

Well Name: Royce 1-2
Company: Helmerich & Payne
Location: 2-31s-34w
Seward county Kansas
Date: 9-22-99

Company: Helmerich & Payne
Address: 1579 E. 21st
: Tulsa, Oklahoma 74114
:

Date: September 20 1999
to: September 20 1999

Well Name : test #2 Royce 1-2 Helmrigh & Payne
Location : 2-31s-34w Seward co KS Elev. : 0.00 KB(ft) 0.00 CF(ft)
Field/Pool: Hugoton Prod. Interval: 1000.00 to 2760.00 ft(CF)
Test Type : Gradient Mid-Point Perf: 0.00 ft(CF)
Status : Flowing Tubing: 0.00 inches @ 0.00 ft(CF)

Wire Line Company : Trilobite Testing LLC

Recorder Serial # 2341 Run Depth: 0.00 ft(CF)
Range : 4995 Sample Memory: 21000 Samples
Start Date/Time: Sep 20 1999 @ 12:24:01 End Date/Time: Sep 20 1999 @ 12:24:01
Date of Last Calibration: April 1 1997

NOTE - 1 Sample = Time, Pressure, Temperature

Program: Duration: 1 Min. Sample Rate: 1 Sec.
Duration: 1 Hr. Sample Rate: 5 Sec.

Tubing Pressure: Initial: Not Reported Final: Not Reported
Casing Pressure: Initial: Not Reported Final: Not Reported

Electronic Data supplied on disk in standard ASE format.

***** STATIC GRADIENT DATA *****

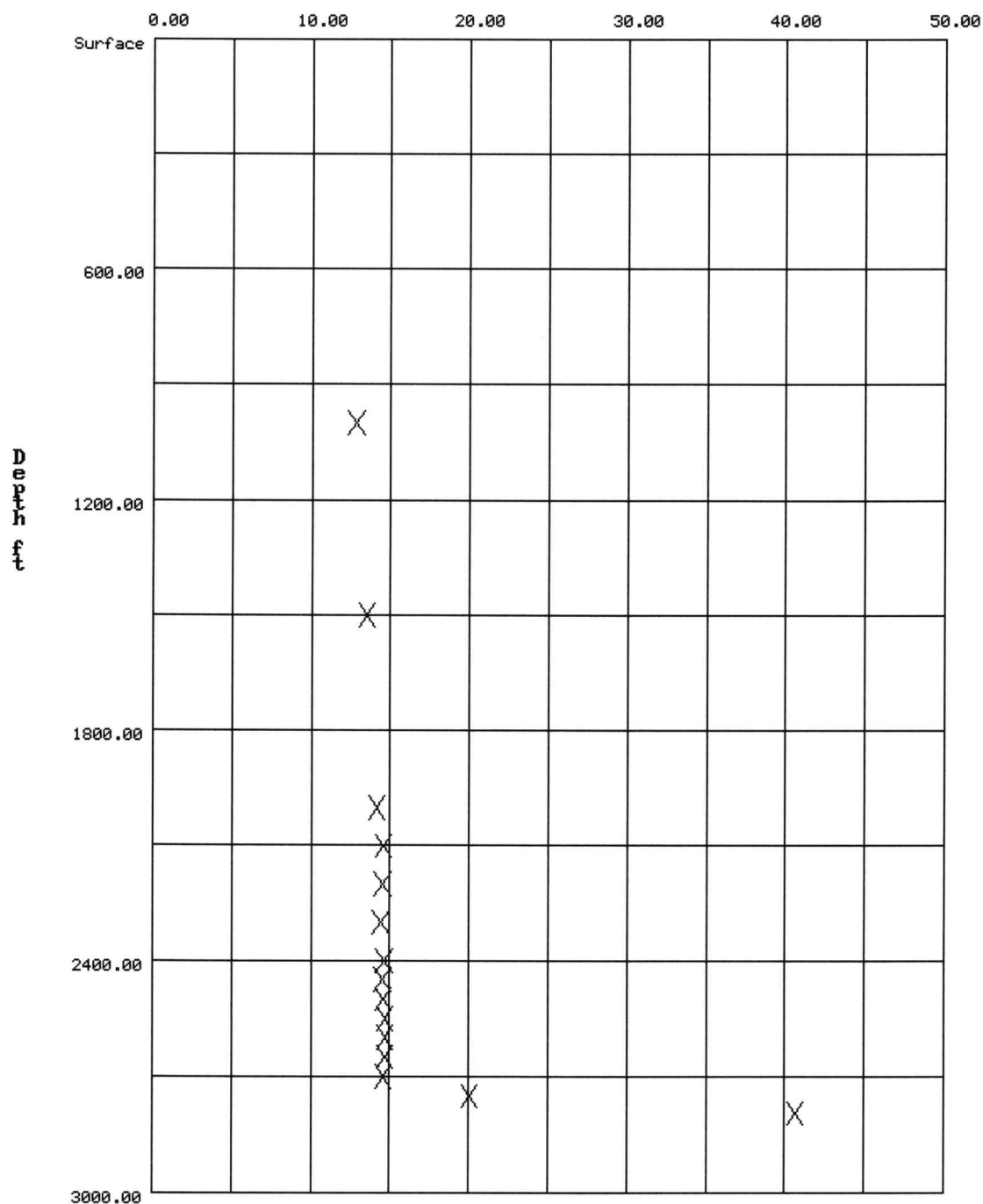
test #2 Royce 1-2 Helmrich & Payne
Date: 09/20/99 Time: 12:24:01

