

N.E.B. COPY

Sub-Surface Pressure Report

Ranger Oil Limited

Static Gradient In
Ranger Ft. Liard
P-66-A

Jun 30, 99 to Jul 02, 99



**7449 - 49 Avenue Crescent
Red Deer, Alberta T4P 1X6**

**MICROFILMED
SUR MICROFILM:**



Ranger Oil Limited

Static Gradient In

Ranger Ft. Liard

P-66-A

Jun 30, 99 to Jul 02, 99

Service Company Contact Info

Report Writer	Wade Nicks, 309-7940	Service Company	Lee Tool, Div. of Schlumberger
Operator	Bonnett's Wireline Services Ltd., (250) 787-3020	Job ID	Ranger Static Gradient
		Test Date	Jun 30, 99 to Jul 02, 99

Gauge: Lee Memory Recorder Model 3000s (Quartz)

Manufacturer: Lee Tool, Division of Schlumberger Canada Limited

Static Gradient In

Ranger Oil Limited
Alberta, Canada

Jun 30, 99 to Jul 02, 99

Ranger Ft. Liard

P-66-A

Liard, Nihanni

Well			
Client	Ranger Oil Limited	Province	Alberta
Well Name	Ranger Ft. Liard	Country	Canada
Well No.	P-66-A	Deviated Well	Yes
Field	Liard	Well Status	Gas
Pool	Nihanni	KB Elevation	459.89 m
		CF Elevation	449.49 m
		Pool Datum	

Test						
Test Type				Static Gradient In		Atmospheric
				101.30 KPa A		
Test Start (mm/dd/yy)		Test Finish		Casing ID		Tubing ID
06/30/99		05:33 PM		07/02/99		02:58 PM
On Bottom		Off Bottom		C. Pres. Before		T. Pres. Before
06/30/99		09:40 PM		07/02/99		12:05 PM
Shut In		ETO		C. Pres. After		T. Pres. After
06/30/99		06:10 PM		06/30/99		05:33 PM
		Meas. Depth [mCF]		TVD [mCF]		Est. Pressure [KPa G]
						Est. Gradient [KPa/m]
						Est. Temperature [DegC]
						Grad. Threshold
						2.00 KPa/m
Well Datum						Grad. Recorder
						9502Q-16E
Run Depth		3000.00		2604.63		26011.87
						8.71
Avg. MPP Depth		3133.10		2701.72		26857.44
						8.71
Operator				Service Company		
Bonnett's Wireline Services Ltd., (250) 787-3020				Lee Tool, Div. of Schlumberger		
Remarks						
9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.						

Depth References		
Depth Reference	Offset [m]	Elevation [mMSL]
Casing Flange (CF)		449.49
Kelly Bushing (KB)	CF + 10.40	459.89

Perforations				
Perf Top MD, [mCF]	Perf Bottom MD, [mCF]	MPP TVD, [mCF]	Pressure [KPa G]	Gradient [KPa/m]
3104.60	3161.60	2701.72	26857.44	8.71

Top Recorder

Model	LMR-3000S	Serial	9502Q-16E	Latest Calibration	11/28/98
Max. Rated Press.	110213.34 KPa G	Max. Rated Temp.	174.96 DegC		

Gradient Stops

Depth			Sample R/T [mmm dd, 24hr]	Pressure [KPa G]	Gradient [KPa/m]	Temperature [DegC]
Tool String MD, [mCF]	Recorder MD, [mCF]	Recorder TVD, [mCF]				
0.00	-2.00	-2.00	Jun 30, 99 19:21:00	19932.64		15.70
500.00	498.00	497.65	19:43:00	21058.20	2.25	32.84
1000.00	998.00	997.07	20:00:00	21998.65	1.88	64.24
1500.00	1498.00	1495.28	20:19:00	22837.12	1.68	92.83
2000.00	1998.00	1903.13	20:38:00	23501.23	1.63	112.54
2500.00	2498.00	2247.90	20:57:00	24028.90	1.53	129.05
2700.00	2698.00	2388.28	21:12:00	24248.61	1.57	137.82
2800.00	2798.00	2459.95	21:24:00	24738.23	6.83	142.84
2900.00	2898.00	2532.96	21:37:00	25387.61	8.89	146.47
3000.00	2998.00	2603.22	21:49:00	25999.57	8.71	149.50
Fluid Interface	Depth TVD, [mCF]	Gradient Before [KPa/m]	Gradient After [KPa/m]			
Interface 1	2408.45	1.57	8.89			

Bottom Hole Pressure

	Tool String MD, [mCF]	Sample R/T [mmm dd, yy 24 hr.]	Pressure [KPa G]	
Sample 1	3000.00	Jun 30, 99 21:42:00	25977.84	
Sample 2		21:50:00	26001.91	
Difference:		00:08:00	24.07	Build Up Rate 180.51 KPa/Hr.

Bottom Recorder

Model LMR-3000S	Serial 9112Q-16E	Latest Calibration 03/10/99	
Max. Rated Press. 110213.27 KPa G	Max. Rated Temp. 174.96 DegC		

Gradient Stops

Depth			Sample R/T [mmm dd, 24hr]	Pressure [KPa G]	Gradient [KPa/m]	Temperature [DegC]
Tool String MD, [mCF]	Recorder MD, [mCF]	Recorder TVD, [mCF]				
0.00	0.00	-0.00	Jun 30, 99 19:21:00	19960.28		15.12
500.00	500.00	499.64	19:43:00	21063.62	2.21	32.51
1000.00	1000.00	999.06	20:00:00	22000.27	1.88	63.73
1500.00	1500.00	1497.22	20:19:00	22845.37	1.70	92.23
2000.00	2000.00	1904.47	20:38:00	23507.35	1.63	111.82
2500.00	2500.00	2249.30	20:57:00	24035.46	1.53	128.16
2700.00	2700.00	2389.70	21:12:00	24255.15	1.56	136.93
2800.00	2800.00	2461.43	21:24:00	24753.14	6.94	141.93
2900.00	2900.00	2534.40	21:37:00	25402.84	8.90	145.54
3000.00	3000.00	2604.63	21:49:00	26014.22	8.70	148.57
Fluid Interface	Depth TVD, [mCF]	Gradient Before [KPa/m]	Gradient After [KPa/m]			
Interface 1	2408.87	1.56	8.90			

Bottom Hole Pressure

	Tool String MD, [mCF]	Sample R/T [mmm dd, yy 24 hr.]	Pressure [KPa G]	
Sample 1	3000.00	Jun 30, 99 21:42:00	25991.21	
Sample 2		21:50:00	26016.75	
Difference:		00:08:00	25.54	Build Up Rate 191.53 KPa/Hr.

Deviated Well Survey

Meas. Depth [mKB]	Inclination [Degrees]	TVD [mKB]	Meas. Depth [mCF]	TVD [mCF]
0.00	0.00	0.00	-10.40	-10.40
199.00	0.50	199.00	188.60	188.60
490.00	4.20	489.69	479.60	479.29
499.00	4.10	498.67	488.60	488.27
509.00	4.10	508.64	498.60	498.24
518.00	4.00	517.62	507.60	507.22
989.00	5.50	988.16	978.60	977.76
1007.00	5.39	1006.08	996.60	995.68
1019.00	4.80	1018.03	1008.60	1007.63
1494.00	12.60	1491.63	1483.60	1481.23
1503.00	12.80	1500.41	1492.60	1490.01
1513.00	12.90	1510.16	1502.60	1499.76
1990.00	47.90	1901.23	1979.60	1890.83
2000.00	48.00	1907.93	1989.60	1897.53
2010.00	48.30	1914.60	1999.60	1904.20
2019.00	47.80	1920.62	2008.60	1910.22
2496.00	45.50	2249.60	2485.60	2239.20
2506.00	45.40	2256.62	2495.60	2246.22
2516.00	45.60	2263.63	2505.60	2253.23
2689.00	44.30	2384.83	2678.60	2374.43

