

WELL NAME: Harper #2
COMPANY: Viking Resources Inc.
LOCATION: 32-16S-31W
Scott County, Kansas
DATE: 1/28/98

TRILOBITE TESTING L.L.C.

OPERATOR : Viking Resources Inc.

DATE 1-27-98

WELL NAME: Harper #2

KB 2942.00 ft

TICKET NO: 10516

DST #1

LOCATION : 32-16S-31W Scott KS.

GR 2937.00 ft

FORMATION: Lans/KC

"E"

INTERVAL : 4035.00 To 4048.00 ft

TD 4048.00 ft

TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	13339	13339	3024			PF Fr. 0650 to 0720 hr
SI 45	Range(Psi)	4025.0	4025.1	4995.0	0.0	0.0	IS Fr. 0720 to 0805 hr
SF 75	Clock(hrs)	12 HR	12 HR	ALP			SF Fr. 0805 to 0925 hr
FS 60	Depth(ft)	4043.0	4043.0	4037.0	0.0	0.0	FS Fr. 0925 to 1025 hr

	Field	1	2	3	4	
A. Init Hydro	2013.0	2005.0	1991.0	0.0	0.0	T STARTED 0445 hr
B. First Flow	20.0	30.0	13.0	0.0	0.0	T ON BOTM 0648 hr
B1. Final Flow	41.0	46.0	74.0	0.0	0.0	T OPEN 0650 hr
C. In Shut-in	1000.0	1009.0	1039.0	0.0	0.0	T PULLED 1025 hr
D. Init Flow	104.0	117.0	80.0	0.0	0.0	T OUT 1200 hr
E. Final Flow	135.0	139.0	137.0	0.0	0.0	
F. Fl Shut-in	989.0	995.0	1027.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1961.0	1970.0	1987.0	0.0	0.0	Tool Wt. 1800.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 30000.00 lbs
						Wt Pulled Loose 55000.00 lbs
						Initial Str Wt 46000.00 lbs
						Unseated Str Wt 46000.00 lbs
						Bot Choke 0.75 in
						Hole Size 8.88 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 247.00 ft
						D.P. Length 3792.00 ft

RECOVERY

Tot Fluid 337.00 ft of 247.00 ft in DC and 90.00 ft in DP

120.00 ft of Gas in pipe

150.00 ft of Clean gassy oil 20%gas 80%oil

127.00 ft of Gassy oil cut mud 25%gas 45%oil 20%mud

60.00 ft of Gassy oil& water 5%gas 5%oil 10%wtr 80%mud

0.00 ft of cut mud

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of RW .19 @70 deg =

SALINITY 38000.00 P.P.M. A.P.I. Gravity 35.00

BLOW DESCRIPTION

Initial Flow:

Surface blow built to 3"

Initial Shut-in:

No return blow

Final Flow:

Weak surface blow built to 9"

Final Shut-in:

No return blow

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.20 lb/c
Vis.	47.00 S/L
W.L.	8.80 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	117.00 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	Rod Steinbrink
Co. Rep.	Kent Crisler
Contr.	Mallard
Rig #	2
Unit #	
Pump T.	

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Harper #2

LOCATION : 32-16S-31W Scott KS.

TICKET No. 10516 D.S.T. No. 1 DATE 1-27-98

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL 13

BOTTOM PACKERS AND ANCHOR

TOTAL TOOL 43

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 43

D.C. ABOVE TOOLS.Stands4 Single Total 247

D.P. ABOVE TOOLS.Stands61 Single Total 3792

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 4082

TOTAL DEPTH 4048

TOTAL DRILL PIPE ABOVE K.B. 34

REMARKS:

P.O. SUB 1' Above 120' DC 3995
C.O. SUB 1' 4015

S.I. TOOL 5' 4021

HMV 5' 4026

JARS

SAFETY JOINT

PACKER 4' 4030

PACKER 5' 4035

DEPTH
STUBB 1' 4036

ANCHOR

ALP Rec. @ 4037

7' Perf 4043

T.C.
DEPTH

AK-1 Rec. @ 4043

BULLNOSE 5' 4048

T.D.

