STUBB 1'	3731
ANCHOR	
Alpine Recorder @	3736
T.C.	
DEPTH	
8 ft. perfs to	3739
AK-1 rec. @	3741
BULLNOSE 5' perforated to	3744
T.D.	

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9461 DST#3 M.GROSS #1-1 CROSS BAR PETL./L.D.

DATE: 10/24/96

TIME: 22:45:53

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	92.00	1844.0	0.0	97.38		
***** Start Flow 1	0.00	55.8	0.0	98.93		
	1.00	31.8	-24.0	99.28		
	2.00	33.3	-22.5	99.73		
	3.00	35.2	-20.6	100.35		
	4.00	36.4	-19.4	101.09		
	5.00	38.3	-17.5	101.85		
	6.00	40.2	-15.6	102.62		
	7.00	41.6	-14.2	103.43		
	8.00	43.5	-12.3	104.36		
	9.00	46.6	-9.2	105.37		
	10.00	45.6	-10.2	106.38		
	11.00	53.7	-2.1	107.39		
	12.00	49.3	-6.5	108.36		
	13.00	50.4	-5.4	109.27		
	14.00	51.5	-4.3	110.12		
	15.00	53.0	-2.8	110.89		
	16.00	54.6	-1.2	111.58		
	17.00	56.4	0.6	112.19		
	18.00	57.5	1.7	112.74		
	19.00	55.1	-0.7	113.23		
	20.00	56.2	0.4	113.66		
	21.00	57.6	1.8	114.05		
	22.00	59.2	3.4	114.39		
	23.00	60.3	4.5	114.70		
	24.00	61.5	5.7	114.98		
	25.00	63.4	7.6	115.23		
	26.00	64.9	9.1	115.45		
	27.00	65.9	10.1	115.65		
	28.00	67.7	11.9	115.83		
	29.00	68.2	12.4	116.02		
	30.00	69.5	13.7	116.19		
	31.00	70.7	14.9	116.36		
	32.00	72.0	16.2	116.50		
	33.00	73.7	17.9	116.65		
	34.00	74.7	18.9	116.79		
	35.00	76.3	20.5	116.91		
	36.00	76.8	21.0	117.03		
	37.00	78.3	22.5	117.14		
	38.00	79.6	23.8	117.25		
	39.00	80.9	25.1	117.35		
	40.00	84.3	28.5	117.44		
	41.00	84.3	28.5	117.53		
	42.00	92.2	36.4	117.60		
	43.00	87.9	32.1	117.68		
	44.00	88.5	32.6	117.74		
***** End Flow 1	45.00	88.5	32.7	117.81		
***** Start Shutin 1	0.00	88.5	0.0	117.81	0.0000	0.008
	1.00	124.5	36.0	117.88	46.0000	0.016
	2.00	246.4	157.9	117.94	23.5000	0.061
	3.00	426.7	338.1	117.99	16.0000	0.182

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9461 DST#3 M.GROSS #1-1 CROSS BAR PETL./L.D.