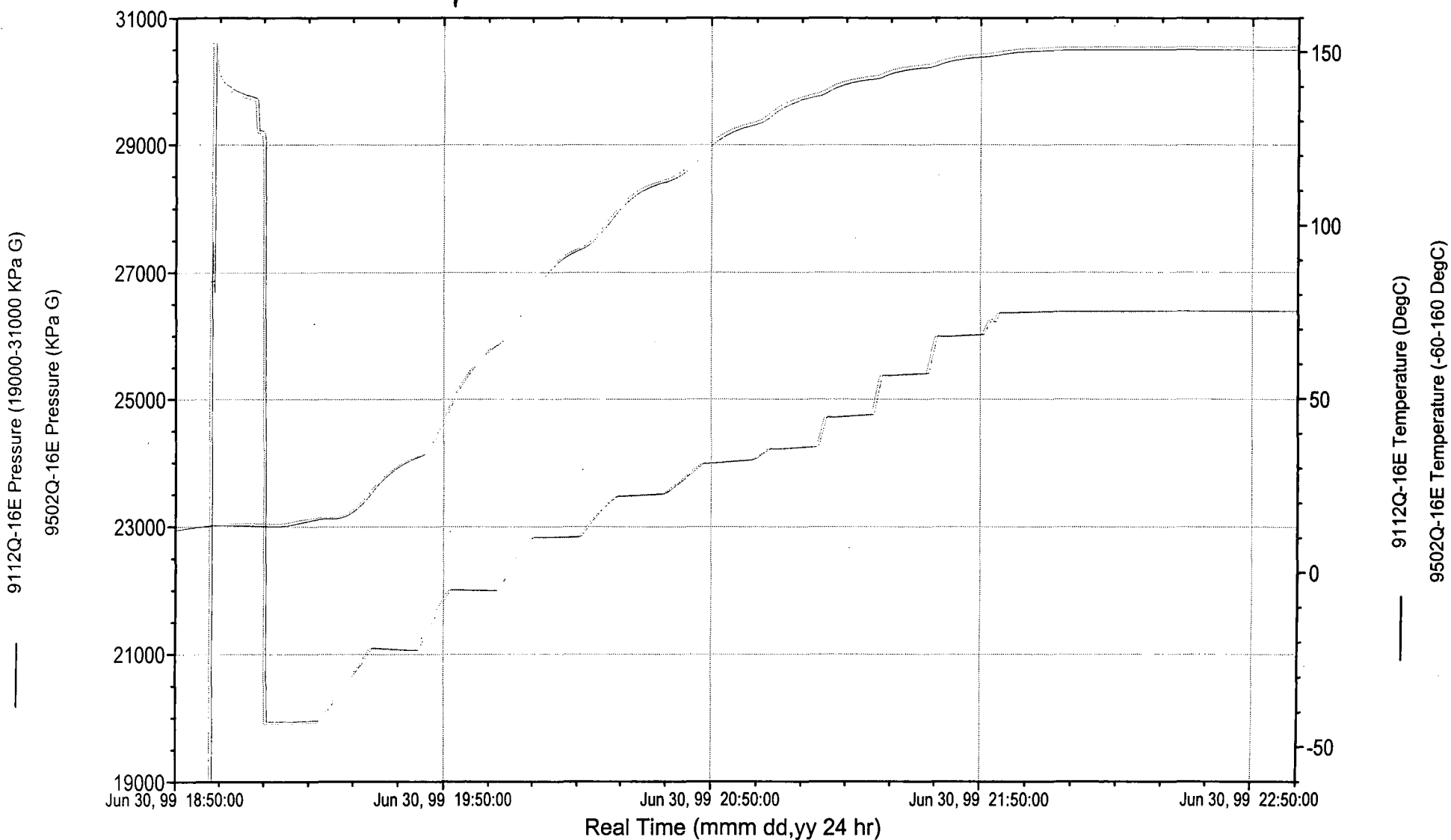
Deviated Well Survey

Meas. Depth [mKB]	Inclination [Degrees]	TVD [mKB]	Meas. Depth [mCF]	TVD [mCF]
2699.00	44.50	2391.98	2688.60	2381.58
2709.00	44.60	2399.10	2698.60	2388.70
2718.00	44.70	2405.50	2707.60	2395.10
2795.00	42.50	2460.44	2784.60	2450.04
2804.00	42.20	2467.09	2793.60	2456.69
2814.00	42.20	2474.50	2803.60	2464.10
2893.00	43.30	2532.20	2882.60	2521.80
2903.00	43.70	2539.46	2892.60	2529.06
2913.00	44.00	2546.67	2902.60	2536.27
2940.00	45.80	2565.75	2929.60	2555.35
2950.00	46.10	2572.71	2939.60	2562.31
2959.00	46.40	2578.93	2948.60	2568.53
2969.00	46.30	2585.83	2958.60	2575.43
2998.00	44.80	2606.26	2987.60	2595.86
3013.00	45.20	2616.86	3002.60	2606.46
3023.00	45.20	2623.91	3012.60	2613.51
3095.00	43.90	2675.20	3084.60	2664.80
3122.00	40.40	2695.22	3111.60	2684.82
3138.00	36.90	2707.72	3127.60	2697.32
3157.00	37.00	2722.90	3146.60	2712.50
3224.00	38.50	2775.80	3213.60	2765.40
3253.00	34.70	2799.08	3242.60	2788.68

Pressure & Temperature vs. Real Time (Static Gradient In)

Company: **Lee Tool, Div. of Schlumberger**
Client: **Ranger Oil Limited**
Remarks: **9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.**

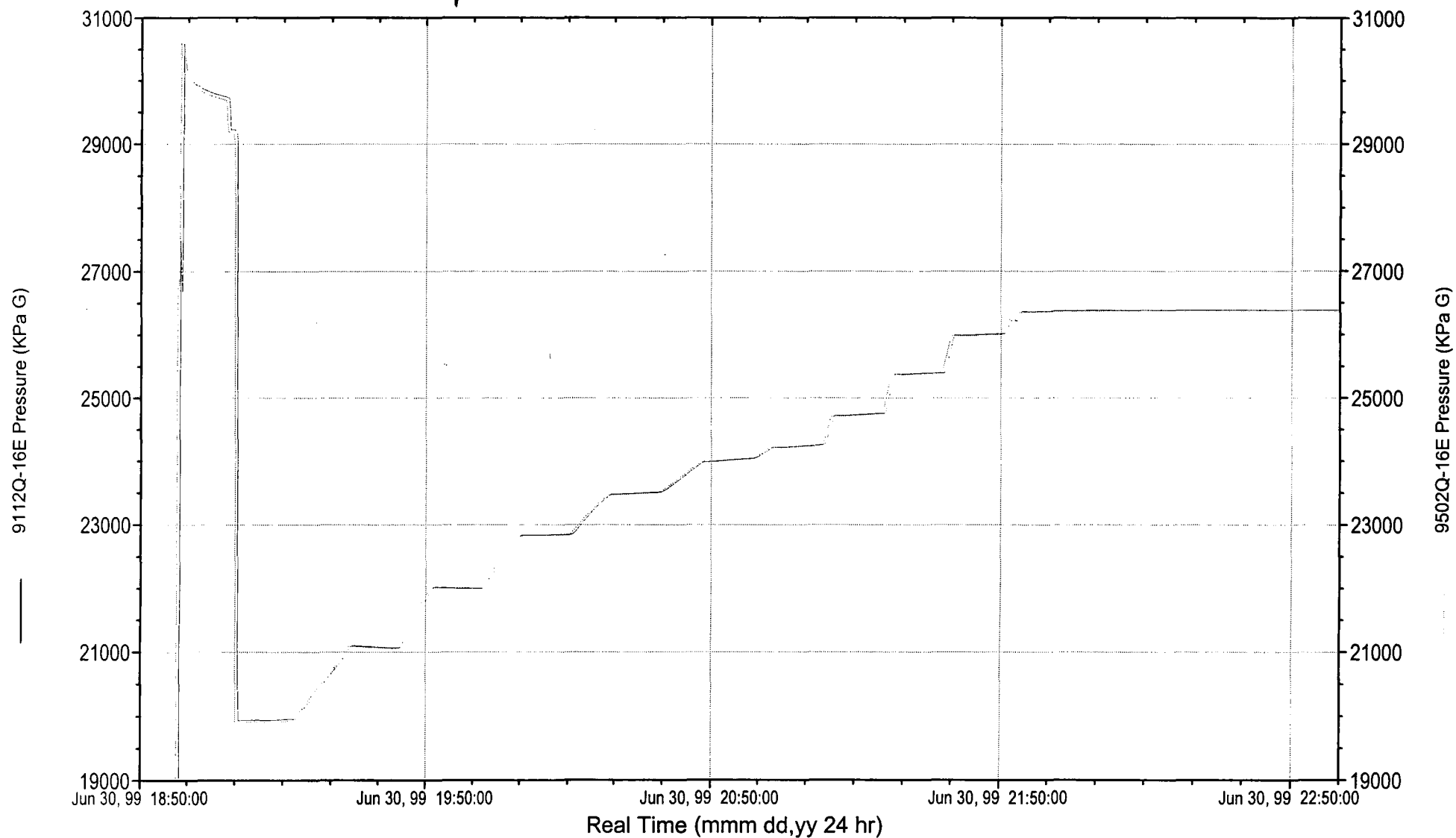
Field: **Liard**
Well Name: **Ranger Ft. Liard**
Well Number: **P-66-A**



Pressure vs. Real Time (Static Gradient In)

Company: **Lee Tool, Div. of Schlumberger**
Client: **Ranger Oil Limited**
Remarks: **9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.**

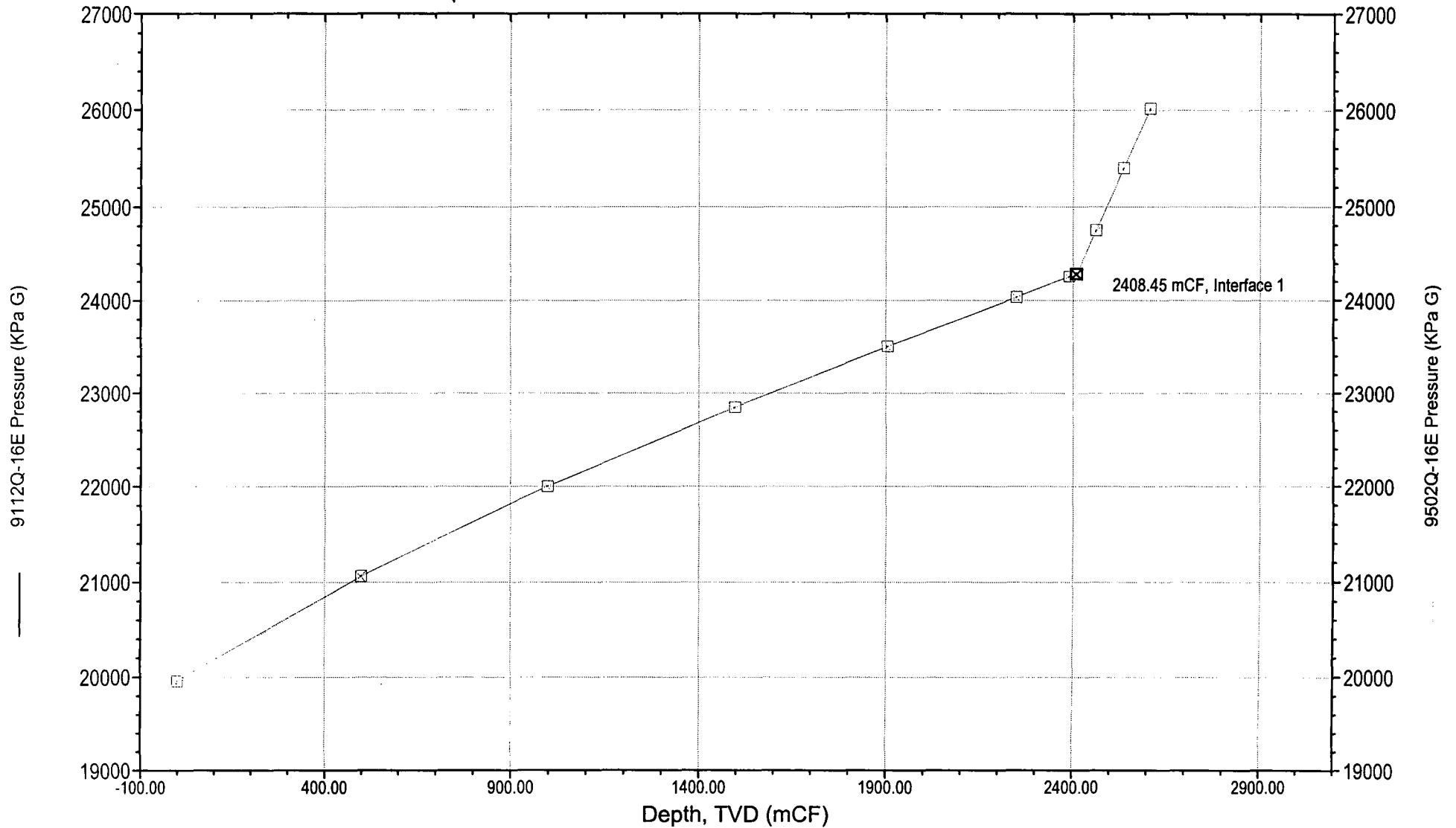
Field: **Liard**
Well Name: **Ranger Ft. Liard**
Well Number: **P-66-A**