Depth ft	Time From hh:mm:ss	Time To hh:mm:ss	Pressure PSIg	Gradient PSIg/ft
1000.00	12:32:21	13:25:21	12.84	0.0000
1500.00	12:36:36	12:39:36	13.50	0.0013
2000.00	12:40:41	12:43:41	14.19	0.0014
2100.00	12:44:01	12:47:01	14.57	0.0038
2200.00	12:47:21	14:50:21	14.52	-0.0005
2300.00	12:50:36	12:53:36	14.44	-0.0008
2400.00	12:53:56	12:56:56	14.64	0.0020
2450.00	12:57:01	13:00:01	14.52	-0.0024
2500.00	13:00:16	13:03:16	14.59	0.0014
2550.00	13:03:31	13:06:31	14.71	0.0024
2600.00	13:06:46	13:09:46	14.67	-0.0008
2650.00	13:09:51	13:12:51	14.67	0.0000
2700.00	13:13:01	13:16:01	14.56	-0.0022
2750.00	13:16:11	13:19:11	20.01	0.1090
2794.00	13:19:36	13:22:36	40.64	0.4689

STATIC GRADIENT PLOT

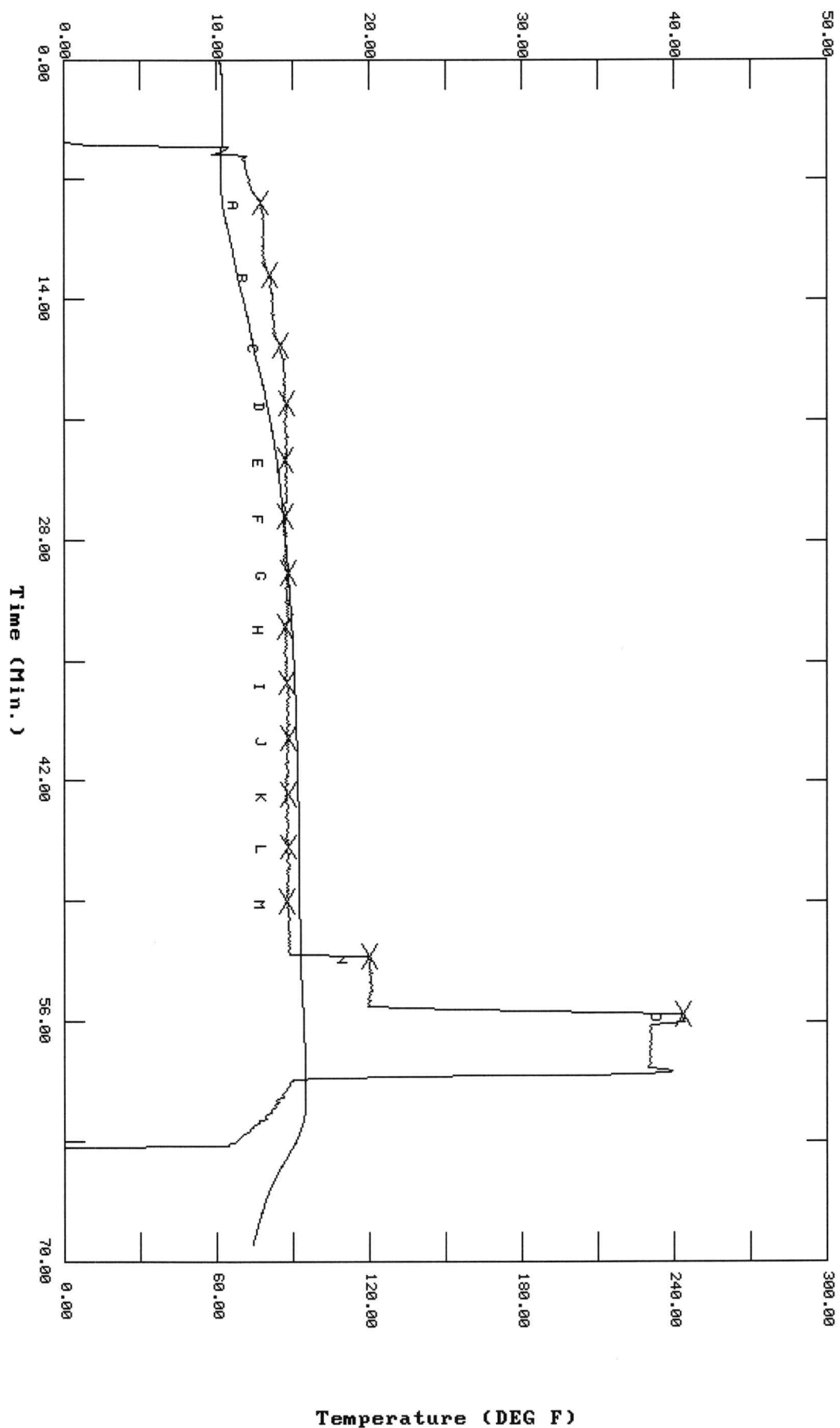
test #2 Royce 1-2 Helmrich & Payne

Pressure (PSig)



TEST HISTORY

test #2 Royce 1-2 Helmrich & Payne



ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: test #2 Royce 1-2 Helmrich & Payne