DATE: 10/24/96

TIME: 22:45:53

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
4.00	582.4	493.8	118.05	12.2500	0.339
5.00	691.3	602.8	118.09	10.0000	0.478
6.00	771.5	683.0	118.12	8.5000	0.595
7.00	832.9	744.4	118.15	7.4286	0.694
8.00	881.3	792.8	118.17	6.6250	0.777
9.00	925.7	837.2	118.19	6.0000	0.857
10.00	943.8	855.2	118.21	5.5000	0.891
11.00	961.3	872.8	118.24	5.0909	0.924
12.00	974.2	885.7	118.25	4.7500	0.949
13.00	985.3	896.8	118.27	4.4615	0.971
14.00	995.3	906.8	118.29	4.2143	0.991
15.00	1003.4	914.9	118.31	4.0000	1.007
16.00	1010.8	922.3	118.32	3.8125	1.022
17.00	1018.5	929.9	118.33	3.6471	1.037
18.00	1023.9	935.4	118.33	3.5000	1.048
19.00	1026.5	938.0	118.34	3.3684	1.054
20.00	1030.7	942.2	118.35	3.2500	1.062
21.00	1033.9	945.4	118.34	3.1429	1.069
22.00	1036.3	947.8	118.34	3.0455	1.074
23.00	1039.4	950.8	118.33	2.9565	1.080
24.00	1041.9	953.3	118.34	2.8750	1.085
25.00	1044.4	955.9	118.33	2.8000	1.091
26.00	1045.7	957.2	118.33	2.7308	1.094
27.00	1047.9	959.4	118.32	2.6667	1.098
28.00	1050.0	961.5	118.31	2.6071	1.103
29.00	1050.7	962.1	118.30	2.5517	1.104
30.00	1051.8	963.2	118.28	2.5000	1.106
31.00	1052.8	964.2	118.28	2.4516	1.108
32.00	1068.7	980.2	118.28	2.4062	1.142
33.00	1057.4	968.9	118.26	2.3636	1.118
34.00	1056.1	967.5	118.26	2.3235	1.115
35.00	1057.1	968.5	118.25	2.2857	1.117
36.00	1058.1	969.5	118.24	2.2500	1.120
37.00	1058.4	969.9	118.23	2.2162	1.120
38.00	1059.5	971.0	118.23	2.1842	1.123
39.00	1060.0	971.5	118.22	2.1538	1.124
40.00	1065.0	976.5	118.23	2.1250	1.134
41.00	1063.5	975.0	118.23	2.0976	1.131
42.00	1063.2	974.7	118.22	2.0714	1.130
43.00	1064.1	975.6	118.23	2.0465	1.132
44.00	1065.7	977.2	118.23	2.0227	1.136
45.00	1064.0	975.5	118.23	2.0000	1.132
46.00	1068.1	979.5	118.22	1.9783	1.141
47.00	1065.5	976.9	118.23	1.9574	1.135
48.00	1067.6	979.0	118.22	1.9375	1.140
49.00	1065.4	976.8	118.22	1.9184	1.135
50.00	1065.8	977.3	118.22	1.9000	1.136
51.00	1066.5	978.0	118.21	1.8824	1.138
52.00	1066.0	977.5	118.21	1.8654	1.136
53.00	1066.4	977.8	118.21	1.8491	1.137
54.00	1067.7	979.2	118.20	1.8333	1.140

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9461 DST#3 M.GROSS #1-1 CROSS BAR PETL./L.D.

DATE: 10/24/96

TIME: 22:45:53

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	55.00	1067.6	979.0	118.20	1.8182	1.140
	56.00	1067.6	979.1	118.19	1.8036	1.140
	57.00	1067.9	979.4	118.18	1.7895	1.140
	58.00	1067.9	979.4	118.18	1.7759	1.140
	59.00	1068.1	979.6	118.17	1.7627	1.141
***** End Shut-in 1	60.00	1068.1	979.6	118.17	1.7500	1.141
***** Start Flow 2	0.00	93.6	0.0	118.16		
	1.00	94.6	1.0	118.11		
	2.00	93.2	-0.3	118.06		
	3.00	94.6	1.0	118.02		
	4.00	99.9	6.4	118.01		
	5.00	97.3	3.7	118.03		
	6.00	98.1	4.5	118.07		
	7.00	99.5	6.0	118.13		
	8.00	102.0	8.4	118.20		
	9.00	106.2	12.7	118.28		
	10.00	103.8	10.2	118.36		
	11.00	106.7	13.1	118.45		
	12.00	109.0	15.4	118.54		
	13.00	109.9	16.3	118.64		
	14.00	109.6	16.0	118.73		
	15.00	111.1	17.5	118.81		
	16.00	112.1	18.5	118.89		
	17.00	112.4	18.8	118.98		
	18.00	114.1	20.6	119.06		
	19.00	116.1	22.5	119.14		
	20.00	115.7	22.2	119.22		
	21.00	117.2	23.6	119.28		
	22.00	118.0	24.4	119.35		
	23.00	118.9	25.3	119.43		
	24.00	119.7	26.1	119.50		
	25.00	120.7	27.1	119.56		
	26.00	121.9	28.4	119.62		
	27.00	123.1	29.5	119.68		
	28.00	123.6	30.0	119.74		
	29.00	125.0	31.5	119.80		
	30.00	125.7	32.1	119.85		
	31.00	126.1	32.5	119.90		
	32.00	126.9	33.3	119.95		
	33.00	129.4	35.8	120.00		
	34.00	130.4	36.8	120.04		
	35.00	132.6	39.0	120.09		
	36.00	131.8	38.3	120.13		
	37.00	132.8	39.3	120.17		
	38.00	133.0	39.4	120.20		
	39.00	136.5	43.0	120.23		
	40.00	136.5	43.0	120.25		
	41.00	136.4	42.8	120.27		
	42.00	138.7	45.2	120.29		
	43.00	140.5	46.9	120.32		
***** End Flow 2	44.00	138.9	45.3	120.35		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9461 DST#3 M.GROSS #1-1 CROSS BAR PETL./L.D.