Pressure vs. Depth (Static Gradient In)

Company: **Lee Tool, Div. of Schlumberger**
Client: **Ranger Oil Limited**
Remarks: **9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.**

Field: **Liard**
Well Name: **Ranger Ft. Liard**
Well Number: **P-66-A**



Ranger Oil Limited

Build-Up
Ranger Ft. Liard
P-66-A

Jun 30, 99 to Jul 02, 99

Service Company Contact Info

Report Writer	Wade Nicks, 309-7940	Service Company	Lee Tool, Div. of Schlumberger
Operator	Bonnett's Wireline Services Ltd., (250) 787-3020	Job ID	Ranger Static Gradient
		Test Date	Jun 30, 99 to Jul 02, 99

Gauge: Lee Memory Recorder Model 3000s (Quartz)
Manufacturer: Lee Tool, Division of Schlumberger Canada Limited

Build-Up

Ranger Oil Limited
Alberta, Canada

Jun 30, 99 to Jul 02, 99

Ranger Ft. Liard

P-66-A

Liard, Nihanni

Well			
Client	Ranger Oil Limited	Province	Alberta
Well Name	Ranger Ft. Liard	Deviated Well	Yes
Well No.	P-66-A	KB Elevation	459.89 m
Field	Liard	Pool	Nihanni
		CF Elevation	449.49 m
		Pool Datum	

Test							
Test Type				Build-Up		Atmospheric	
				101.30 KPa A			
Test Start (mm/dd/yy)		Test Finish		Casing ID		Tubing ID	
06/30/99		05:33 PM		07/02/99		02:58 PM	
On Bottom		Off Bottom		C. Pres. Before		T. Pres. Before	
06/30/99		09:55 PM		07/02/99		12:05 PM	
Shut In		ETO		C. Pres. After		T. Pres. After	
06/30/99		06:10 PM		06/30/99		05:33 PM	
		Meas. Depth [mCF]	TVD [mCF]	Est. Pressure [KPa G]	Est. Gradient [KPa/m]	Est. Temperature [DegC]	Grad. Threshold
Well Datum							Grad. Recorder
anded Depth		3000.00	2604.63				
vg. MPP Depth		3133.10	2701.72				
Operator				Service Company			
Bonnett's Wireline Services Ltd., (250) 787-3020				Lee Tool, Div. of Schlumberger			
emarks							
9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.							

Depth References		
Depth Reference	Offset [m]	Elevation [mMSL]
Casing Flange (CF)		449.49
Kelly Bushing (KB)	CF + 10.40	459.89

Perforations				
Perf Top MD, [mCF]	Perf Bottom MD, [mCF]	MPP TVD, [mCF]	Pressure	Gradient
3104.60	3161.60	2701.72		

Top Recorder			
Model	LMR-3000S	Serial	9502Q-16E
Max. Rated Press.	110213.34 KPa G	Latest Calibration	11/28/98
		Max. Rated Temp.	174.96 DegC

Bottom Hole Pressure				
	Tool String MD, [mCF]	Sample R/T [mmm dd, yy 24 hr.]	Pressure [KPa G]	
Sample 1	3000.00	Jul 02, 99 05:10:00	26380.89	
Sample 2		11:10:00	26388.08	
Difference:		06:00:00	7.18	Build Up Rate 1.20 KPa/Hr.

Bottom Recorder

Model	LMR-3000S	Serial	9112Q-16E	Latest Calibration	03/10/99
Max. Rated Press.	110213.27 KPa G	Max. Rated Temp.	174.96 DegC		

Bottom Hole Pressure

	Tool String MD, [mCF]	Sample R/T [mmm dd, yy 24 hr.]	Pressure [KPa G]	
Sample 1	3000.00	Jul 02, 99 05:10:00	26388.82	
Sample 2		11:10:00	26393.07	
Difference:		06:00:00	4.25	Build Up Rate 0.71 KPa/Hr.

Deviated Well Survey

Meas. Depth [mKB]	Inclination [Degrees]	TVD [mKB]	Meas. Depth [mCF]	TVD [mCF]
0.00	0.00	0.00	-10.40	-10.40
199.00	0.50	199.00	188.60	188.60
490.00	4.20	489.69	479.60	479.29
499.00	4.10	498.67	488.60	488.27
509.00	4.10	508.64	498.60	498.24
518.00	4.00	517.62	507.60	507.22
989.00	5.50	988.16	978.60	977.76
1007.00	5.39	1006.08	996.60	995.68
1019.00	4.80	1018.03	1008.60	1007.63
1494.00	12.60	1491.63	1483.60	1481.23
1503.00	12.80	1500.41	1492.60	1490.01
1513.00	12.90	1510.16	1502.60	1499.76
1990.00	47.90	1901.23	1979.60	1890.83
2000.00	48.00	1907.93	1989.60	1897.53
2010.00	48.30	1914.60	1999.60	1904.20
2019.00	47.80	1920.62	2008.60	1910.22
2496.00	45.50	2249.60	2485.60	2239.20
2506.00	45.40	2256.62	2495.60	2246.22
2516.00	45.60	2263.63	2505.60	2253.23
2689.00	44.30	2384.83	2678.60	2374.43
2699.00	44.50	2391.98	2688.60	2381.58
2709.00	44.60	2399.10	2698.60	2388.70
2718.00	44.70	2405.50	2707.60	2395.10
2795.00	42.50	2460.44	2784.60	2450.04
2804.00	42.20	2467.09	2793.60	2456.69
2814.00	42.20	2474.50	2803.60	2464.10
2893.00	43.30	2532.20	2882.60	2521.80
2903.00	43.70	2539.46	2892.60	2529.06
2913.00	44.00	2546.67	2902.60	2536.27
2940.00	45.80	2565.75	2929.60	2555.35
2950.00	46.10	2572.71	2939.60	2562.31
2959.00	46.40	2578.93	2948.60	2568.53
2969.00	46.30	2585.83	2958.60	2575.43
2998.00	44.80	2606.26	2987.60	2595.86
3013.00	45.20	2616.86	3002.60	2606.46
3023.00	45.20	2623.91	3012.60	2613.51
3095.00	43.90	2675.20	3084.60	2664.80

Deviated Well Survey

Meas. Depth [mKB]	Inclination [Degrees]	TVD [mKB]	Meas. Depth [mCF]	TVD [mCF]
3122.00	40.40	2695.22	3111.60	2684.82
3138.00	36.90	2707.72	3127.60	2697.32
3157.00	37.00	2722.90	3146.60	2712.50
3224.00	38.50	2775.80	3213.60	2765.40
3253.00	34.70	2799.08	3242.60	2788.68

Tool Summary

Ranger Oil Limited
Alberta, Canada

Jun 30, 99 to Jul 02, 99

Ranger Ft. Liard

P-66-A

Liard, Nihanni

Top Recorder			
Tool	LMR-3000S	Serial	9502Q-16E
		Latest Calibration	11/28/98
		Battery Serial	
Landed Depth	2998.00 mCF	Depth Offset	-2.00 m
		Min. Battery	0.10 V

Program											
Intervals					Expected Samples			Actual Samples			
Mode	Interval [d hh:mm:ss]	Rate [hh:mm:ss]	Delta [KPa]	Periodic [hh:mm:ss]	Regular Samples	Percent Storage	Energy [Ahr]	Regular Samples	Delta Samples	Percent Storage	Energy [Ahr]
HB	10:00	1			600	0.2%	0.0022	600		0.2%	0.0022
HB	15	10			129600	37.1%	2.7374	129600		37.1%	2.7374
HB	60	1:00			86400	24.7%	10.2249	9701		2.8%	1.1481
Totals:	75 10:00				216600	62.0%	12.9644	139901		40.0%	3.8876
											21 17:51:00

Bottom Recorder			
Tool	LMR-3000S	Serial	9112Q-16E
		Latest Calibration	03/10/99
		Battery Serial	
Landed Depth	3000.00 mCF	Depth Offset	0.00 m
		Min. Battery	0.19 V

Program											
Intervals					Expected Samples			Actual Samples			
Mode	Interval [d hh:mm:ss]	Rate [hh:mm:ss]	Delta [KPa]	Periodic [hh:mm:ss]	Regular Samples	Percent Storage	Energy [Ahr]	Regular Samples	Delta Samples	Percent Storage	Energy [Ahr]
HB	10:00	1			600	0.2%	0.0022	600		0.2%	0.0022
HB	15	10			129600	37.1%	2.7374	18826		5.4%	0.3976
HB	60	1:00			86400	24.7%	10.2249				
Totals:	75 10:00				216600	62.0%	12.9644	19426		5.6%	0.3998
											2 4:27:40

Calibration Summary

Ranger Oil Limited
Alberta, Canada

Jun 30, 99 to Jul 02, 99

Ranger Ft. Liard

P-66-A

Liard, Nihanni

Top Recorder

Tool	LMR-3000S	Serial	9502Q-16E	Latest Calibration	11/28/98	Battery Serial	
Landed Depth	2998.00 mCF	Depth Offset	-2.00 m	Min. Battery	0.10 V		

Equations

FP = Pres Freq (Hz)

FT = Temp Freq (Hz)

$XP = 1.938500e+004 + (1.000000e-002) FP$

$XT = 4.770900e+004 + (1.000000e-002) FT$

$P_0 = 1.953372e+001 + (-1.200032e+000) XT + (-2.172789e-002) XT^2 + (-1.011883e-006) XT^3 + (-1.975025e-008) XT^4$