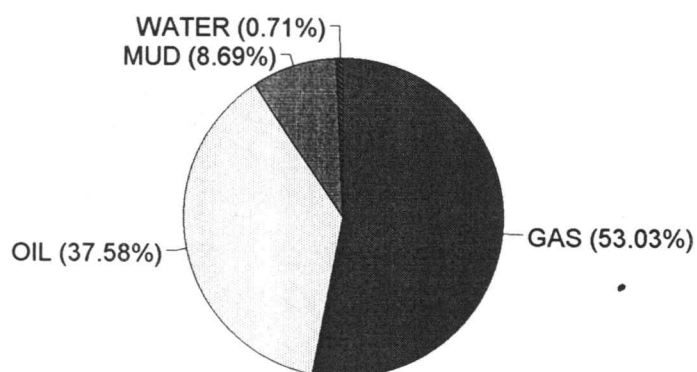
CALCULATED RECOVERY ANALYSIS

DST 1

TICKET 10516

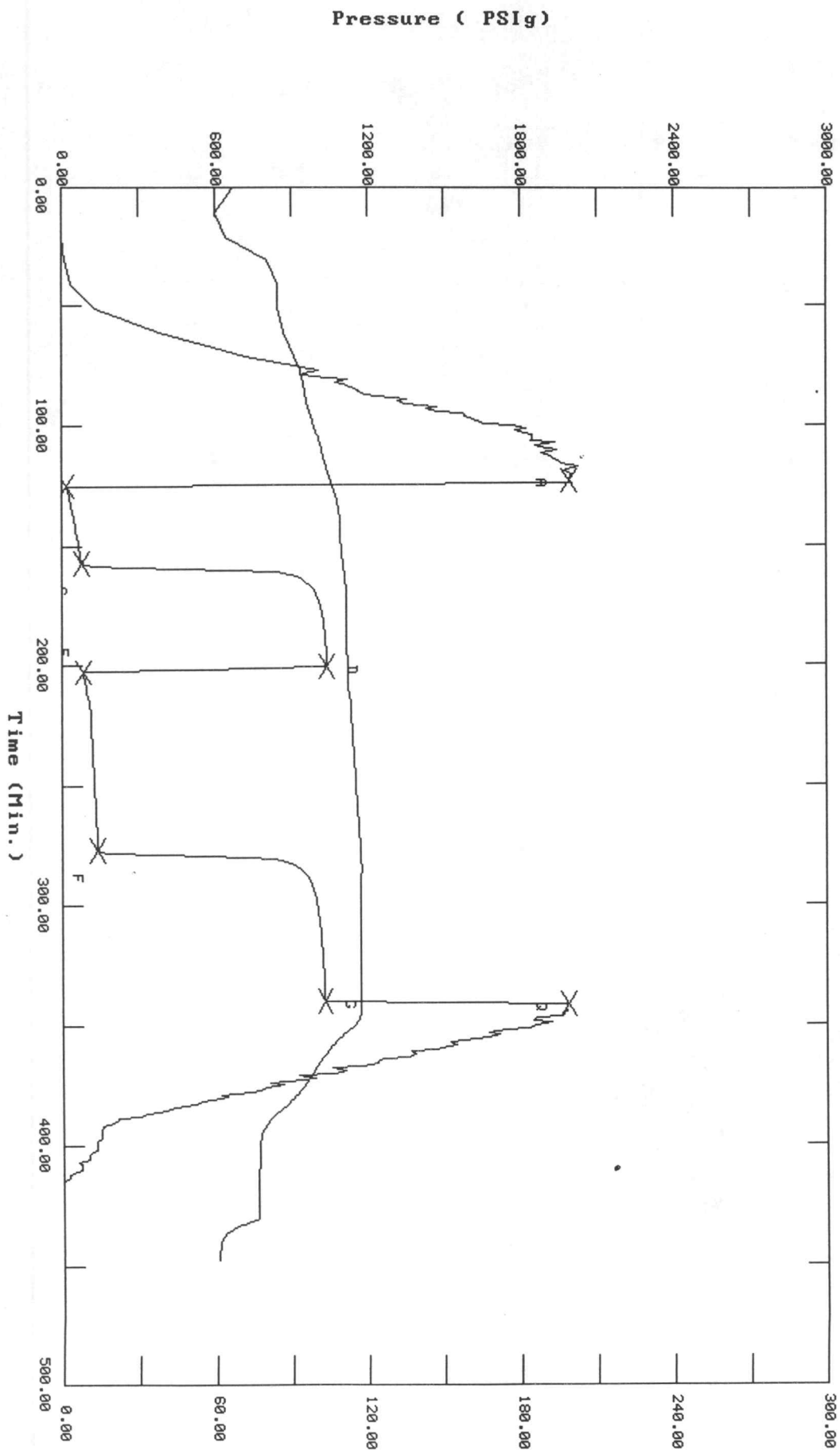
SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL 1	120	100	120		0		0		0
PIPE 2	90	20	18	80	72		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
WEIGHT 1			0		0		0		0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRILL 1	60	20	12	80	48		0		0
COLLARS 2	127	25	31.75	45	57.15		0	20	25.4
3	60	5	3	5	3	10	6	80	48
4			0		0		0		0
5			0		0		0		0
TOTAL	457		184.75		180.15		6		73.4