DATE: 09/20/99

TIME: 12:24:01

PAGE: 001

Sample	Date	Time	Relative Seconds	Temperature DEG F	Pressure PSIg
1	99/09/20	12:24:02	000:00:01	61.06 DEG F	0.00 PSig
Print every 100 samples					
101	99/09/20	12:28:31	000:04:30	61.98 DEG F	0.00 PSig
A 147	99/09/20	12:32:21	000:08:20	62.20 DEG F	12.84 PSig
** Flag Point A					
1000'					
B 198	99/09/20	12:36:36	000:12:35	68.13 DEG F	13.50 PSig
** Flag Point B					
1500'					
C 247	99/09/20	12:40:41	000:16:40	74.42 DEG F	14.19 PSig
** Flag Point C					
2000'					
D 287	99/09/20	12:44:01	000:20:00	79.69 DEG F	14.57 PSig
** Flag Point D					
2100'					
E 327	99/09/20	12:47:21	000:23:20	83.59 DEG F	14.52 PSig
** Flag Point E					
2200'					
F 366	99/09/20	12:50:36	000:26:35	86.15 DEG F	14.44 PSig
** Flag Point F					
2300'					
G 406	99/09/20	12:53:56	000:29:55	88.08 DEG F	14.64 PSig
** Flag Point G					
2400'					
H 443	99/09/20	12:57:01	000:33:00	89.50 DEG F	14.52 PSig
** Flag Point H					
2450'					
I 482	99/09/20	13:00:16	000:36:15	90.59 DEG F	14.59 PSig
** Flag Point I					
2500'					
J 521	99/09/20	13:03:31	000:39:30	91.36 DEG F	14.71 PSig
** Flag Point J					
2550'					
K 560	99/09/20	13:06:46	000:42:45	91.92 DEG F	14.67 PSig
** Flag Point K					
2600'					
L 597	99/09/20	13:09:51	000:45:50	92.27 DEG F	14.67 PSig
** Flag Point L					
2650'					
M 635	99/09/20	13:13:01	000:49:00	92.52 DEG F	14.56 PSig
** Flag Point M					
2700'					
N 673	99/09/20	13:16:11	000:52:10	92.85 DEG F	20.01 PSig
** Flag Point N					
2750'					
O 714	99/09/20	13:19:36	000:55:35	93.91 DEG F	40.64 PSig
** Flag Point O					
2794'					
814	99/09/20	13:27:56	001:03:55	87.61 DEG F	0.00 PSig
875	99/09/20	13:33:01	001:09:00	74.02 DEG F	0.00 PSig

End of File

Trilobite Testing L.L.C.

Bottom hole pressure build-up test / Multi-point back pressure test

Company Helmrich + Payne Date 9-20-99

Address _____

Well Name & No. Royce #1

Legal Description Sec. 2 Twp. 31S Rge. 34W Co. Seward State. Ks.

Field/pool Hugoton Elev. 2955 CL Recorder # 2341

Tubing 5 1/2" in. @ 2750 ft.

Test type Gradient Test Interval 1000-2770 Status Flowing Well

Date & Time Started 9-20 11:40 P.M. Date & Time Ended 9-20 2:54 P.M.

Duration: 1 min. Sample Rate: 1 sec. 0

Duration: 3 hrs Sample Rate: 5 sec

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

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Scott Byrba Lanny Seliga

Job Number:
Customer:
Wellname:
Well Location:
Formation:

Royce #1

[illegible]

Well Name: Royce #1-2
Company: Helmerich & Payne Inc.
Location: 2-31s-34w
Seward County Kansas
Date: 6-30-99

Company: Helmerich & Payne Inc.
Address: 2606 Fleming #7
: Garden City, KS 67846
:

Date: June 28 1999
to: June 28 1999

Well Name : Royce #1-2
Location : 2-31s-34w
Field/Pool: Hugoton
Test Type : Gradient
Status : Flowing

Elev. : 0.00 KB(ft) 0.00 CF(ft)
Prod. Interval: 0.00 to 0.00 ft(CF)
Mid-Point Perf: 0.00 ft(CF)
Tubing: 0.00 inches @ 0.00 ft(CF)

Wire Line Company : Trilobite Testing LLC

Recorder Serial # 3030 Run Depth: 0.00 ft(CF)
Range : 4995 Sample Memory: 21000 Samples
Start Date/Time: Jun 28 1999 @ 9:41:09 End Date/Time: Jun 28 1999 @ 9:41:09
Date of Last Calibration: April 1 1998

NOTE - 1 Sample = Time, Pressure, Temperature

Program: Duration: 1 Min. Sample Rate: 1 Sec. ΔP : 0.98
Duration: 2 Hr. Sample Rate: 5 Sec. ΔP : 1.79

Tubing Pressure: Initial: Not Reported Final: Not Reported
Casing Pressure: Initial: Not Reported Final: Not Reported

