

1823 Ranger North Liard P-66A
Pressure Data

N.E.B. COPY

RANGER OIL LIMITED

RANGER ^{NORTH}~~FORT~~ LIARD
P-66-A

STATIC GRADIENT

JULY 9, 1998

MICROFILMED
SUR MICROFILM:

(403) 250-3800

GENCO Pressure Control Limited

CALGARY, AB.

SUBSURFACE PRESSURE MEASUREMENTS

Basic Data:

Company <u>Ranger Oil Limited</u>	Gentronics Electronic Gauge
Address <u>#1600, 321 - 6Th. Ave. S.W.</u>	c/w Memory Recorder
<u>Calgary, AB.</u>	S/N: <u>GMQ-9804</u>
<u>T2P 3H3</u>	
Well Name <u>Ranger Fort Liard</u>	Field & Pool <u>Liard / Nihanni</u>
Well Identifier <u>P-66-A</u>	Type of Test <u>Static Gradient</u>
Status <u>Shut in Gas</u>	Date of Test <u>Jul 09, 1998</u>
DWG Tubing Pressure <u>21550</u> kPa	DWG Casing Pressure <u>N/A</u> kPa
Tubing <u>88.9</u> mm @ <u>3082.4</u> m KB	Casing <u>177.8</u> mm @ <u>3499.0</u> m KB
Producing Interval <u>3115 - 3334</u>	Producing Through <u>Tubing</u>
Elevation <u>449.54</u> m CF, <u>459.89</u> m KB	MPP Interval <u>3214.2</u> m CF
Datum Depth of Well _____ m CF	Run Depth <u>3276.4</u> m CF
Temperature at Run Depth <u>155.3</u> °C	Pool Datum _____ m (subsea)
Pressure at Run Depth <u>26781</u> kPaG	Gradient at Run Depth <u>1.40</u> kPa/m
MPP Pressure <u>26696</u> kPaG	Datum Depth Pressure _____ kPaG
Final Buildup Pressure _____ kPaG	Date on Bottom <u>July 09, 1998</u>
Date off Bottom <u>July 09, 1998</u>	Shut in Date <u>July 09, 1998</u>

Summary:

Tandem LMR Quartz Recorders ran within Specifications.

Pulled 58 mm PX plug July 8 - 9, 1998.

Preparation Data:

Tested By <u>GENCO</u>	Computed By <u>P. Mulgrew</u>	Report Date <u>Jul 30, 1998</u>
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BOTTOM GAUGE

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

OPERATIONS SUMMARY

Company: **Ranger Oil Limited**
Ranger Fort LiardLSD: **P-66-A**

Bottom Gauge

Date	Time	dt(hrs)	P(kPaG)	T(°C)	Pt. #	Remarks
1998/07/09	18:15:01	0.0000	0.0	21.6	1 :	Begin Data Acquisition
	18:16:10	0.0192	26537.9	21.7	8 :	Pressure Test Lubricator
	18:27:08	0.2019	21545.9	22.2	73 :	@ surface
	18:45:19	0.5050	22690.5	24.6	182 :	@ 500 mCF
	19:01:49	0.7800	23692.4	47.5	281 :	@ 1000 mCF
	19:18:01	1.0500	24554.3	78.5	378 :	@ 1500 mCF
	19:34:10	1.3192	25244.2	104.7	475 :	@ 2000 mCF
	19:46:31	1.5250	25507.0	116.4	549 :	@ 2200 mCF
	19:59:11	1.7361	25739.4	122.6	625 :	@ 2400 mCF
	20:11:40	1.9442	25958.5	129.3	700 :	@ 2600 mCF
	20:24:52	2.1642	26172.0	135.9	779 :	@ 2800 mCF
	20:37:10	2.3692	26396.7	143.1	853 :	@ 3000 mCF
	20:47:50	2.5469	26483.1	147.7	917 :	@ 3050 mCF
	20:58:20	2.7219	26553.0	149.6	980 :	@ 3100 mCF
	21:10:20	2.9219	26615.4	151.4	1052 :	@ 3150 mCF
	21:21:19	3.1050	26678.3	153.1	1118 :	@ 3200 mCF
	21:32:40	3.2942	26744.7	154.2	1186 :	@ 3250 mCF
	21:43:38	3.4769	26781.1	155.3	1252 :	@ 3276 mCF (run depth)
	22:43:38	4.4769	26791.6	155.8	1612 :	Recorders Off Bottom.
	23:09:08	4.9019	15714.2	51.0	1764 :	End Data Acquisition

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

STATIC GRADIENT SURVEY

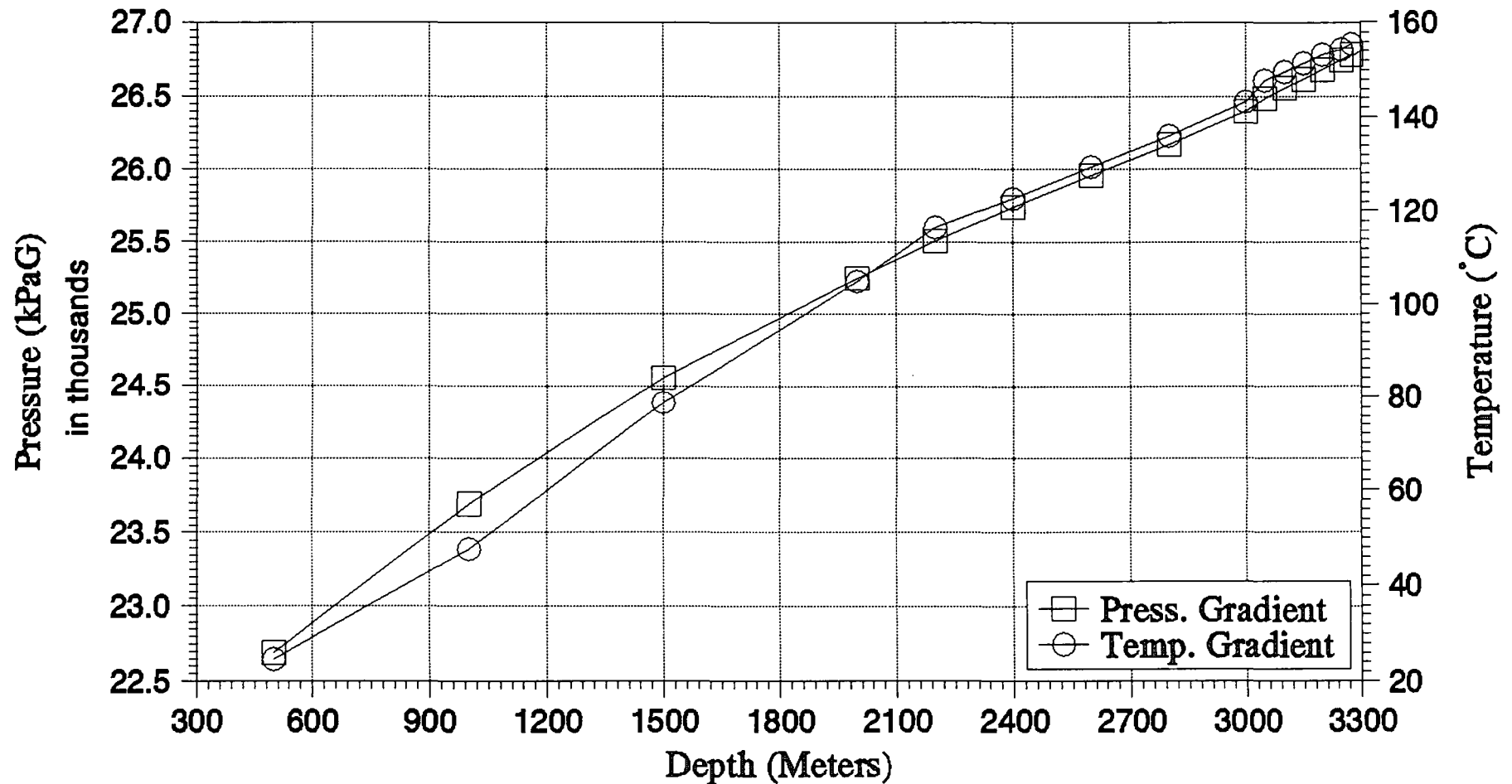
Company: **Ranger Oil Limited**
Ranger Fort LiardLSD: **P-66-A**

Bottom Gauge

Depth (meters)	Pressure (kPaG)	Gradient (kPa/m)	Temp (°C)	Gradient (°C/m)
At Surface: 1998/07/09 18:27:08 (Running In)				
000	21546	-----	22.2	-----
500	22691	2.29	24.6	0.005
1000	23692	2.00	47.5	0.046
1500	24554	1.72	78.5	0.062
2000	25244	1.38	104.7	0.052
2200	25507	1.31	116.4	0.059
2400	25739	1.16	122.6	0.031
2600	25959	1.10	129.3	0.034
2800	26172	1.07	135.9	0.033
3000	26397	1.12	143.1	0.036
3050	26483	1.73	147.7	0.092
3100	26553	1.40	149.6	0.038
3150	26615	1.25	151.4	0.036
3200	26678	1.26	153.1	0.034
3250	26745	1.33	154.2	0.022
3276	26781	1.40	155.3	0.042

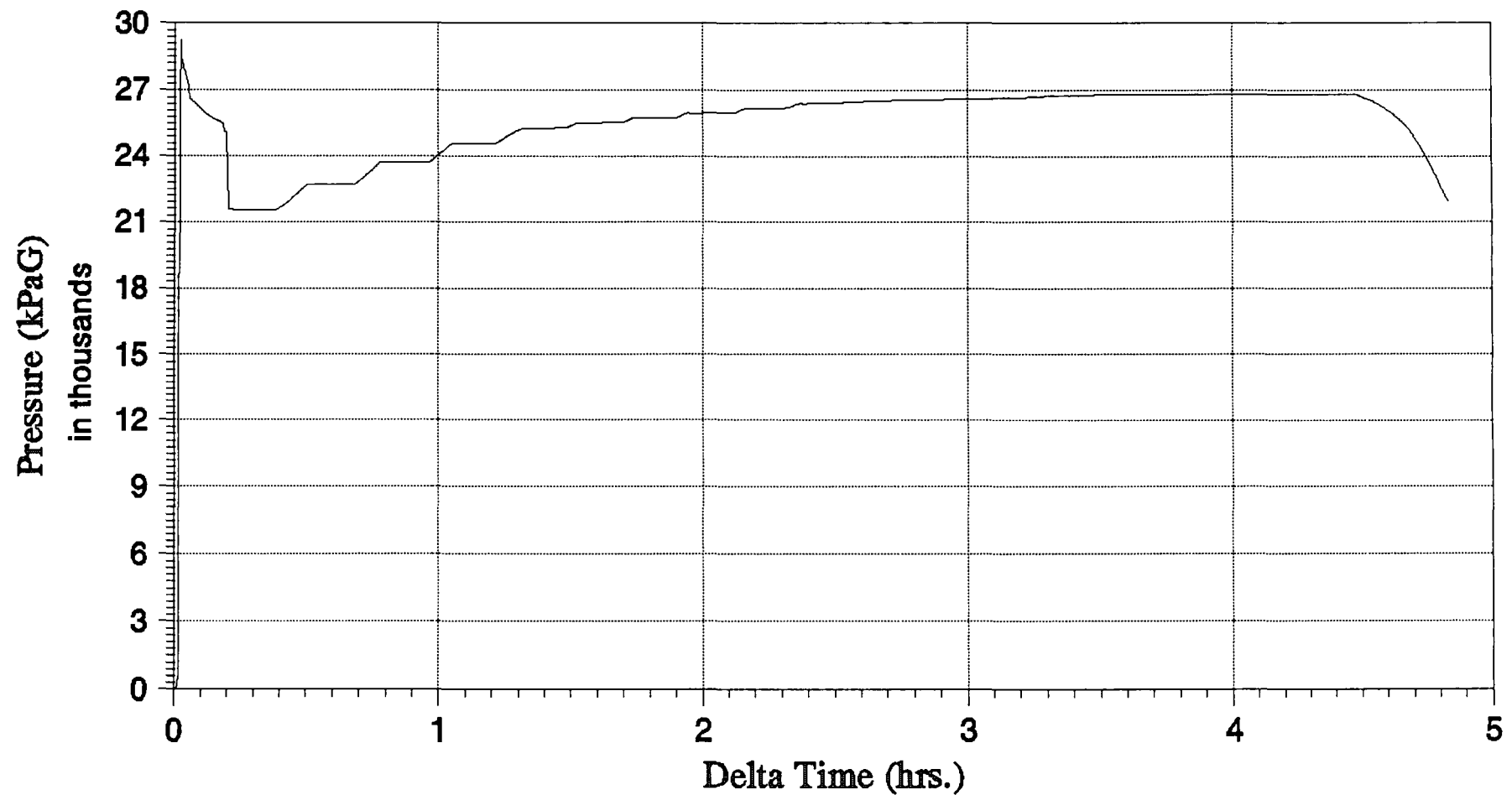
Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.

Ranger Oil Limited
P-66-A
Gentronics Quartz Static Gradient Survey



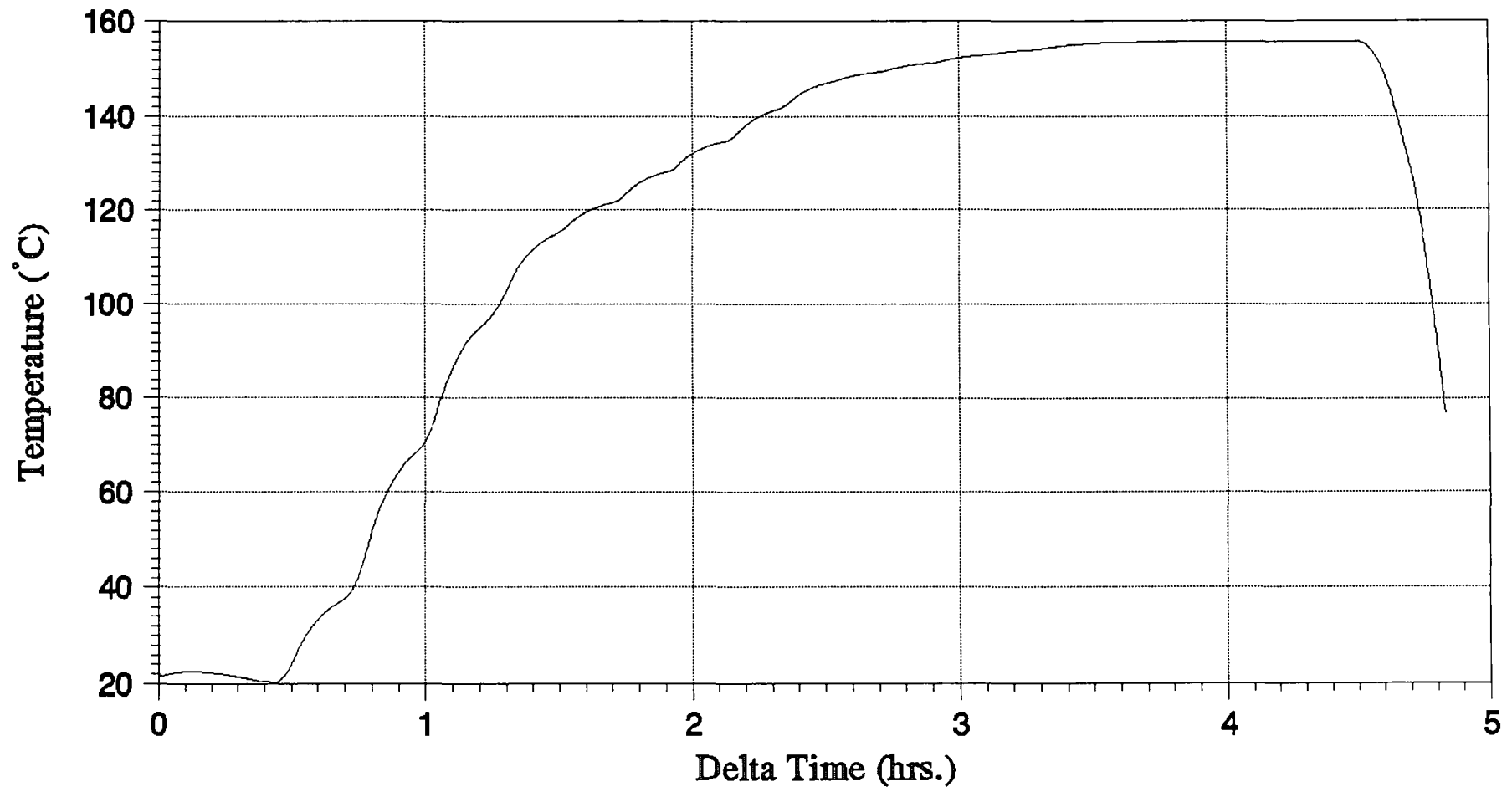
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/09 18:15:01
End Aquisition: 1998/07/09 23:09:08

Ranger Oil Limited
P-66-A
Gentronics Quartz Bottom Gauge Pressures



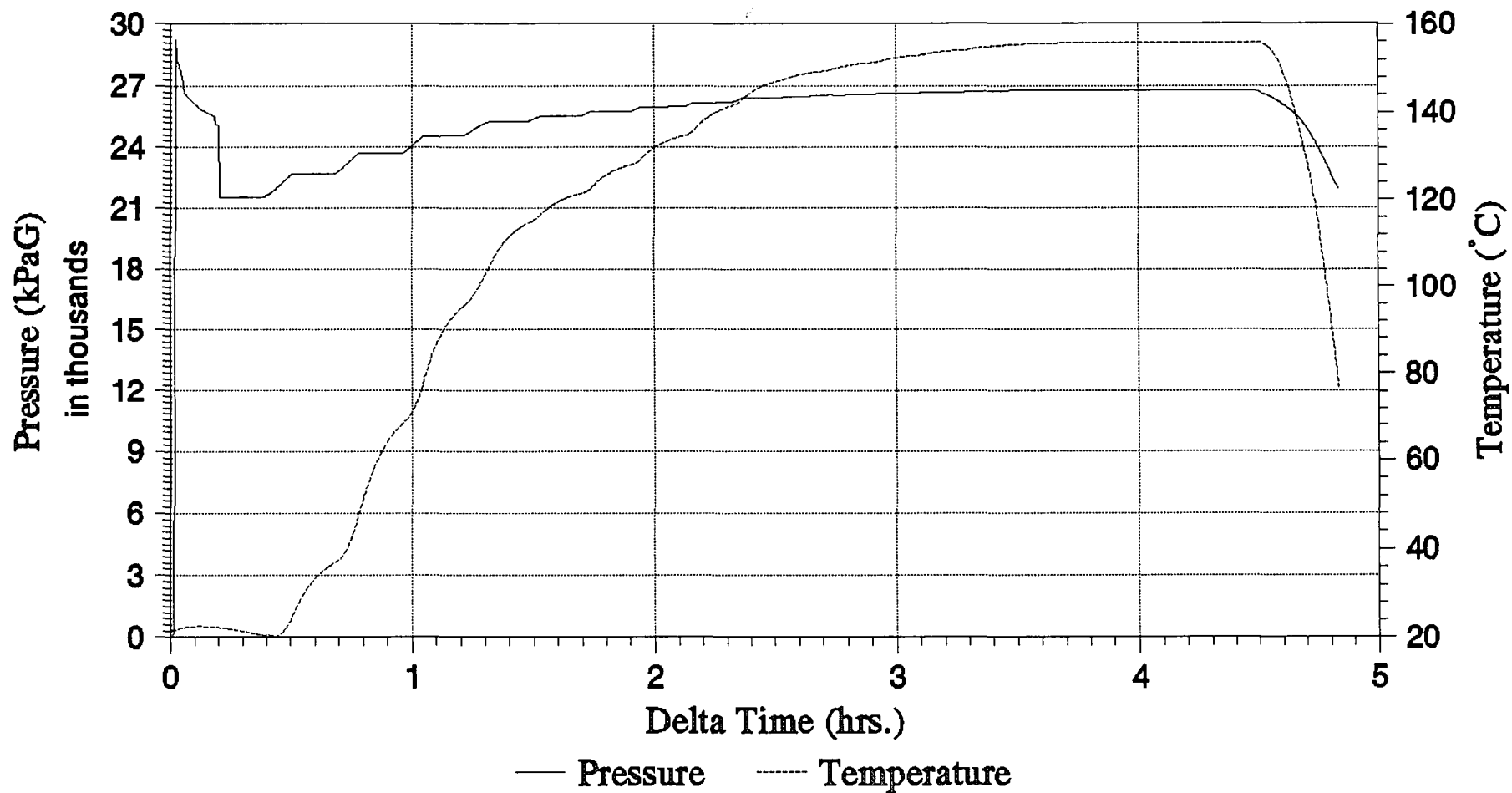
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/09 18:15:01
End Aquisition: 1998/07/09 23:09:08

Ranger Oil Limited
P-66-A
Gentronics Quartz Bottom Gauge Temp.