$P_1 = 4.271474e+001 + (-2.265985e-002) XT + (2.999324e-005) XT^2 + (4.096047e-008) XT^3 + (2.514522e-010) XT^4$

$P_2 = -1.644208e-003 + (1.558679e-005) XT + (-6.094425e-008) XT^2 + (-5.169452e-010) XT^3 + (-1.459151e-012) XT^4$

$P_3 = 3.314725e-007 + (-8.980239e-009) XT + (9.921004e-011) XT^2 + (1.019436e-012) XT^3 + (2.492994e-015) XT^4$

Pressure (psiA) = $P_0 + P_1 XP + P_2 XP^2 + P_3 XP^3$

$T_0 = 2.507865e+001$

$T_1 = -7.197898e-001$

$T_2 = -6.564610e-004$

$T_3 = -1.370481e-007$

Temperature (degC) = $T_0 + T_1 XT + T_2 XT^2 + T_3 XT^3$

Bottom Recorder

Tool	LMR-3000S	Serial	9112Q-16E	Latest Calibration	03/10/99	Battery Serial	
Landed Depth	3000.00 mCF	Depth Offset	0.00 m	Min. Battery	0.19 V		

Equations

FP = Pres Freq (Hz)

FT = Temp Freq (Hz)

$XP = 2.524500e+004 + (1.000000e-002) FP$

$XT = 4.404400e+004 + (1.000000e-002) FT$

$P_0 = 2.059346e+001 + (-1.248274e+000) XT + (-2.033423e-002) XT^2 + (1.170075e-006) XT^3 + (-1.235264e-008) XT^4$

$P_1 = 3.963056e+001 + (-1.891355e-002) XT + (4.895316e-005) XT^2 + (9.463500e-008) XT^3 + (2.698000e-010) XT^4$

$P_2 = -1.975134e-003 + (-3.969299e-006) XT + (-2.592481e-007) XT^2 + (-1.271178e-009) XT^3 + (-2.368644e-012) XT^4$

$P_3 = 1.340248e-006 + (5.199956e-008) XT + (9.074406e-010) XT^2 + (4.902146e-012) XT^3 + (8.577975e-015) XT^4$

$P_4 = -9.123857e-010 + (-6.740327e-011) XT + (-1.081794e-012) XT^2 + (-5.924722e-015) XT^3 + (-1.024025e-017) XT^4$

Pressure (psiA) = $P_0 + P_1 XP + P_2 XP^2 + P_3 XP^3 + P_4 XP^4$

$T_0 = 2.575680e+001$

$T_1 = -7.340471e-001$

$T_2 = -8.306071e-004$

$T_3 = -5.911701e-007$

Temperature (degC) = $T_0 + T_1 XT + T_2 XT^2 + T_3 XT^3$

Recorded Data

Ranger Oil Limited
Alberta, Canada

Jun 30, 99 to Jul 02, 99

Ranger Ft. Liard

P-66-A

Liard, Nihanni

Data							
9112Q-16E		9112Q-16E	9502Q-16E	9112Q-16E vs 9502Q-16E	9112Q-16E	9502Q-16E	Comments
Real Time (mmm dd,yy 24 hr)	Elapsed Time (DDD:HH:MM:SS)	Pressure (KPa G)	Pressure (KPa G)	Press. Diff. (KPa)	Temperature (DegC)	Temperature (DegC)	
Jun 30, 99 17:33:00	0:00:00:00		-23.138			19.38	
17:35:00	0:00:02:00	20.621	-31.707	52.327	19.11	12.39	9112Q-16E Bottom Recorder
17:36:00	0:00:03:00	20.599	-31.507	52.105	19.14	12.52	9502Q-16E Top Recorder
17:51:00	0:00:18:00	19.003	-28.969	47.972	12.06	12.31	
18:06:00	0:00:33:00	17.746	-30.296	48.042	11.56	11.80	
18:21:00	0:00:48:00	16.728	-29.678	46.405	12.18	12.22	
18:36:00	0:01:03:00	22.948	-16.666	39.614	12.06	12.09	
18:51:00	0:01:18:00	1431.416	1422.700	8.716	12.51	13.39	
19:06:00	0:01:33:00	29780.781	29728.001	52.780	13.57	14.22	
19:11:00	0:01:38:00	19942.988	19914.523	28.466	13.42	14.12	Static Gradient In Start
19:26:00	0:01:53:00	20279.656	20322.985	-43.329	15.63	16.09	
19:41:00	0:02:08:00	21072.046	21063.644	8.402	31.13	31.56	
19:56:00	0:02:23:00	22004.570	21999.374	5.195	57.89	58.70	
20:11:00	0:02:38:00	22833.406	22820.600	12.806	82.43	83.45	
20:26:00	0:02:53:00	23275.508	23306.269	-30.761	98.75	99.75	
20:41:00	0:03:08:00	23565.128	23594.650	-29.522	113.02	113.79	
20:56:00	0:03:23:00	24030.612	24023.911	6.701	127.70	128.63	
21:11:00	0:03:38:00	24250.692	24244.492	6.201	136.62	137.53	
21:26:00	0:03:53:00	24759.688	24866.901	-107.213	142.27	143.16	
21:41:00	0:04:08:00	25994.851	25978.655	16.196	146.54	147.61	
21:55:00	0:04:22:00	26363.792	26346.723	17.069	149.50	150.47	On Bottom
22:10:00	0:04:37:00	26382.490	26366.168	16.322	150.75	151.63	
22:25:00	0:04:52:00	26384.912	26368.010	16.902	150.84	151.71	
22:40:00	0:05:07:00	26385.294	26368.014	17.280	150.83	151.70	
22:55:00	0:05:22:00	26385.128	26368.043	17.084	150.82	151.69	
23:10:00	0:05:37:00	26385.282	26368.080	17.202	150.81	151.68	
23:25:00	0:05:52:00	26385.279	26368.152	17.127	150.80	151.67	
23:40:00	0:06:07:00	26385.418	26368.576	16.843	150.79	151.66	
23:55:00	0:06:22:00	26385.622	26368.819	16.803	150.78	151.65	
Jul 01, 99 00:10:00	0:06:37:00	26385.488	26368.636	16.852	150.77	151.64	
00:25:00	0:06:52:00	26385.542	26368.796	16.747	150.75	151.62	
00:40:00	0:07:07:00	26385.580	26368.879	16.701	150.73	151.59	
00:55:00	0:07:22:00	26385.585	26369.205	16.380	150.71	151.58	
01:10:00	0:07:37:00	26385.911	26369.451	16.460	150.69	151.56	
01:25:00	0:07:52:00	26385.997	26369.685	16.312	150.67	151.54	
01:40:00	0:08:07:00	26385.956	26369.672	16.284	150.66	151.53	
01:55:00	0:08:22:00	26386.058	26369.813	16.245	150.64	151.51	
02:10:00	0:08:37:00	26386.081	26370.122	15.959	150.63	151.50	
02:25:00	0:08:52:00	26386.264	26370.248	16.016	150.61	151.48	
02:40:00	0:09:07:00	26386.399	26370.529	15.870	150.60	151.47	
02:55:00	0:09:22:00	26386.327	26370.926	15.402	150.59	151.46	
03:10:00	0:09:37:00	26386.399	26370.920	15.480	150.58	151.45	
03:25:00	0:09:52:00	26386.680	26370.706	15.974	150.57	151.44	
03:40:00	0:10:07:00	26386.690	26371.151	15.538	150.56	151.43	
03:55:00	0:10:22:00	26386.750	26371.246	15.504	150.55	151.43	
04:10:00	0:10:37:00	26386.682	26371.002	15.681	150.55	151.42	
04:25:00	0:10:52:00	26386.824	26371.276	15.548	150.54	151.42	
04:40:00	0:11:07:00	26389.851	26375.065	14.786	150.53	151.41	
04:55:00	0:11:22:00	26393.186	26379.212	13.974	150.50	151.39	