DATE: 10/24/96

TIME: 22:45:53

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Start Shutin 2	0.00	138.9	0.0	120.35	0.0000	0.019
	1.00	162.1	23.2	120.39	90.0000	0.026
	2.00	279.1	140.2	120.43	45.5000	0.078
	3.00	445.7	306.8	120.48	30.6667	0.199
	4.00	588.7	449.9	120.52	23.2500	0.347
	5.00	695.6	556.7	120.59	18.8000	0.484
	6.00	780.6	641.7	120.68	15.8333	0.609
	7.00	836.3	697.4	120.68	13.7143	0.699
	8.00	892.5	753.6	120.68	12.1250	0.797
	9.00	912.5	773.6	120.68	10.8889	0.833
	10.00	935.2	796.3	120.69	9.9000	0.875
	11.00	954.1	815.2	120.69	9.0909	0.910
	12.00	966.4	827.5	120.73	8.4167	0.934
	13.00	978.9	840.0	120.78	7.8462	0.958
	14.00	988.6	849.7	120.81	7.3571	0.977
	15.00	1001.3	862.4	120.81	6.9333	1.003
	16.00	1005.4	866.5	120.83	6.5625	1.011
	17.00	1012.1	873.2	120.84	6.2353	1.024
	18.00	1017.6	878.7	120.86	5.9444	1.036
	19.00	1020.8	881.9	120.85	5.6842	1.042
	20.00	1025.3	886.4	120.83	5.4500	1.051
	21.00	1028.8	889.9	120.86	5.2381	1.058
	22.00	1032.0	893.1	120.86	5.0455	1.065
	23.00	1034.0	895.1	120.86	4.8696	1.069
	24.00	1035.6	896.7	120.85	4.7083	1.072
	25.00	1038.0	899.1	120.85	4.5600	1.077
	26.00	1041.2	902.3	120.84	4.4231	1.084
	27.00	1043.0	904.1	120.83	4.2963	1.088
	28.00	1044.7	905.8	120.83	4.1786	1.091
	29.00	1045.8	906.9	120.82	4.0690	1.094
	30.00	1048.0	909.1	120.81	3.9667	1.098
	31.00	1051.9	913.0	120.80	3.8710	1.106
	32.00	1049.9	911.0	120.78	3.7812	1.102
	33.00	1052.6	913.7	120.77	3.6970	1.108
	34.00	1051.5	912.6	120.76	3.6176	1.106
	35.00	1053.2	914.3	120.72	3.5429	1.109
	36.00	1054.0	915.1	120.73	3.4722	1.111
	37.00	1055.2	916.3	120.69	3.4054	1.113
	38.00	1056.1	917.2	120.69	3.3421	1.115
	39.00	1056.7	917.8	120.69	3.2821	1.117
	40.00	1057.0	918.1	120.68	3.2250	1.117
	41.00	1058.7	919.8	120.68	3.1707	1.121
	42.00	1058.9	920.0	120.68	3.1190	1.121
	43.00	1059.3	920.4	120.68	3.0698	1.122
	44.00	1059.7	920.9	120.68	3.0227	1.123
	45.00	1060.6	921.7	120.68	2.9778	1.125
	46.00	1060.8	921.9	120.68	2.9348	1.125
	47.00	1061.2	922.3	120.68	2.8936	1.126
	48.00	1061.3	922.4	120.68	2.8542	1.126
	49.00	1062.8	923.9	120.68	2.8163	1.129
	50.00	1064.1	925.2	120.68	2.7800	1.132

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9461 DST#3 M.GROSS #1-1 CROSS BAR PETL./L.D.