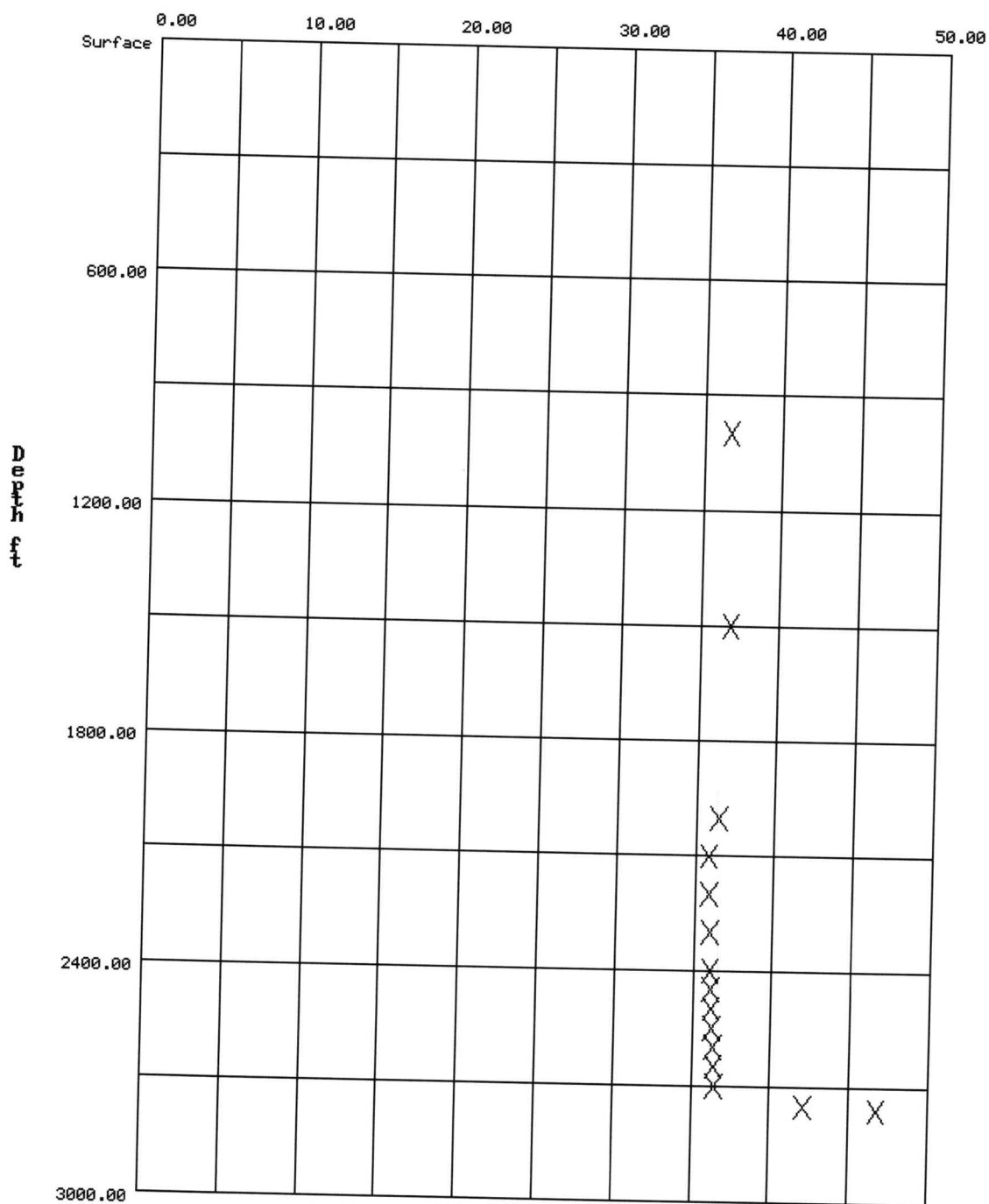
Electronic Data supplied on disk in standard ASE format.