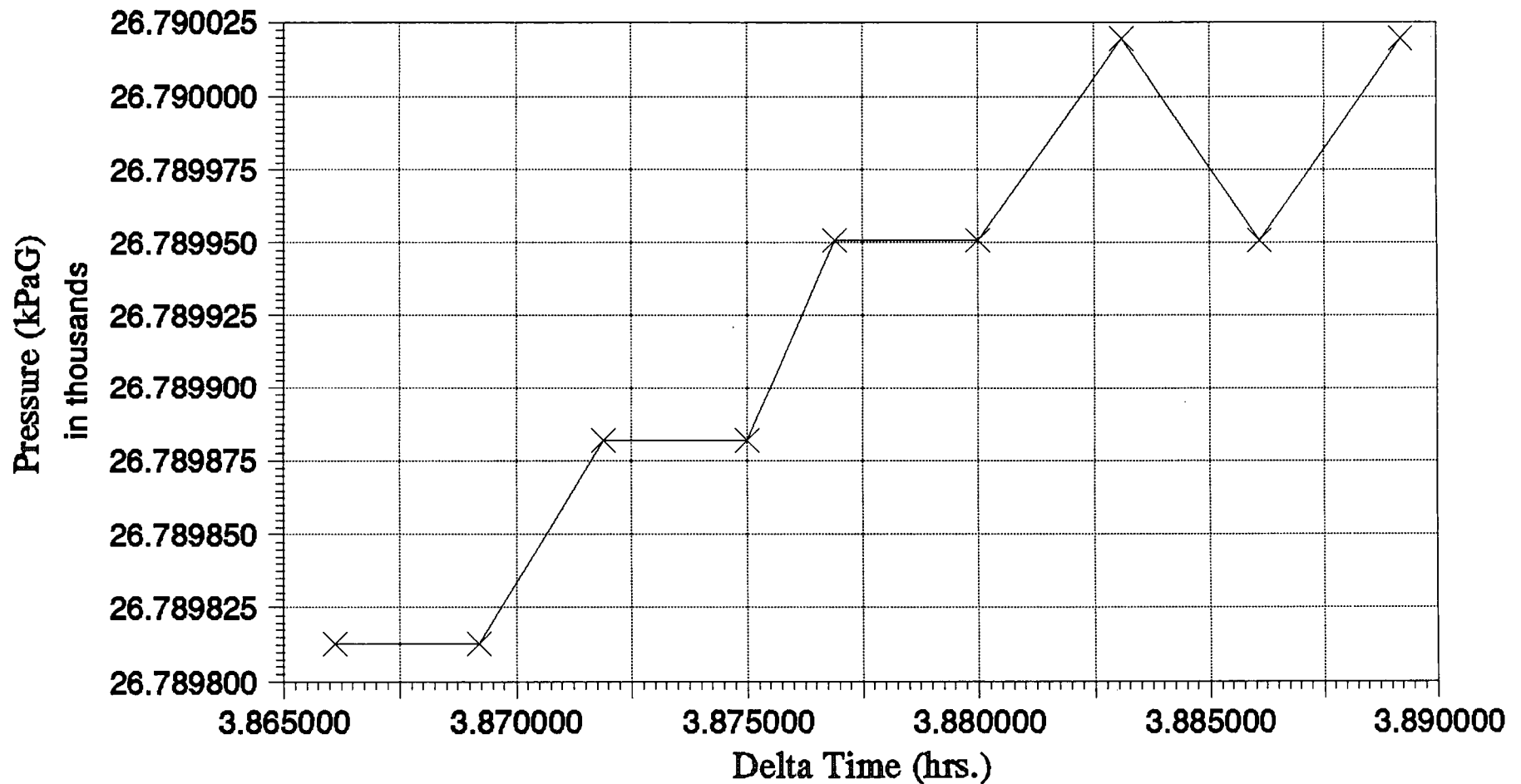
Genco Pressure Control Ltd (403)250-3800
Start Acquisition: 1998/07/09 18:15:01
End Acquisition: 1998/07/09 23:09:08

Ranger Oil Limited
P-66-A
Gentronics Quartz Bottom Pressure/Temp



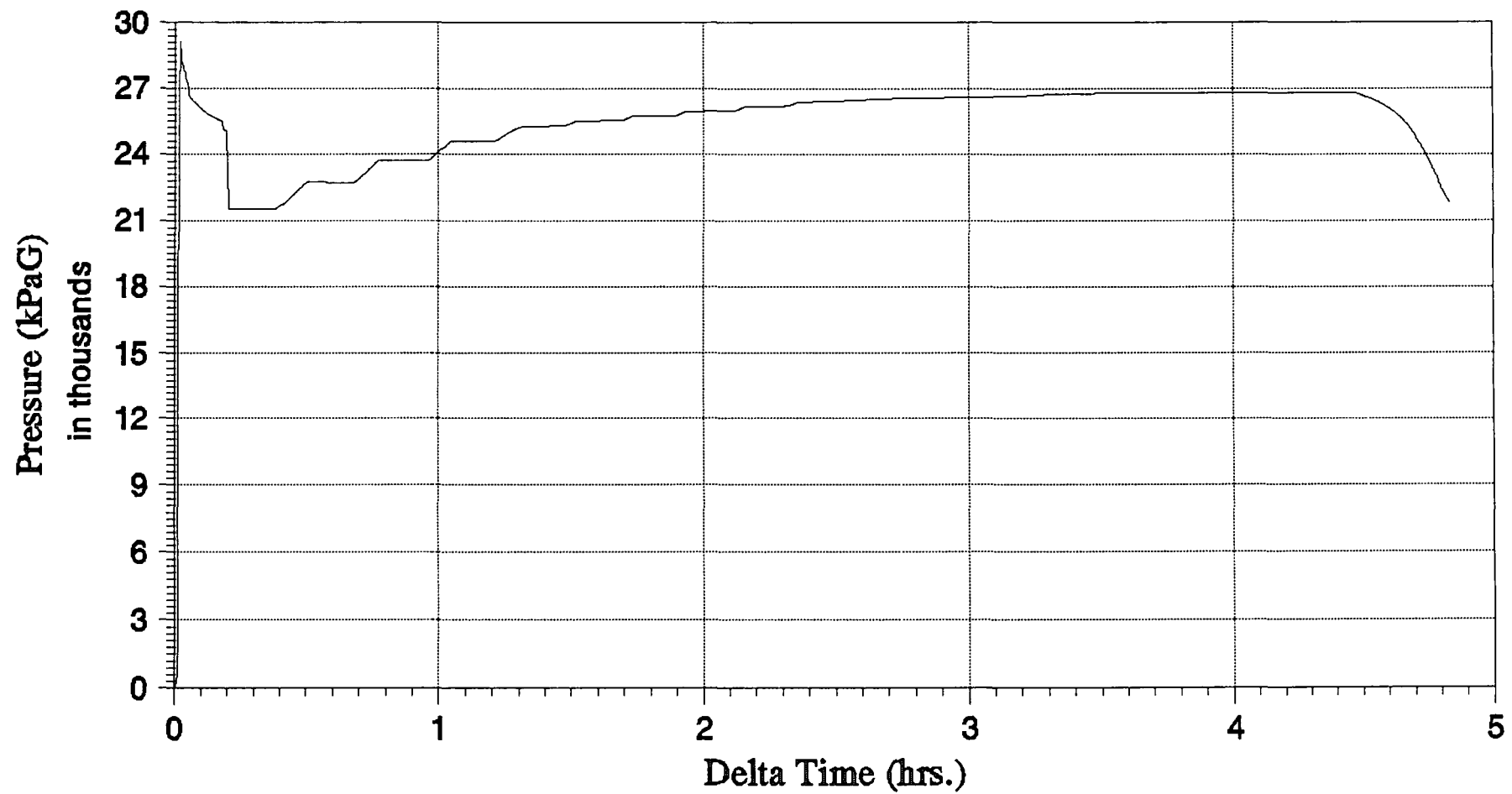
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/09 18:15:01
End Aquisition: 1998/07/09 23:09:08

Ranger Oil Limited
P-66-A
Bottom Gauge Apparent Resolution



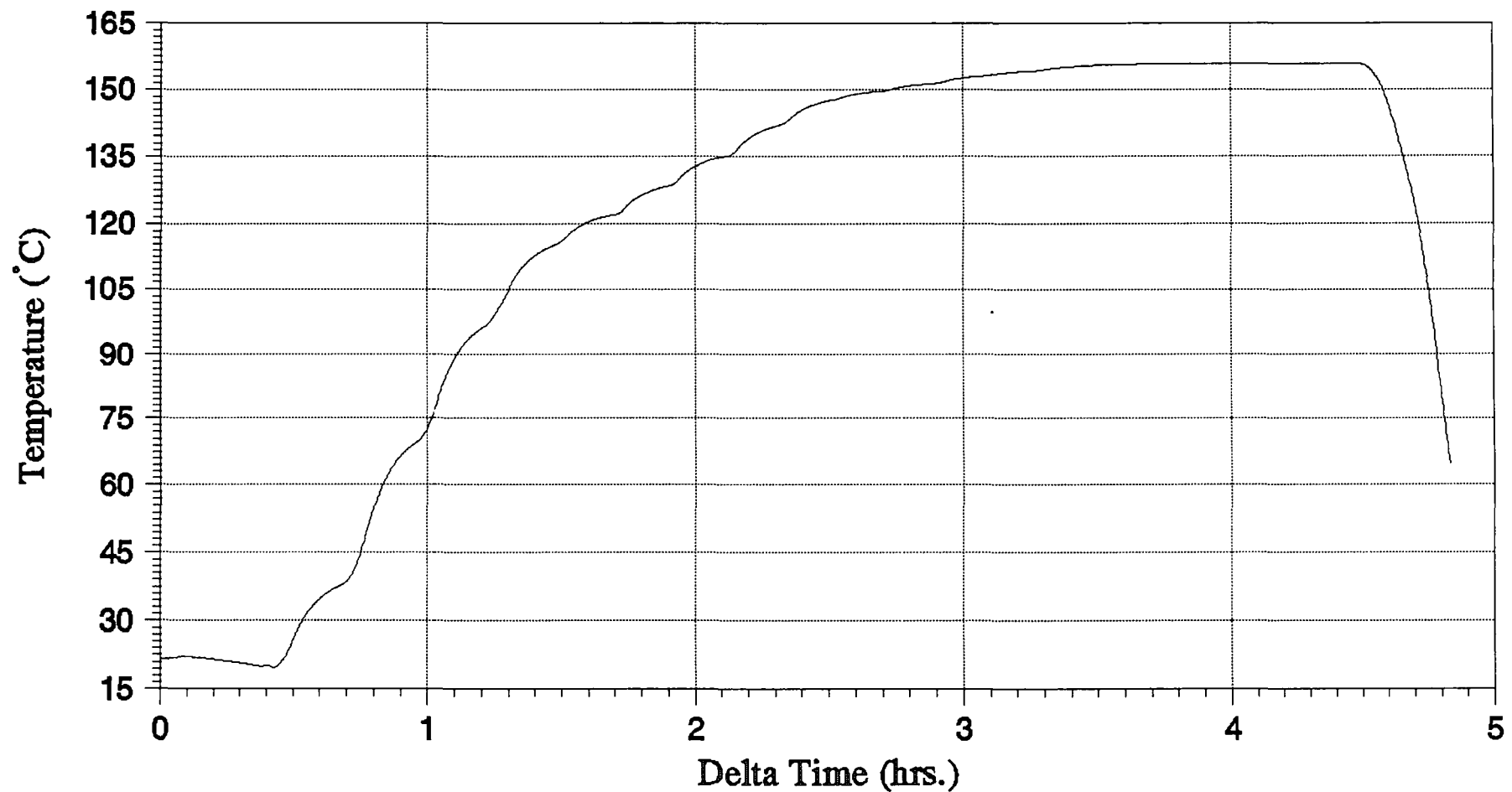
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/09 18:15:01
End Aquisition: 1998/07/09 23:09:08

Ranger Oil Limited
P-66-A
Gentronics Quartz Top Gauge Pressures



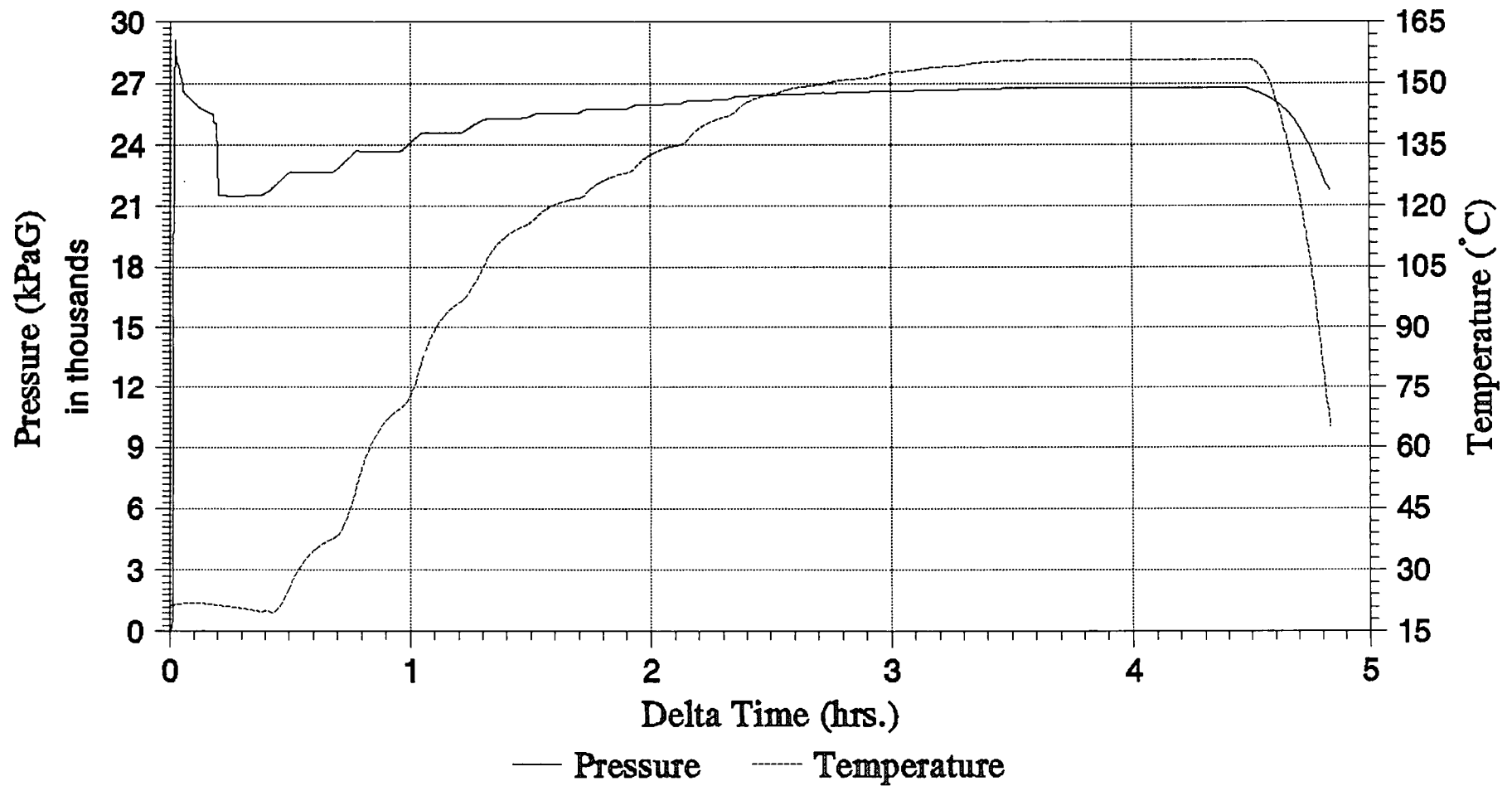
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/09 18:15:01
End Aquisition: 1998/07/09 23:09:08

Ranger Oil Limited
P-66-A
Gentronics Quartz Top Gauge Temp.



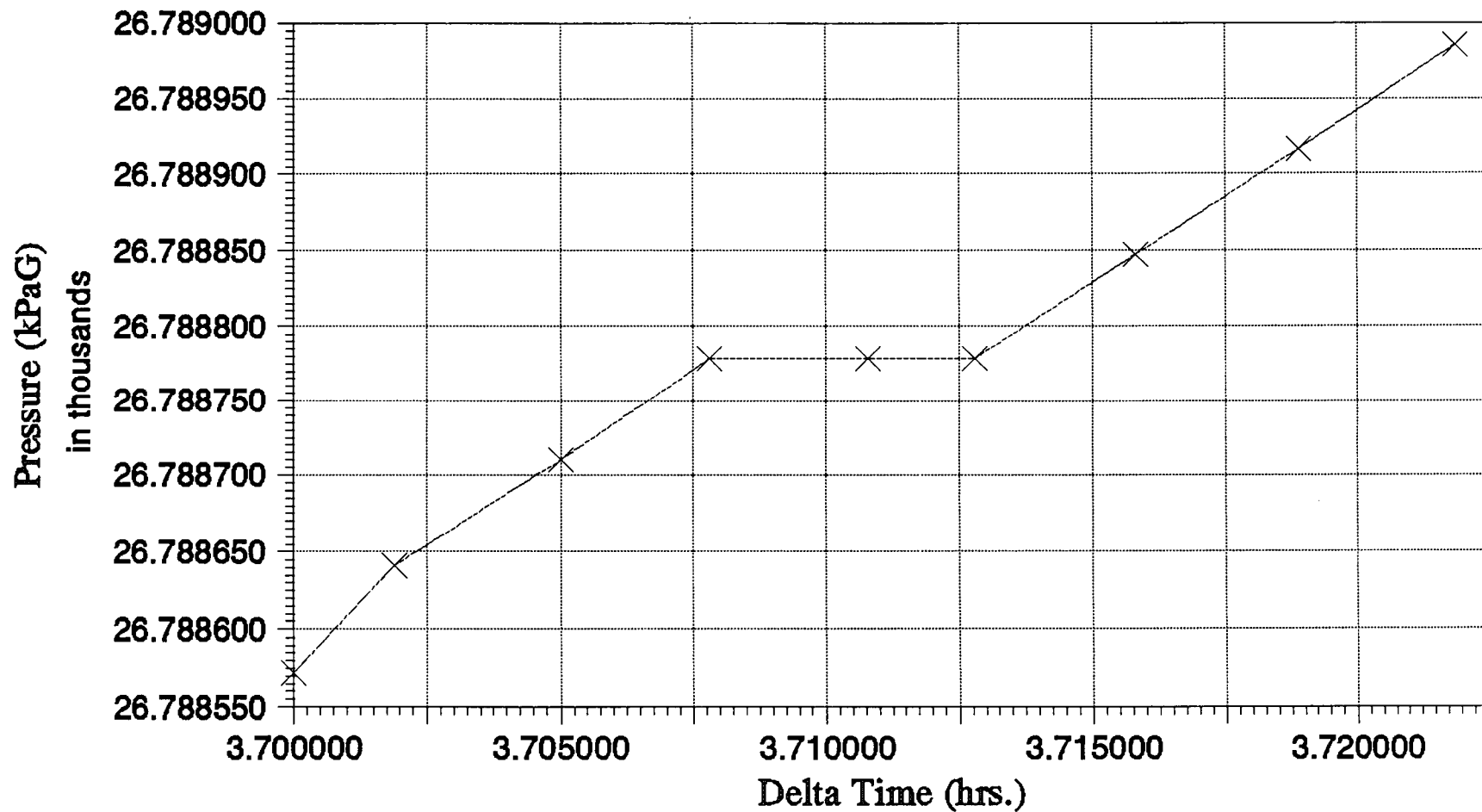
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/09 18:15:01
End Aquisition: 1998/07/09 23:09:08