DATE: 10/24/96

TIME: 22:45:53

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	51.00	1063.6	924.7	120.68	2.7451	1.131
	52.00	1065.6	926.7	120.67	2.7115	1.136
	53.00	1065.0	926.1	120.68	2.6792	1.134
	54.00	1064.4	925.5	120.67	2.6481	1.133
	55.00	1064.7	925.8	120.68	2.6182	1.134
	56.00	1064.2	925.3	120.67	2.5893	1.133
	57.00	1064.3	925.4	120.67	2.5614	1.133
	58.00	1067.1	928.2	120.68	2.5345	1.139
	59.00	1065.4	926.5	120.65	2.5085	1.135
	60.00	1065.8	926.9	120.64	2.4833	1.136
***** End Shut-in 2	61.00	1065.9	927.0	120.63	2.4590	1.136
***** Final Hydro.	310.00	1828.8	0.0	120.40		

TEST HISTORY

9461 DST#3 M.GROSS #1-1 CROSS BAR PETL./L.D.

Flag Points

t(Min.) P(PSig)

A: 0.00 1943.97
B: 0.00 55.80
C: 45.00 88.54
D: 60.00 1068.14
E: 0.00 93.57
F: 44.00 138.89
G: 61.00 1065.87
Q: 0.00 1828.78