Data

9112Q-16E		9112Q-16E	9502Q-16E	9112Q-16E vs 9502Q-16E	9112Q-16E	9502Q-16E	
Real Time (mmm dd,yy 24 hr)	Elapsed Time (DDD:HH:MM:SS)	Pressure (KPa G)	Pressure (KPa G)	Press. Diff. (KPa)	Temperature (DegC)	Temperature (DegC)	Comments
05:10:00	0:11:37:00	26389.778	26376.040	13.738	150.48	151.36	
05:25:00	0:11:52:00	26390.847	26379.443	11.404	150.45	151.35	
05:40:00	0:12:07:00	26384.658	26370.121	14.537	150.34	151.23	
05:55:00	0:12:22:00	26384.966	26370.844	14.122	150.38	151.27	
06:10:00	0:12:37:00	26385.218	26370.877	14.341	150.39	151.28	
06:25:00	0:12:52:00	26385.272	26370.991	14.281	150.40	151.28	
06:40:00	0:13:07:00	26385.387	26370.937	14.451	150.40	151.29	
06:55:00	0:13:22:00	26385.359	26370.986	14.373	150.41	151.29	
07:10:00	0:13:37:00	26385.475	26370.920	14.555	150.41	151.30	
07:25:00	0:13:52:00	26385.399	26371.061	14.338	150.42	151.30	
07:40:00	0:14:07:00	26385.337	26371.021	14.316	150.42	151.30	
07:55:00	0:14:22:00	26385.354	26371.033	14.321	150.42	151.30	
08:10:00	0:14:37:00	26385.224	26370.646	14.578	150.42	151.30	
08:25:00	0:14:52:00	26384.824	26370.518	14.306	150.42	151.30	
08:40:00	0:15:07:00	26385.080	26370.530	14.550	150.42	151.30	
08:55:00	0:15:22:00	26385.238	26370.673	14.565	150.42	151.30	
09:10:00	0:15:37:00	26385.165	26371.006	14.159	150.42	151.30	
09:25:00	0:15:52:00	26385.374	26371.162	14.212	150.42	151.30	
09:40:00	0:16:07:00	26385.309	26371.046	14.263	150.42	151.30	
09:55:00	0:16:22:00	26385.340	26371.085	14.255	150.42	151.30	
10:10:00	0:16:37:00	26385.306	26370.905	14.401	150.42	151.30	
10:25:00	0:16:52:00	26385.320	26370.777	14.543	150.42	151.30	
10:40:00	0:17:07:00	26385.303	26370.959	14.344	150.42	151.30	
10:55:00	0:17:22:00	26385.334	26370.856	14.479	150.42	151.30	
11:10:00	0:17:37:00	26385.286	26370.895	14.391	150.42	151.29	
11:25:00	0:17:52:00	26385.269	26370.883	14.387	150.41	151.29	
11:40:00	0:18:07:00	26385.300	26370.818	14.482	150.41	151.29	
11:55:00	0:18:22:00	26385.187	26370.754	14.433	150.41	151.29	
12:10:00	0:18:37:00	26385.249	26370.833	14.416	150.41	151.29	
12:25:00	0:18:52:00	26385.201	26370.821	14.381	150.41	151.29	
12:40:00	0:19:07:00	26385.263	26370.757	14.507	150.41	151.29	
12:55:00	0:19:22:00	26385.199	26370.641	14.558	150.41	151.28	
13:10:00	0:19:37:00	26385.213	26370.628	14.584	150.40	151.28	
13:25:00	0:19:52:00	26385.244	26370.655	14.588	150.40	151.28	
13:40:00	0:20:07:00	26385.131	26370.643	14.488	150.40	151.28	
13:55:00	0:20:22:00	26385.114	26370.670	14.444	150.40	151.28	
14:10:00	0:20:37:00	26385.128	26370.606	14.522	150.40	151.28	
14:25:00	0:20:52:00	26385.063	26369.855	15.207	150.40	151.27	
14:40:00	0:21:07:00	26385.125	26369.779	15.346	150.39	151.27	
14:55:00	0:21:22:00	26385.060	26369.715	15.345	150.39	151.27	
15:10:00	0:21:37:00	26385.074	26369.650	15.423	150.39	151.27	
15:25:00	0:21:52:00	26385.009	26369.626	15.383	150.39	151.27	
15:40:00	0:22:07:00	26384.944	26369.704	15.240	150.39	151.27	
15:55:00	0:22:22:00	26384.958	26369.679	15.279	150.39	151.26	
16:10:00	0:22:37:00	26384.907	26369.615	15.292	150.38	151.26	
16:25:00	0:22:52:00	26384.938	26369.642	15.296	150.38	151.26	
16:40:00	0:23:07:00	26384.952	26369.669	15.283	150.38	151.26	
16:55:00	0:23:22:00	26384.918	26369.787	15.131	150.38	151.25	
17:10:00	0:23:37:00	26384.932	26369.659	15.273	150.37	151.25	
17:25:00	0:23:52:00	26384.881	26369.634	15.247	150.37	151.25	
17:40:00	1:00:07:00	26384.847	26369.700	15.147	150.37	151.25	
17:55:00	1:00:22:00	26384.892	26369.624	15.268	150.37	151.24	
18:10:00	1:00:37:00	26384.954	26369.651	15.303	150.36	151.24	
18:25:00	1:00:52:00	26385.015	26369.729	15.286	150.36	151.24	
18:40:00	1:01:07:00	26385.009	26371.217	13.792	150.35	151.24	
18:55:00	1:01:22:00	26386.850	26377.334	9.516	150.39	151.29	
19:10:00	1:01:37:00	26387.537	26379.632	7.905	150.43	151.31	
19:25:00	1:01:52:00	26387.649	26379.886	7.763	150.45	151.32	

Data

9112Q-16E	9112Q-16E	9502Q-16E	9112Q-16E vs 9502Q-16E	9112Q-16E	9502Q-16E	
Real Time (mmm dd,yy 24 hr)	Elapsed Time (DDD:HH:MM:SS)	Pressure (KPa G)	Pressure (KPa G)	Press. Diff. (KPa)	Temperature (DegC)	Temperature (DegC)
						Comments
19:40:00	1:02:07:00	26387.849	26380.128	7.721	150.46	151.32
19:55:00	1:02:22:00	26388.033	26380.124	7.909	150.47	151.33
20:10:00	1:02:37:00	26388.103	26380.353	7.750	150.48	151.34
20:25:00	1:02:52:00	26388.094	26380.467	7.627	150.49	151.35
20:40:00	1:03:07:00	26388.195	26380.528	7.667	150.50	151.35
20:55:00	1:03:22:00	26388.200	26380.538	7.662	150.50	151.36
21:10:00	1:03:37:00	26388.127	26380.587	7.539	150.51	151.36
21:25:00	1:03:52:00	26388.273	26380.545	7.728	150.51	151.37
21:40:00	1:04:07:00	26388.292	26380.634	7.658	150.52	151.37
21:55:00	1:04:22:00	26388.249	26380.671	7.579	150.53	151.37
22:10:00	1:04:37:00	26388.365	26380.616	7.748	150.53	151.38
22:25:00	1:04:52:00	26388.336	26380.550	7.786	150.53	151.38
22:40:00	1:05:07:00	26388.339	26380.574	7.764	150.54	151.38
22:55:00	1:05:22:00	26388.420	26380.611	7.809	150.54	151.39
23:10:00	1:05:37:00	26388.471	26380.596	7.874	150.54	151.39
23:25:00	1:05:52:00	26388.346	26380.633	7.713	150.55	151.39
23:40:00	1:06:07:00	26388.475	26380.657	7.818	150.55	151.40
23:55:00	1:06:22:00	26388.492	26380.591	7.902	150.55	151.40
Jul 02, 99 00:10:00	1:06:37:00	26388.495	26380.667	7.828	150.56	151.40
00:25:00	1:06:52:00	26388.576	26380.692	7.885	150.56	151.40
00:40:00	1:07:07:00	26388.497	26380.756	7.742	150.56	151.41
00:55:00	1:07:22:00	26388.579	26380.728	7.850	150.56	151.41
01:10:00	1:07:37:00	26388.598	26380.741	7.857	150.57	151.41
01:25:00	1:07:52:00	26388.663	26380.869	7.794	150.57	151.41
01:40:00	1:08:07:00	26388.583	26380.750	7.833	150.57	151.41
01:55:00	1:08:22:00	26388.682	26380.854	7.828	150.57	151.41
02:10:00	1:08:37:00	26388.730	26380.878	7.852	150.57	151.42
02:25:00	1:08:52:00	26388.715	26380.787	7.929	150.57	151.42
02:40:00	1:09:07:00	26388.653	26380.799	7.854	150.58	151.42
02:55:00	1:09:22:00	26388.638	26380.823	7.815	150.58	151.42
03:10:00	1:09:37:00	26388.720	26380.887	7.832	150.58	151.42
03:25:00	1:09:52:00	26388.751	26380.756	7.995	150.58	151.42
03:40:00	1:10:07:00	26388.737	26380.808	7.928	150.58	151.42
03:55:00	1:10:22:00	26388.737	26380.833	7.904	150.58	151.43
04:10:00	1:10:37:00	26388.753	26380.793	7.960	150.58	151.43
04:25:00	1:10:52:00	26388.739	26380.805	7.934	150.59	151.43
04:40:00	1:11:07:00	26388.725	26380.869	7.855	150.59	151.43
04:55:00	1:11:22:00	26388.852	26380.933	7.918	150.59	151.43
05:10:00	1:11:37:00	26388.820	26380.894	7.927	150.59	151.43
05:25:00	1:11:52:00	26388.885	26380.906	7.979	150.59	151.43
05:40:00	1:12:07:00	26388.854	26380.867	7.987	150.59	151.44
05:55:00	1:12:22:00	26388.871	26380.827	8.044	150.59	151.44
06:10:00	1:12:37:00	26388.840	26380.839	8.000	150.59	151.44
06:25:00	1:12:52:00	26388.760	26380.891	7.869	150.59	151.44
06:40:00	1:13:07:00	26388.935	26380.955	7.980	150.59	151.44
06:55:00	1:13:22:00	26388.873	26380.967	7.906	150.59	151.44
07:10:00	1:13:37:00	26388.859	26380.979	7.879	150.60	151.44
07:25:00	1:13:52:00	26388.907	26380.992	7.915	150.60	151.44
07:40:00	1:14:07:00	26389.002	26380.952	8.050	150.60	151.44
07:55:00	1:14:22:00	26388.940	26380.952	7.988	150.60	151.44
08:10:00	1:14:37:00	26388.861	26381.004	7.857	150.60	151.44
08:25:00	1:14:52:00	26388.892	26380.912	7.980	150.60	151.44
08:40:00	1:15:07:00	26388.957	26381.016	7.941	150.60	151.44
08:55:00	1:15:22:00	26388.878	26380.976	7.901	150.60	151.45
09:10:00	1:15:37:00	26388.863	26381.028	7.835	150.60	151.45
09:25:00	1:15:52:00	26388.990	26381.040	7.950	150.60	151.45
09:40:00	1:16:07:00	26389.021	26381.156	7.865	150.60	151.45
09:55:00	1:16:22:00	26388.990	26381.117	7.874	150.60	151.45

