

JUL 29 '98 09:36 ESE
 JUL 29 '98 WED 09:36 ... WESTERN OPERATING CO.

584 P03/05
 586 629 3185

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SIVERSON No. 1 X

July 6, 1998: Move in Gibson Well Service. Rig break down, wait on second rig. Rig on location at 3:30 pm. Rig up. Swab Casing to 2,600'. SI SDFN.

July 7, 1998: Swab Casing to 4,950'. Install Tubing Head, run 165 Jts. 2-3/8" OD 8rd. EUE 4.7# J-55 Tubing, used, tested to 7,000 psi. with a Van Perforating Gun. Rig up Peak Well Service, run a GR/CCL Log from 4,990' to 4,904' to correlate depth. Fluid level in Tubing at 4,800'. Add 1 Jt. Tubing, 1-10' and 1-4' Tubing Sub. Set top shot in Gun at 5,124'. Flange up well head. Drop Bar, fire gun. Gas to surface in 2 min. Annulus pressure increasing. RDMO Gibson Well Service. Flow on a 25/64" +/- choke from 12:30 pm. to 4:00 pm. Unload load water and debris from Tubing. Well flowing dry gas after 3 hrs. Shut well in at 4:00 pm. with 850 psi. on Tubing and 940 psi. on Casing.

July 8, 1998: Unable to get to location to check pressures. Heavy rain, water standing in road.

TUBING DETAIL

12.05'	3.37" Van Gun and Firing Head.
4.14'	1- 2-3/8" OD 8rd. EUE 4.7# J-55 Tubing Sub, Pick Up Sub.
29.70'	1 Jt. 2-3/8" OD 8rd. EUE 4.7# J-55 used, tested Tubing.
.47'	2-3/8" OD 8rd. Debris Sub. Perforated.
1.05'	2-3/8" OD 8rd. EUE Pump Seating Nipple.
61.33'	2- Jts. 2-3/8" OD 8rd. EUE 4.7# J-55 used, tested Tubing.
2.09'	2-3/8" OD 8rd. EUE 4.7# J-55 Tubing Sub. (Locator Sub)
<u>5,018.92'</u>	162 Jts. 2-3/8" OD 8rd. EUE 4.7# J-55 used, tested Tubing.
5,129.75'	
<u>+5.00'</u>	KB to Top of Tubing String.
5,134.75'	Tubing setting Depth.

JUL 29 '98 09:37

ESE

WESTERN OPERATING CO.

584 P04/05

303 629 5735

P. 03

E W O CONSULTANTS, INC.1665 Logan Street Apt. 740
Denver, Colorado 80203-1281Phone Cellular 303-880-4832
Home Phone 303-837-1266**WESTERN OPERATING COMPANY
SIVERSON #1-X
NW-NW-NW Section 23, T20S, R42W
GREELEY COUNTY, KANSAS**

JUNE 20, 1998: Arrive on location at 12:15 am. Finish laying down drill Pipe. Unload and tally 161 Jts. 4-1/2" OD 8rd. 11.6# J-55 used, tested Casing, LT&C, ST&C, Range 2 & 3, 4,900 psi. & 5,000psi test. Run 157 Jts. Casing. 5,284.09', set at 5,297'. Circulate hole 45 min. good circulation. RU BJ Services, mix 645 sacks Type III Cement with .15% OO-32, .5% BA-10A at 14.4# / Gal., 1.42 Yield, in 61.6 Bbl. Mix Water. Preceed Cement with 15 Bbl. Clay Fix Water. Displace Plug with 82 Bbl. Water at 3 BPM Rate, 250 psi, maximum pressure. Plug down at 12:30 pm. Pressure Plug to 900 psi. Had good circulation mixing and pumping cement. Circulation slowed with 3/4 displacement complete, and stopped at end of displacement. Annulus stayed full. Release Rig at 1:30 pm. Casing set with Collar at Ground Level.

Place 4-1.2" Casing Centralizers at 5,277', 5,197', 5,157', 5,117', 5,037', 4,785', 4,341', 3,851', 3,491', 3,135'.
Place 4-1/2" Cement Baskets at 4,785', 4,341', 3,851', 3,491', 3,135'.

CASING DETAIL:

1.00'	4-1/2" OD 8rd. Gemoco Float Guide Shoe.
39.59'	1 Jt. 4-1/2" OD 8rd. 11.6# J-55 used Casing, LT&C, Rge. 3, 4,900 psi. Test.
1.50'	4-1/2" OD 8rd. Gemoco Sure Seal Float Collar.
199.58'	5 Jts. 4-1/2" OD 8rd. 11.6# J-55 used Casing, LT&C, Rge. 3, 4,900 psi. Test.
33.54'	1 Jt. 4-1/2" OD 8rd. 11.6# J-55 used Casing, ST&C, Rge. 2, 5,000 psi. Test.
550.03'	14 Jts. 4-1/2" OD 8rd. 11.6# J-55 used Casing, LT&C, Rge. 3, 4,900 psi. Test.
<u>4,461.35'</u>	136 Jts. 4-1/2" OD 8rd. 11.6# J-55 used Casing, ST&C, Rge. 2, 5,000 psi. Test.
5,286.59'	
<u>10.00'</u>	KB to GL
5,296.59'	Casing Setting Depth.

109.76' 4 Jts. Casing left on location.

JUL 29 '98 09:37

ESE

584 P05/05

WESTERN OPERATING CO.

583 629 0735

P. 02

WESTERN OPERATING COMPANY

1680 Denver Club Building
518 Seventeenth Street
Denver, Colorado 80202
(303) 893-2438

COMPLETION REPORT

OPERATOR: Western Operating Company
WELL: Siverson No. 1X
LOCATION: NW NW NW Section 23, T20S-R42W
Greeley County, Kansas
490' FNL & 540' FWL of Sec. 23

ROTARY: Murfin Drilling Co. - Rig 25
PROPOSED T.D.: 5,200'
PROPOSED FORM: Morrow
ELEVATION: 3739.7' GL, 3,750' KB