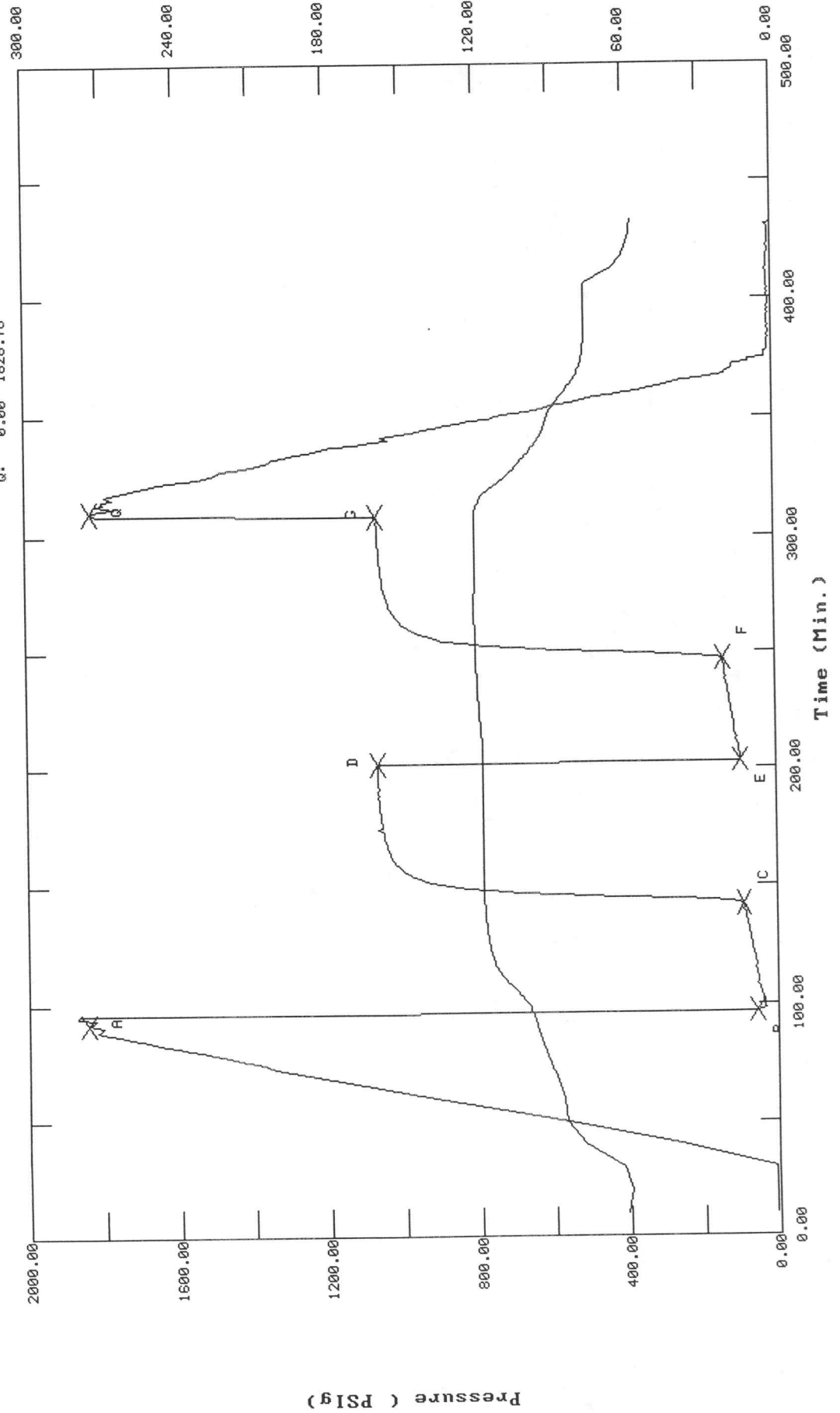
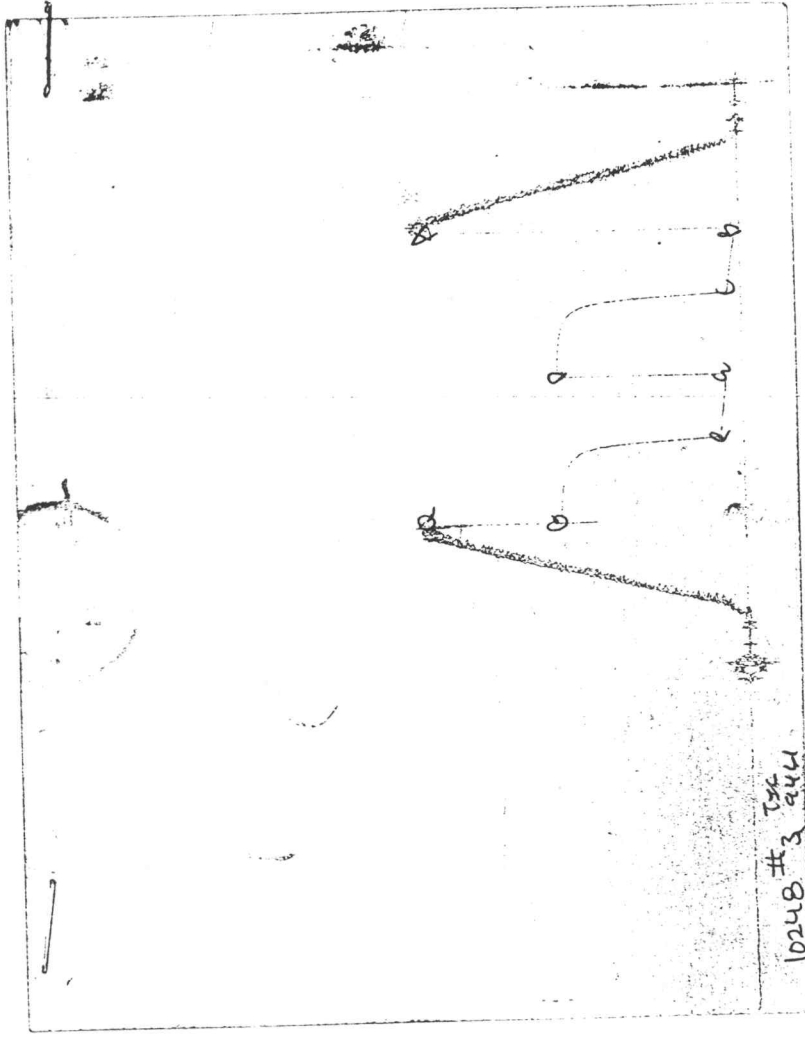


CHART PAGE



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