Ranger Oil Limited
P-66-A
Gentronic Quartz Top Pressure/Temp



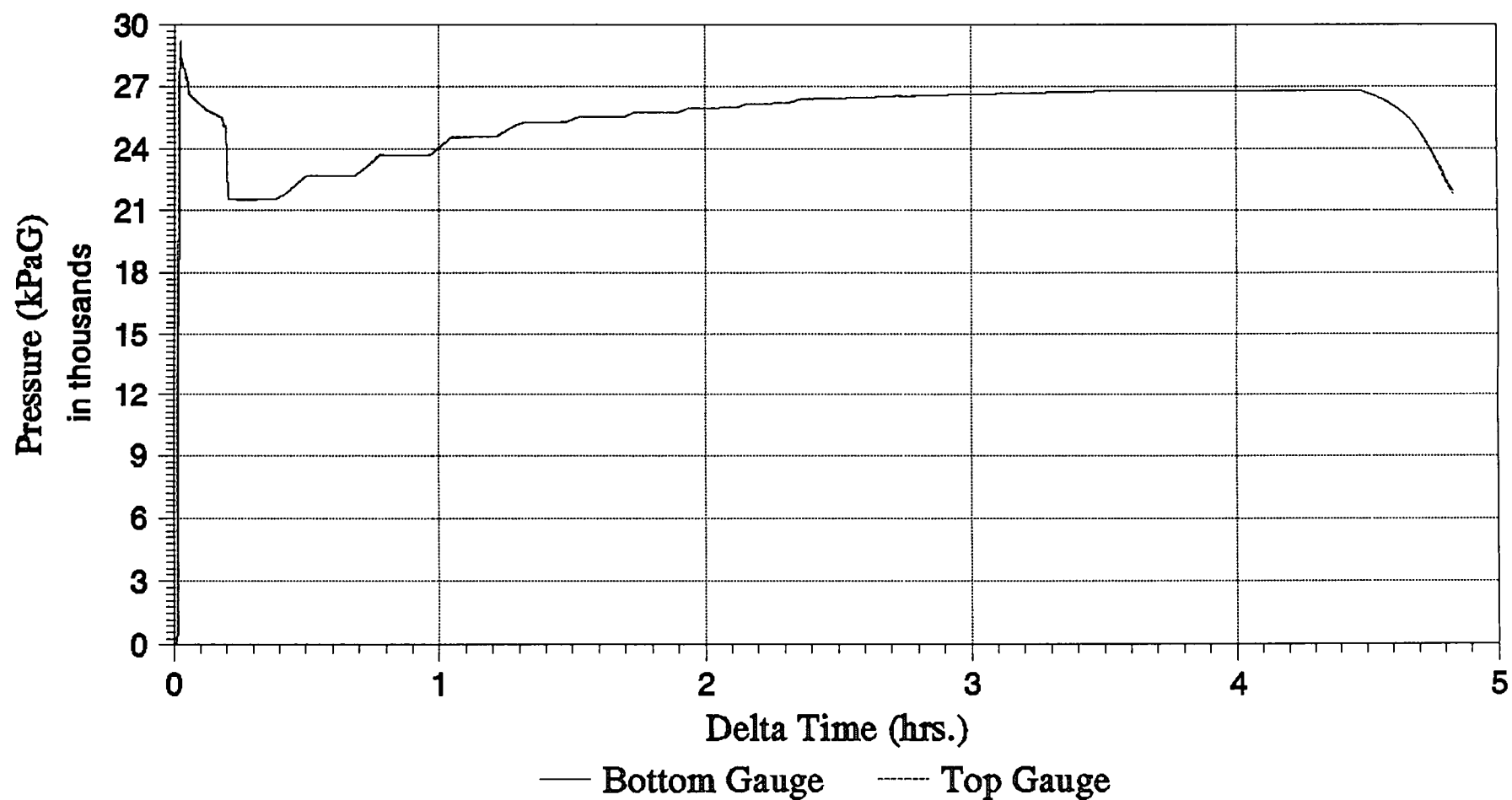
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/09 18:15:01
End Aquisition: 1998/07/09 23:09:08

Ranger Oil Limited
P-66-A
Top Gauge Apparent Resolution



GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/09 18:15:01
End Aquisition: 1998/07/09 23:09:08

Ranger Oil Limited
P-66-A
Gentronics Quartz Gauge Press. Tracking



GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/09 18:15:01
End Aquisition: 1998/07/09 23:09:08

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: Ranger Oil Limited
Ranger Fort Liard

LSD: P-66-A

Bottom Gauge

Date	Time	dt (hrs)	P (kPaG)	dP	T (°C)	dT	Pt. #
Begin Data Acquisition:							
1998/07/09	18:15:01	0.0000	0.0	0.0	21.6	21.6	0:
	18:16:10	0.0192	26537.9	26537.9	21.7	0.0	8:
	18:17:29	0.0411	27743.7	1205.8	22.0	0.4	16:
	18:18:52	0.0642	26546.5	-1197.2	22.3	0.2	24:
	18:20:11	0.0861	26280.7	-265.8	22.4	0.1	32:
	18:21:30	0.1081	26026.9	-253.8	22.5	0.1	40:
	18:22:49	0.1300	25815.1	-211.8	22.5	0.0	48:
	18:24:08	0.1519	25675.2	-139.8	22.4	-0.1	56:
	18:25:31	0.1750	25543.6	-131.6	22.3	-0.1	64:
	18:26:50	0.1969	25071.2	-472.4	22.2	-0.1	72:
	18:28:20	0.2219	21542.3	-3528.9	22.1	-0.2	80:
	18:29:40	0.2442	21530.0	-12.3	21.9	-0.1	88:
	18:30:59	0.2661	21526.2	-3.9	21.7	-0.2	96:
	18:32:22	0.2892	21527.4	1.2	21.5	-0.2	104:
	18:33:41	0.3111	21527.7	0.3	21.3	-0.2	112:
	18:35:00	0.3331	21529.2	1.5	21.0	-0.2	120:
	18:36:19	0.3550	21531.1	1.9	20.8	-0.2	128:
	18:37:38	0.3769	21532.3	1.2	20.5	-0.2	136:
	18:39:01	0.4000	21642.9	110.6	20.5	-0.1	144:
	18:40:20	0.4219	21812.6	169.7	20.3	-0.2	152:
	18:41:40	0.4442	22046.7	234.2	20.3	-0.1	160:
	18:42:59	0.4661	22287.6	240.8	21.2	0.9	168:
	18:44:22	0.4892	22530.3	242.7	22.8	1.6	176:
	18:45:41	0.5111	22689.8	159.5	25.2	2.4	184:
	18:47:00	0.5331	22690.8	1.0	27.8	2.5	192:
	18:48:19	0.5550	22692.9	2.1	29.9	2.1	200:
	18:49:38	0.5769	22694.5	1.6	31.7	1.8	208:
	18:51:01	0.6000	22695.7	1.2	33.2	1.5	216:
	18:52:20	0.6219	22696.9	1.2	34.5	1.3	224:
	18:53:40	0.6442	22697.1	0.1	35.5	1.1	232:
	18:54:59	0.6661	22696.5	-0.6	36.4	0.9	240:
	18:56:22	0.6892	22743.9	47.4	37.1	0.7	248:
	18:57:41	0.7111	22947.7	203.8	38.1	1.0	256:
	18:59:00	0.7331	23186.1	238.4	40.0	1.9	264:
	19:00:19	0.7550	23430.4	244.4	42.9	2.9	272:
	19:01:38	0.7769	23679.8	249.3	46.9	4.0	280:
	19:03:01	0.8000	23690.2	10.5	51.4	4.4	288:
	19:04:20	0.8219	23689.5	-0.8	55.2	3.8	296:
	19:05:40	0.8442	23688.2	-1.2	58.3	3.2	304:
	19:06:59	0.8661	23686.8	-1.4	61.0	2.7	312:
	19:08:22	0.8892	23686.3	-0.5	63.2	2.2	320:
	19:09:41	0.9111	23686.8	0.5	65.1	1.8	328:
	19:11:00	0.9331	23688.4	1.7	66.6	1.5	336:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 8 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: Ranger Oil Limited
Ranger Fort Liard

LSD: P-66-A

Bottom Gauge

Date	Time	dt(hrs)	P (kPaG)	dP	T(°C)	dT	Pt. #
	19:12:19	0.9550	23690.4	2.0	67.8	1.3	344:
	19:13:38	0.9769	23815.5	125.1	68.9	1.1	352:
	19:15:01	1.0000	24051.8	236.3	70.7	1.8	360:
	19:16:20	1.0219	24283.8	232.0	73.6	2.8	368:
	19:17:40	1.0442	24506.9	223.1	77.5	3.9	376:
	19:18:59	1.0661	24552.9	46.0	81.6	4.1	384:
	19:20:22	1.0892	24552.2	-0.7	84.9	3.4	392:
	19:21:41	1.1111	24554.4	2.2	87.8	2.8	400:
	19:23:00	1.1331	24557.8	3.4	90.1	2.3	408:
	19:24:19	1.1550	24563.2	5.4	92.0	1.9	416:
	19:25:38	1.1769	24568.1	4.9	93.6	1.6	424:
	19:27:01	1.2000	24573.5	5.4	94.8	1.3	432:
	19:28:20	1.2219	24616.6	43.2	95.9	1.1	440:
	19:29:40	1.2442	24785.3	168.7	97.2	1.3	448:
	19:30:59	1.2661	24958.0	172.7	99.1	1.8	456:
	19:32:22	1.2892	25109.7	151.7	101.2	2.2	464:
	19:33:41	1.3111	25217.5	107.8	103.7	2.5	472:
	19:35:00	1.3331	25242.7	25.2	106.3	2.6	480:
	19:36:19	1.3550	25247.3	4.6	108.4	2.1	488:
	19:37:38	1.3769	25254.5	7.2	110.1	1.7	496:
	19:39:01	1.4000	25262.4	7.9	111.5	1.4	504:
	19:40:20	1.4219	25270.1	7.7	112.6	1.1	512:
	19:41:40	1.4442	25277.2	7.1	113.6	0.9	520:
	19:42:59	1.4661	25283.7	6.5	114.3	0.8	528:
	19:44:22	1.4892	25321.7	38.0	114.9	0.6	536:
	19:45:41	1.5111	25435.3	113.6	115.8	0.8	544:
	19:47:00	1.5331	25504.2	68.9	116.8	1.1	552:
	19:48:19	1.5550	25504.9	0.7	117.9	1.1	560:
	19:49:38	1.5769	25508.3	3.4	118.8	0.9	568:
	19:51:01	1.6000	25513.0	4.7	119.6	0.8	576:
	19:52:20	1.6219	25517.8	4.8	120.2	0.6	584:
	19:53:40	1.6442	25522.5	4.7	120.7	0.5	592:
	19:54:59	1.6661	25526.6	4.1	121.1	0.4	600:
	19:56:22	1.6892	25530.1	3.5	121.4	0.3	608:
	19:57:41	1.7111	25591.4	61.3	121.7	0.3	616:
	19:59:00	1.7331	25726.9	135.6	122.4	0.7	624:
	20:00:19	1.7550	25730.5	3.5	123.7	1.3	632:
	20:01:38	1.7769	25730.2	-0.3	124.8	1.1	640:
	20:03:01	1.8000	25733.8	3.6	125.7	0.9	648:
	20:04:20	1.8219	25738.8	5.0	126.4	0.7	656:
	20:05:40	1.8442	25744.0	5.2	126.9	0.6	664:
	20:06:59	1.8661	25749.1	5.0	127.4	0.5	672:
	20:08:22	1.8892	25753.5	4.4	127.8	0.4	680:
	20:09:41	1.9111	25778.2	24.7	128.2	0.3	688:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 8 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: **Ranger Oil Limited**
Ranger Fort LiardLSD: **P-66-A**

Bottom Gauge

Date	Time	dt (hrs)	P (kPaG)	dP	T (°C)	dT	Pt. #
	20:11:00	1.9331	25910.0	131.8	128.8	0.6	696:
	20:12:19	1.9550	25950.5	40.5	130.0	1.2	704:
	20:13:38	1.9769	25949.5	-1.0	131.1	1.1	712:
	20:15:01	2.0000	25953.4	3.9	131.9	0.8	720:
	20:16:20	2.0219	25959.3	5.9	132.7	0.7	728:
	20:17:40	2.0442	25965.7	6.3	133.3	0.6	736:
	20:18:59	2.0661	25971.1	5.4	133.8	0.5	744:
	20:20:22	2.0892	25976.1	5.0	134.2	0.4	752:
	20:21:41	2.1111	25980.5	4.4	134.5	0.3	760:
	20:23:00	2.1331	26013.1	32.5	134.8	0.3	768:
	20:24:19	2.1550	26131.3	118.2	135.5	0.7	776:
	20:25:38	2.1769	26163.5	32.1	136.8	1.3	784:
	20:27:01	2.2000	26161.5	-2.0	138.0	1.2	792:
	20:28:20	2.2219	26166.1	4.6	138.9	0.9	800:
	20:29:40	2.2442	26173.4	7.3	139.7	0.8	808:
	20:30:59	2.2661	26181.0	7.6	140.3	0.6	816:
	20:32:22	2.2892	26188.1	7.1	140.9	0.6	824:
	20:33:41	2.3111	26194.4	6.3	141.3	0.4	832:
	20:35:00	2.3331	26242.7	48.3	141.8	0.4	840:
	20:36:19	2.3550	26341.6	98.9	142.4	0.7	848:
	20:37:38	2.3769	26390.2	48.6	143.5	1.1	856:
	20:39:01	2.4000	26389.5	-0.8	144.4	0.9	864:
	20:40:20	2.4219	26395.1	5.7	145.2	0.8	872:
	20:41:40	2.4442	26402.7	7.5	145.9	0.7	880:
	20:42:59	2.4661	26410.4	7.7	146.4	0.5	888:
	20:44:22	2.4892	26417.4	7.0	146.8	0.4	896:
	20:45:41	2.5111	26423.6	6.1	147.2	0.3	904:
	20:47:00	2.5331	26432.0	8.4	147.4	0.3	912:
	20:48:19	2.5550	26480.0	48.1	147.8	0.4	920:
	20:49:38	2.5769	26481.0	1.0	148.2	0.4	928:
	20:51:01	2.6000	26484.5	3.5	148.6	0.3	936:
	20:52:20	2.6219	26488.1	3.6	148.8	0.2	944:
	20:53:40	2.6442	26491.5	3.4	149.0	0.2	952:
	20:54:59	2.6661	26494.4	2.9	149.2	0.2	960:
	20:56:22	2.6892	26497.1	2.7	149.3	0.2	968:
	20:57:41	2.7111	26508.3	11.2	149.4	0.1	976:
	20:59:00	2.7331	26546.6	38.3	149.7	0.3	984:
	21:00:19	2.7550	26542.4	-4.2	150.1	0.4	992:
	21:01:38	2.7769	26543.0	0.6	150.4	0.3	1000:
	21:03:01	2.8000	26545.2	2.2	150.7	0.3	1008:
	21:04:20	2.8219	26548.2	3.0	150.8	0.2	1016:
	21:05:40	2.8442	26551.2	3.0	151.0	0.2	1024:
	21:06:59	2.8661	26553.8	2.6	151.2	0.2	1032:
	21:08:22	2.8892	26556.3	2.5	151.3	0.1	1040:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 8 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: Ranger Oil Limited
Ranger Fort Liard

LSD: P-66-A

Bottom Gauge

Date	Time	dt(hrs)	P(kPaG)	dP	T(°C)	dT	Pt. #
	21:09:41	2.9111	26572.6	16.3	151.4	0.1	1048:
	21:11:00	2.9331	26608.6	36.0	151.6	0.2	1056:
	21:12:19	2.9550	26605.6	-3.0	151.9	0.3	1064:
	21:13:38	2.9769	26606.6	1.0	152.2	0.3	1072:
	21:15:01	3.0000	26609.0	2.4	152.4	0.2	1080:
	21:16:20	3.0219	26611.6	2.6	152.6	0.2	1088:
	21:17:40	3.0442	26614.2	2.6	152.7	0.1	1096:
	21:18:59	3.0661	26616.5	2.3	152.8	0.1	1104:
	21:20:22	3.0892	26618.5	2.0	152.9	0.1	1112:
	21:21:41	3.1111	26676.1	57.6	153.1	0.2	1120:
	21:23:00	3.1331	26673.7	-2.4	153.3	0.2	1128:
	21:24:19	3.1550	26674.5	0.8	153.6	0.2	1136:
	21:25:38	3.1769	26676.2	1.7	153.7	0.2	1144:
	21:27:01	3.2000	26678.2	2.0	153.8	0.1	1152:
	21:28:20	3.2219	26679.8	1.6	153.9	0.1	1160:
	21:29:40	3.2442	26681.8	2.0	154.1	0.1	1168:
	21:30:59	3.2661	26683.4	1.6	154.1	0.1	1176:
	21:32:22	3.2892	26723.4	40.1	154.2	0.1	1184:
	21:33:41	3.3111	26739.2	15.8	154.4	0.2	1192:
	21:35:00	3.3331	26738.0	-1.2	154.6	0.2	1200:
	21:36:19	3.3550	26739.1	1.1	154.8	0.2	1208:
	21:37:38	3.3769	26740.6	1.4	154.9	0.1	1216:
	21:39:01	3.4000	26742.3	1.7	155.0	0.1	1224:
	21:40:20	3.4219	26744.3	2.0	155.1	0.1	1232:
	21:41:40	3.4442	26745.8	1.5	155.2	0.1	1240:
	21:42:59	3.4661	26752.7	6.9	155.3	0.1	1248:
	21:44:22	3.4892	26780.7	28.0	155.3	0.1	1256:
	21:45:41	3.5111	26781.7	1.0	155.4	0.1	1264:
	21:47:00	3.5331	26782.9	1.2	155.5	0.1	1272:
	21:48:19	3.5550	26784.1	1.2	155.6	0.1	1280:
	21:49:38	3.5769	26784.9	0.8	155.6	0.0	1288:
	21:51:01	3.6000	26785.7	0.8	155.6	0.1	1296:
	21:52:20	3.6219	26786.4	0.7	155.7	0.1	1304:
	21:53:40	3.6442	26787.0	0.6	155.7	0.0	1312:
	21:54:59	3.6661	26787.4	0.4	155.7	0.0	1320:
	21:56:22	3.6892	26787.8	0.4	155.7	0.1	1328:
	21:57:41	3.7111	26788.3	0.5	155.7	0.0	1336:
	21:59:00	3.7331	26788.6	0.3	155.7	0.0	1344:
	22:00:19	3.7550	26788.8	0.2	155.8	0.1	1352:
	22:01:38	3.7769	26789.1	0.3	155.8	0.0	1360:
	22:03:01	3.8000	26789.3	0.3	155.8	0.0	1368:
	22:04:20	3.8219	26789.3	0.0	155.8	0.0	1376:
	22:05:40	3.8442	26789.7	0.3	155.8	0.0	1384:
	22:06:59	3.8661	26789.8	0.1	155.8	0.0	1392:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 8 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: Ranger Oil Limited
Ranger Fort Liard

LSD: P-66-A

Bottom Gauge

Date	Time	dt (hrs)	P (kPaG)	dP	T (°C)	dT	Pt. #
	22:08:22	3.8892	26790.0	0.2	155.8	0.0	1400:
	22:09:41	3.9111	26790.1	0.1	155.8	0.0	1408:
	22:11:00	3.9331	26790.2	0.1	155.8	0.1	1416:
	22:12:19	3.9550	26790.2	0.0	155.8	0.0	1424:
	22:13:38	3.9769	26790.4	0.2	155.8	0.0	1432:
	22:15:01	4.0000	26790.5	0.1	155.8	0.0	1440:
	22:16:20	4.0219	26790.4	-0.1	155.8	0.0	1448:
	22:17:40	4.0442	26790.5	0.1	155.8	0.0	1456:
	22:18:59	4.0661	26790.7	0.2	155.8	0.0	1464:
	22:20:22	4.0892	26790.8	0.1	155.8	0.0	1472:
	22:21:41	4.1111	26790.8	0.0	155.8	0.0	1480:
	22:23:00	4.1331	26790.8	0.1	155.8	0.0	1488:
	22:24:19	4.1550	26791.1	0.2	155.8	0.0	1496:
	22:25:38	4.1769	26790.9	-0.1	155.8	0.0	1504:
	22:27:01	4.2000	26791.0	0.1	155.8	0.0	1512:
	22:28:20	4.2219	26791.0	0.0	155.8	0.0	1520:
	22:29:40	4.2442	26791.1	0.1	155.8	0.0	1528:
	22:30:59	4.2661	26791.1	0.0	155.8	0.0	1536:
	22:32:22	4.2892	26791.3	0.1	155.8	0.0	1544:
	22:33:41	4.3111	26791.3	0.1	155.8	0.0	1552:
	22:35:00	4.3331	26791.4	0.1	155.8	0.0	1560:
	22:36:19	4.3550	26791.3	-0.1	155.8	0.0	1568:
	22:37:38	4.3769	26791.4	0.1	155.8	0.0	1576:
	22:39:01	4.4000	26791.5	0.1	155.8	0.0	1584:
	22:40:20	4.4219	26791.4	-0.1	155.8	0.0	1592:
	22:41:40	4.4442	26791.6	0.2	155.8	0.0	1600:
	22:42:59	4.4661	26791.6	0.0	155.8	0.0	1608:
	22:44:22	4.4892	26749.8	-41.9	155.8	0.0	1616:
	22:45:41	4.5111	26639.8	-110.0	155.7	-0.1	1624:
	22:47:00	4.5331	26549.7	-90.0	155.2	-0.6	1632:
	22:48:19	4.5550	26419.3	-130.5	154.0	-1.2	1640:
	22:49:38	4.5769	26267.4	-151.9	152.2	-1.8	1648:
	22:51:01	4.6000	26096.7	-170.7	149.6	-2.7	1656:
	22:52:20	4.6219	25908.7	-188.0	146.0	-3.6	1664:
	22:53:40	4.6442	25697.2	-211.5	141.7	-4.3	1672:
	22:54:59	4.6661	25452.0	-245.3	137.1	-4.7	1680:
	22:56:22	4.6892	25134.5	-317.4	132.1	-5.0	1688:
	22:57:41	4.7111	24731.5	-403.0	126.6	-5.5	1696:
	22:59:00	4.7331	24299.3	-432.2	120.2	-6.3	1704:
	23:00:19	4.7550	23829.0	-470.3	112.4	-7.8	1712:
	23:01:38	4.7769	23303.7	-525.3	103.4	-9.1	1720:
	23:03:01	4.8000	22736.7	-567.0	93.1	-10.3	1728:
	23:04:20	4.8219	22176.9	-559.7	82.3	-10.8	1736:
	23:05:40	4.8442	21799.4	-377.5	71.6	-10.7	1744:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 8 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: **Ranger Oil Limited**
Ranger Fort Liard

LSD: **P-66-A**

Bottom Gauge

Date	Time	dt(hrs)	P(kPaG)	dP	T(°C)	dT	Pt. #
	23:06:59	4.8661	21618.9	-180.5	62.5	-9.1	1752:
	23:08:22	4.8892	21587.7	-31.2	55.1	-7.4	1760:
1998/07/09	23:09:08	4.9019	15714.2	-5873.4	51.0	-4.1	1764:

End Data Acquisition:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 8 data points.