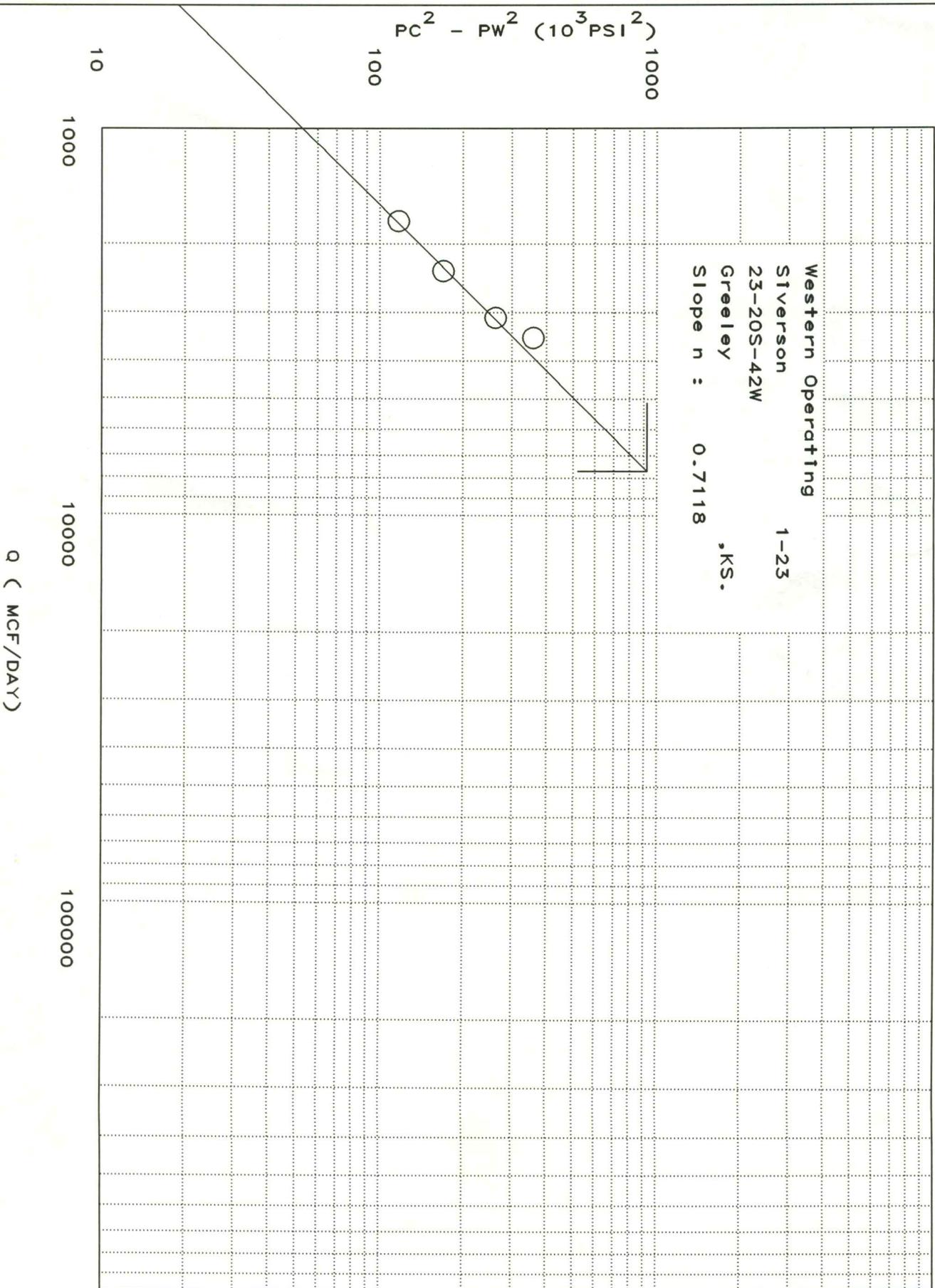
<u>ESTIMATED TOPS</u>		
Dakota	852	+ 2898
Blaine	1698	+ 2052
Salt	1838	+1912
Cedar Hills	2118	+1632
Base of		
Stone Corral	2388	+1362
Neva	3234	+ 516
Topeka	3706	+ 44
Lausing	4052	- 302
Marmaton	4516	- 766
Cherokee	4670	- 920
Atoka	4872	- 1122
Morrow	5040	-1290
*Morrow Sand	5150	-1400
Morrow Lime	5180	-1430
Mississippian	5310	-1560

- 07/06/98 MI Gibson Well Service, first rig broke down, WO replacement. On loc @ 3:30 p.m., RU swb csg to 2600', SDON.
- 07/07/98 Cont swbg csg, will swb to 4800' then run Vann Gun & tbg. Shd hv perms this p.m.
- 07/08/98 Finish swbg to 4,950', ran 166 jts tbg w/Vann Gun, FL @ 4,800', Ran Gamma Ray CCL log. Perfd 3,124 - 5,134', 2 SPF. Gas to sfc in 2 min. RDMO J.W. Gibson Well Svc. Flowed well from 12:30 to 4:00 p.m. on 20/64 ch. SI 940 on csg, 850 on tbg, Est 2,000 MCF.

GAS WELL BACK PRESSURE CURVE

WELL TESTER:
TEST DATE: 7-28-98

Western Operating
Siverson 1-23
23-20S-42W
Greeley ,KS.
Slope n : 0.7118



Western Operating
 1-X Siverson 1-23
 23-20s-42w
 Greeley Ks
 7/28/98

On location @ 7:45. Rigged up deadweight & gauge on annulus CP 954 (DW) TP 960 (gauge)

Rigged up wireline and started Alpine probe @ 9:42 AM

Started in hole with recorder @ 9:55

Hit top of Van gun @ 5108 @ 10:22

Hit obstruction @5138 @ 10:50

Pulled back to 5125' @ 11:00 Shut-in for static pressure.

Opened well @ 11:10 with 5/16" choke to flow well for State four point test.

Flowed as follows:

First Flow Period

Time	Orifice Size	CFP Pressure	Tubing Pressure	Casing Pressure	Temp	Flow
11:10	5/16	887	930	960	72	2030.4
11:20	3/8	824	840	960	73	2737.3
11:30	5/16	884	885	960	78	2023.6
11:45	5/16	884	890	960	78	2023.6
noon	5/16	881	890	960	82	2016.9
12:15	5/16	882	890	950	82	2019.1
12:30	5/16	882	885	960	79	2019.1
12:45	5/16	882	885	965	78	2019.1
1:00	5/16	882	890	965	78	2019.1
1:15	5/16	880DW	885	965	78	2014.63

Second Flow Period

1:30	3/8	838	858	960	78	2730.9
1:45	3/8	840	855	960	78	2737.3
2:00	3/8	838	855	965	80	2730.9
2:15	3/8	838	860	965	80	2730.9
2:30	3/8	840	855	965	82	2737.9
2:45	3/8	839	855	965	82	2734.1
3:00	3/8	842	855	965	82	2743.7
3:15	3/8	839DW	855	975	82	2734.1

Third Flow Period

3:30	7/16	772	798	965	82	3611.3
3:45	7/16	775	800	960	84	3625.1
4:00	7/16	772	798	965	82	3611.3
4:15	7/16	772	800	962	84	3611.3
4:30	7/16	772	800	960	83	3611.3
4:45	7/16	770	800	960	83	3602.1
5:00	7/16	772	800	962	84	3611.3
5:15	7/16	774DW	800	960	84	3620.5

Fourth Flow Period

5:30	1/2	695	740	960	84	4088
5:45	1/2	695	740	960	84	4088
6:00	1/2	694	740	960	84	4083.7
6:15	1/2	694	740	960	84	4083.7
6:30	1/2	694	740	960	84	4083.7
6:45	1/2	694	740	960	84	4083.7
7:00	1/2	694	740	960	84	4083.7
7:15	1/2	696DW	738	960	84	4095.2

Deliver ability Test

7:30	3/4	400	522	940	80	5278.7
7:45	3/4	400	520	950	80	5278.7
8:00	3/4	400	530	945	80	5278.7
8:15	3/4	400	525	940	80	5278.7

Shut-in well @ 8:20 to flow through annulus

Opened well @ 8:25 flowing through annulus

8:30	3/4	610	920	720	80	7952.4
8:45	3/4	604	920	720	78	7876
9:00	3/4	609	920	720	78	7939.7
9:30	3/4	611	930	720	78	7965.1
10:30	3/4	611	900*new gauge	720	78	7965.1
11:30	3/4	611	900	720	78	7965.1
1:30am	3/4	611	900	720	78	7965.1
3:30	3/4	611	900	720	78	7965.1
5:30	3/4	612	900	720	76	7977.1
7:30	3/4	617DW	900	725	79	8041.53
9:30	3/4	615	900	725	79	
9:55 Opened 1/2" valve to purge tubing						
10:00	3/4	614DW	895	725	79	8003
10:20 Closed valve on tubing						
10:30	1/14					
10:45	1/14	230DW	900	676	76	9104.3
Noon	1/14	232DW	900	676	74	9179.4
5:00	1/14	233DW	900	670	76	
6:00	1/14 final reading	232DW	900	670	76	

Started out with probe at 6:03 PM stopping at 5000' and every 100' thereafter for 10 minute gradient stops. Recorder in lubricator at 8:43 PM. Rigged down

lubricator and flowed through both annulus @ tubing @ 9:50. (Adjustable choke was leaking so had to have wire out of wellhead valve). Flowed through tubing for 10 minutes.