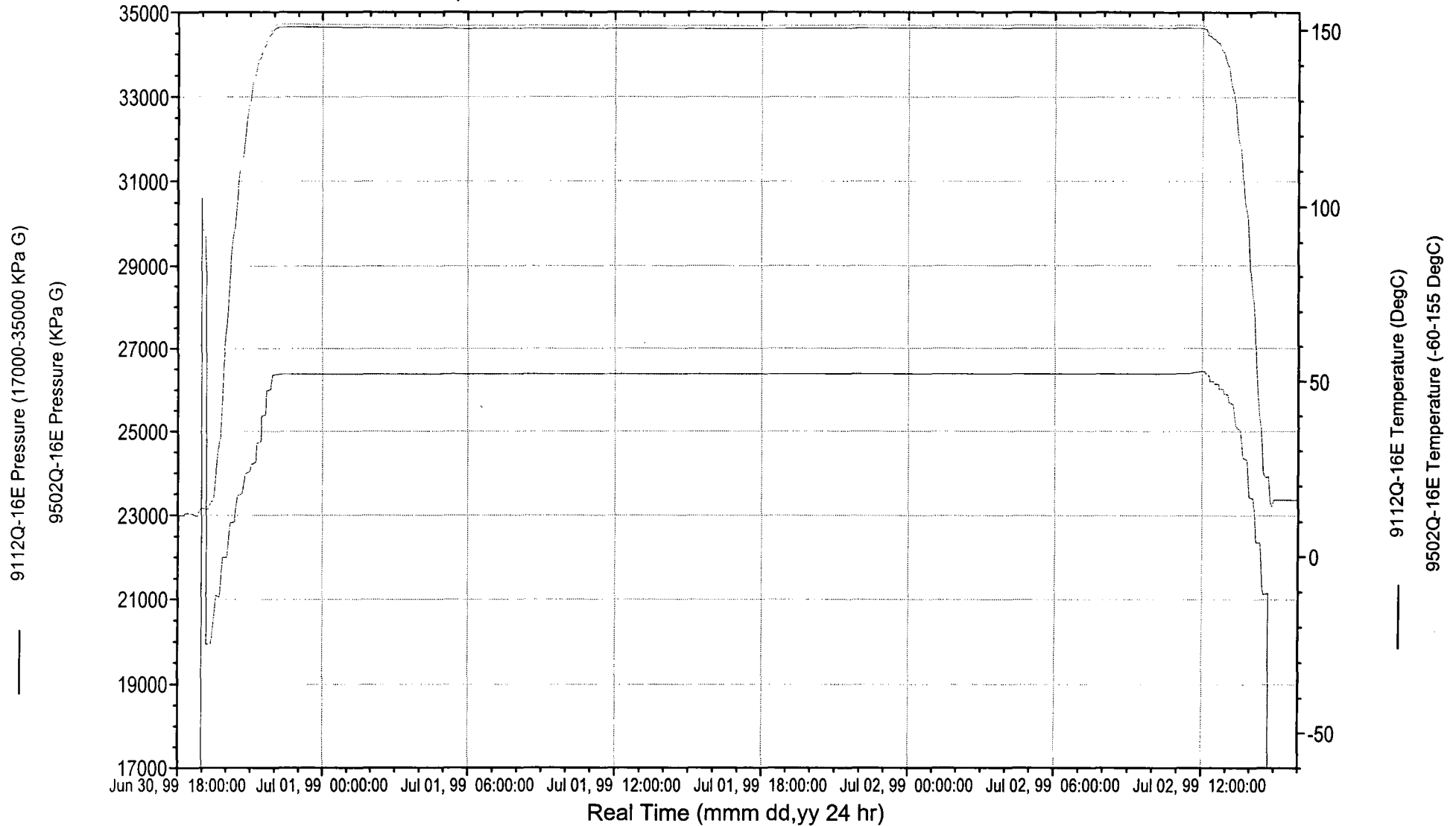
Data

9112Q-16E	9112Q-16E	9502Q-16E	9112Q-16E vs 9502Q-16E	9112Q-16E	9502Q-16E	
Real Time (mmm dd,yy 24 hr)	Elapsed Time (DDD:HH:MM:SS)	Pressure (KPa G)	Pressure (KPa G)	Press. Diff. (KPa)	Temperature (DegC)	Temperature (DegC)
10:10:00	1:16:37:00	26392.126	26385.470	6.656	150.61	151.45
10:25:00	1:16:52:00	26392.247	26386.973	5.275	150.62	151.45
10:40:00	1:17:07:00	26391.805	26387.299	4.506	150.60	151.45
10:55:00	1:17:22:00	26392.800	26387.829	4.971	150.64	151.45
11:10:00	1:17:37:00	26393.075	26388.076	4.998	150.62	151.45
11:25:00	1:17:52:00	26397.474	26391.972	5.502	150.60	151.45
11:40:00	1:18:07:00	26420.726	26417.116	3.610	150.62	151.46
11:55:00	1:18:22:00	26447.705	26444.582	3.123	150.58	151.41
12:05:00	1:18:32:00	26445.199	26438.311	6.888	150.36	151.14 Off Bottom
12:07:00	1:18:34:00	26442.922	26386.665	56.257	150.32	151.10 Static Gradient Out Start
12:22:00	1:18:49:00	26214.550	26207.456	7.094	147.98	148.73
12:37:00	1:19:04:00	26146.579	26140.762	5.817	146.53	147.29
12:52:00	1:19:19:00	26020.882	26014.980	5.902	143.72	144.43
13:07:00	1:19:34:00	25742.852	25690.376	52.476	138.87	138.55
13:22:00	1:19:49:00	25358.939	25243.291	115.648	129.48	128.66
13:37:00	1:20:04:00	24900.114	24779.409	120.705	115.83	115.23
13:52:00	1:20:19:00	24329.927	24188.240	141.687	98.67	98.13
14:07:00	1:20:34:00	23407.941	23410.104	-2.164	75.02	73.97
14:22:00	1:20:49:00	22371.425	22369.830	1.595	43.42	41.57
14:37:00	1:21:04:00	21145.077	21131.525	13.552	22.80	22.88
14:52:00	1:21:19:00	3.717	34.060	-30.343	15.01	15.23

Pressure & Temperature vs. Real Time

Company: **Lee Tool, Div. of Schlumberger**
Client: **Ranger Oil Limited**
Remarks: **9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.**

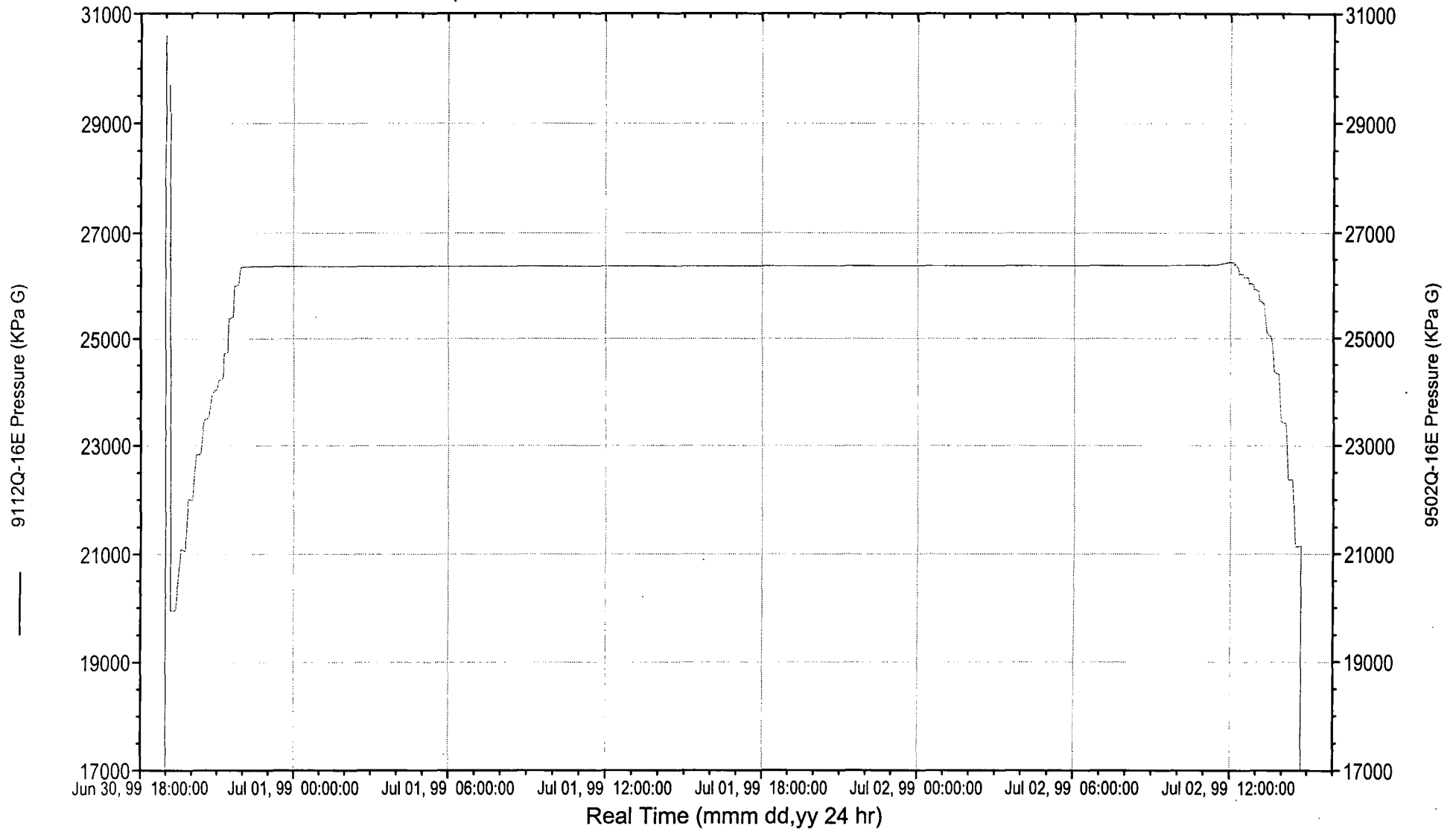
Field: **Liard**
Well Name: **Ranger Ft. Liard**
Well Number: **P-66-A**



Pressure vs. Real Time

Company: Lee Tool, Div. of Schlumberger
Client: Ranger Oil Limited
Remarks: 9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.