			HRS OPEN		BBL/DAY
BBL OIL=	1.552694	*	1.75	=	21.29408
BBL WATER=	0.02934	*		=	0.402377
BBL MUD=	0.358926				
BBL GAS =	2.190968				



TEST HISTORY

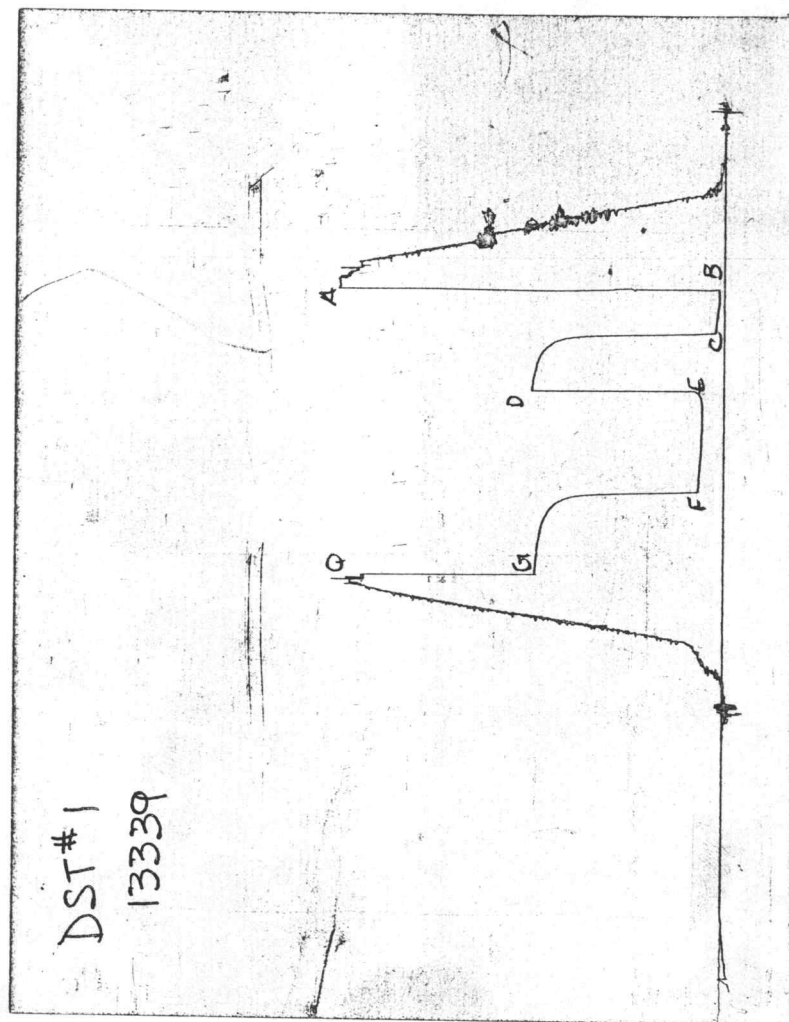
10516 DST #1 Harper #2 Viking Res.



Flag Points		
t(Min.)	P(PSIg)	
A: 0.00	1991.03	
B: 0.00	13.70	
C: 32.00	74.97	
D: 44.00	1039.40	
E: 0.00	80.65	
F: 74.00	137.77	
G: 63.00	1027.98	
Q: 0.00	1987.57	

Temperature (DEG F)

CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10516 DST #1 Harper #2 Viking Res.