DATA - 6

N.E.B. COPY

RANGER OIL LIMITED

^{NORTH}
RANGER ~~FORT~~ LIARD
P-66-A

STATIC GRADIENT

JULY 14, 1998

MICROFILMED
SUR MICROFILM:

(403) 250-3800

GENCO Pressure Control Limited

CALGARY, AB.

SUBSURFACE PRESSURE MEASUREMENTS

Basic Data:

Company Ranger Oil Limited

Address #1600, 321 - 6Th. Ave. S.W.

Calgary, AB.

T2P 3H3

Gentronics Electronic Gauge

c/w Memory Recorder

S/N: GMQ-9804

Well Name Ranger Fort Liard

Field & Pool Liard / Nihanni

Well Identifier P-66-A

Type of Test Static Gradient

Status Shut in Gas

Date of Test Jul 14, 1998

DWG Tubing Pressure 21570 kPa

DWG Casing Pressure N/A kPa

Tubing 88.9 mm @ 3082.4 m KB

Casing 177.8 mm @ 3499.0 m KB

Producing Interval 3115 - 3334 m KB

Producing Through Tubing

Elevation 449.54 m CF, 459.89 m KB

MPP Interval 3214.2 m CF

Datum Depth of Well _____ m CF

Run Depth 3347 m CF

Temperature at Run Depth 157.7 °C

Pool Datum _____ m (subsea)

Pressure at Run Depth 27285 kPaG

Gradient at Run Depth 9.99 kPa/m

MPP Pressure 26654 kPaG

Datum Depth Pressure _____ kPaG

Final Buildup Pressure 27285 kPaG

Date on Bottom July 14, 1998

Date off Bottom July 14, 1998

Shut in Date July 12, 1998

Summary:

Tandem LMR Quartz Recorders ran within specifications.

Preparation Data:

Tested By GENCO Computed By P. Mulgrew Report Date Jul 31, 1998

BOTTOM GAUGE

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

OPERATIONS SUMMARY

Company: **Ranger Oil Limited**
Ranger Fort Liard

LSD: **P-66-A**

Bottom Gauge

Date	Time	dt(hrs)	P(kpaG)	T(°C)	Pt. #	Remarks
1998/07/14	14:38:01	0.0000	23.4	21.5	1 :	Begin Data Acquisition
	14:56:30	0.3081	1450.4	20.6	571 :	Pressure Test Lubricator
	15:19:20	0.6886	21572.3	21.3	706 :	@ surface
	15:37:40	0.9942	23675.2	42.1	816 :	@ 1000 mCF
	15:53:20	1.2553	24521.2	81.4	910 :	@ 1500 mCF
	16:09:10	1.5192	25193.8	104.4	1005 :	@ 2000 mCF
	16:23:50	1.7636	25737.9	120.6	1093 :	@ 2500 mCF
	16:39:20	2.0219	26252.0	137.7	1186 :	@ 3000 mCF
	16:50:30	2.2081	26438.2	147.3	1253 :	@ 3080 mCF
	17:01:30	2.3914	26498.4	150.6	1319 :	@ 3100 mCF
	17:12:40	2.5775	26533.3	151.8	1386 :	@ 3120 mCF
	17:23:30	2.7581	26560.8	152.5	1451 :	@ 3140 mCF
	17:34:40	2.9442	26586.5	153.2	1518 :	@ 3160 mCF
	17:45:30	3.1247	26612.5	153.7	1583 :	@ 3180 mCF
	17:56:40	3.3108	26636.2	154.2	1650 :	@ 3200 mCF
	18:07:40	3.4942	26661.6	154.6	1716 :	@ 3220 mCF
	18:18:40	3.6775	26686.8	155.1	1782 :	@ 3240 mCF
	18:29:30	3.8581	26712.5	155.5	1847 :	@ 3260 mCF
	18:40:40	4.0442	26738.9	155.9	1914 :	@ 3280 mCF
	18:51:40	4.2275	26878.8	155.9	1980 :	@ 3300 mCF
	19:02:40	4.4108	27044.4	156.8	2046 :	@ 3320 mCF
	19:13:40	4.5942	27215.3	157.3	2112 :	@ 3340 mCF
	19:24:00	4.7664	27285.2	157.7	2174 :	@ 3347 mCF (run depth)

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.

Calgary, AB.

OPERATIONS SUMMARY

Company: **Ranger Oil Limited**
Ranger Fort Liard

LSD: **P-66-A**

Bottom Gauge

Date	Time	dt (hrs)	P (kpaG)	T (°C)	Pt. #	Remarks
1998/07/14	19:36:40	4.9775	27276.6	157.9	2250:	Recorders Off Bottom
	20:12:40	5.5775	23.2	32.4	2462 :	End Data Acquisition

Absolute pressures are converted to gauge pressures assuming a barometric pressure of 90 kPa.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

STATIC GRADIENT SURVEY

Company: **Ranger Oil Limited**
Ranger Fort Liard

LSD: **P-66-A**

Bottom Gauge

Depth (meters)	Pressure (kPaG)	Gradient (kPa/m)	Temp (°C)	Gradient (°C/m)
At Surface: 1998/07/14 15:19:20 (Running In)				
000	21572	-----	21.3	-----
1000	23675	2.10	42.1	0.021
1500	24521	1.69	81.4	0.079
2000	25194	1.35	104.4	0.046
2500	25738	1.09	120.6	0.032
3000	26252	1.03	137.7	0.034
3080	26438	2.33	147.3	0.120
3100	26498	3.01	150.6	0.165
3120	26533	1.74	151.8	0.060
3140	26561	1.38	152.5	0.035
3160	26587	1.29	153.2	0.035
3180	26613	1.30	153.7	0.025
3200	26636	1.19	154.2	0.025
3220	26662	1.27	154.6	0.020
3240	26687	1.26	155.1	0.025
3260	26713	1.29	155.5	0.020
3280	26739	1.32	155.9	0.020
3300	26879	6.99	155.9	-----
3320	27044	8.28	156.8	0.045
3340	27215	8.54	157.3	0.025

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

STATIC GRADIENT SURVEY

Company: **Ranger Oil Limited**
Ranger Fort Liard

LSD: **P-66-A**

Bottom Gauge

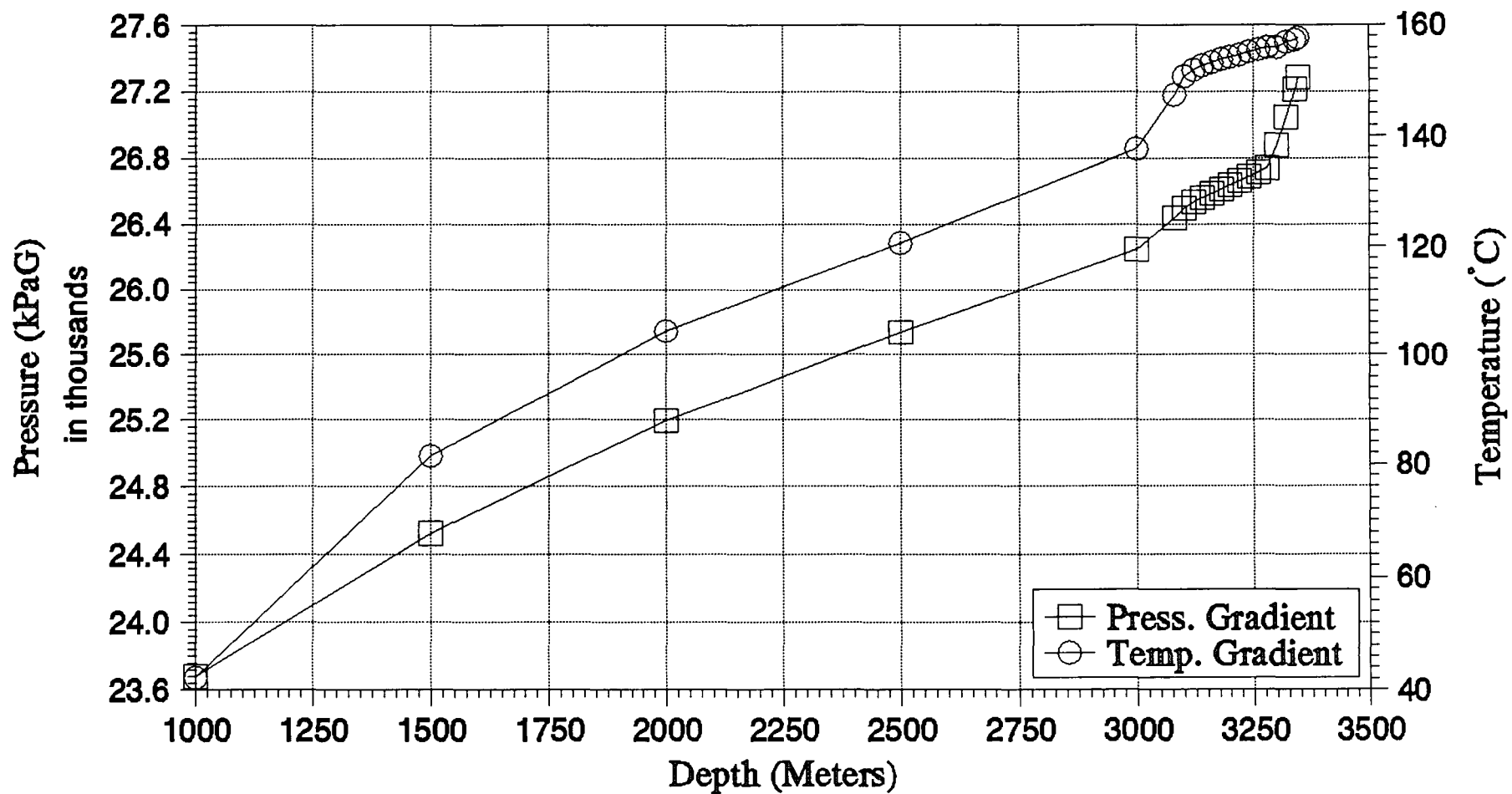
Depth (meters)	Pressure (kPaG)	Gradient (kPa/m)	Temp (°C)	Gradient (°C/m)
-------------------	--------------------	---------------------	--------------	--------------------

At Surface: 1998/07/14 15:19:20 (Running In)

3347	27285	9.99	157.7	0.057
------	-------	------	-------	-------

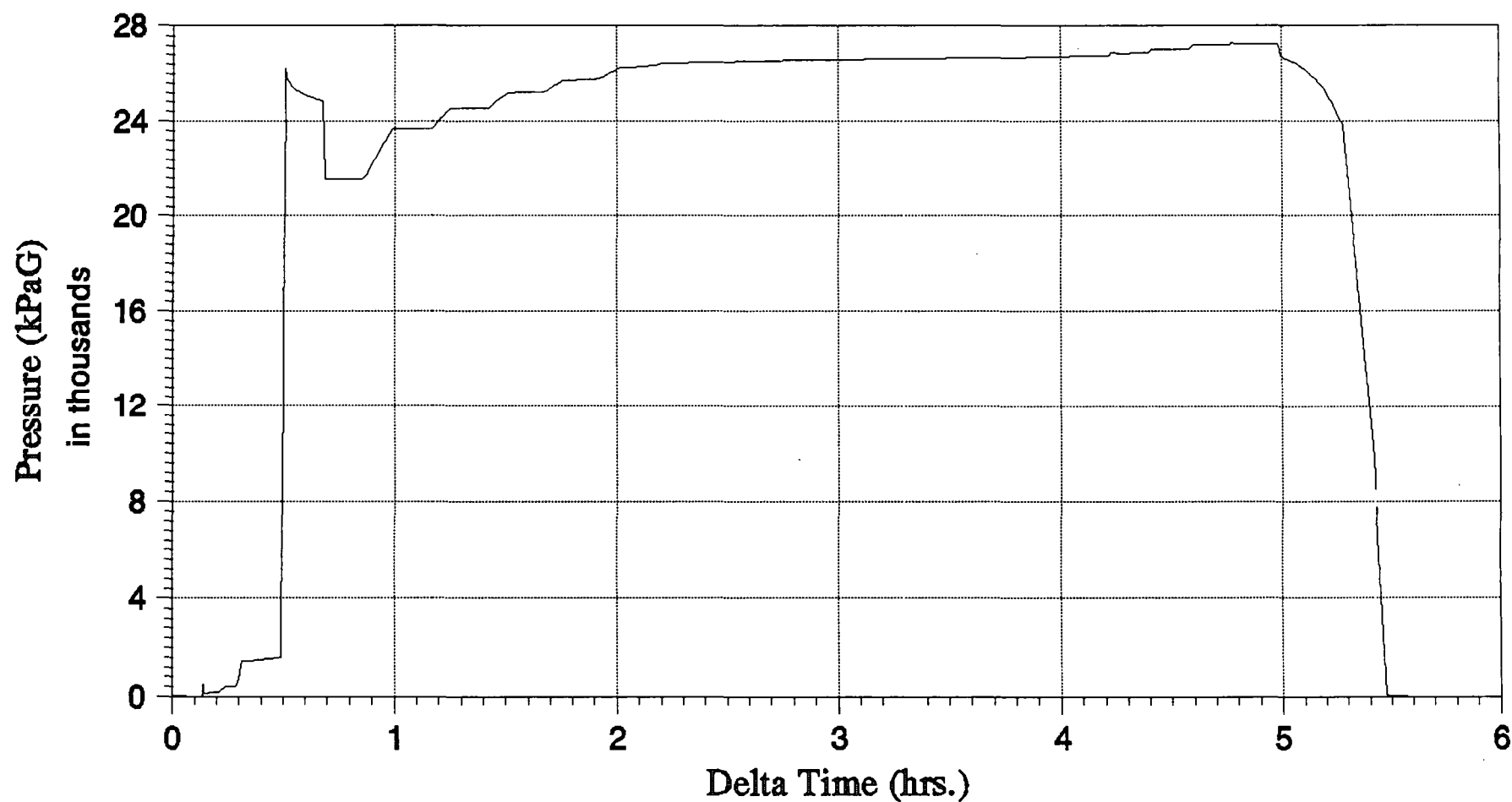
Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.

Ranger Oil Limited
P-66-A
Gentronics Quartz Static Gradient Survey



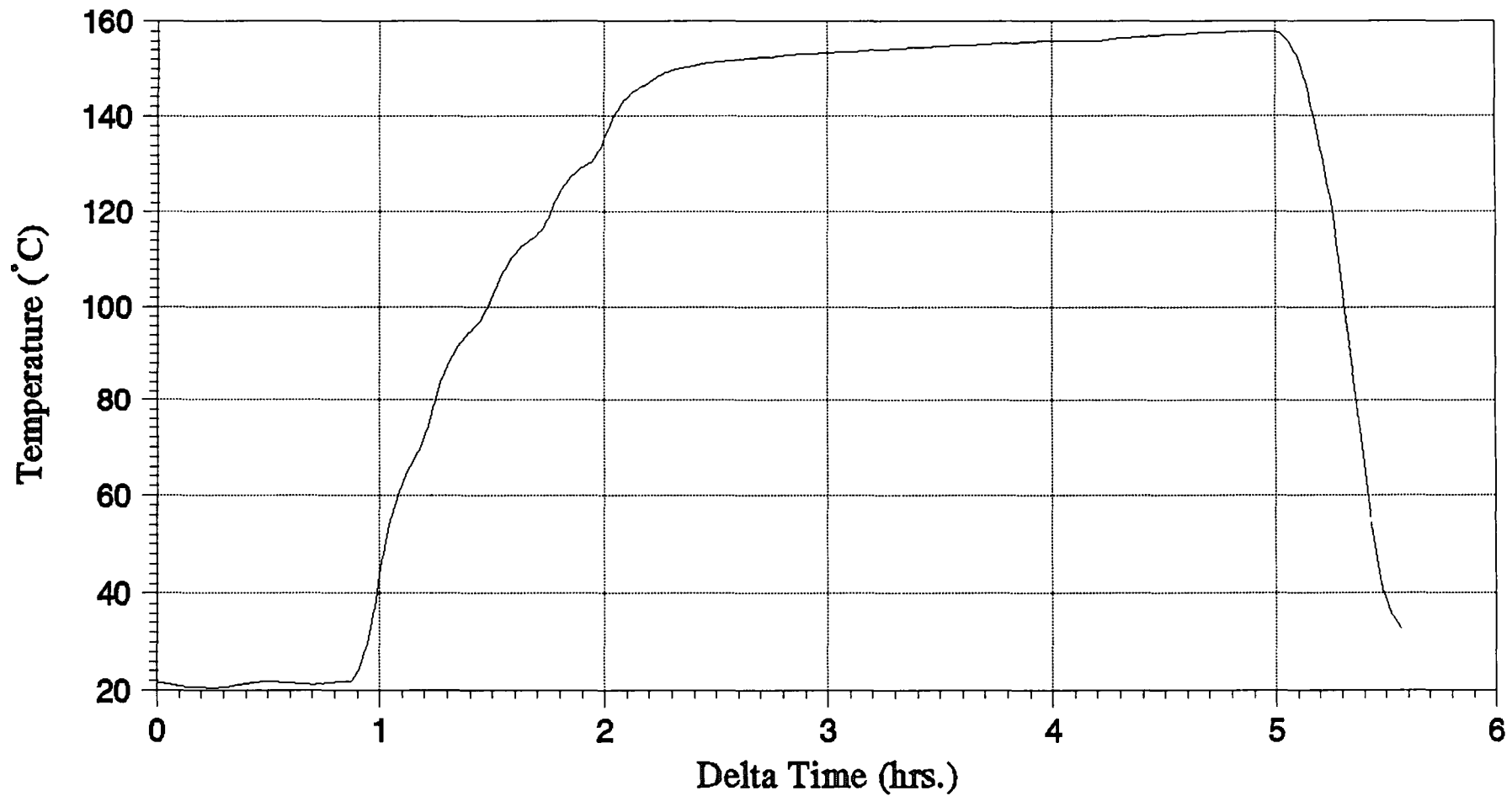
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:40

Ranger Oil Limited
P-66-A
Gentronics Quartz Bottom Gauge Pressures



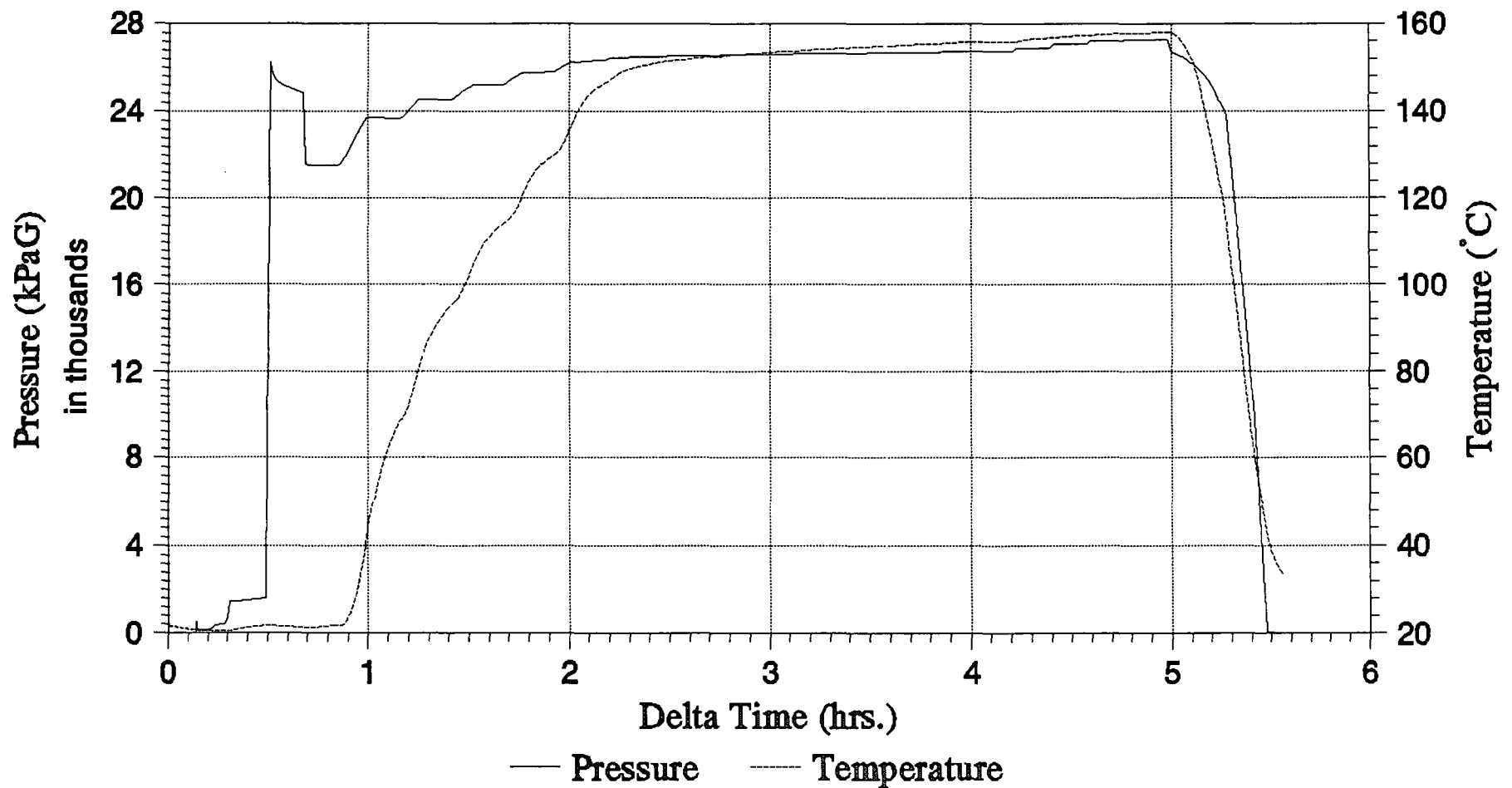
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:40

Ranger Oil Limited
P-66-A
Gentronics Quartz Bottom Gauge Temp.