Continued Next Page

STATIC GRADIENT PLOT

6-28-99 Gradient Test Royce #1-2 Helmrich & Payne

Pressure (PSig)



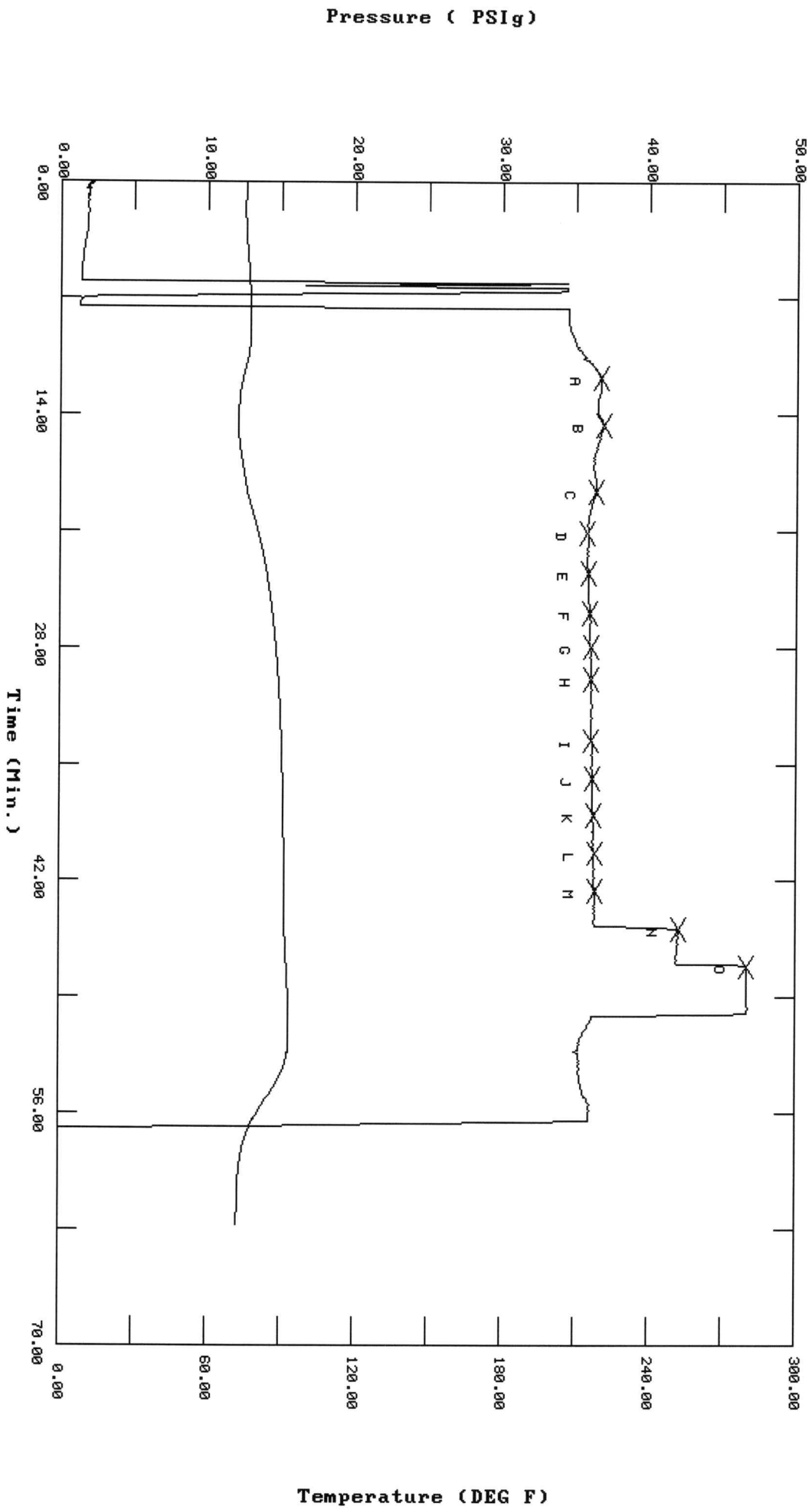
***** STATIC GRADIENT DATA *****

6-28-99 Gradient Test Royce #1-2 Helmrich & Payne
 Date: 06/28/99 Time: 09:41:09

Depth ft	Time From hh:mm:ss	Time To hh:mm:ss	Pressure PSIg	Gradient PSIg/ft
1000.00	09:52:54	09:54:54	36.72	0.0000
1500.00	09:55:44	09:57:44	36.89	0.0003
2000.00	09:59:44	06:01:44	36.42	-0.0009
2100.00	10:02:14	10:04:14	35.83	-0.0059
2200.00	10:04:39	10:06:39	35.90	0.0007
2300.00	10:07:04	10:09:04	35.99	0.0009
2400.00	10:09:04	10:11:04	36.06	0.0007
2450.00	10:11:04	10:13:04	36.11	0.001
2500.00	10:14:44	10:16:44	36.15	0.0008
2550.00	10:19:59	10:18:59	36.22	0.0014
2600.00	10:19:14	10:21:14	36.32	0.0020
2650.00	10:21:29	10:23:29	36.38	0.0012
2700.00	10:23:44	10:25:44	36.41	0.0006
2750.00	10:26:04	10:28:04	42.09	0.1136
2760.00	10:28:19	10:30:19	46.75	0.4660

TEST HISTORY

6-28-99 Gradient Test Royce #1-2 Helmrich & Payne



ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING
 TEST: 6-28-99 Gradient Test Royce #1-2 Helmrich & Payne
 DATE: 06/28/99 TIME: 09:41:09

PAGE: 001

Sample	Date	Time	Relative Seconds	Temperature DEG F	Pressure PSIg
1	99/06/28	09:41:10	000:00:01	75.17	2.77
Print every 100 samples					
101	99/06/28	09:45:39	000:04:30	76.15	1.43
A 188	99/06/28	09:52:54	000:11:45	74.42	36.72
** Flag Point A					
1000'					
B 222	99/06/28	09:55:44	000:14:35	72.40	36.89
** Flag Point B					
1500'					
C 270	99/06/28	09:59:44	000:18:35	76.11	36.42
** Flag Point C					
2000'					
D 300	99/06/28	10:02:14	000:21:05	80.64	35.83
** Flag Point D					
2100'					
E 329	99/06/28	10:04:39	000:23:30	84.18	35.90