Began Second Test per orders @ 9:00 PM started Probe at 9:30 PM in lubricator @ 9:40 PM landed probe @ 5125' @ 9:59 PM. Heavy rain.

Flowed through annulus w/ 1/14" plate as follows:

<u>Time</u>	<u>CFP</u>	<u>Tubing</u>	<u>Casing</u>	<u>Temp</u>	<u>Rate</u>
10:15PM	228	905	665	76	9030.5
11:00PM	235DW	900	665	77	9291.1
Midnight	234DW	900	665	78	9253.9

Shut-in well @ 12:00AM 7/30

<u>Time</u>	<u>Tubing</u>	<u>Casing W/dead weight</u>
12:05AM	940	942
12:30	940	942
8:00AM	942	944
9:00AM	942	944
10:00AM	942	944
Noon	942	945
9:00PM	942	945
9:00AM 8-1	942	945.5
Noon	942	946.5

Started out with probe @ 12:15 PM out @ 12:45 PM
 Pressure at end on annulus was 946.5
 Rigged down and e-mailed data.

Alpine Sub-surface Electronics
320, 645 - 7th Avenue S.W.
Calgary, Alberta, Canada
T2P 4G8

Phone: (403)266-2010
Fax : (403)264-7260
Telex: 03821089

Company: Western Operating Company
Address: 518 17th Street #1680
: Denver, CO 80202
:

Date: July 28 1998
to: July 29 1998

Well Name : 1-X Siverson 1-23 4pt@drawdown test
Location : 23-20s-42w Elev. : 0.00 KB(ft) 0.00 CF(ft)
Field/Pool: Wildcat Prod. Interval: 5124.00 to 5134.00 ft(CF)
Test Type : 4pt & Deliver ability Mid-Point Perf: 29.00 ft(CF)
Status : flowing Tubing: 2.00 inches @ 5129.00 ft(CF)

Wire Line Company : Trilobite Testing

Top Recorder Serial # 3246 Run Depth: 5125.00 ft(CF)
Range : 180 DEG F 449 PSI Sample Memory: 12500 Samples
Start Date/Time: Jul 28 1998 @ 9:41:57 End Date/Time: Jul 29 1998 @ 20:43:57
Date of Last Calibration: 0 0

Bottom Recorder Serial # Run Depth: 0.00 ft(CF)
Range : Sample Memory: 0 Samples
Start Date/Time: Jul 28 1998 @ 0:00:00 End Date/Time: Jul 28 1998 @ 0:00:00
Date of Last Calibration: December 12 1997

NOTE - 1 Sample = Time, Pressure, Temperature

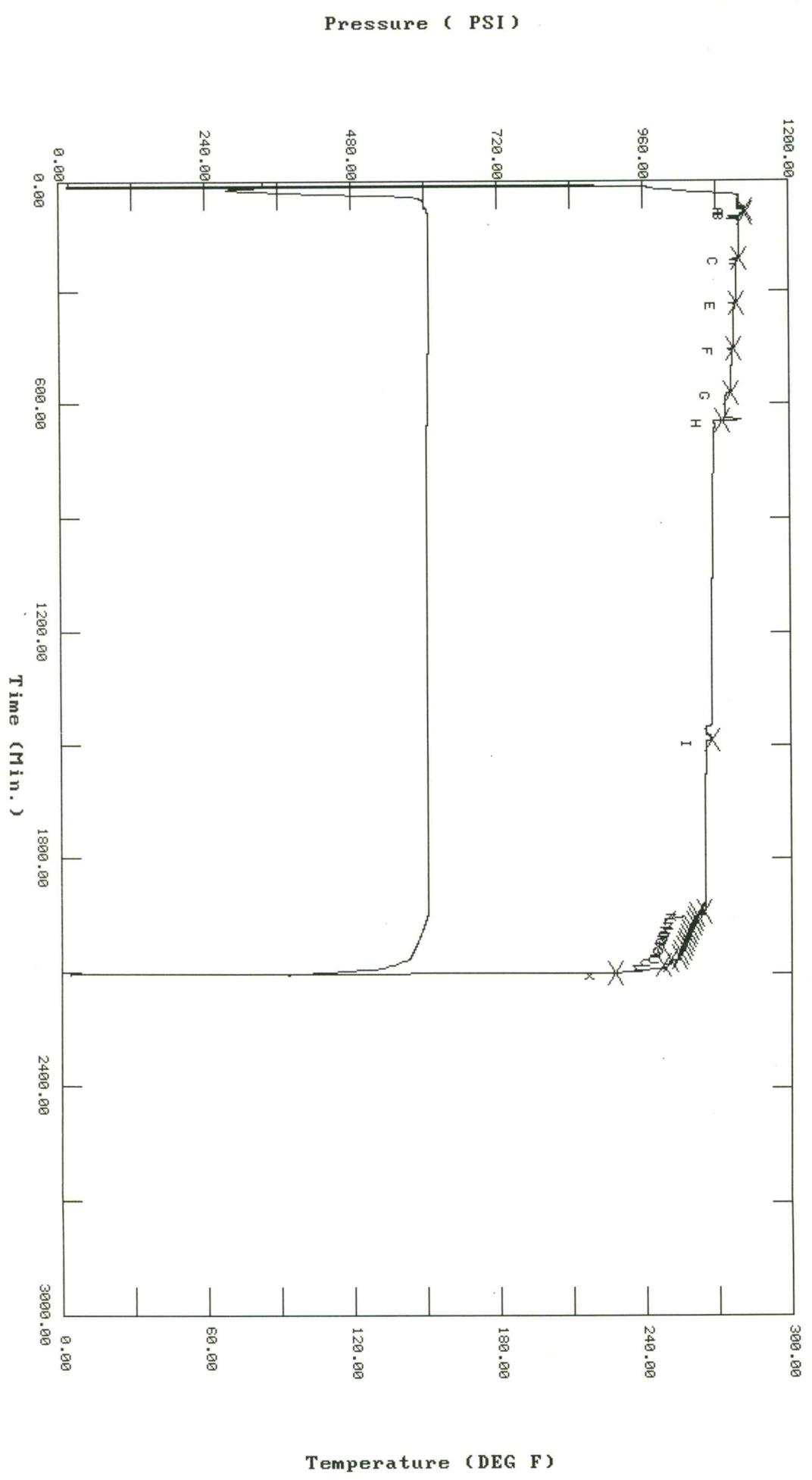
Program: Duration:	12 Hr.	Sample Rate:	30 Sec.	█P:	1060.44	
	Duration:	19 Hr.	Sample Rate:	1 Min.	█P:	1061.42
	Duration:	0 Hr.	Sample Rate:	0		

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.