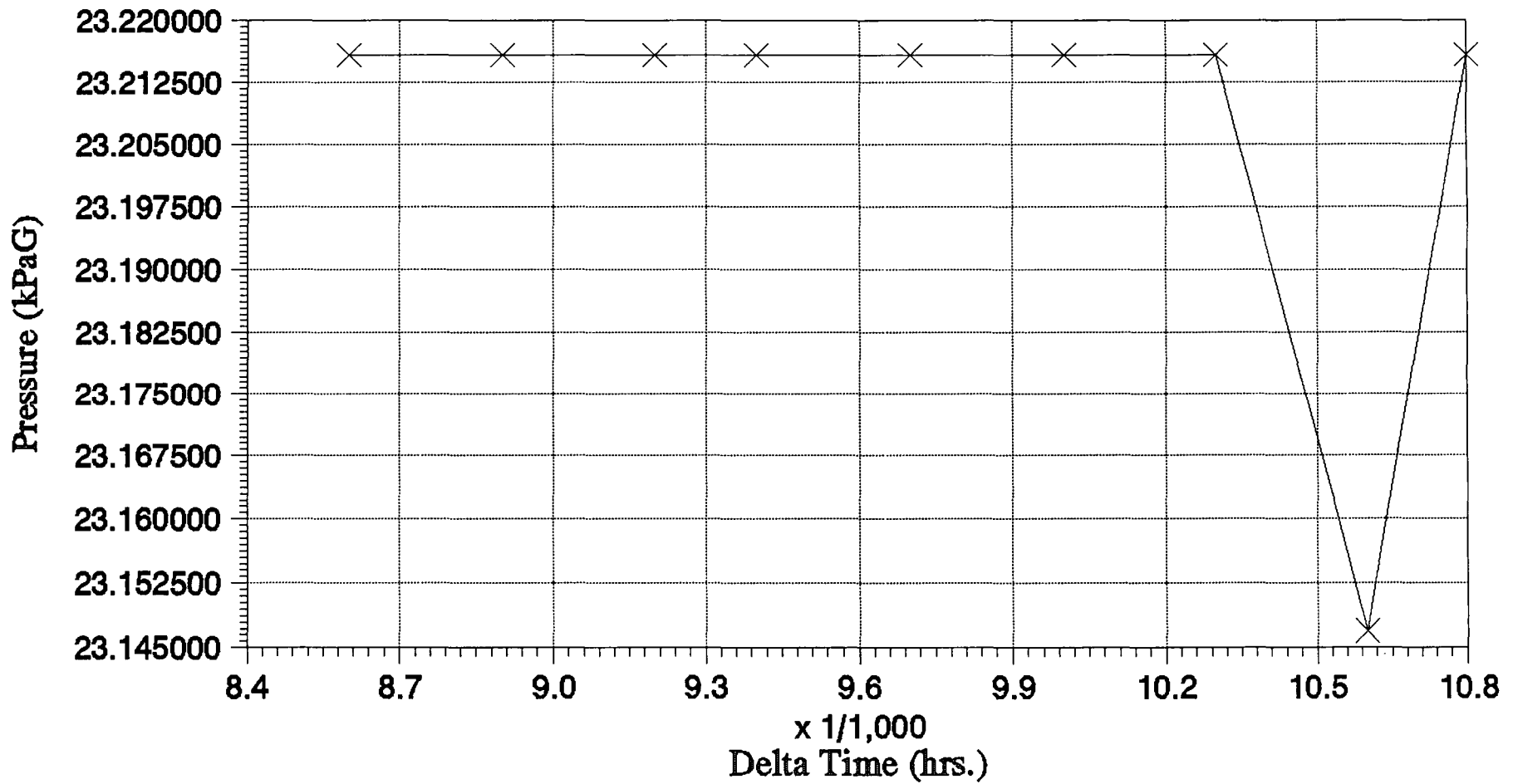
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:40

Ranger Oil Limited
P-66-A
Gentronics Quartz Bottom Pressure/Temp



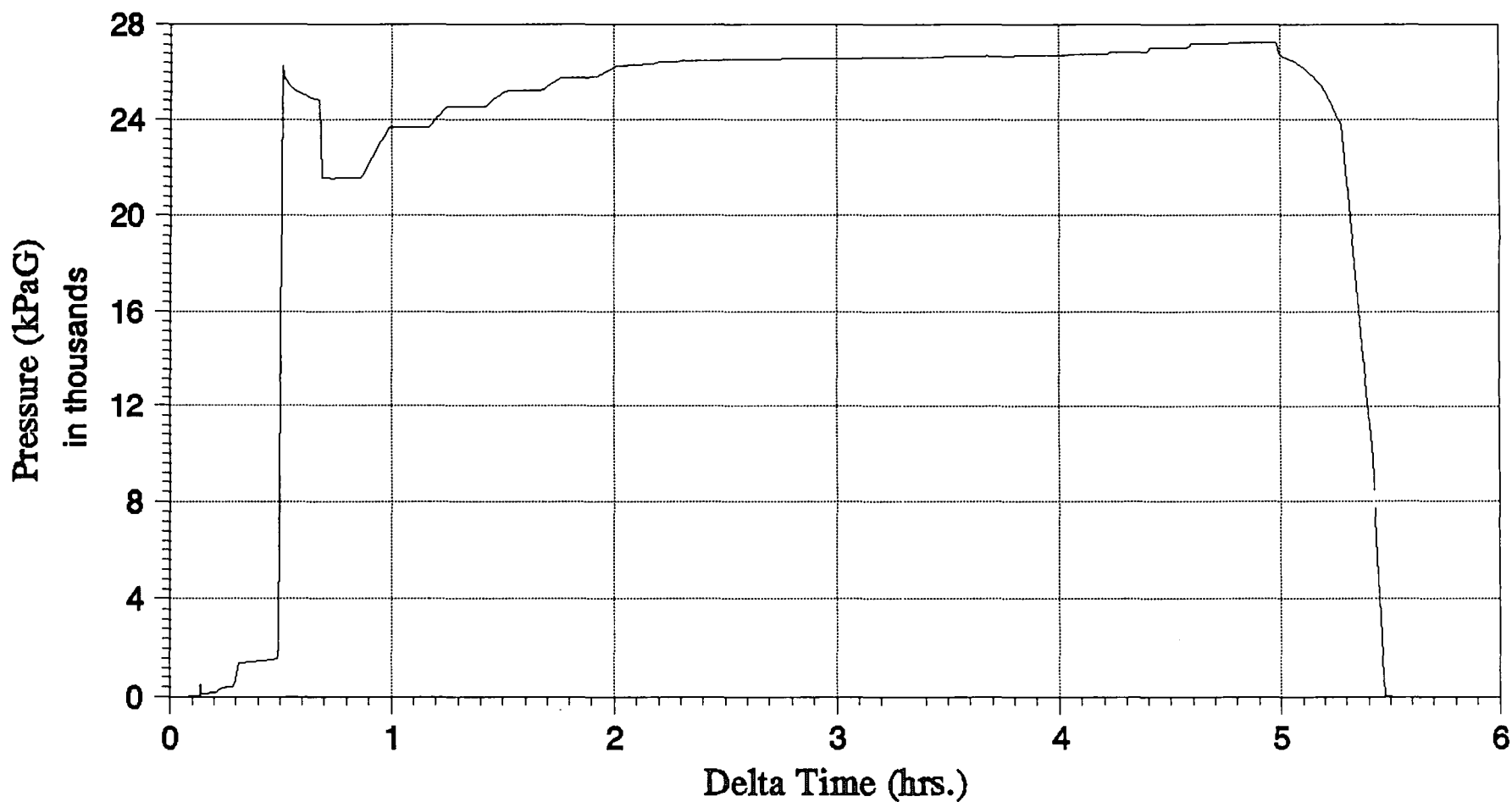
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:40

Ranger Oil Limited
P-66-A
Bottom Gauge Apparent Resolution



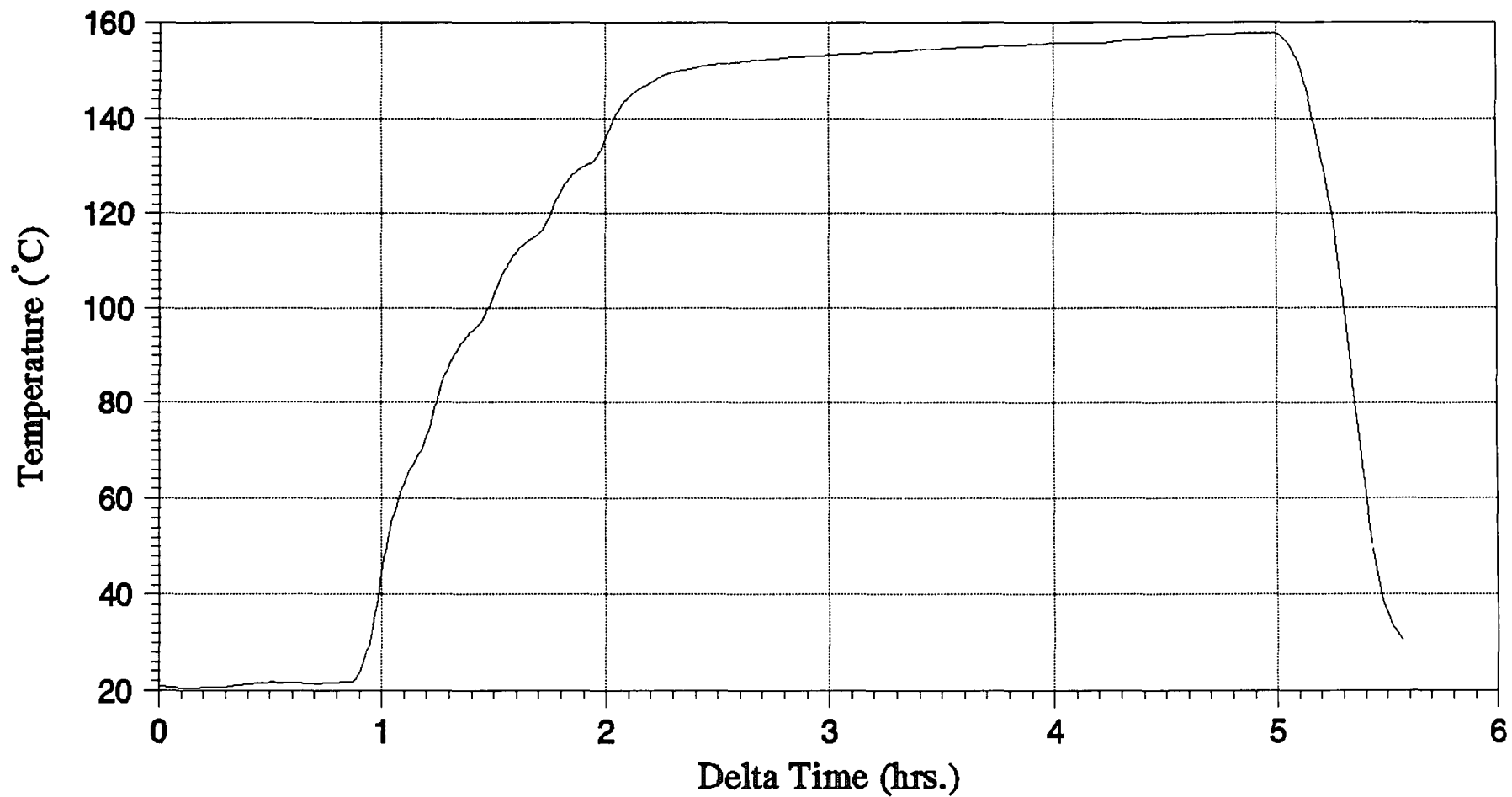
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:40

Ranger Oil Limited
P-66-A
Gentronics Quartz Top Gauge Pressures



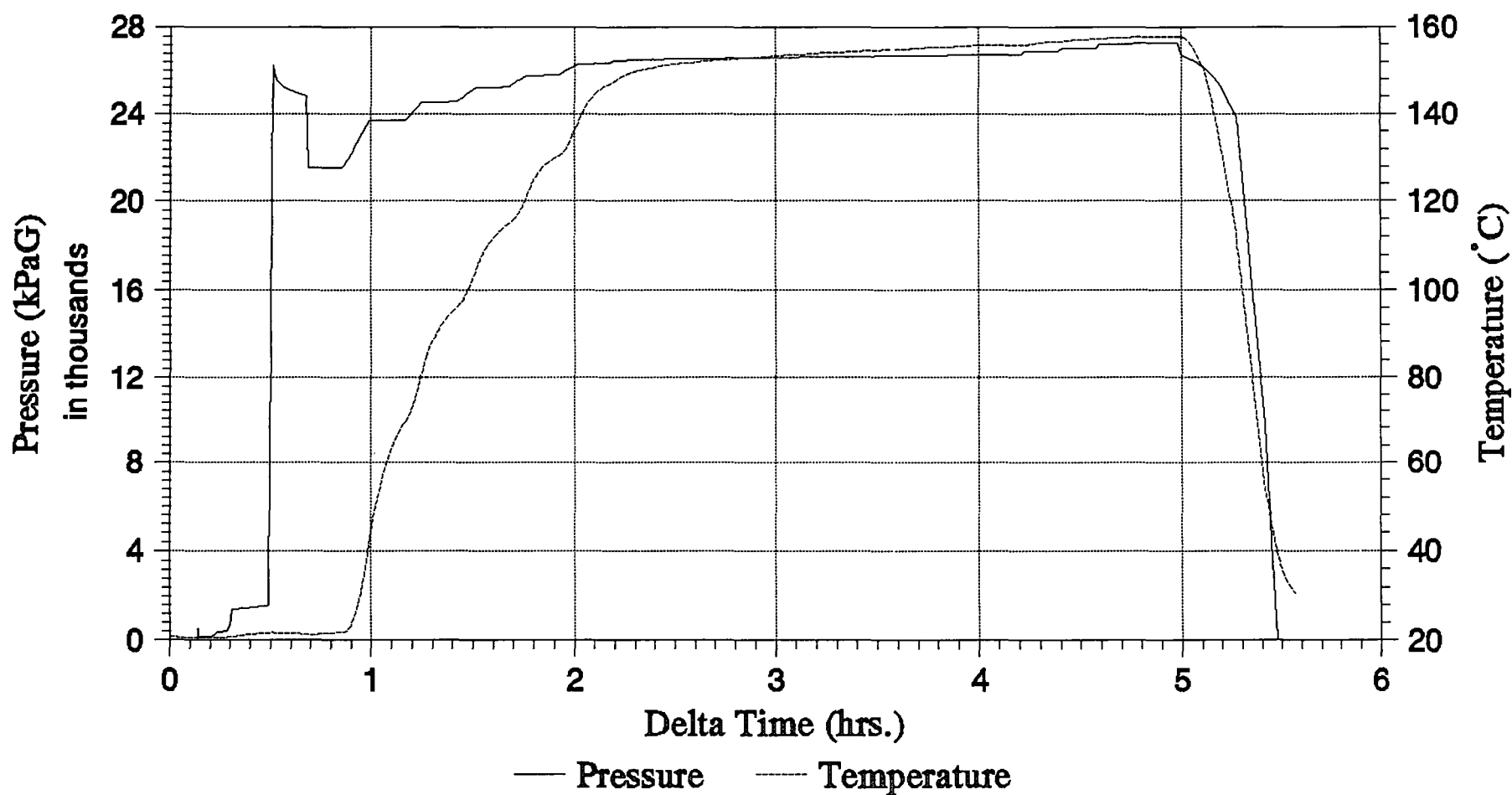
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:30

Ranger Oil Limited
P-66-A
Gentronics Quartz Top Gauge Temp.