** Flag Point E					
2200'					
F 358	99/06/28	10:07:04	000:25:55	86.57	35.99
** Flag Point F					
2300'					
G 382	99/06/28	10:09:04	000:27:55	87.97	36.06
** Flag Point G					
2400'					
H 406	99/06/28	10:11:04	000:29:55	89.04	36.11
** Flag Point H					
2450'					
I 450	99/06/28	10:14:44	000:33:35	90.35	36.15
** Flag Point I					
2500'					
J 477	99/06/28	10:16:59	000:35:50	90.84	36.22
** Flag Point J					
2550'					
K 504	99/06/28	10:19:14	000:38:05	91.20	36.32
** Flag Point K					
2600'					
L 531	99/06/28	10:21:29	000:40:20	91.46	36.38
** Flag Point L					
2650'					
M 558	99/06/28	10:23:44	000:42:35	91.62	36.41
** Flag Point M					
2700'					
N 586	99/06/28	10:26:04	000:44:55	91.89	42.09
** Flag Point N					
2750'					
O 613	99/06/28	10:28:19	000:47:10	92.66	46.75
** Flag Point O					
2760'					
713	99/06/28	10:36:39	000:55:30	83.05	36.07
800	99/06/28	10:43:54	001:02:45	72.58	0.00
End of File					

Trilobite Testing L.L.C.

Bottom hole pressure build-up test / Multi-point back pressure test

Company Helmrich & Payne Date 6-28-99

Address _____

Well Name & No. Royce #1-2Legal Description Sec. 2 Twp. 31^S Rge. 34^W Co. Seward State KS
4030 FSL 4030 FELField/pool Hugoton Elev. 2955 GL Recorder # -030Casing 5 1/2" in. @ 2816 ft.Test type Gradient Test Interval 1000-2760 Status Flowing WellDate & Time Started 6-28 0941 AM Date & Time Ended 6-28 1037 AMDuration: 1 min Sample Rate: 1 secDuration: 2 hrs Sample Rate: 5 sec

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

Duration: _____ Sample Rate: _____

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Mileage F/Hugoton 28 milesRod Steinbrink

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