DATE: 01/27/98 TIME: 04:45:30

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	123.00	1991.0	0.0	105.40		
***** Start Flow 1	0.00	13.7	0.0	105.85		
	1.00	17.3	3.6	106.15		
	2.00	20.7	6.9	106.40		
	3.00	23.5	9.8	106.69		
	4.00	25.9	12.2	107.03		
	5.00	28.0	14.3	107.34		
	6.00	30.2	16.5	107.62		
	7.00	32.2	18.5	107.86		
	8.00	34.3	20.6	108.08		
	9.00	36.3	22.6	108.27		
	10.00	38.1	24.4	108.44		
	11.00	40.0	26.3	108.63		
	12.00	41.9	28.2	108.78		
	13.00	43.8	30.1	108.87		
	14.00	45.6	31.9	108.94		
	15.00	47.5	33.8	108.98		
	16.00	49.1	35.4	109.01		
	17.00	50.8	37.1	109.04		
	18.00	52.5	38.8	109.07		
	19.00	54.2	40.5	109.11		
	20.00	55.9	42.2	109.14		
	21.00	57.7	44.0	109.18		
	22.00	59.2	45.5	109.23		
	23.00	60.7	47.0	109.31		
	24.00	62.2	48.5	109.39		
	25.00	63.9	50.1	109.47		
	26.00	65.5	51.8	109.57		
	27.00	67.2	53.5	109.66		
	28.00	68.8	55.1	109.75		
	29.00	70.4	56.7	109.85		
	30.00	72.0	58.3	109.97		
	31.00	73.3	59.6	110.07		
***** End Flow 1	32.00	75.0	61.3	110.20		
***** Start Shutin 1	0.00	75.0	0.0	110.20	0.0000	0.006
	1.00	115.5	40.5	110.33	33.0000	0.013
	2.00	266.9	191.9	110.45	17.0000	0.071
	3.00	655.6	580.6	110.56	11.6667	0.430
	4.00	840.6	765.7	110.70	9.0000	0.707
	5.00	895.4	820.4	110.82	7.4000	0.802
	6.00	923.0	848.0	110.93	6.3333	0.852
	7.00	941.4	866.4	111.03	5.5714	0.886
	8.00	954.8	879.8	111.10	5.0000	0.912
	9.00	965.3	890.3	111.18	4.5556	0.932
	10.00	974.1	899.1	111.24	4.2000	0.949
	11.00	981.5	906.5	111.29	3.9091	0.963
	12.00	987.7	912.7	111.33	3.6667	0.976
	13.00	993.1	918.1	111.37	3.4615	0.986
	14.00	997.8	922.8	111.41	3.2857	0.996
	15.00	1001.9	926.9	111.43	3.1333	1.004
	16.00	1005.5	930.5	111.48	3.0000	1.011

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10516 DST #1 Harper #2 Viking Res.