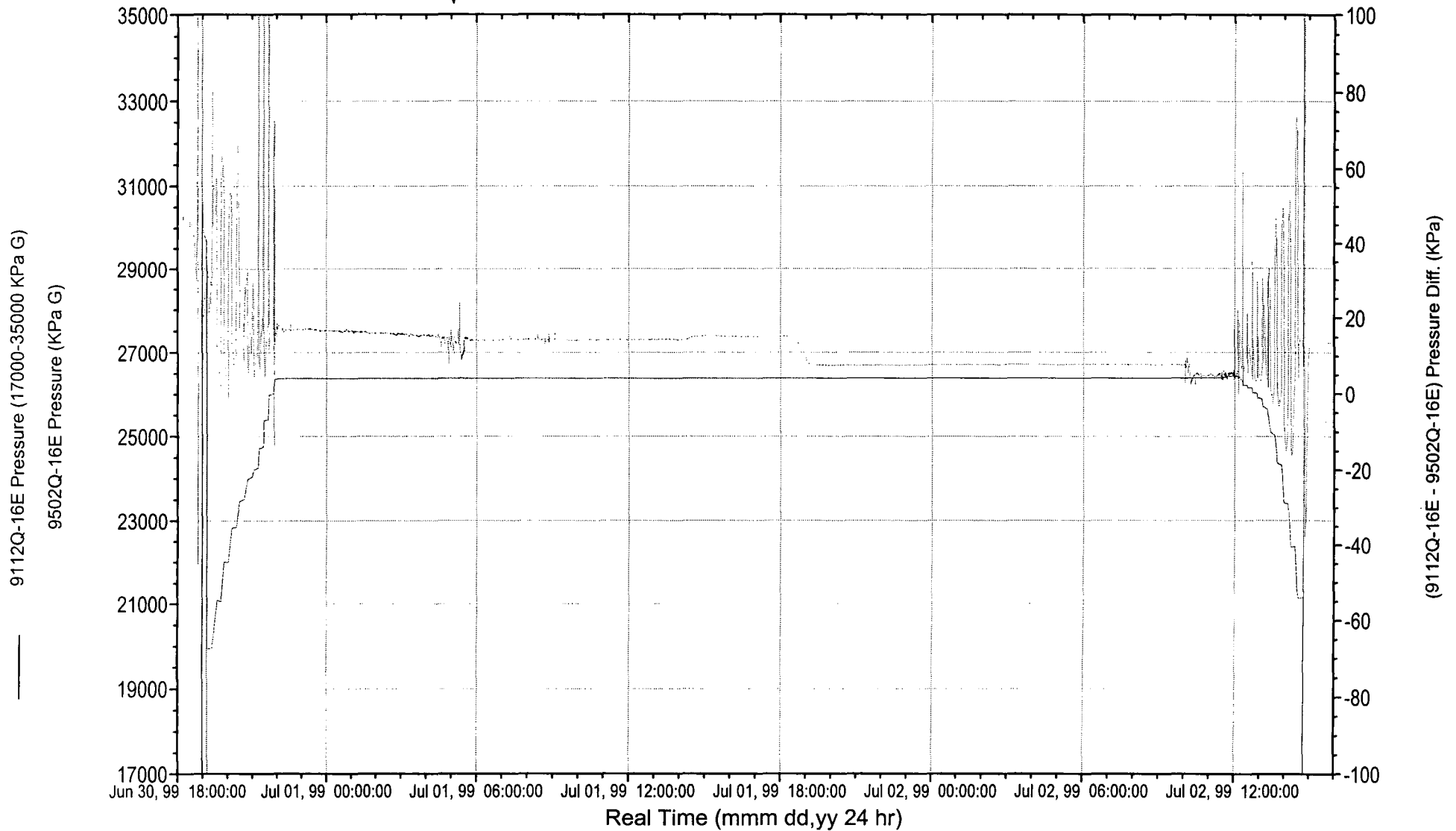
Field: Liard
Well Name: Ranger Ft. Liard
Well Number: P-66-A



Pressure & Pressure Diff. vs. Real Time

Company: Lee Tool, Div. of Schlumberger
Client: Ranger Oil Limited
Remarks: 9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.

Field: Liard
Well Name: Ranger Ft. Liard
Well Number: P-66-A



Ranger Oil Limited

Static Gradient Out

Ranger Ft. Liard

P-66-A

Jul 02, 99

Service Company Contact Info

Report Writer	Wade Nicks, 309-7940	Service Company	Lee Tool, Div. of Schlumberger
Operator	Bonnett's Wireline Services Ltd., (250) 787-3020	Job ID	Ranger Static Gradient
		Test Date	Jul 02, 99

Gauge: Lee Memory Recorder Model 3000s (Quartz)
Manufacturer: Lee Tool, Division of Schlumberger Canada Limited

Static Gradient Out

Ranger Oil Limited
Alberta, Canada

Jul 02, 99

Ranger Ft. Liard

P-66-A

Liard, Nihanni

Well			
Client		Province	Country
Ranger Oil Limited		Alberta	Canada
Well Name		Deviated Well	Well Status
Ranger Ft. Liard		Yes	Gas
Well No.		KB Elevation	CF Elevation
P-66-A		459.89 m	449.49 m
Field	Pool	Pool Datum	
Liard	Nihanni		

Test								
Test Type				Atmospheric				
Static Gradient Out				101.30 KPa A				
Test Start (mm/dd/yy)		Test Finish		Casing ID		Tubing ID		
07/02/99		12:07 PM		07/02/99 02:58 PM		88.90 mm		
On Bottom		Off Bottom		C. Pres. Before		T. Pres. Before		
06/30/99		09:55 PM		07/02/99 12:17 PM		21374.00 KPa G		
Shut In		ETO		C. Pres. After		T. Pres. After		
06/30/99		06:10 PM		07/02/99 12:07 PM				
	Meas. Depth [mCF]		TVD [mCF]		Est. Pressure [KPa G]	Est. Gradient [KPa/m]	Est. Temperature [DegC]	Grad. Threshold
								2.00 KPa/m
Well Datum								Grad. Recorder
								9502Q-16E
Run Depth		3000.00		2604.63		26320.28		3.28
Avg. MPP Depth		3133.10		2701.72		26639.02		3.28
Operator				Service Company				
Bonnett's Wireline Services Ltd., (250) 787-3020				Lee Tool, Div. of Schlumberger				
Remarks								
9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.								

Depth References		
Depth Reference	Offset [m]	Elevation [mMSL]
Casing Flange (CF)		449.49
Kelly Bushing (KB)	CF + 10.40	459.89

Perforations				
Perf Top MD, [mCF]	Perf Bottom MD, [mCF]	MPP TVD, [mCF]	Pressure [KPa G]	Gradient [KPa/m]
3104.60	3161.60	2701.72	26639.02	3.28

Top Recorder

Model	LMR-3000S	Serial	9502Q-16E	Latest Calibration	11/28/98
Max. Rated Press.	110213.34 KPa G	Max. Rated Temp.	174.96 DegC		

Gradient Stops

Depth			Sample R/T [mm dd, 24hr]	Pressure [KPa G]	Gradient [KPa/m]	Temperature [DegC]
Tool String MD, [mCF]	Recorder MD, [mCF]	Recorder TVD, [mCF]				
0.00	-2.00	-2.00	Jul 02, 99 14:43:00	21141.05		22.78
500.00	498.00	497.65	14:23:00	22370.45	2.46	40.45
1000.00	998.00	997.07	14:06:00	23411.02	2.08	74.75
1500.00	1498.00	1495.28	13:50:00	24330.98	1.85	99.28
2000.00	1998.00	1903.13	13:33:00	25037.20	1.73	117.62
2500.00	2498.00	2247.90	13:16:00	25647.83	1.77	133.23
2700.00	2698.00	2388.28	13:03:00	25883.78	1.68	140.67
2800.00	2798.00	2459.95	12:51:00	26016.25	1.85	144.54
2900.00	2898.00	2532.96	12:39:00	26138.70	1.68	147.17
2950.00	2948.00	2568.12	12:28:00	26200.40	1.76	148.36
3000.00	2998.00	2603.22	12:17:00	26315.65	3.28	149.27

Bottom Hole Pressure

	Tool String MD, [mCF]	Sample R/T [mm dd, yy 24 hr.]	Pressure [KPa G]	
Sample 1	3000.00	Jul 02, 99 12:08:00	26391.92	
Sample 2		12:17:00	26315.65	
Difference:		00:09:00	-76.28	Build Up Rate -508.52 KPa/Hr.

Bottom Recorder

Model	LMR-3000S	Serial	9112Q-16E	Latest Calibration	03/10/99
Max. Rated Press.	110213.27 KPa G	Max. Rated Temp.	174.96 DegC		

Gradient Stops

Depth			Sample R/T [mm dd, 24hr]	Pressure [KPa G]	Gradient [KPa/m]	Temperature [DegC]
Tool String MD, [mCF]	Recorder MD, [mCF]	Recorder TVD, [mCF]				
0.00	0.00	-0.00	Jul 02, 99 14:43:00	21153.96		22.55
500.00	500.00	499.64	14:23:00	22373.06	2.44	42.10
1000.00	1000.00	999.06	14:06:00	23408.65	2.07	75.93
1500.00	1500.00	1497.22	13:50:00	24333.52	1.86	99.77
2000.00	2000.00	1904.47	13:33:00	25043.25	1.74	117.67
2500.00	2500.00	2249.30	13:16:00	25655.93	1.78	132.91
2700.00	2700.00	2389.70	13:03:00	25891.33	1.68	140.07
2800.00	2800.00	2461.43	12:51:00	26022.66	1.83	143.85
2900.00	2900.00	2534.40	12:39:00	26144.65	1.67	146.37
2950.00	2950.00	2569.50	12:28:00	26206.66	1.77	147.52
3000.00	3000.00	2604.63	12:17:00	26334.81	3.65	148.42

Bottom Hole Pressure

	Tool String MD, [mCF]	Sample R/T [mm dd, yy 24 hr.]	Pressure [KPa G]	
Sample 1	3000.00	Jul 02, 99 12:08:00	26409.62	
Sample 2		12:17:00	26334.81	
Difference:		00:09:00	-74.81	Build Up Rate -498.76 KPa/Hr.