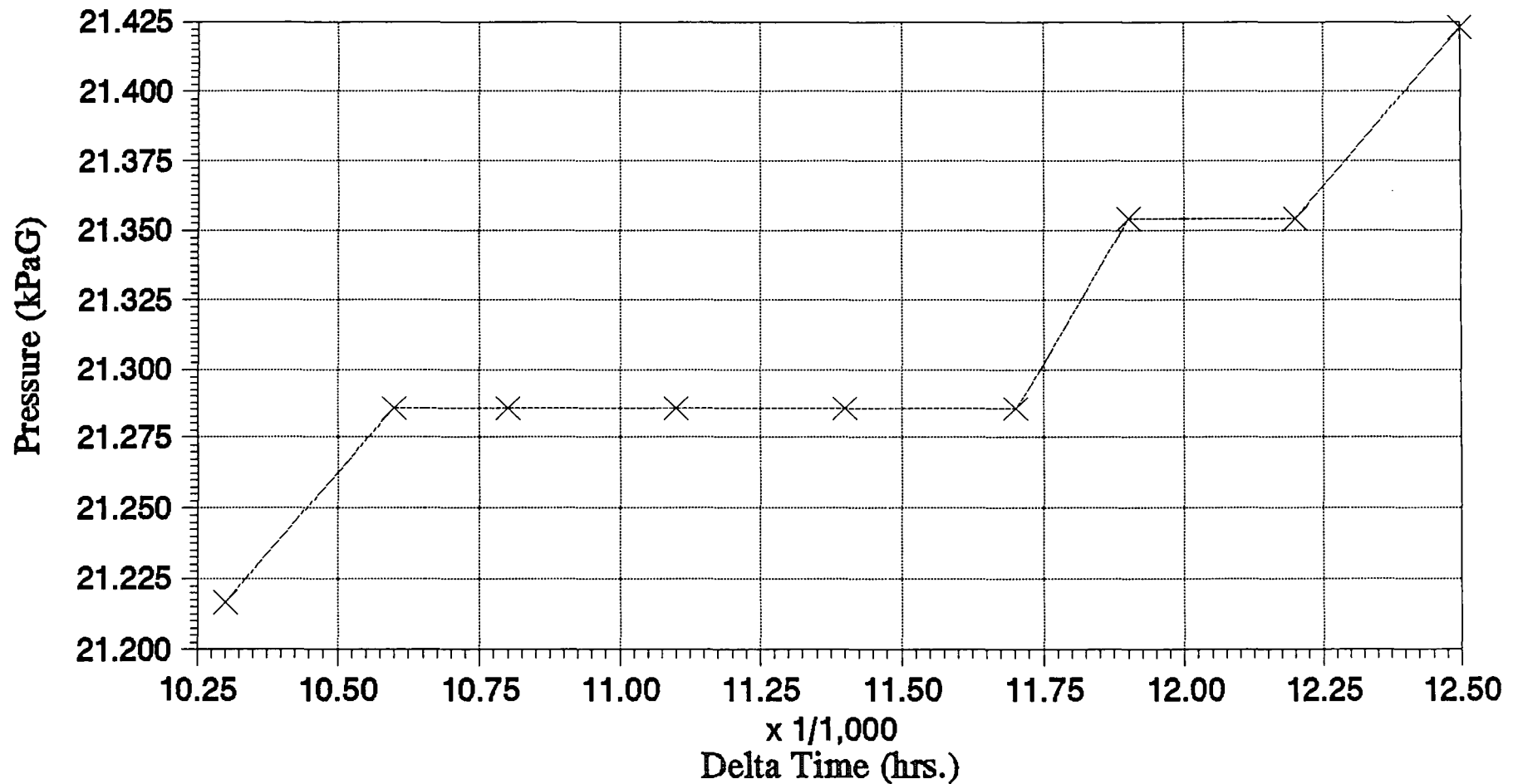
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:30

Ranger Oil Limited
P-66-A
Gentronic Quartz Top Pressure/Temp



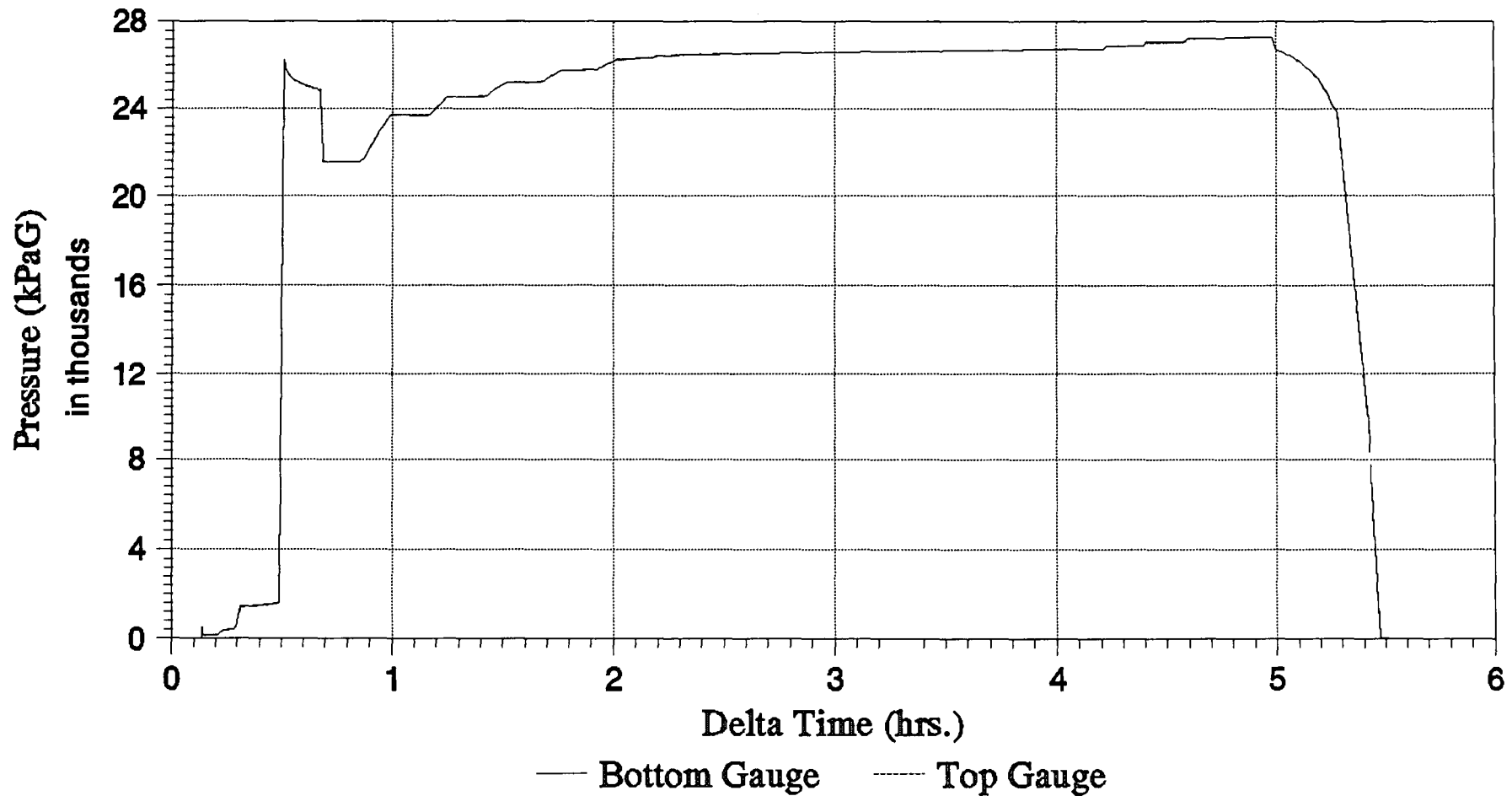
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:30

Ranger Oil Limited
P-66-A
Top Gauge Apparent Resolution



GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:30

Ranger Oil Limited
P-66-A
Gentronics Quartz Gauge Press. Tracking



GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/14 14:38:01
End Aquisition: 1998/07/14 20:12:30

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: **Ranger Oil Limited**
Ranger Fort LiardLSD: **P-66-A**

Bottom Gauge

Date	Time	dt(hrs)	P(kPaG)	dP	T(°C)	dT	Pt. #
Begin Data Acquisition:							
1998/07/14	14:38:01	0.0000	23.4	23.4	21.5	21.5	0:
	14:38:11	0.0028	23.8	0.3	21.5	0.0	11:
	14:38:22	0.0058	23.6	-0.2	21.5	0.0	22:
	14:38:33	0.0089	23.2	-0.3	21.5	0.0	33:
	14:38:44	0.0119	23.2	0.0	21.5	-0.0	44:
	14:38:55	0.0150	23.3	0.1	21.5	0.0	55:
	14:39:06	0.0181	23.3	0.0	21.5	-0.0	66:
	14:39:17	0.0211	23.4	0.1	21.5	0.0	77:
	14:39:28	0.0242	23.5	0.1	21.5	-0.0	88:
	14:39:39	0.0272	23.6	0.1	21.5	-0.0	99:
	14:39:50	0.0303	23.6	0.1	21.5	-0.0	110:
	14:40:01	0.0333	23.6	0.0	21.5	-0.0	121:
	14:40:12	0.0364	23.7	0.1	21.5	-0.0	132:
	14:40:23	0.0394	23.8	0.1	21.4	-0.0	143:
	14:40:34	0.0425	23.8	0.0	21.4	-0.0	154:
	14:40:45	0.0456	23.8	0.1	21.4	-0.0	165:
	14:40:56	0.0486	24.0	0.2	21.4	-0.0	176:
	14:41:07	0.0517	24.1	0.1	21.3	-0.0	187:
	14:41:18	0.0547	24.3	0.1	21.3	-0.0	198:
	14:41:29	0.0578	24.3	0.1	21.3	-0.0	209:
	14:41:40	0.0608	24.0	-0.3	21.3	-0.0	220:
	14:41:51	0.0639	18.3	-5.7	21.2	-0.0	231:
	14:42:02	0.0669	14.0	-4.3	21.2	-0.0	242:
	14:42:13	0.0700	11.1	-2.8	21.2	-0.0	253:
	14:42:24	0.0731	9.4	-1.8	21.1	-0.0	264:
	14:42:35	0.0761	8.0	-1.4	21.1	-0.0	275:
	14:42:46	0.0792	6.8	-1.2	21.1	-0.0	286:
	14:42:57	0.0822	5.8	-1.0	21.1	-0.0	297:
	14:43:08	0.0853	4.9	-0.9	21.0	-0.0	308:
	14:43:19	0.0883	4.0	-0.8	21.0	-0.0	319:
	14:43:30	0.0914	3.3	-0.8	21.0	-0.0	330:
	14:43:41	0.0944	2.7	-0.6	21.0	-0.0	341:
	14:43:52	0.0975	2.1	-0.6	21.0	-0.0	352:
	14:44:03	0.1006	1.7	-0.4	20.9	-0.0	363:
	14:44:15	0.1039	1.2	-0.5	20.9	-0.0	374:
	14:44:28	0.1075	0.7	-0.5	20.9	-0.0	385:
	14:44:42	0.1114	0.4	-0.3	20.9	-0.0	396:
	14:44:54	0.1147	0.0	-0.4	20.9	-0.0	407:
	14:46:15	0.1372	489.9	489.9	20.8	-0.1	418:
	14:46:26	0.1403	499.9	10.0	20.8	-0.0	429:
	14:46:38	0.1436	150.5	-349.4	20.8	-0.0	440:
	14:46:49	0.1467	150.4	-0.1	20.7	-0.0	451:
	14:47:00	0.1497	151.4	1.0	20.7	-0.0	462:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 11 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: **Ranger Oil Limited**
Ranger Fort LiardLSD: **P-66-A**

Bottom Gauge

Date	Time	dt (hrs)	P (kPaG)	dP	T (°C)	dT	Pt. #
	14:47:11	0.1528	152.4	1.0	20.7	-0.0	473:
	14:47:22	0.1558	153.9	1.5	20.7	-0.0	484:
	14:47:33	0.1589	155.5	1.6	20.7	-0.0	495:
	14:47:44	0.1619	157.0	1.5	20.7	-0.0	506:
	14:47:55	0.1650	158.7	1.7	20.7	-0.0	517:
	14:49:00	0.1831	167.7	9.0	20.6	-0.0	528:
	14:51:00	0.2164	224.1	56.5	20.6	-0.1	539:
	14:52:50	0.2469	388.4	164.3	20.6	-0.0	550:
	14:54:40	0.2775	405.2	16.8	20.6	0.0	561:
	14:56:40	0.3108	1427.9	1022.7	20.7	0.1	572:
	14:58:30	0.3414	1442.9	15.0	20.9	0.3	583:
	15:00:20	0.3719	1470.1	27.2	21.2	0.2	594:
	15:02:10	0.4025	1501.0	31.0	21.4	0.2	605:
	15:04:00	0.4331	1532.3	31.3	21.6	0.2	616:
	15:05:50	0.4636	1565.5	33.2	21.7	0.1	627:
	15:07:50	0.4969	3988.9	2423.5	21.8	0.1	638:
	15:09:40	0.5275	25619.0	21630.0	21.8	-0.0	649:
	15:11:30	0.5581	25301.3	-317.7	21.7	-0.1	660:
	15:13:20	0.5886	25138.5	-162.8	21.6	-0.1	671:
	15:15:10	0.6192	25022.2	-116.3	21.5	-0.1	682:
	15:17:00	0.6497	24918.0	-104.3	21.4	-0.1	693:
	15:18:50	0.6803	24834.4	-83.6	21.3	-0.1	704:
	15:20:50	0.7136	21558.0	-3276.4	21.3	-0.0	715:
	15:22:40	0.7442	21551.6	-6.3	21.4	0.2	726:
	15:24:30	0.7747	21554.2	2.6	21.6	0.2	737:
	15:26:20	0.8053	21557.5	3.4	21.7	0.1	748:
	15:28:10	0.8358	21558.1	0.6	21.8	0.1	759:
	15:30:00	0.8664	21673.7	115.6	21.8	0.0	770:
	15:31:50	0.8969	22177.7	504.0	23.5	1.7	781:
	15:33:40	0.9275	22709.2	531.5	27.0	3.5	792:
	15:35:30	0.9581	23187.9	478.7	32.5	5.5	803:
	15:37:20	0.9886	23632.9	444.9	40.4	7.9	814:
	15:39:10	1.0192	23673.3	40.5	48.7	8.2	825:
	15:41:00	1.0497	23670.6	-2.8	54.8	6.2	836:
	15:42:50	1.0803	23667.6	-3.0	59.7	4.9	847:
	15:44:40	1.1108	23666.0	-1.6	63.6	3.8	858:
	15:46:30	1.1414	23666.0	0.0	66.6	3.0	869:
	15:48:20	1.1719	23729.6	63.6	69.1	2.5	880:
	15:50:10	1.2025	24046.6	317.0	72.4	3.3	891:
	15:52:00	1.2331	24349.2	302.6	77.3	4.9	902:
	15:53:50	1.2636	24521.1	171.9	82.7	5.4	913:
	15:55:40	1.2942	24525.2	4.1	86.7	4.0	924:
	15:57:30	1.3247	24529.9	4.8	89.8	3.1	935:
	15:59:20	1.3553	24535.5	5.6	92.1	2.3	946:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 11 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: **Ranger Oil Limited**
Ranger Fort Liard

LSD: P-66-A

Bottom Gauge

Date	Time	dt (hrs)	P (kPaG)	dP	T (°C)	dT	Pt. #
	16:01:10	1.3858	24541.1	5.6	93.9	1.8	957:
	16:03:00	1.4164	24545.6	4.5	95.4	1.4	968:
	16:04:50	1.4469	24754.1	208.5	97.2	1.8	979:
	16:06:40	1.4775	24976.1	222.0	99.8	2.7	990:
	16:08:30	1.5081	25147.0	170.9	103.1	3.3	1001:
	16:10:20	1.5386	25196.4	49.4	106.5	3.4	1012:
	16:12:10	1.5692	25203.2	6.8	109.1	2.6	1023:
	16:14:00	1.5997	25210.9	7.7	111.1	2.1	1034:
	16:15:50	1.6303	25219.8	8.9	112.7	1.6	1045:
	16:17:40	1.6608	25226.9	7.1	113.8	1.2	1056:
	16:19:30	1.6914	25329.7	102.9	114.9	1.1	1067:
	16:21:20	1.7219	25520.3	190.6	116.6	1.7	1078:
	16:23:10	1.7525	25690.8	170.5	119.4	2.8	1089:
	16:25:00	1.7831	25729.8	39.0	122.6	3.2	1100:
	16:26:50	1.8136	25736.3	6.6	125.2	2.6	1111:
	16:28:40	1.8442	25752.0	15.7	127.1	1.9	1122:
	16:30:30	1.8747	25769.1	17.1	128.4	1.3	1133:
	16:32:20	1.9053	25782.0	13.0	129.4	1.1	1144:
	16:34:10	1.9358	25859.0	76.9	130.3	0.8	1155:
	16:36:00	1.9664	26017.7	158.7	131.9	1.7	1166:
	16:37:50	1.9969	26157.3	139.6	134.9	2.9	1177:
	16:39:40	2.0275	26248.8	91.4	138.3	3.4	1188:
	16:41:30	2.0581	26258.8	10.1	141.1	2.8	1199:
	16:43:20	2.0886	26282.4	23.6	143.1	2.0	1210:
	16:45:10	2.1192	26306.7	24.3	144.6	1.5	1221:
	16:47:00	2.1497	26328.3	21.6	145.7	1.1	1232:
	16:48:50	2.1803	26346.1	17.9	146.6	0.9	1243:
	16:50:40	2.2108	26437.3	91.2	147.4	0.9	1254:
	16:52:30	2.2414	26437.3	0.1	148.4	0.9	1265:
	16:54:20	2.2719	26446.9	9.5	149.2	0.8	1276:
	16:56:10	2.3025	26457.2	10.3	149.7	0.5	1287:
	16:58:00	2.3331	26466.0	8.8	150.1	0.4	1298:
	16:59:50	2.3636	26473.1	7.1	150.3	0.3	1309:
	17:01:40	2.3942	26497.9	24.8	150.6	0.3	1320:
	17:03:30	2.4247	26497.3	-0.6	150.9	0.3	1331:
	17:05:20	2.4553	26500.2	2.9	151.2	0.3	1342:
	17:07:10	2.4858	26503.8	3.7	151.4	0.2	1353:
	17:09:00	2.5164	26506.8	3.0	151.6	0.2	1364:
	17:10:50	2.5469	26509.5	2.6	151.7	0.1	1375:
	17:12:40	2.5775	26533.3	23.9	151.8	0.1	1386:
	17:14:30	2.6081	26530.1	-3.2	151.9	0.2	1397:
	17:16:20	2.6386	26531.0	0.9	152.1	0.2	1408:
	17:18:10	2.6692	26532.7	1.7	152.3	0.2	1419:
	17:20:00	2.6997	26534.5	1.8	152.3	0.1	1430:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 11 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: **Ranger Oil Limited**
Ranger Fort LiardLSD: **P-66-A**

Bottom Gauge

Date	Time	dt(hrs)	P (kPaG)	dP	T (°C)	dT	Pt. #
	17:21:50	2.7303	26536.1	1.6	152.4	0.1	1441:
	17:23:40	2.7608	26560.1	24.0	152.5	0.1	1452:
	17:25:30	2.7914	26556.7	-3.4	152.7	0.2	1463:
	17:27:20	2.8219	26557.3	0.6	152.8	0.2	1474:
	17:29:10	2.8525	26558.7	1.4	152.9	0.1	1485:
	17:31:00	2.8831	26560.4	1.7	153.1	0.1	1496:
	17:32:50	2.9136	26561.8	1.4	153.1	0.1	1507:
	17:34:40	2.9442	26586.5	24.8	153.2	0.1	1518:
	17:36:30	2.9747	26584.1	-2.5	153.3	0.2	1529:
	17:38:20	3.0053	26584.8	0.8	153.4	0.1	1540:
	17:40:10	3.0358	26585.9	1.1	153.5	0.1	1551:
	17:42:00	3.0664	26587.0	1.0	153.6	0.1	1562:
	17:43:50	3.0969	26587.9	1.0	153.6	0.1	1573:
	17:45:40	3.1275	26611.9	24.0	153.7	0.1	1584:
	17:47:30	3.1581	26608.6	-3.3	153.8	0.1	1595:
	17:49:20	3.1886	26608.9	0.3	153.9	0.2	1606:
	17:51:10	3.2192	26609.9	1.0	154.0	0.1	1617:
	17:53:00	3.2497	26611.1	1.2	154.1	0.1	1628:
	17:54:50	3.2803	26612.2	1.1	154.1	0.1	1639:
	17:56:40	3.3108	26636.2	24.0	154.2	0.1	1650:
	17:58:30	3.3414	26634.1	-2.1	154.3	0.1	1661:
	18:00:20	3.3719	26634.3	0.2	154.4	0.1	1672:
	18:02:10	3.4025	26635.2	1.0	154.4	0.1	1683:
	18:04:00	3.4331	26636.3	1.0	154.6	0.1	1694:
	18:05:50	3.4636	26637.1	0.8	154.6	0.0	1705:
	18:07:40	3.4942	26661.6	24.5	154.6	0.1	1716:
	18:09:30	3.5247	26659.0	-2.6	154.7	0.1	1727:
	18:11:20	3.5553	26659.3	0.3	154.8	0.1	1738:
	18:13:10	3.5858	26660.0	0.8	154.9	0.1	1749:
	18:15:00	3.6164	26660.9	0.9	154.9	0.1	1760:
	18:16:50	3.6469	26661.6	0.7	155.0	0.1	1771:
	18:18:40	3.6775	26686.8	25.2	155.1	0.1	1782:
	18:20:30	3.7081	26684.1	-2.7	155.2	0.1	1793:
	18:22:20	3.7386	26684.2	0.1	155.3	0.1	1804:
	18:24:10	3.7692	26685.0	0.8	155.3	0.1	1815:
	18:26:00	3.7997	26686.0	1.0	155.4	0.1	1826:
	18:27:50	3.8303	26686.9	0.9	155.4	0.1	1837:
	18:29:40	3.8608	26712.3	25.4	155.5	0.1	1848:
	18:31:30	3.8914	26710.5	-1.9	155.6	0.1	1859:
	18:33:20	3.9219	26710.5	0.1	155.7	0.1	1870:
	18:35:10	3.9525	26711.1	0.6	155.7	0.1	1881:
	18:37:00	3.9831	26711.9	0.8	155.8	0.1	1892:
	18:38:50	4.0136	26712.7	0.8	155.8	0.1	1903:
	18:40:40	4.0442	26738.9	26.2	155.9	0.1	1914:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 11 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: **Ranger Oil Limited**
Ranger Fort LiardLSD: **P-66-A**