DATE: 01/27/98 TIME: 04:45:30

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
	17.00	1008.5	933.5	111.49	2.8824	1.017
	18.00	1011.1	936.1	111.53	2.7778	1.022
	19.00	1013.4	938.4	111.53	2.6842	1.027
	20.00	1015.5	940.6	111.55	2.6000	1.031
	21.00	1017.5	942.5	111.57	2.5238	1.035
	22.00	1019.5	944.5	111.58	2.4545	1.039
	23.00	1021.2	946.2	111.60	2.3913	1.043
	24.00	1022.7	947.7	111.61	2.3333	1.046
	25.00	1024.1	949.1	111.62	2.2800	1.049
	26.00	1025.4	950.5	111.63	2.2308	1.052
	27.00	1026.7	951.7	111.64	2.1852	1.054
	28.00	1027.9	952.9	111.66	2.1429	1.057
	29.00	1028.9	953.9	111.67	2.1034	1.059
	30.00	1029.9	954.9	111.69	2.0667	1.061
	31.00	1030.8	955.8	111.70	2.0323	1.063
	32.00	1031.6	956.6	111.72	2.0000	1.064
	33.00	1032.4	957.4	111.73	1.9697	1.066
	34.00	1033.1	958.2	111.75	1.9412	1.067
	35.00	1033.9	958.9	111.76	1.9143	1.069
	36.00	1034.6	959.6	111.77	1.8889	1.070
	37.00	1035.1	960.1	111.79	1.8649	1.071
	38.00	1035.4	960.5	111.80	1.8421	1.072
	39.00	1036.0	961.0	111.81	1.8205	1.073
	40.00	1036.9	962.0	111.83	1.8000	1.075
	41.00	1037.6	962.6	111.85	1.7805	1.077
	42.00	1038.3	963.3	111.86	1.7619	1.078
	43.00	1038.8	963.9	111.88	1.7442	1.079
***** End Shut-in 1	44.00	1039.4	964.4	111.90	1.7273	1.080
***** Start Flow 2	0.00	80.7	0.0	111.91		
	1.00	82.3	1.6	111.87		
	2.00	83.8	3.2	111.84		
	3.00	86.2	5.6	111.84		
	4.00	87.9	7.3	111.90		
	5.00	89.6	9.0	111.99		
	6.00	91.2	10.6	112.09		
	7.00	92.8	12.2	112.19		
	8.00	94.3	13.6	112.31		
	9.00	95.6	14.9	112.49		
	10.00	97.1	16.5	112.69		
	11.00	98.8	18.1	112.86		
	12.00	102.9	22.3	113.02		
	13.00	104.5	23.9	113.16		
	14.00	106.2	25.5	113.29		
	15.00	107.8	27.1	113.37		
	16.00	109.1	28.4	113.41		
	17.00	109.8	29.1	113.43		
	18.00	110.3	29.6	113.45		
	19.00	110.7	30.0	113.49		
	20.00	111.2	30.5	113.54		
	21.00	111.7	31.0	113.60		
	22.00	112.1	31.5	113.64		

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10516 DST #1 Harper #2 Viking Res.

DATE: 01/27/98 TIME: 04:45:30

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
23.00	112.6	32.0	113.67		
24.00	113.1	32.5	113.71		
25.00	113.6	33.0	113.77		
26.00	114.1	33.4	113.84		
27.00	114.5	33.8	113.93		
28.00	114.9	34.3	114.00		
29.00	115.5	34.8	114.09		
30.00	116.0	35.4	114.15		
31.00	116.4	35.8	114.19		
32.00	116.9	36.2	114.23		
33.00	117.4	36.8	114.27		
34.00	117.9	37.2	114.30		
35.00	118.4	37.8	114.36		
36.00	119.0	38.3	114.42		
37.00	119.5	38.9	114.49		
38.00	120.0	39.4	114.56		
39.00	120.5	39.9	114.65		
40.00	121.1	40.4	114.75		
41.00	121.5	40.9	114.82		
42.00	121.9	41.3	114.89		
43.00	122.4	41.8	114.95		
44.00	122.8	42.2	115.00		
45.00	123.2	42.6	115.06		
46.00	123.7	43.0	115.11		
47.00	124.2	43.5	115.16		
48.00	124.6	44.0	115.21		
49.00	125.0	44.4	115.26		
50.00	125.5	44.9	115.33		
51.00	126.0	45.3	115.39		
52.00	126.5	45.9	115.45		
53.00	127.0	46.3	115.51		
54.00	127.6	46.9	115.56		
55.00	127.9	47.2	115.64		
56.00	128.4	47.7	115.71		
57.00	128.9	48.3	115.77		
58.00	129.6	49.0	115.85		
59.00	130.1	49.4	115.91		
60.00	130.5	49.9	116.00		
61.00	131.0	50.3	116.06		
62.00	131.5	50.9	116.14		
63.00	132.0	51.4	116.21		
64.00	132.6	51.9	116.29		
65.00	133.0	52.4	116.35		
66.00	133.6	52.9	116.42		
67.00	134.1	53.5	116.49		
68.00	134.6	53.9	116.56		
69.00	135.1	54.5	116.61		
70.00	135.6	55.0	116.68		
71.00	136.2	55.6	116.74		
72.00	136.7	56.1	116.79		
73.00	137.2	56.6	116.86		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10516 DST #1 Harper #2 Viking Res.