Deviated Well Survey

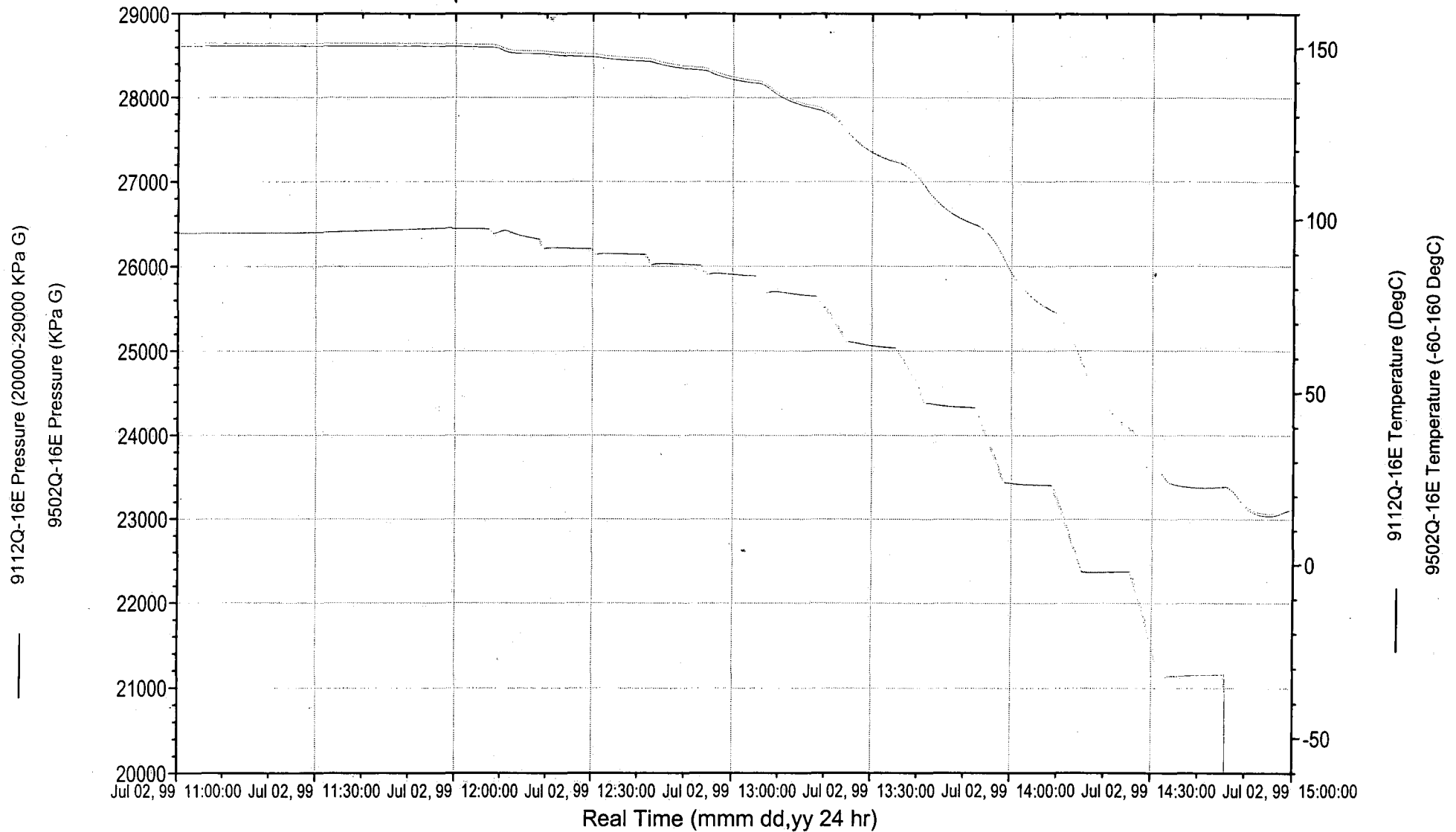
Meas. Depth [mKB]	Inclination [Degrees]	TVD [mKB]	Meas. Depth [mCF]	TVD [mCF]
0.00	0.00	0.00	-10.40	-10.40
199.00	0.50	199.00	188.60	188.60
490.00	4.20	489.69	479.60	479.29
499.00	4.10	498.67	488.60	488.27
509.00	4.10	508.64	498.60	498.24
518.00	4.00	517.62	507.60	507.22
989.00	5.50	988.16	978.60	977.76
1007.00	5.39	1006.08	996.60	995.68
1019.00	4.80	1018.03	1008.60	1007.63
1494.00	12.60	1491.63	1483.60	1481.23
1503.00	12.80	1500.41	1492.60	1490.01
1513.00	12.90	1510.16	1502.60	1499.76
1990.00	47.90	1901.23	1979.60	1890.83
2000.00	48.00	1907.93	1989.60	1897.53
2010.00	48.30	1914.60	1999.60	1904.20
2019.00	47.80	1920.62	2008.60	1910.22
2496.00	45.50	2249.60	2485.60	2239.20
2506.00	45.40	2256.62	2495.60	2246.22
2516.00	45.60	2263.63	2505.60	2253.23
2689.00	44.30	2384.83	2678.60	2374.43
2699.00	44.50	2391.98	2688.60	2381.58
2709.00	44.60	2399.10	2698.60	2388.70

Deviated Well Survey				
Meas. Depth [mKB]	Inclination [Degrees]	TVD [mKB]	Meas. Depth [mCF]	TVD [mCF]
2718.00	44.70	2405.50	2707.60	2395.10
2795.00	42.50	2460.44	2784.60	2450.04
2804.00	42.20	2467.09	2793.60	2456.69
2814.00	42.20	2474.50	2803.60	2464.10
2893.00	43.30	2532.20	2882.60	2521.80
2903.00	43.70	2539.46	2892.60	2529.06
2913.00	44.00	2546.67	2902.60	2536.27
2940.00	45.80	2565.75	2929.60	2555.35
2950.00	46.10	2572.71	2939.60	2562.31
2959.00	46.40	2578.93	2948.60	2568.53
2969.00	46.30	2585.83	2958.60	2575.43
2998.00	44.80	2606.26	2987.60	2595.86
3013.00	45.20	2616.86	3002.60	2606.46
3023.00	45.20	2623.91	3012.60	2613.51
3095.00	43.90	2675.20	3084.60	2664.80
3122.00	40.40	2695.22	3111.60	2684.82
3138.00	36.90	2707.72	3127.60	2697.32
3157.00	37.00	2722.90	3146.60	2712.50
3224.00	38.50	2775.80	3213.60	2765.40
3253.00	34.70	2799.08	3242.60	2788.68

Pressure & Temperature vs. Real Time (Static Gradient Out)

Company: **Lee Tool, Div. of Schlumberger**
Client: **Ranger Oil Limited**
Remarks: **9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.**

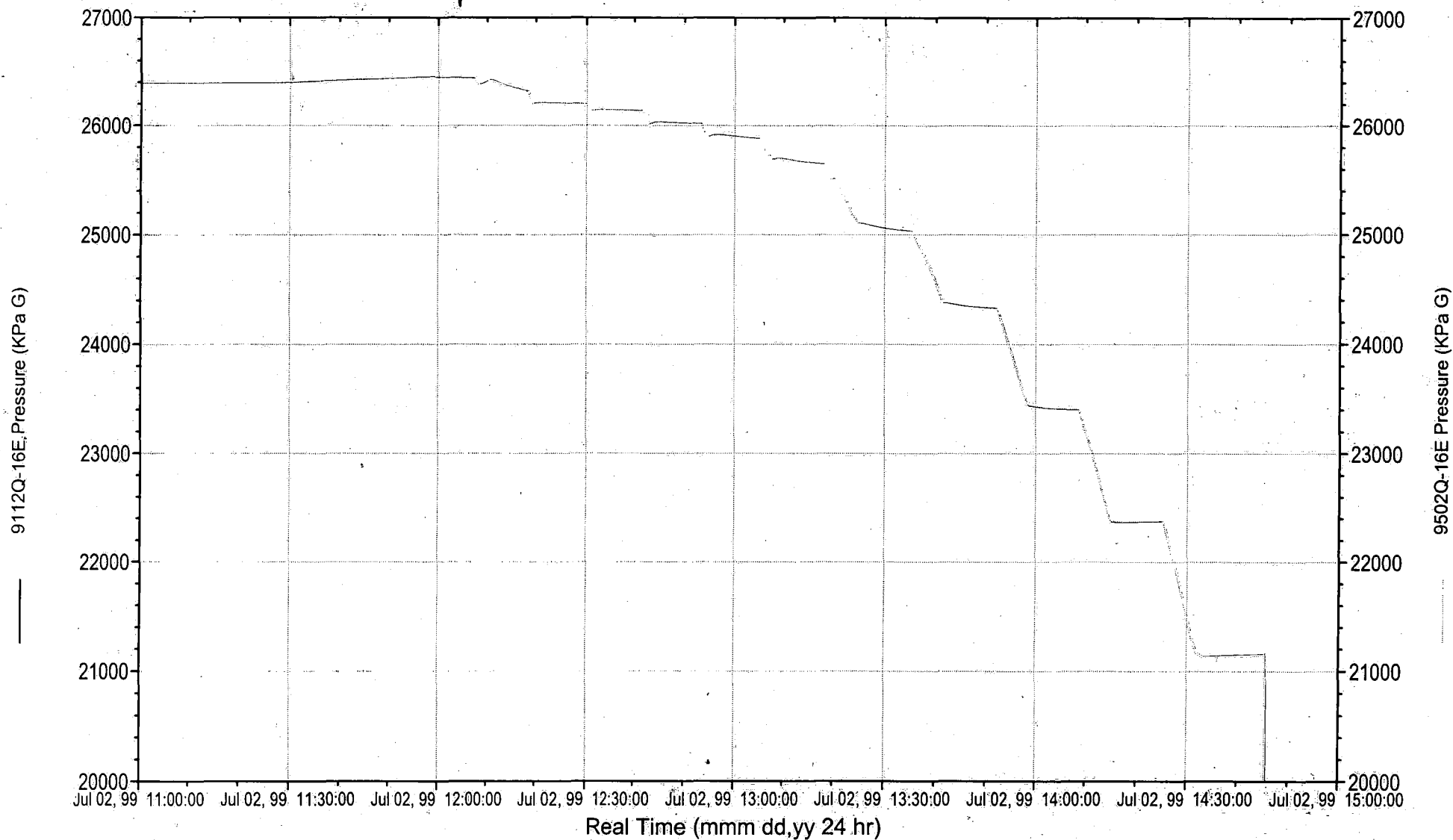
Field: **Liard**
Well Name: **Ranger Ft. Liard**
Well Number: **P-66-A**



Pressure vs. Real Time (Static Gradient Out)

Company: Lee Tool, Div. of Schlumberger
Client: Ranger Oil Limited
Remarks: 9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.

Field: Liard
Well Name: Ranger Ft. Liard
Well Number: P-66-A



Pressure vs. Depth (Static Gradient Out)

Company: **Lee Tool, Div. of Schlumberger**
Client: **Ranger Oil Limited**
Remarks: **9112Q-16E Bot. Rec. & 9502Q-16E Top Rec.**

Field: **Liard**
Well Name: **Ranger Ft. Liard**
Well Number: **P-66-A**