Bottom Gauge

Date	Time	dt (hrs)	P (kPaG)	dP	T (°C)	dT	Pt. #
	18:42:30	4.0747	26741.3	2.4	155.9	0.0	1925:
	18:44:20	4.1053	26742.0	0.7	155.9	0.0	1936:
	18:46:10	4.1358	26742.1	0.1	155.9	0.0	1947:
	18:48:00	4.1664	26742.3	0.2	155.9	0.0	1958:
	18:49:50	4.1969	26742.3	0.0	155.9	0.0	1969:
	18:51:40	4.2275	26878.8	136.5	155.9	0.1	1980:
	18:53:30	4.2581	26869.0	-9.9	156.2	0.2	1991:
	18:55:20	4.2886	26868.5	-0.5	156.4	0.2	2002:
	18:57:10	4.3192	26870.5	2.0	156.5	0.1	2013:
	18:59:00	4.3497	26872.6	2.1	156.6	0.1	2024:
	19:00:50	4.3803	26874.6	2.0	156.7	0.1	2035:
	19:02:40	4.4108	27044.4	169.8	156.8	0.1	2046:
	19:04:30	4.4414	27041.8	-2.6	156.9	0.2	2057:
	19:06:20	4.4719	27042.9	1.0	157.1	0.1	2068:
	19:08:10	4.5025	27044.6	1.7	157.1	0.1	2079:
	19:10:00	4.5331	27046.1	1.5	157.2	0.1	2090:
	19:11:50	4.5636	27047.3	1.2	157.2	0.1	2101:
	19:13:40	4.5942	27215.3	168.0	157.3	0.1	2112:
	19:15:30	4.6247	27212.6	-2.7	157.4	0.2	2123:
	19:17:20	4.6553	27213.4	0.8	157.6	0.1	2134:
	19:19:10	4.6858	27214.9	1.4	157.6	0.1	2145:
	19:21:00	4.7164	27216.1	1.2	157.7	0.1	2156:
	19:22:50	4.7469	27217.2	1.1	157.7	0.0	2167:
	19:24:40	4.7775	27277.6	60.4	157.7	0.1	2178:
	19:26:30	4.8081	27275.2	-2.3	157.8	0.1	2189:
	19:28:20	4.8386	27275.2	0.0	157.8	0.1	2200:
	19:30:10	4.8692	27275.6	0.3	157.9	0.1	2211:
	19:32:00	4.8997	27275.8	0.2	157.9	0.1	2222:
	19:33:50	4.9303	27276.2	0.4	157.9	0.0	2233:
	19:35:40	4.9608	27276.5	0.3	157.9	0.0	2244:
	19:37:30	4.9914	26896.3	-380.1	157.9	0.0	2255:
	19:39:20	5.0219	26607.0	-289.3	157.4	-0.6	2266:
	19:41:10	5.0525	26487.5	-119.6	156.1	-1.3	2277:
	19:43:00	5.0831	26324.7	-162.8	153.8	-2.2	2288:
	19:44:50	5.1136	26104.2	-220.4	150.5	-3.3	2299:
	19:46:40	5.1442	25855.3	-249.0	145.6	-4.9	2310:
	19:48:30	5.1747	25558.3	-297.0	139.6	-6.0	2321:
	19:50:20	5.2053	25178.1	-380.2	133.0	-6.6	2332:
	19:52:10	5.2358	24649.6	-528.5	125.7	-7.3	2343:
	19:54:00	5.2664	24060.3	-589.3	117.3	-8.4	2354:
	19:55:50	5.2969	23426.0	-634.3	106.9	-10.4	2365:
	19:57:40	5.3275	22787.6	-638.4	94.4	-12.5	2376:
	19:59:30	5.3581	22088.9	-698.7	81.5	-12.9	2387:
	20:01:20	5.3886	21660.7	-428.2	68.9	-12.6	2398:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 11 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: **Ranger Oil Limited**
Ranger Fort Liard

LSD: **P-66-A**

Bottom Gauge

Date	Time	dt(hrs)	P(kPaG)	dP	T(°C)	dT	Pt. #
	20:03:20	5.4219	10062.5	-11598.2	58.1	-10.9	2409:
	20:05:30	5.4581	103.1	-9959.3	46.8	-11.2	2420:
	20:07:30	5.4914	63.0	-40.1	40.2	-6.7	2431:
	20:09:20	5.5219	40.2	-22.8	36.4	-3.8	2442:
	20:11:10	5.5525	27.6	-12.6	34.0	-2.3	2453:
1998/07/14	20:12:40	5.5775	23.2	-4.4	32.4	-1.6	2462:

End Data Acquisition:

Absolute pressures are converted to gauge pressures
 assuming a barometric pressure of 90 kPa.
 Reporting on an interval of 1 in 11 data points.

N.E.B. COPY

RANGER OIL LIMITED

^{NORTH}
RANGER ~~FORT~~ LIARD

P-66-A

SRO FLOWING GRADIENT

July 15 - 16, 1998

MICROFILMED
SUR MICROFILM:

(403) 250-3800

GENCO Pressure Control Limited

SUBSURFACE PRESSURE MEASUREMENTS

CALGARY, AB.

Basic Data:

Company <u>Ranger Oil Limited</u>	Gentronics Electronic Gauge
Address <u>#1600, 321 - 6Th. Ave. S.W.</u>	c/w SRO System
<u>Calgary, AB.</u>	S/N: <u>GMQ-9812</u>
<u>T2P 3H3</u>	
Well Name <u>Ranger Fort Liard</u>	Field & Pool <u>Liard / Nihanni</u>
Well Identifier <u>P-66-A</u>	Type of Test <u>Flowing Gradient</u>
Status <u>Shut in Gas</u>	Date of Test <u>Jul 15 - Jul 16, 1998</u>
DWG Tubing Pressure <u>N/A</u> kPa	DWG Casing Pressure <u>N/A</u> kPa
Tubing <u>88.9</u> mm @ <u>3082.4</u> m KB	Casing <u>177.8</u> mm @ <u>3499.0</u> m KB
Producing Interval <u>3115 - 3334 m KB</u>	Producing Through <u>Tubing</u>
Elevation <u>449.54</u> m CF, <u>459.89</u> m KB	MPP Interval <u>3214.2</u> m CF
Datum Depth of Well _____ m CF	Run Depth <u>3347</u> m CF
Temperature at Run Depth <u>157.6</u> °C	Pool Datum _____ m (subsea)
Pressure at Run Depth <u>27262</u> kPaG	Gradient at Run Depth _____ kPa/m
MPP Pressure _____ kPaG	Datum Depth Pressure _____ kPaG
Final Buildup Pressure _____ kPaG	Date on Bottom <u>July 15, 1998</u>
Date off Bottom <u>July 20, 1998</u>	Shut in Date <u>July 16, 1998</u>

Summary:

Single LMR Quartz SRO Recorder ran within specifications.

Recorder shut down when wireline parted near surface while attempting to pull tools off bottom on July 16, 1998.

Preparation Data:

Tested By <u>GENCO</u>	Computed By <u>P. Mulgrew</u>	Report Date <u>Aug 04, 1998</u>
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SRO Recorder

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

OPERATIONS SUMMARY

Company: **Ranger Oil Limited**
Ranger Fort Liard

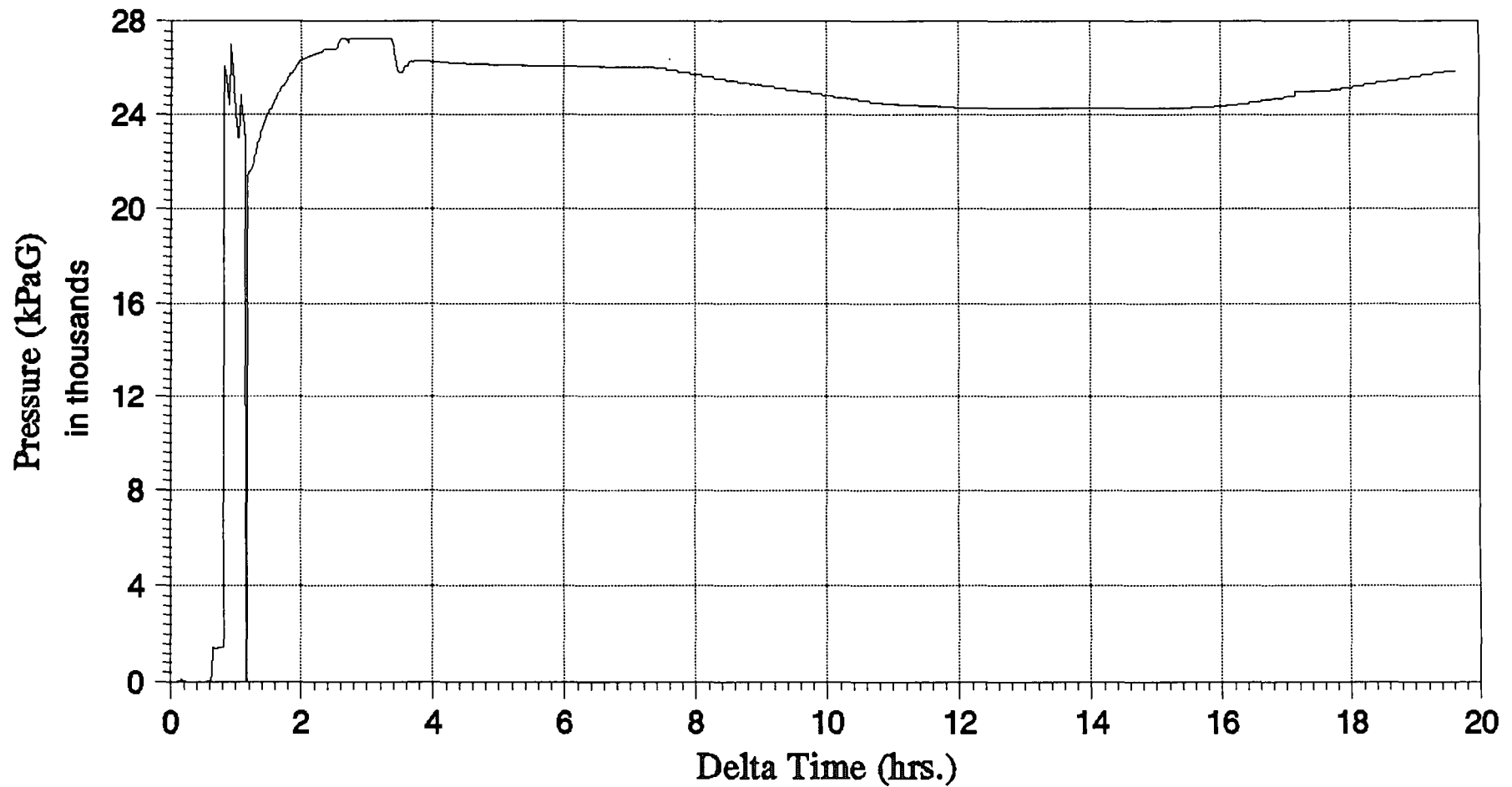
LSD: **P-66-A**

Bottom Gauge

Date	Time	dt(hrs)	P(kpaG)	T(°C)	Pt. #	Remarks
1998/07/15	18:58:36	0.0000	21.7	24.6	1 :	Begin Data Acquisition
	19:37:36	0.6500	1445.2	24.5	74 :	Pressure Test Lubricator
	21:41:48	2.7200	27261.6	157.6	319:	Recorder on Bottom.
	22:20:12	3.3600	27265.0	158.1	395:	Well Open to Flow.
1998/07/16	07:08:12	12.1600	24273.5	154.4	1452:	Lost about 3 Hours of
					:	readings due to power
					:	failure.
	14:37:00	19.6400	25843.0	157.9	1937:	End Data Acquisition

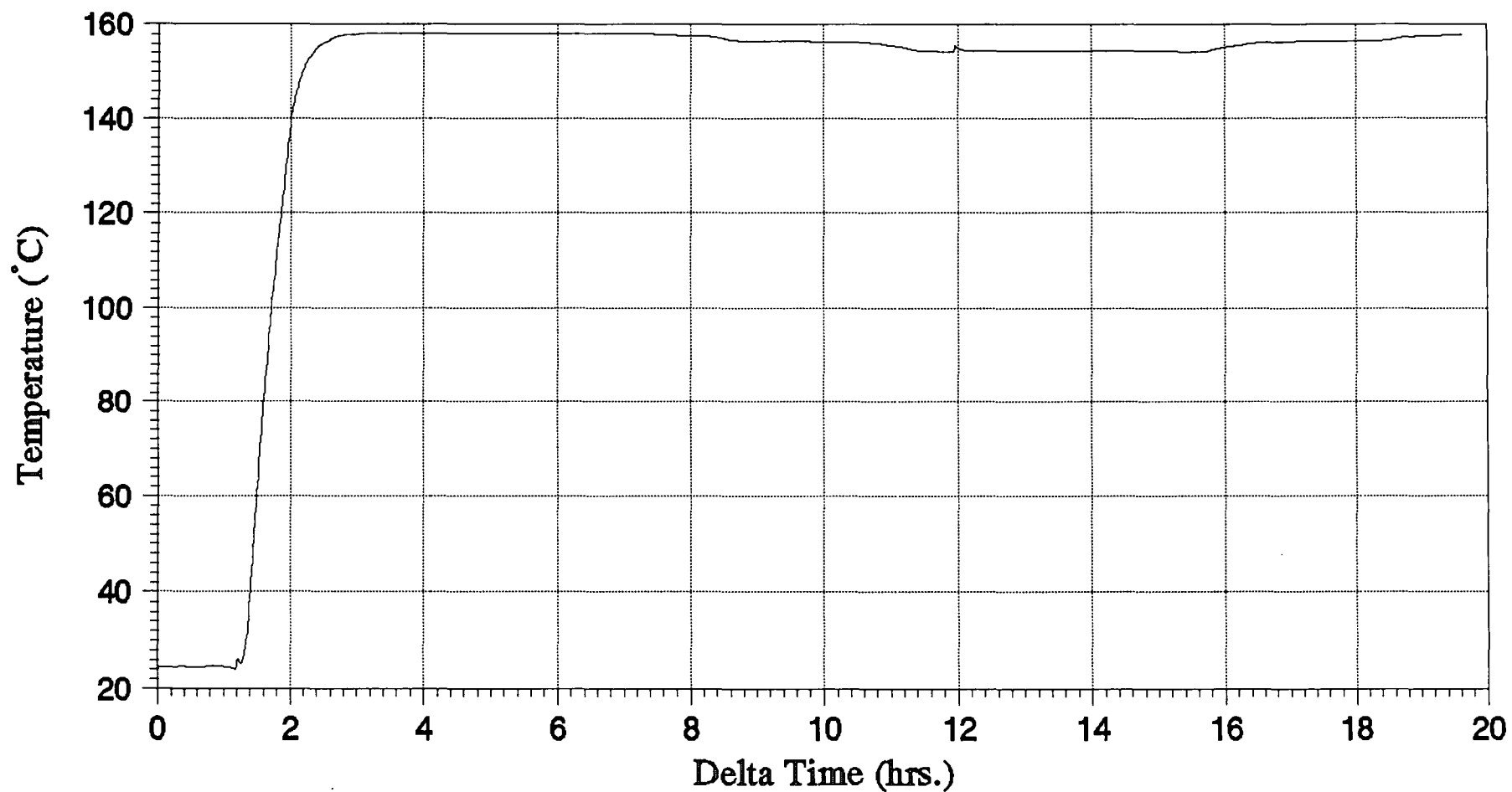
Absolute pressures are converted to gauge pressures
 assuming a barometric pressure of 90 kPa.

Ranger Oil Limited
P-66-A
Gentronics Quartz Bottom Gauge Pressures



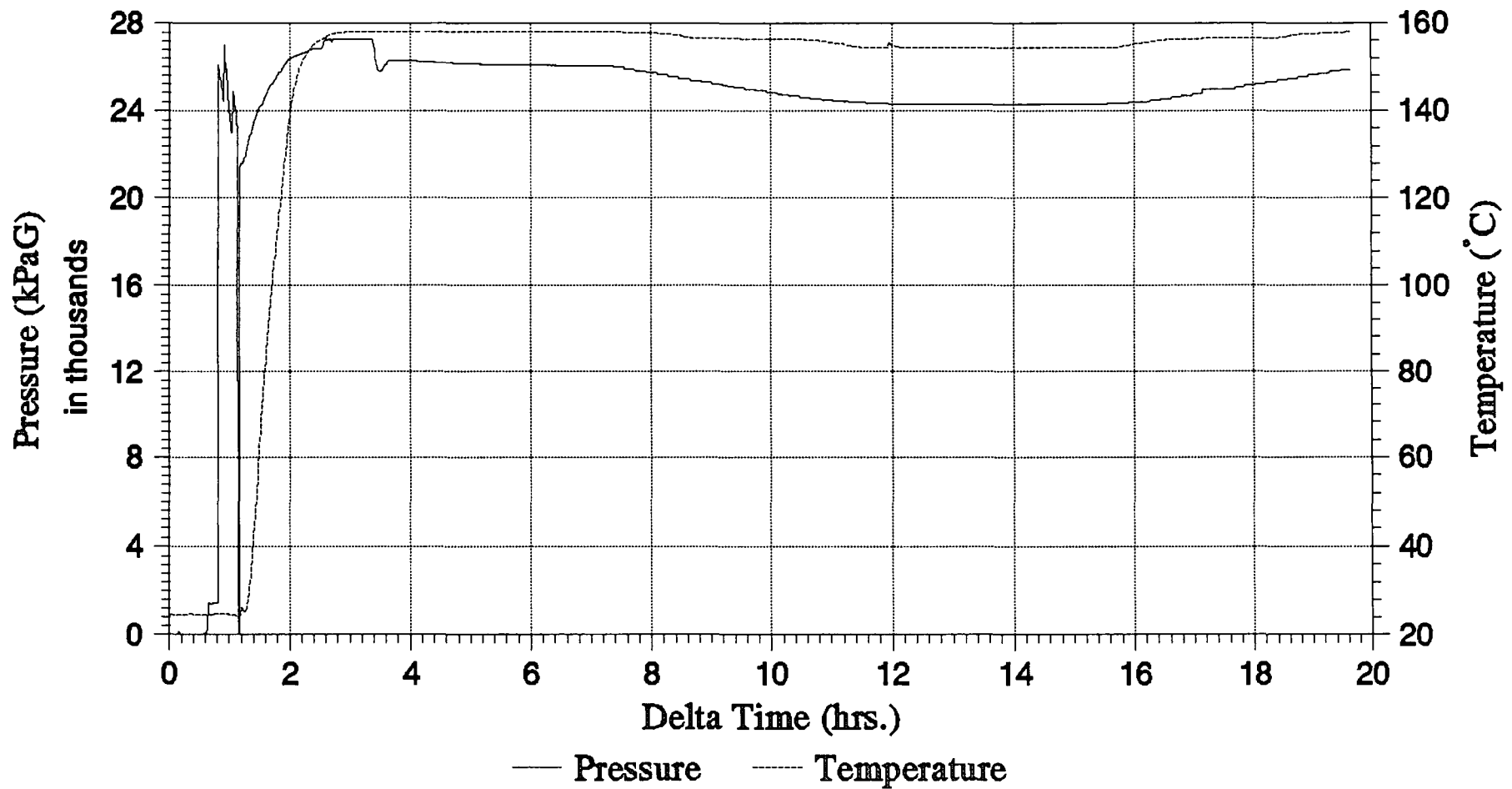
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/15 18:58:36
End Aquisition: 1998/07/16 14:37:00

Ranger Oil Limited
P-66-A
Gentronics Quartz Bottom Gauge Temp.