DATE: 01/27/98

TIME: 04:45:30

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** End Flow 2	74.00	137.8	57.1	116.91		
***** Start Shutin 2	0.00	137.8	0.0	116.91	0.0000	0.019
	1.00	173.1	35.4	116.96	107.0000	0.030
	2.00	395.3	257.5	117.01	54.0000	0.156
	3.00	717.2	579.5	117.09	36.3333	0.514
	4.00	834.0	696.2	117.15	27.5000	0.695
	5.00	876.2	738.4	117.19	22.2000	0.768
	6.00	900.7	763.0	117.21	18.6667	0.811
	7.00	918.9	781.2	117.23	16.1429	0.844
	8.00	932.8	795.0	117.22	14.2500	0.870
	9.00	943.7	806.0	117.22	12.7778	0.891
	10.00	952.1	814.3	117.21	11.6000	0.907
	11.00	958.9	821.2	117.19	10.6364	0.920
	12.00	964.7	826.9	117.18	9.8333	0.931
	13.00	969.4	831.7	117.17	9.1538	0.940
	14.00	974.0	836.3	117.15	8.5714	0.949
	15.00	977.8	840.0	117.13	8.0667	0.956
	16.00	981.3	843.5	117.12	7.6250	0.963
	17.00	984.5	846.8	117.11	7.2353	0.969
	18.00	987.3	849.6	117.09	6.8889	0.975
	19.00	989.8	852.0	117.07	6.5789	0.980
	20.00	992.1	854.3	117.07	6.3000	0.984
	21.00	994.1	856.3	117.04	6.0476	0.988
	22.00	996.0	858.2	117.03	5.8182	0.992
	23.00	997.7	859.9	117.02	5.6087	0.995
	24.00	999.3	861.6	117.01	5.4167	0.999
	25.00	1000.8	863.1	117.00	5.2400	1.002
	26.00	1002.2	864.4	116.99	5.0769	1.004
	27.00	1003.5	865.7	116.98	4.9259	1.007
	28.00	1004.7	867.0	116.98	4.7857	1.009
	29.00	1005.9	868.1	116.96	4.6552	1.012
	30.00	1007.0	869.2	116.96	4.5333	1.014
	31.00	1008.1	870.3	116.96	4.4194	1.016
	32.00	1009.1	871.3	116.95	4.3125	1.018
	33.00	1010.1	872.3	116.94	4.2121	1.020
	34.00	1011.0	873.2	116.94	4.1176	1.022
	35.00	1011.9	874.1	116.93	4.0286	1.024
	36.00	1012.7	875.0	116.92	3.9444	1.026
	37.00	1013.6	875.8	116.92	3.8649	1.027
	38.00	1014.4	876.6	116.92	3.7895	1.029
	39.00	1015.2	877.4	116.92	3.7179	1.031
	40.00	1015.9	878.1	116.91	3.6500	1.032
	41.00	1016.6	878.8	116.91	3.5854	1.033
	42.00	1017.3	879.5	116.92	3.5238	1.035
	43.00	1018.0	880.2	116.91	3.4651	1.036
	44.00	1018.6	880.9	116.91	3.4091	1.038
	45.00	1019.3	881.5	116.91	3.3556	1.039
	46.00	1019.9	882.1	116.90	3.3043	1.040
	47.00	1020.5	882.7	116.91	3.2553	1.041
	48.00	1021.0	883.2	116.91	3.2083	1.042
	49.00	1021.6	883.8	116.90	3.1633	1.044

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 10516 DST #1 Harper #2 Viking Res.

DATE: 01/27/98 TIME: 04:45:30

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
	50.00	1022.1	884.4	116.91	3.1200	1.045
	51.00	1022.7	884.9	116.90	3.0784	1.046
	52.00	1023.2	885.4	116.91	3.0385	1.047
	53.00	1023.7	885.9	116.92	3.0000	1.048
	54.00	1024.2	886.4	116.92	2.9630	1.049
	55.00	1024.6	886.9	116.92	2.9273	1.050
	56.00	1025.1	887.3	116.91	2.8929	1.051
	57.00	1025.5	887.8	116.93	2.8596	1.052
	58.00	1026.0	888.2	116.92	2.8276	1.053
	59.00	1026.4	888.6	116.92	2.7966	1.053
	60.00	1026.8	889.0	116.93	2.7667	1.054
	61.00	1027.2	889.4	116.93	2.7377	1.055
	62.00	1027.6	889.9	116.94	2.7097	1.056
***** End Shut-in 2	63.00	1028.0	890.2	116.93	2.6825	1.057
***** Final Hydro.	341.00	1987.6	0.0	116.95		