TEST HISTORY

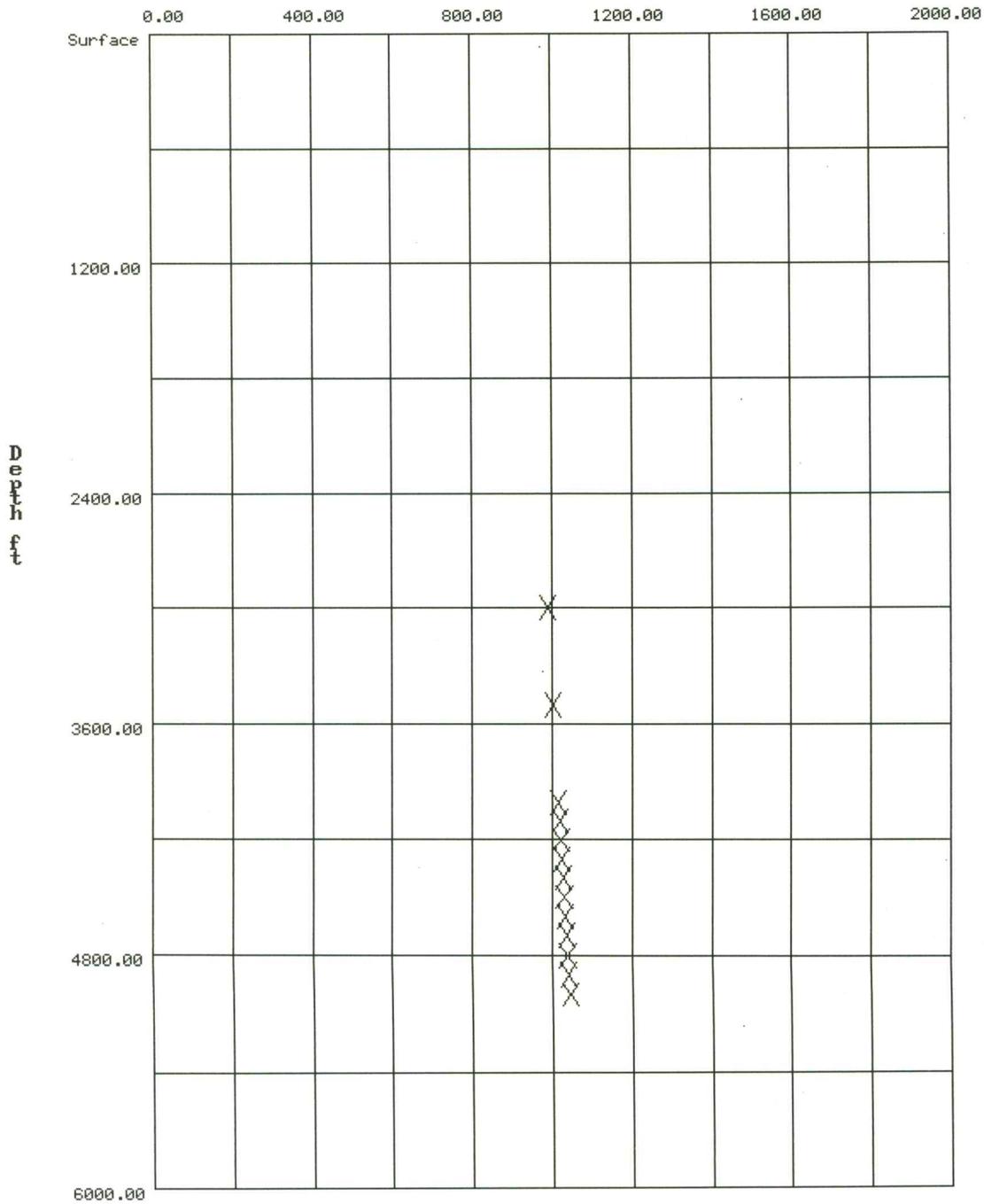
Western Operating Company 1-X Siverson 1-23 4pt@drawdown test



STATIC GRADIENT PLOT

Western Operating Company 1-X Siverson 1-23 4pt@drawdown test

Pressure (PSI)



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

Western Operating Company 1-X Siverson 1-23 4pt@drawdown test
 Date: 07/28/98 Time: 09:41:57

Depth ft	Time From hh:mm:ss	Time To hh:mm:ss	Pressure PSI	Gradient PSI/ft
5000.00	18:09:57	18:19:57	1044.22	0.0000
4900.00	18:20:57	18:30:57	1041.60	0.0262
4800.00	18:32:57	18:42:57	1038.73	0.0287
4700.00	18:42:57	18:52:57	1035.89	0.0284
4600.00	18:54:57	19:04:57	1033.02	0.0287
4500.00	19:04:57	19:14:57	1030.30	0.0272
4400.00	19:15:57	19:25:57	1027.34	0.0296
4300.00	19:26:57	19:36:57	1024.67	0.0267
4200.00	19:37:57	19:47:57	1021.79	0.0288
4100.00	19:47:57	19:57:57	1018.93	0.0286
4000.00	19:58:57	20:08:57	1015.98	0.0295
3500.00	20:08:57	20:18:57	1002.00	0.0280
3000.00	20:20:57	20:30:57	988.26	0.0275

ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: Western Operating Company 1-X Siverson 1-23 4pt@drawdown test

DATE: 07/28/98

TIME: 09:41:57

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Sample	Date	Time	Relative Seconds	Temperature DEG F	Pressure PSI
1	98/07/28	09:41:59	000:00:02	83.05 DEG F	15.22 PSI
started recorder					
Print every 30 samples					
31	98/07/28	09:43:57	000:02:00	83.69 DEG F	14.78 PSI
61	98/07/28	09:58:57	000:17:00	81.90 DEG F	965.93 PSI
opened valve in tubing					
Print every 20 samples					
81	98/07/28	10:08:57	000:27:00	76.03 DEG F	1014.66 PSI
101	98/07/28	10:18:57	000:37:00	116.42 DEG F	1109.39 PSI
121	98/07/28	10:28:57	000:47:00	147.40 DEG F	1117.74 PSI
141	98/07/28	10:38:57	000:57:00	149.74 DEG F	1117.70 PSI
161	98/07/28	10:48:57	001:07:00	150.16 DEG F	1117.60 PSI
181	98/07/28	10:58:57	001:17:00	151.26 DEG F	1117.58 PSI
A 185	98/07/28	11:00:57	001:19:00	151.15 DEG F	1127.37 PSI
** Flag Point A					
shutin well					
B 202	98/07/28	11:09:27	001:27:30	151.56 DEG F	1127.39 PSI
** Flag Point B					
opened well to start 4pt test					
5/16" plate					
222	98/07/28	11:19:27	001:37:30	151.78 DEG F	1103.22 PSI
242	98/07/28	11:29:27	001:47:30	151.78 DEG F	1119.30 PSI
262	98/07/28	11:39:27	001:57:30	151.84 DEG F	1119.41 PSI
282	98/07/28	11:49:27	002:07:30	151.87 DEG F	1119.32 PSI
302	98/07/28	11:59:27	002:17:30	151.85 DEG F	1119.10 PSI
322	98/07/28	12:09:27	002:27:30	151.83 DEG F	1118.96 PSI
342	98/07/28	12:19:27	002:37:30	151.81 DEG F	1118.74 PSI
362	98/07/28	12:29:27	002:47:30	151.80 DEG F	1118.64 PSI
382	98/07/28	12:39:27	002:57:30	151.79 DEG F	1118.50 PSI
402	98/07/28	12:49:27	003:07:30	151.78 DEG F	1118.42 PSI
422	98/07/28	12:59:27	003:17:30	151.76 DEG F	1118.32 PSI
442	98/07/28	13:09:27	003:27:30	151.75 DEG F	1118.18 PSI
C 451	98/07/28	13:13:57	003:32:00	151.75 DEG F	1118.20 PSI
** Flag Point C					
end of 1st flow period					
452	98/07/28	13:14:27	003:32:30	151.74 DEG F	1112.25 PSI
2nd period					
3/8" plate					
472	98/07/28	13:24:27	003:42:30	151.68 DEG F	1114.60 PSI
492	98/07/28	13:34:27	003:52:30	151.64 DEG F	1115.10 PSI
512	98/07/28	13:44:27	004:02:30	151.64 DEG F	1115.10 PSI
532	98/07/28	13:54:27	004:12:30	151.65 DEG F	1115.00 PSI
552	98/07/28	14:04:27	004:22:30	151.64 DEG F	1114.90 PSI
572	98/07/28	14:14:27	004:32:30	151.64 DEG F	1114.80 PSI
592	98/07/28	14:24:27	004:42:30	151.63 DEG F	1114.72 PSI
612	98/07/28	14:34:27	004:52:30	151.64 DEG F	1114.64 PSI
632	98/07/28	14:44:27	005:02:30	151.63 DEG F	1114.58 PSI
652	98/07/28	14:54:27	005:12:30	151.63 DEG F	1114.50 PSI
672	98/07/28	15:04:27	005:22:30	151.63 DEG F	1114.40 PSI
E 692	98/07/28	15:14:27	005:32:30	151.62 DEG F	1114.36 PSI
** Flag Point E					

ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: Western Operating Company 1-X Siverson 1-23 4pt@drawdown test

DATE: 07/28/98

TIME: 09:41:57

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Sample	Date	Time	Relative Seconds	Temperature DEG F	Pressure PSI
end of 2nd period					
693	98/07/28	15:14:57	005:33:00	151.62 DEG F	1107.13 PSI
7/16" plate					
713	98/07/28	15:24:57	005:43:00	151.56 DEG F	1110.59 PSI
733	98/07/28	15:34:57	005:53:00	151.55 DEG F	1110.43 PSI
753	98/07/28	15:44:57	006:03:00	151.53 DEG F	1110.36 PSI
773	98/07/28	15:54:57	006:13:00	151.53 DEG F	1110.27 PSI
793	98/07/28	16:04:57	006:23:00	151.52 DEG F	1110.18 PSI
813	98/07/28	16:14:57	006:33:00	151.52 DEG F	1110.10 PSI
833	98/07/28	16:24:57	006:43:00	151.51 DEG F	1110.06 PSI
853	98/07/28	16:34:57	006:53:00	151.51 DEG F	1110.00 PSI
873	98/07/28	16:44:57	007:03:00	151.51 DEG F	1109.90 PSI
893	98/07/28	16:54:57	007:13:00	151.51 DEG F	1109.86 PSI
913	98/07/28	17:04:57	007:23:00	151.51 DEG F	1109.80 PSI
933	98/07/28	17:14:57	007:33:00	151.51 DEG F	1109.72 PSI
F 937	98/07/28	17:16:57	007:35:00	151.51 DEG F	1109.74 PSI
** Flag Point F					
end of third period					
938	98/07/28	17:17:27	007:35:30	151.49 DEG F	1106.93 PSI
1/2" plate					
958	98/07/28	17:27:27	007:45:30	151.46 DEG F	1106.08 PSI
978	98/07/28	17:37:27	007:55:30	151.44 DEG F	1105.92 PSI
998	98/07/28	17:47:27	008:05:30	151.43 DEG F	1105.86 PSI
1018	98/07/28	17:57:27	008:15:30	151.42 DEG F	1105.76 PSI
1038	98/07/28	18:07:27	008:25:30	151.43 DEG F	1105.66 PSI
1058	98/07/28	18:17:27	008:35:30	151.42 DEG F	1105.60 PSI
1078	98/07/28	18:27:27	008:45:30	151.42 DEG F	1105.52 PSI
1098	98/07/28	18:37:27	008:55:30	151.42 DEG F	1105.48 PSI
1118	98/07/28	18:47:27	009:05:30	151.42 DEG F	1105.36 PSI
1138	98/07/28	18:57:27	009:15:30	151.42 DEG F	1105.27 PSI
1158	98/07/28	19:07:27	009:25:30	151.41 DEG F	1105.25 PSI
G 1173	98/07/28	19:14:57	009:33:00	151.41 DEG F	1105.21 PSI
** Flag Point G					
end of fourth period					
1174	98/07/28	19:15:27	009:33:30	151.41 DEG F	1102.78 PSI
3/4" plate					
1194	98/07/28	19:25:27	009:43:30	151.31 DEG F	1095.95 PSI
1214	98/07/28	19:35:27	009:53:30	151.25 DEG F	1095.71 PSI
1234	98/07/28	19:45:27	010:03:30	151.22 DEG F	1095.53 PSI
1254	98/07/28	19:55:27	010:13:30	151.22 DEG F	1095.43 PSI
1274	98/07/28	20:05:27	010:23:30	151.21 DEG F	1095.32 PSI
1294	98/07/28	20:15:27	010:33:30	151.20 DEG F	1095.24 PSI
1304	98/07/28	20:20:27	010:38:30	151.20 DEG F	1095.15 PSI
closed well to flow through annulus					
H 1315	98/07/28	20:25:57	010:44:00	151.24 DEG F	1089.92 PSI
** Flag Point H					
opened annulus w/ 3/4" plate					
Print every 50 samples					
1365	98/07/28	20:50:57	011:09:00	150.77 DEG F	1076.67 PSI
1415	98/07/28	21:15:57	011:34:00	150.73 DEG F	1075.73 PSI
1465	98/07/28	21:40:57	011:59:00	150.72 DEG F	1075.22 PSI

ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: Western Operating Company 1-X Siverson 1-23 4pt@drawdown test

DATE: 07/28/98

TIME: 09:41:57

PAGE: 003

Sample	Date	Time	Relative Seconds	Temperature	Pressure
				DEG F	PSI
1515	98/07/28	22:28:57	012:47:00	150.56 DEG F	1074.68 PSI
1565	98/07/28	23:18:57	013:37:00	150.56 DEG F	1074.16 PSI
1615	98/07/29	00:08:57	014:27:00	150.56 DEG F	1073.62 PSI
1665	98/07/29	00:58:57	015:17:00	150.56 DEG F	1073.14 PSI
1715	98/07/29	01:48:57	016:07:00	150.57 DEG F	1072.78 PSI
1765	98/07/29	02:38:57	016:57:00	150.57 DEG F	1072.39 PSI
1815	98/07/29	03:28:57	017:47:00	150.57 DEG F	1072.06 PSI
1865	98/07/29	04:18:57	018:37:00	150.58 DEG F	1071.65 PSI
1915	98/07/29	05:08:57	019:27:00	150.58 DEG F	1071.34 PSI
1965	98/07/29	05:58:57	020:17:00	150.58 DEG F	1071.04 PSI
2015	98/07/29	06:48:57	021:07:00	150.58 DEG F	1070.76 PSI
2065	98/07/29	07:38:57	021:57:00	150.59 DEG F	1070.56 PSI
2115	98/07/29	08:28:57	022:47:00	150.59 DEG F	1070.28 PSI
2165	98/07/29	09:18:57	023:37:00	150.59 DEG F	1070.02 PSI
2200	98/07/29	09:53:57	024:12:00	150.58 DEG F	1064.05 PSI
purging tubing					
I 2237	98/07/29	10:30:57	024:49:00	150.53 DEG F	1069.69 PSI
** Flag Point I					
1 1/4" plate					
2287	98/07/29	11:20:57	025:39:00	150.38 DEG F	1060.69 PSI
2337	98/07/29	12:10:57	026:29:00	150.37 DEG F	1059.99 PSI
2387	98/07/29	13:00:57	027:19:00	150.38 DEG F	1059.70 PSI
2437	98/07/29	13:50:57	028:09:00	150.38 DEG F	1059.46 PSI
2487	98/07/29	14:40:57	028:59:00	150.38 DEG F	1059.12 PSI
2537	98/07/29	15:30:57	029:49:00	150.39 DEG F	1058.82 PSI
2587	98/07/29	16:20:57	030:39:00	150.39 DEG F	1058.50 PSI
2637	98/07/29	17:10:57	031:29:00	150.39 DEG F	1058.26 PSI
J 2687	98/07/29	18:00:57	032:19:00	150.39 DEG F	1057.56 PSI
** Flag Point J					
started out of hole					
K 2696	98/07/29	18:09:57	032:28:00	150.35 DEG F	1044.22 PSI
** Flag Point K					
5000'					
L 2707	98/07/29	18:20:57	032:39:00	149.92 DEG F	1041.60 PSI
** Flag Point L					
4900'					
M 2719	98/07/29	18:32:57	032:51:00	149.36 DEG F	1038.73 PSI
** Flag Point M					
4800'					
N 2729	98/07/29	18:42:57	033:01:00	148.83 DEG F	1035.89 PSI
** Flag Point N					
4700'					
O 2741	98/07/29	18:54:57	033:13:00	148.03 DEG F	1033.02 PSI
** Flag Point O					
4600'					
P 2751	98/07/29	19:04:57	033:23:00	147.45 DEG F	1030.30 PSI
** Flag Point P					
4500'					
Q 2762	98/07/29	19:15:57	033:34:00	146.73 DEG F	1027.34 PSI
** Flag Point Q					
4400'					

ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: Western Operating Company 1-X Siverson 1-23 4pt@drawdown test

DATE: 07/28/98

TIME: 09:41:57

PAGE: 004

Sample	Date	Time	Relative Seconds	Temperature DEG F	Pressure PSI
R 2773	98/07/29	19:26:57	033:45:00	145.95 DEG F	1024.67 PSI
** Flag Point R 4300'					
S 2784	98/07/29	19:37:57	033:56:00	145.15 DEG F	1021.79 PSI
** Flag Point S 4200'					
T 2794	98/07/29	19:47:57	034:06:00	144.37 DEG F	1018.93 PSI
** Flag Point T 4100'					
U 2805	98/07/29	19:58:57	034:17:00	143.45 DEG F	1015.98 PSI
** Flag Point U 4000'					
V 2815	98/07/29	20:08:57	034:27:00	142.15 DEG F	1002.00 PSI
** Flag Point V 3500'					
W 2827	98/07/29	20:20:57	034:39:00	136.99 DEG F	988.26 PSI
** Flag Point W 3000'					
X 2849	98/07/29	20:42:57	035:01:00	104.18 DEG F	908.94 PSI
** Flag Point X in lubricator					
2854	98/07/29	20:47:57	035:06:00	92.74 DEG F	13.28 PSI
End of File					

Alpine Sub-surface Electronics
320, 645 - 7th Avenue S.W.
Calgary, Alberta, Canada
T2P 4G8

Phone: (403)266-2010
Fax : (403)264-7260
Telex: 03821089

Company: Western Operating
Address: 518 17th Street #1680
: Denver, CO 80202
:

Date: July 28 1998
to: August 1 1998

Well Name : Siverson 1-X Test #2 7-29-98
Location : 23-20s-42w Elev. : 0.00 KB(ft) 0.00 CF(ft)
Field/Pool: Wildcat Prod. Interval: 5124.00 to 5134.00 ft(CF)
Test Type : Drawdown & buildup Mid-Point Perf: 29.00 ft(CF)
Status : Flowing & shut-in Tubing: 2.00 inches @ 5129.00 ft(CF)

Wire Line Company : Trilobite Testing

Top Recorder Serial # 3246 Run Depth: 5125.00 ft(CF)
Range : .01 F, 4995 psig Sample Memory: 21500 Samples
Start Date/Time: Jul 28 1998 @ 21:30:49 End Date/Time: Aug 1 1998 @ 12:45:49
Date of Last Calibration: December 30 1997

Bottom Recorder Serial # Run Depth: 0.00 ft(CF)
Range : Sample Memory: 0 Samples
Start Date/Time: Jul 29 1998 @ 0:00:00 End Date/Time: Jul 29 1998 @ 0:00:00
Date of Last Calibration: 0 0

NOTE - 1 Sample = Time, Pressure, Temperature

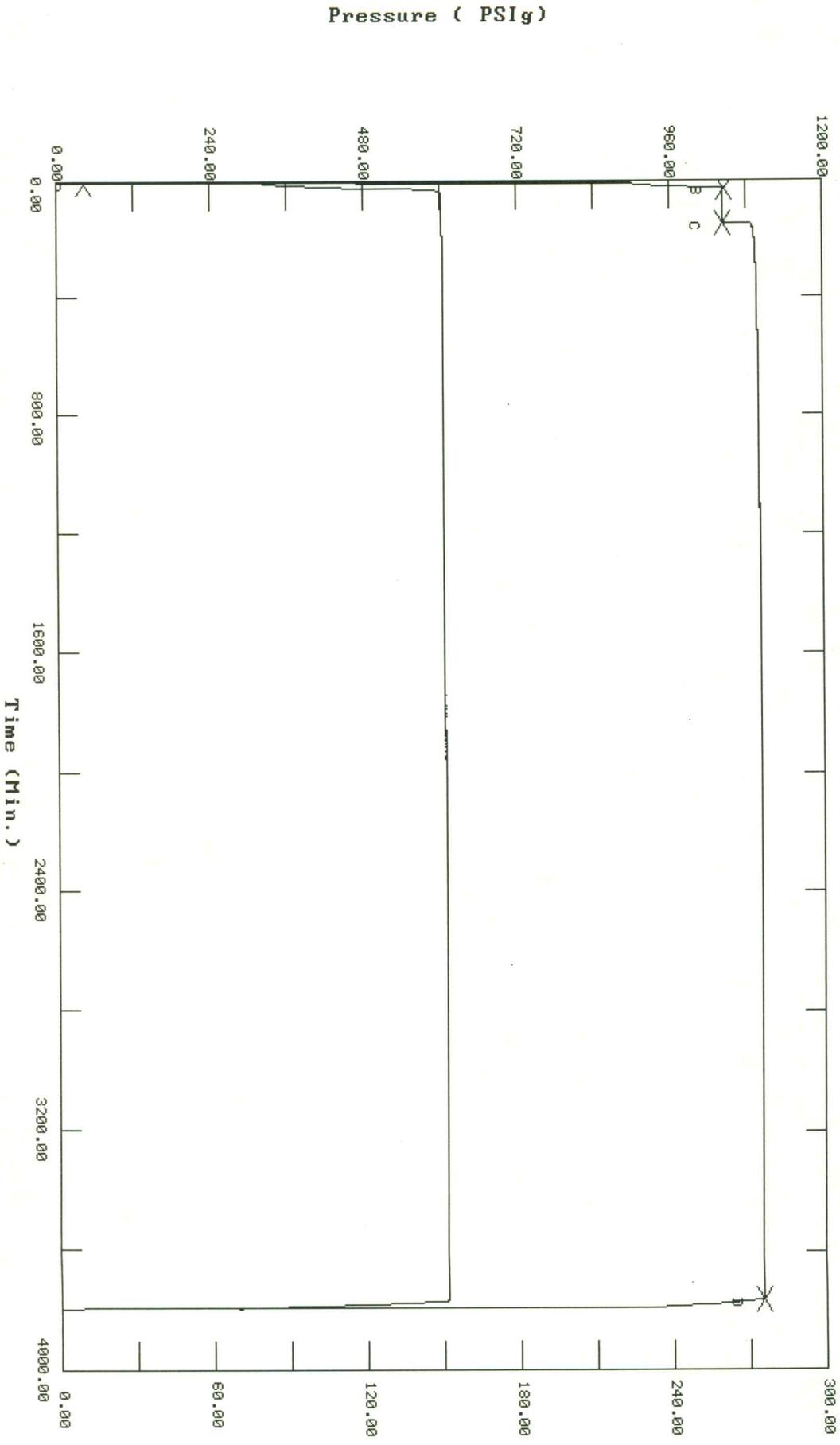
Program: Duration:	12 Hr.	Sample Rate:	30 Sec.	█P:	1099.50
	Duration:	51 Hr.	Sample Rate:	1 Min.	█P: 1099.50
	Duration:	0 Hr.	Sample Rate:	0	

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.