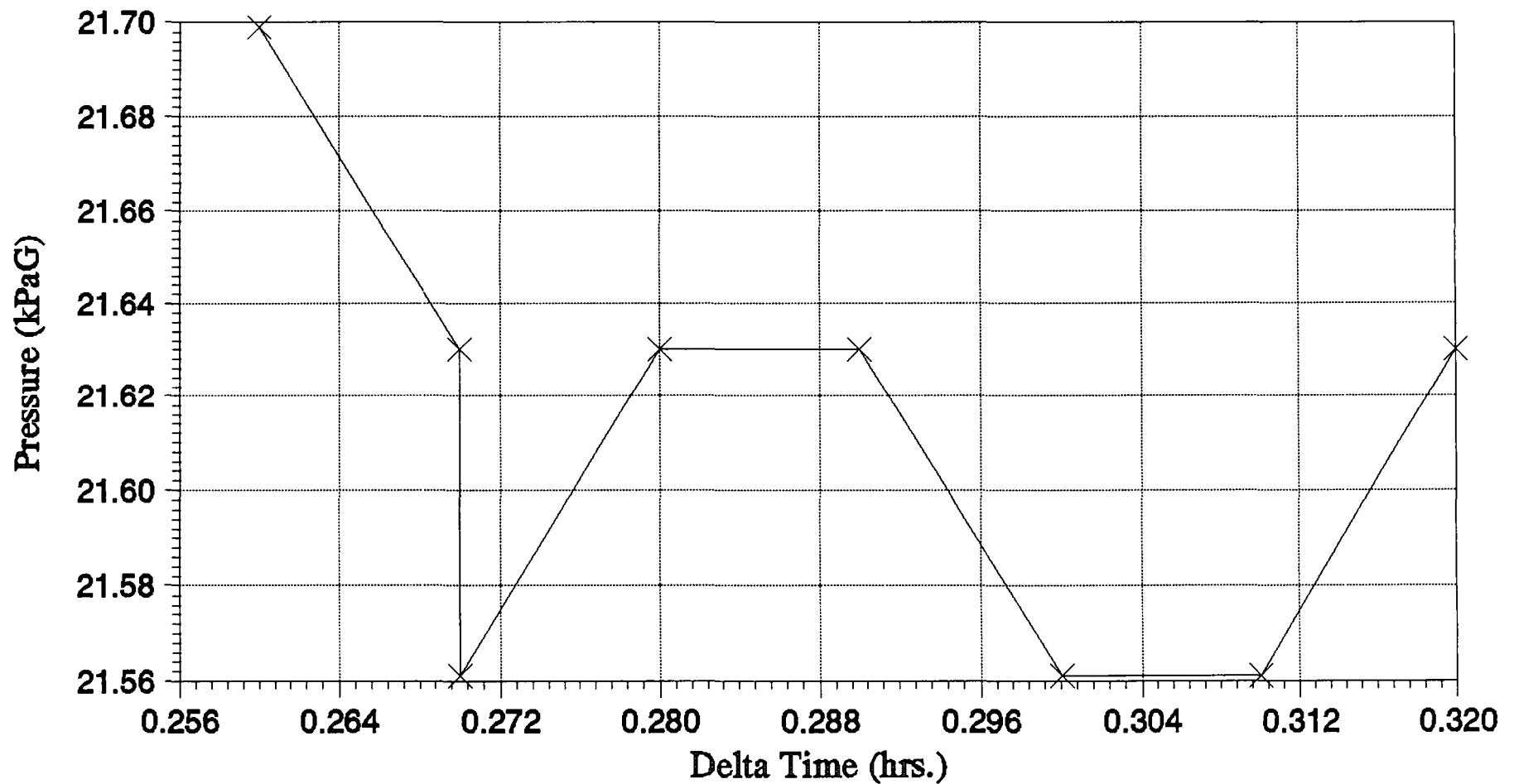
GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/15 18:58:36
End Aquisition: 1998/07/16 14:37:00

Ranger Oil Limited
P-66-A
Gentronics Quartz Bottom Pressure/Temp



GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/15 18:58:36
End Aquisition: 1998/07/16 14:37:00

Ranger Oil Limited
P-66-A
Bottom Gauge Apparent Resolution



GENCO PRESSURE CONTROL LTD (403)250-3800
Start Aquisition: 1998/07/15 18:58:36
End Aquisition: 1998/07/16 14:37:00

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: **Ranger Oil Limited**
Ranger Fort Liard

LSD: **P-66-A**

Bottom Gauge

Date	Time	dt(hrs)	P(kPaG)	dP	T(°C)	dT	Pt. #
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Begin Data Acquisition:

1998/07/15	18:58:36	0.0000	21.7	21.7	24.6	24.6	0:
	19:02:48	0.0700	22.3	0.6	24.6	0.0	9:
	19:08:48	0.1700	105.7	83.5	24.6	0.0	18:
	19:13:00	0.2400	21.8	-83.9	24.6	0.0	27:
	19:17:48	0.3200	21.6	-0.2	24.6	0.0	36:
	19:22:00	0.3900	21.7	0.1	24.7	0.0	45:
	19:26:48	0.4700	21.6	-0.1	24.6	-0.0	54:
	19:31:00	0.5400	21.7	0.1	24.5	-0.1	63:
	19:35:48	0.6200	71.2	49.5	24.5	-0.1	72:
	19:41:12	0.7100	1414.0	1342.8	24.6	0.1	81:
	19:45:24	0.7800	1446.6	32.5	24.7	0.1	90:
	19:50:48	0.8700	25150.4	23703.8	24.9	0.2	99:
	19:55:36	0.9500	25817.8	667.4	24.8	-0.1	108:
	19:59:48	1.0200	23013.5	-2804.3	24.6	-0.2	117:
	20:05:12	1.1100	23842.8	829.3	24.4	-0.2	126:
	20:10:00	1.1900	21567.1	-2275.8	24.9	0.5	135:
	20:14:48	1.2700	21970.1	403.0	25.4	0.5	144:
	20:19:00	1.3400	22839.0	869.0	30.9	5.5	153:
	20:23:48	1.4200	23544.5	705.4	44.1	13.2	162:
	20:28:00	1.4900	24066.4	522.0	60.5	16.4	171:
	20:32:48	1.5700	24415.5	349.1	75.1	14.6	180:
	20:37:00	1.6400	24923.9	508.4	88.6	13.5	189:
	20:41:48	1.7200	25216.3	292.4	100.6	12.0	198:
	20:46:00	1.7900	25579.5	363.2	111.2	10.6	207:
	20:50:12	1.8600	25829.8	250.2	121.3	10.1	216:
	20:55:00	1.9400	26172.1	342.3	131.1	9.8	225:
	20:59:12	2.0100	26379.5	207.4	140.2	9.1	234:
	21:04:00	2.0900	26465.9	86.4	145.9	5.7	243:
	21:08:12	2.1600	26552.0	86.1	149.5	3.6	252:
	21:13:00	2.2400	26628.5	76.5	151.9	2.4	261:
	21:17:12	2.3100	26704.2	75.8	153.6	1.7	270:
	21:22:00	2.3900	26800.4	96.2	154.9	1.4	279:
	21:26:12	2.4600	26812.6	12.2	155.8	0.8	288:
	21:31:00	2.5400	26868.1	55.5	156.2	0.4	297:
	21:35:12	2.6100	27238.0	369.8	156.9	0.7	306:
	21:40:00	2.6900	27256.2	18.2	157.4	0.5	315:
	21:44:12	2.7600	27259.4	3.2	157.7	0.3	324:
	21:49:00	2.8400	27261.6	2.3	157.8	0.2	333:
	21:53:12	2.9100	27263.0	1.4	157.9	0.1	342:
	21:58:00	2.9900	27263.7	0.7	157.9	0.1	351:
	22:02:12	3.0600	27264.3	0.6	158.0	0.1	360:
	22:07:00	3.1400	27264.5	0.2	158.0	0.0	369:
	22:11:12	3.2100	27264.8	0.3	158.0	0.0	378:

Absolute pressures are converted to gauge pressures
 assuming a barometric pressure of 90 kPa.
 Reporting on an interval of 1 in 9 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: Ranger Oil Limited
Ranger Fort Liard

LSD: P-66-A

Bottom Gauge

Date	Time	dt (hrs)	P (kPaG)	dP	T (°C)	dT	Pt. #
	22:16:00	3.2900	27266.2	1.4	158.1	0.1	387:
	22:20:12	3.3600	27260.8	-5.4	158.1	0.0	396:
	22:25:00	3.4400	26136.4	-1124.4	158.1	0.0	405:
	22:29:12	3.5100	25790.9	-345.6	158.0	-0.1	414:
	22:34:00	3.5900	26067.8	277.0	158.1	0.1	423:
	22:38:12	3.6600	26289.5	221.7	158.1	0.0	432:
	22:43:00	3.7400	26298.0	8.5	158.1	0.0	441:
	22:47:12	3.8100	26289.8	-8.2	158.1	0.0	450:
	22:52:00	3.8900	26292.3	2.5	158.1	0.0	459:
	22:56:12	3.9600	26281.7	-10.6	158.1	0.0	468:
	23:01:00	4.0400	26270.1	-11.6	158.1	0.0	477:
	23:05:12	4.1100	26255.9	-14.1	158.1	0.0	486:
	23:10:00	4.1900	26247.4	-8.5	158.1	0.0	495:
	23:14:12	4.2600	26233.7	-13.7	158.1	0.0	504:
	23:19:00	4.3400	26218.5	-15.2	158.1	0.0	513:
	23:23:12	4.4100	26205.3	-13.2	158.1	0.0	522:
	23:28:00	4.4900	26192.4	-12.9	158.1	0.0	531:
	23:32:12	4.5600	26182.6	-9.9	158.1	0.0	540:
	23:37:00	4.6400	26166.6	-16.0	158.1	0.0	549:
	23:41:12	4.7100	26161.5	-5.0	158.1	0.0	558:
	23:46:00	4.7900	26150.9	-10.7	158.1	0.0	567:
	23:50:12	4.8600	26144.3	-6.6	158.1	0.0	576:
	23:55:00	4.9400	26137.4	-6.9	158.1	0.0	585:
	23:59:12	5.0100	26125.8	-11.7	158.1	0.0	594:
1998/07/16	00:04:00	5.0900	26116.0	-9.7	158.1	0.0	603:
	00:08:12	5.1600	26111.3	-4.7	158.1	0.0	612:
	00:13:00	5.2400	26109.6	-1.7	158.1	0.0	621:
	00:17:12	5.3100	26105.8	-3.8	158.1	0.0	630:
	00:22:00	5.3900	26102.0	-3.9	158.1	0.0	639:
	00:26:12	5.4600	26099.1	-2.8	158.1	0.0	648:
	00:31:00	5.5400	26095.1	-4.1	158.1	0.0	657:
	00:35:12	5.6100	26089.1	-6.0	158.1	0.0	666:
	00:40:00	5.6900	26083.8	-5.3	158.1	0.0	675:
	00:44:12	5.7600	26079.5	-4.3	158.1	0.0	684:
	00:49:00	5.8400	26078.2	-1.2	158.1	0.0	693:
	00:53:12	5.9100	26070.9	-7.4	158.1	0.0	702:
	00:58:00	5.9900	26074.7	3.8	158.1	0.0	711:
	01:02:12	6.0600	26072.0	-2.7	158.1	0.0	720:
	01:07:00	6.1400	26073.1	1.1	158.1	0.0	729:
	01:11:12	6.2100	26069.1	-3.9	158.1	0.0	738:
	01:16:00	6.2900	26063.4	-5.8	158.1	0.0	747:
	01:20:12	6.3600	26064.0	0.6	158.1	0.0	756:
	01:25:00	6.4400	26062.5	-1.5	158.1	0.0	765:
	01:29:12	6.5100	26060.0	-2.5	158.1	0.0	774:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 9 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: Ranger Oil Limited
Ranger Fort Liard

LSD: P-66-A

Bottom Gauge

Date	Time	dt (hrs)	P (kPaG)	dP	T (°C)	dT	Pt. #
	01:34:00	6.5900	26059.0	-1.0	158.1	0.0	783:
	01:38:12	6.6600	26051.8	-7.2	158.1	0.0	792:
	01:43:00	6.7400	26052.3	0.6	158.1	0.0	801:
	01:47:12	6.8100	26044.4	-7.9	158.1	0.0	810:
	01:52:00	6.8900	26044.9	0.6	158.1	0.0	819:
	01:56:12	6.9600	26038.7	-6.3	158.1	0.0	828:
	02:01:00	7.0400	26036.3	-2.4	158.1	0.0	837:
	02:05:12	7.1100	26036.3	0.1	158.1	0.0	846:
	02:10:00	7.1900	26033.4	-2.9	158.1	0.0	855:
	02:14:12	7.2600	26030.3	-3.1	158.1	0.0	864:
	02:19:00	7.3400	26026.3	-4.1	158.1	0.0	873:
	02:23:12	7.4100	25994.6	-31.6	158.0	-0.1	882:
	02:28:00	7.4900	25996.0	1.4	157.9	-0.1	891:
	02:32:12	7.5600	25908.1	-87.8	157.9	-0.1	900:
	02:37:00	7.6400	25904.5	-3.7	157.8	-0.1	909:
	02:41:12	7.7100	25903.0	-1.4	157.8	-0.1	918:
	02:46:00	7.7900	25819.1	-84.0	157.8	0.0	927:
	02:50:12	7.8600	25814.9	-4.2	157.7	-0.1	936:
	02:55:00	7.9400	25726.4	-88.5	157.7	0.0	945:
	02:59:12	8.0100	25724.9	-1.5	157.7	-0.1	954:
	03:04:00	8.0900	25725.2	0.3	157.7	0.0	963:
	03:08:12	8.1600	25639.8	-85.4	157.6	-0.1	972:
	03:13:00	8.2400	25638.2	-1.6	157.6	-0.1	981:
	03:17:12	8.3100	25552.5	-85.7	157.5	-0.1	990:
	03:22:00	8.3900	25551.7	-0.8	157.3	-0.2	999:
	03:26:12	8.4600	25505.8	-45.9	157.3	-0.1	1008:
	03:31:00	8.5400	25465.0	-40.7	156.9	-0.3	1017:
	03:35:12	8.6100	25460.6	-4.4	156.8	-0.2	1026:
	03:40:00	8.6900	25375.2	-85.4	156.7	-0.1	1035:
	03:44:12	8.7600	25371.3	-3.9	156.6	-0.1	1044:
	03:49:00	8.8400	25303.5	-67.8	156.6	0.0	1053:
	03:53:12	8.9100	25287.3	-16.3	156.5	-0.1	1062:
	03:58:00	8.9900	25288.6	1.4	156.5	0.0	1071:
	04:02:12	9.0600	25210.0	-78.7	156.5	0.0	1080:
	04:07:00	9.1400	25210.1	0.1	156.4	-0.1	1089:
	04:11:12	9.2100	25136.0	-74.1	156.4	0.0	1098:
	04:16:00	9.2900	25132.3	-3.7	156.4	0.0	1107:
	04:20:12	9.3600	25130.8	-1.4	156.4	0.0	1116:
	04:25:00	9.4400	25057.2	-73.6	156.4	0.0	1125:
	04:29:12	9.5100	25055.9	-1.3	156.4	-0.1	1134:
	04:34:00	9.5900	24974.2	-81.8	156.4	0.0	1143:
	04:38:12	9.6600	24973.5	-0.7	156.4	0.0	1152:
	04:43:00	9.7400	24972.6	-0.9	156.4	0.0	1161:
	04:47:12	9.8100	24897.3	-75.3	156.3	-0.1	1170:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 9 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: Ranger Oil Limited
Ranger Fort Liard

LSD: P-66-A

Bottom Gauge

Date	Time	dt(hrs)	P(kPaG)	dP	T(°C)	dT	Pt. #
	04:52:00	9.8900	24894.0	-3.3	156.3	0.0	1179:
	04:56:12	9.9600	24821.7	-72.3	156.3	0.0	1188:
	05:01:00	10.0400	24817.3	-4.4	156.3	0.0	1197:
	05:05:12	10.1100	24779.1	-38.2	156.3	0.0	1206:
	05:10:00	10.1900	24743.0	-36.1	156.3	-0.1	1215:
	05:14:12	10.2600	24740.8	-2.2	156.3	0.0	1224:
	05:19:00	10.3400	24664.8	-76.0	156.3	0.0	1233:
	05:23:12	10.4100	24664.2	-0.6	156.2	-0.1	1242:
	05:28:00	10.4900	24585.1	-79.2	156.2	0.0	1251:
	05:32:12	10.5600	24584.9	-0.2	156.2	0.0	1260:
	05:37:00	10.6400	24585.1	0.3	156.2	-0.1	1269:
	05:41:12	10.7100	24513.3	-71.8	156.1	-0.1	1278:
	05:46:00	10.7900	24508.2	-5.1	156.0	-0.1	1287:
	05:50:12	10.8600	24463.1	-45.1	155.9	-0.1	1296:
	05:55:00	10.9400	24467.2	4.1	155.7	-0.2	1305:
	05:59:12	11.0100	24462.6	-4.6	155.6	-0.1	1314:
	06:04:00	11.0900	24429.0	-33.6	155.4	-0.2	1323:
	06:08:12	11.1600	24428.3	-0.6	155.3	-0.1	1332:
	06:13:00	11.2400	24401.7	-26.6	155.1	-0.2	1341:
	06:17:12	11.3100	24399.1	-2.6	154.8	-0.3	1350:
	06:22:00	11.3900	24392.7	-6.4	154.6	-0.2	1359:
	06:26:12	11.4600	24368.6	-24.1	154.5	-0.1	1368:
	06:31:00	11.5400	24362.1	-6.6	154.4	-0.1	1377:
	06:35:12	11.6100	24343.1	-19.0	154.4	-0.1	1386:
	06:40:00	11.6900	24339.8	-3.2	154.4	0.0	1395:
	06:44:12	11.7600	24321.2	-18.6	154.3	-0.1	1404:
	06:49:00	11.8400	24316.6	-4.6	154.3	0.0	1413:
	06:53:12	11.9100	24314.4	-2.1	154.3	0.0	1422:
	06:58:00	11.9900	24278.2	-36.2	155.1	0.8	1431:
	07:02:12	12.0600	24267.7	-10.5	154.7	-0.4	1440:
	07:07:00	12.1400	24278.6	10.9	154.4	-0.2	1449:
	10:16:00	15.2900	24272.4	-6.2	154.4	-0.1	1458:
	10:20:12	15.3600	24270.4	-2.0	154.3	-0.1	1467:
	10:25:00	15.4400	24289.8	19.4	154.3	0.0	1476:
	10:29:12	15.5100	24288.0	-1.8	154.3	0.0	1485:
	10:34:00	15.5900	24306.2	18.2	154.3	0.0	1494:
	10:38:12	15.6600	24308.0	1.7	154.3	0.0	1503:
	10:43:00	15.7400	24317.9	9.9	154.3	0.0	1512:
	10:47:12	15.8100	24325.1	7.2	154.7	0.3	1521:
	10:52:00	15.8900	24324.7	-0.3	154.8	0.2	1530:
	10:56:12	15.9600	24355.7	31.0	155.1	0.3	1539:
	11:01:00	16.0400	24358.6	2.9	155.3	0.2	1548:
	11:05:12	16.1100	24400.4	41.8	155.4	0.1	1557:
	11:10:00	16.1900	24398.4	-1.9	155.6	0.2	1566:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 9 data points.

GENCO PRESSURE CONTROL LIMITED

(403) 250-3800

Calgary, AB.

PRESSURE TRANSIENT TEST DATA

Company: Ranger Oil Limited
Ranger Fort Liard

LSD: P-66-A

Bottom Gauge

Date	Time	dt(hrs)	P (kPaG)	dP	T(°C)	dT	Pt. #
	11:14:12	16.2600	24397.7	-0.8	155.7	0.1	1575:
	11:19:00	16.3400	24470.1	72.5	155.9	0.2	1584:
	11:23:12	16.4100	24471.9	1.8	156.1	0.2	1593:
	11:28:00	16.4900	24544.7	72.8	156.2	0.1	1602:
	11:32:12	16.5600	24543.6	-1.2	156.2	0.1	1611:
	11:37:00	16.6400	24620.0	76.5	156.2	0.0	1620:
	11:41:12	16.7100	24618.4	-1.7	156.3	0.1	1629:
	11:46:00	16.7900	24618.9	0.5	156.3	0.0	1638:
	11:50:12	16.8600	24695.9	77.0	156.3	0.1	1647:
	11:55:00	16.9400	24692.7	-3.2	156.3	0.0	1656:
	11:59:12	17.0100	24763.8	71.1	156.3	0.0	1665:
	12:04:00	17.0900	24761.6	-2.1	156.4	0.1	1674:
	12:08:12	17.1600	24983.1	221.5	156.5	0.1	1683:
	12:13:00	17.2400	24986.3	3.2	156.5	0.0	1692:
	12:38:48	17.6700	24982.6	-3.7	156.5	0.0	1701:
	12:43:00	17.7400	25060.8	78.1	156.5	0.0	1710:
	12:47:48	17.8200	25063.6	2.8	156.5	0.0	1719:
	12:52:00	17.8900	25137.3	73.7	156.5	0.0	1728:
	12:56:48	17.9700	25139.1	1.8	156.6	0.1	1737:
	13:01:00	18.0400	25218.2	79.1	156.6	0.0	1746:
	13:05:48	18.1200	25217.3	-0.9	156.6	0.0	1755:
	13:10:00	18.1900	25218.2	1.0	156.6	0.0	1764:
	13:14:48	18.2700	25301.8	83.6	156.6	0.0	1773:
	13:19:00	18.3400	25300.6	-1.2	156.6	0.1	1782:
	13:23:48	18.4200	25384.1	83.6	156.7	0.1	1791:
	13:28:00	18.4900	25381.4	-2.7	156.8	0.1	1800:
	13:32:48	18.5700	25381.6	0.1	156.9	0.1	1809:
	13:37:00	18.6400	25460.8	79.2	157.2	0.3	1818:
	13:41:48	18.7200	25461.4	0.6	157.3	0.2	1827:
	13:46:00	18.7900	25551.9	90.5	157.4	0.1	1836:
	13:50:48	18.8700	25551.3	-0.6	157.5	0.1	1845:
	13:55:00	18.9400	25634.6	83.3	157.6	0.1	1854:
	13:59:48	19.0200	25638.6	3.9	157.6	0.1	1863:
	14:04:00	19.0900	25632.4	-6.1	157.6	0.0	1872:
	14:08:48	19.1700	25717.2	84.7	157.7	0.1	1881:
	14:13:00	19.2400	25719.7	2.6	157.7	0.1	1890:
	14:17:48	19.3200	25802.4	82.7	157.7	0.0	1899:
	14:22:00	19.3900	25800.4	-2.0	157.8	0.1	1908:
	14:26:48	19.4700	25847.1	46.6	157.8	0.1	1917:
	14:31:00	19.5400	25843.3	-3.8	157.9	0.1	1926:
	14:35:48	19.6200	25843.7	0.4	157.9	0.1	1935:
1998/07/16	14:37:00	19.6400	25843.0	-0.7	157.9	0.0	1937:

End Data Acquisition:

Absolute pressures are converted to gauge pressures
assuming a barometric pressure of 90 kPa.
Reporting on an interval of 1 in 9 data points.