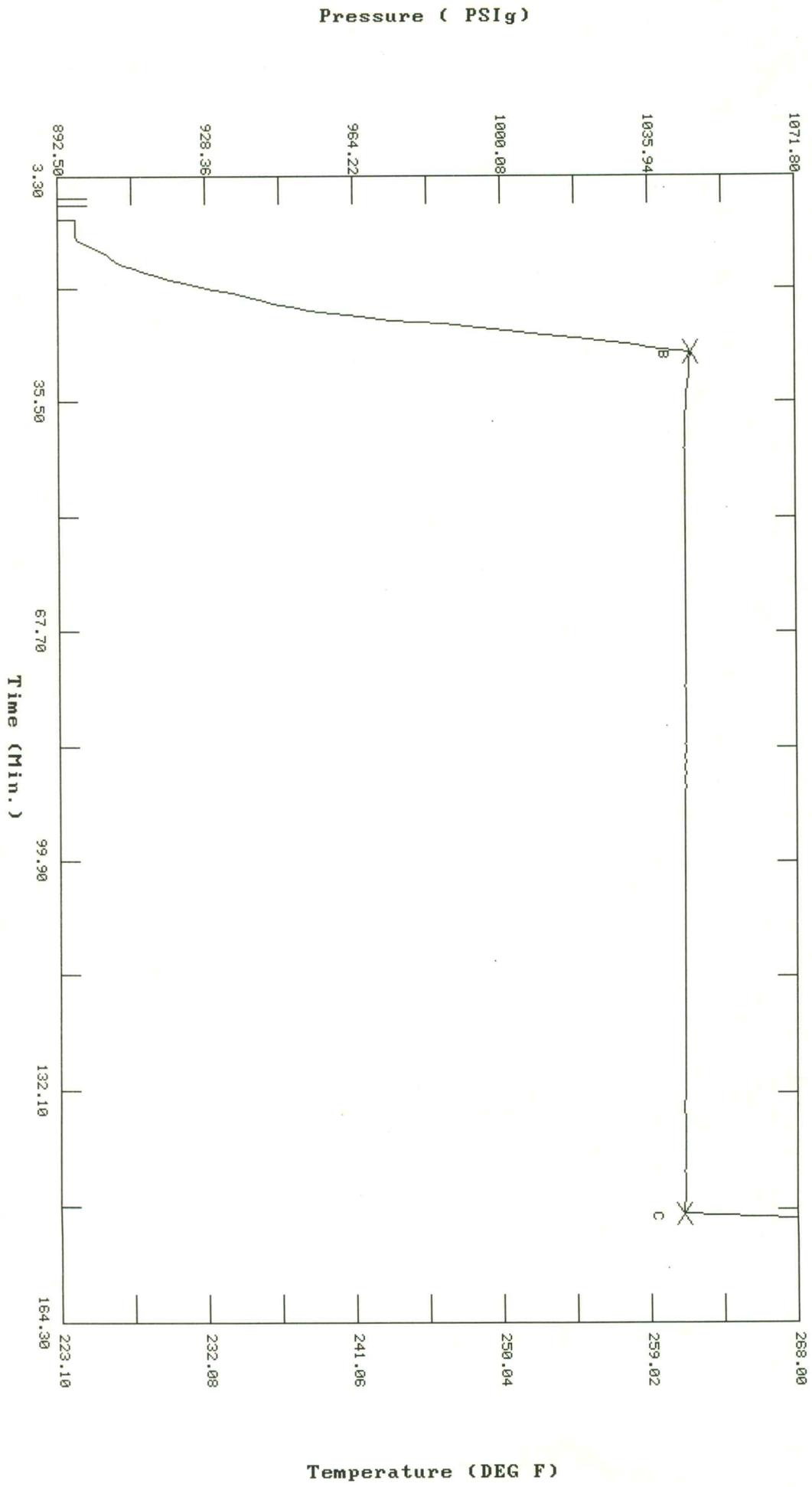
Western Oper. Co. Siverson 1-X Test #2 7-29-98

TEST HISTORY



Temperature (DEG F)

TEST HISTORY
Western Oper. Co. Siverston 1-X Test #2 7-29-98



ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: Western Oper. Co. Siverson 1-X Test #2 7-29-98

DATE: 07/29/98

TIME: 21:30:49

PAGE: 001

Sample	Date	Time	Relative Seconds	Temperature DEG F	Pressure PSIG
1	98/07/29	21:30:51	000:00:02	78.70 DEG F	0.00 PSIG
Print every 40 samples					
23	98/07/29	21:31:35	000:00:46	79.01 DEG F	0.00 PSIG
Print every 50 samples					
A 45	98/07/29	21:39:49	000:09:00	80.08 DEG F	42.88 PSIG
** Flag Point A opened valve at wellhead					
B 84	98/07/29	21:59:19	000:28:30	133.45 DEG F	1046.45 PSIG
** Flag Point B on bottom flowing well					
Print every 50 samples					
134	98/07/29	22:24:19	000:53:30	150.60 DEG F	1044.95 PSIG
184	98/07/29	22:49:19	001:18:30	150.63 DEG F	1044.79 PSIG
234	98/07/29	23:14:19	001:43:30	150.64 DEG F	1044.73 PSIG
284	98/07/29	23:39:19	002:08:30	150.64 DEG F	1044.50 PSIG
C 325	98/07/29	23:59:49	002:29:00	150.64 DEG F	1044.41 PSIG
** Flag Point C shutin well					
335	98/07/30	00:04:49	002:34:00	150.71 DEG F	1089.79 PSIG
Print every 100 samples					
435	98/07/30	00:54:49	003:24:00	150.91 DEG F	1093.80 PSIG
535	98/07/30	01:44:49	004:14:00	151.02 DEG F	1095.42 PSIG
635	98/07/30	02:34:49	005:04:00	151.12 DEG F	1096.46 PSIG
735	98/07/30	03:24:49	005:54:00	151.17 DEG F	1097.15 PSIG
835	98/07/30	04:14:49	006:44:00	151.24 DEG F	1097.66 PSIG
935	98/07/30	05:04:49	007:34:00	151.29 DEG F	1098.06 PSIG
1035	98/07/30	05:54:49	008:24:00	151.32 DEG F	1098.40 PSIG
1135	98/07/30	06:44:49	009:14:00	151.35 DEG F	1098.74 PSIG
1235	98/07/30	07:34:49	010:04:00	151.38 DEG F	1098.96 PSIG
1335	98/07/30	08:24:49	010:54:00	151.40 DEG F	1099.24 PSIG
1435	98/07/30	09:14:49	011:44:00	151.43 DEG F	1099.42 PSIG
1535	98/07/30	10:37:49	013:07:00	151.29 DEG F	1099.90 PSIG
1635	98/07/30	12:17:49	014:47:00	151.31 DEG F	1100.15 PSIG
1735	98/07/30	13:57:49	016:27:00	151.33 DEG F	1100.47 PSIG
1835	98/07/30	15:37:49	018:07:00	151.35 DEG F	1100.85 PSIG
1935	98/07/30	17:17:49	019:47:00	151.37 DEG F	1101.07 PSIG
2035	98/07/30	18:57:49	021:27:00	151.38 DEG F	1101.38 PSIG
2135	98/07/30	20:37:49	023:07:00	151.42 DEG F	1101.54 PSIG
2235	98/07/30	22:17:49	024:47:00	151.43 DEG F	1101.70 PSIG
2335	98/07/30	23:57:49	026:27:00	151.44 DEG F	1101.80 PSIG
2435	98/07/31	01:37:49	028:07:00	151.45 DEG F	1101.94 PSIG
2535	98/07/31	03:17:49	029:47:00	151.46 DEG F	1102.06 PSIG
2635	98/07/31	04:57:49	031:27:00	151.47 DEG F	1102.16 PSIG
2735	98/07/31	06:37:49	033:07:00	151.47 DEG F	1102.24 PSIG
2835	98/07/31	08:17:49	034:47:00	151.48 DEG F	1102.32 PSIG
2935	98/07/31	09:57:49	036:27:00	151.48 DEG F	1102.40 PSIG
3035	98/07/31	11:37:49	038:07:00	151.49 DEG F	1102.50 PSIG
3135	98/07/31	13:17:49	039:47:00	151.49 DEG F	1102.56 PSIG
3235	98/07/31	14:57:49	041:27:00	151.49 DEG F	1102.62 PSIG
3335	98/07/31	16:37:49	043:07:00	151.49 DEG F	1102.68 PSIG

ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: Western Oper. Co. Siverson 1-X Test #2 7-29-98

DATE: 07/29/98

TIME: 21:30:49

PAGE: 002

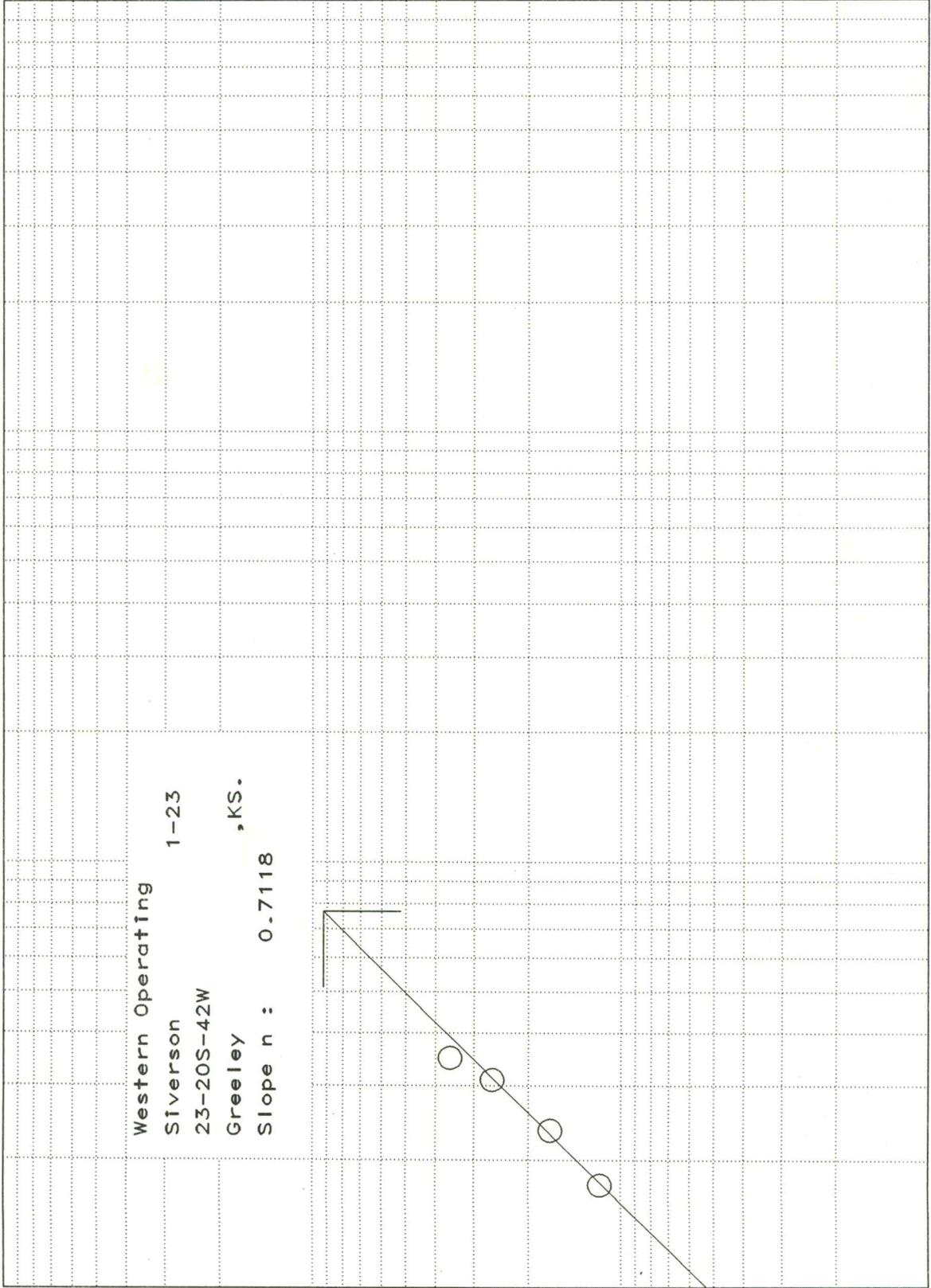
Sample	Date	Time	Relative Seconds	Temperature DEG F	Pressure PSIG
3435	98/07/31	18:17:49	044:47:00	151.50 DEG F	1102.76 PSIG
3535	98/07/31	19:57:49	046:27:00	151.51 DEG F	1102.74 PSIG
3635	98/07/31	21:37:49	048:07:00	151.52 DEG F	1102.82 PSIG
3735	98/07/31	23:17:49	049:47:00	151.53 DEG F	1102.94 PSIG
3835	98/08/01	00:57:49	051:27:00	151.52 DEG F	1102.96 PSIG
3935	98/08/01	02:37:49	053:07:00	151.53 DEG F	1103.00 PSIG
4035	98/08/01	04:17:49	054:47:00	151.53 DEG F	1102.98 PSIG
4135	98/08/01	05:57:49	056:27:00	151.54 DEG F	1103.00 PSIG
4235	98/08/01	07:37:49	058:07:00	151.54 DEG F	1103.10 PSIG
4335	98/08/01	09:17:49	059:47:00	151.55 DEG F	1103.12 PSIG
4435	98/08/01	10:57:49	061:27:00	151.54 DEG F	1103.12 PSIG
D 4512	98/08/01	12:14:49	062:44:00	151.55 DEG F	1103.20 PSIG
** Flag Point D					
opened packoff					
4513	98/08/01	12:15:49	062:45:00	151.55 DEG F	1103.18 PSIG
pulled recorder					
4543	98/08/01	12:45:49	063:15:00	69.25 DEG F	0.00 PSIG
End of File					

GAS WELL BACK PRESSURE CURVE

WELL TESTER:
TEST DATE: 7-28-98

Western Operating
Siverson 1-23
23-20S-42W
Greeley ,KS.
Slope n : 0.7118

$P_c^2 - P_w^2$ (10³ PSI²)



100000

10000

1000

Q (MCF/DAY)