Drill Stem Test Report

Prepared for: **CANADIAN FOREST OIL**
600, 800 - 6th Ave. S.W.
CALGARY, AB

Well Name: **CDN FOREST ET AL LIARD K-32**
Location: **K-32-60-10-132-15**

Test Date: **03/19/1999**

Job Ticket #: **D2-6397** DST#: **2**

Drill Stem Testing Report

Company: CANADIAN FOREST OIL LTD.
600, 800 - 6th Ave. S.W.
CALGARY, AB

Contact: DOUG SOLBERG

Job Ticket #: D2-6397 DST#: 2
Test Date: 03/19/1999 830hrs

Well Name: CDN FOREST ET AL LIARD K-32
Location: K-32-60-10-132-15

General Information:

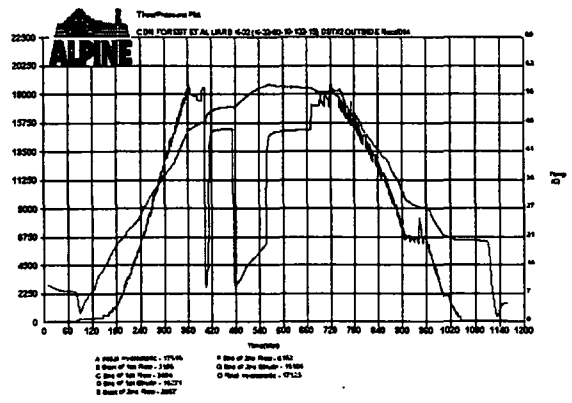
Test Type: **CONV. BOTTOM HOLE**
Interval: **1635.00m - 1695.00m**
Formation: **PERMIAN FANTASQUE**
KB Elevation: **404.50m**
Ground Elevation: **400.10m**
Total Depth: **1695.00m**
Test Mode: **Gas**

Tester: **R. EDWARDS**
Truck No.: **Unit 673**
Contractor: **NABORS**
Rig No.: **6**
Hole Diameter: **222mm**
Hole Condition: **GOOD**
Bottom Hole Temperature: **56.60 C**

Electronic Recorder Information:

OUTSIDE	FLUID
Recorder #: 014	Recorder #: 044
Range: 70000 kPag	Range: 35000 kPag
Depth: 1637.59 m	Depth: 1616.76 m

Flag Points:	Time:	Pressure:
A Initial Hydrostatic	0.00	17516.4
B Start of 1st Flow	0.00	3195.6
C End of 1st Flow	4.00	3404.0
D End of 1st Shutin	66.00	15271.0
E Start of 2nd Flow	0.00	2866.9
F End of 2nd Flow	79.00	6162.1
G End of 2nd Shutin	115.00	15193.5
Q Final Hydrostatic	0.00	17122.9



Test Run Information:

Start Time: **830hrs**
Reached Test Depth: **1200hrs**
Pull Out Time: **1730hrs**
Tool Out Of Hole: **2330hrs**

Weight set on Packers: **10000.00daN**
Weight to free Packers: **10000.00daN**
Initial String Weight: **44000.00daN**
Unseated String Weight: **48000.00daN**

Tool Chased Dist: **0.00m**
Mud Type: **GEL CHEMICAL**
Mud Weight: **1095.00kg/m³**
Amount of fill: **0.00m**
Amt of cushion: **0.00**
Type of cushion:

Water Loss: **7.00cm³**
Mud Drop: **NO**
VIS: **90.00S/L**
Filter Cake: **1.00mm**
Pump Time: **30min**
Reversed Out: **YES**

General Remarks:

Mechanically successful. *Test results suggest moderate permeability within the zone tested.

Maximum gas rates as reported by Alpine Closed Chamber are as follows:

PREFLOW: 2314.49 m3/day.

FINAL FLOW: 3908.14 m3/day.

Went to conventional flow after 40 minutes of closed chamber.

***** See gas volume charts for gas rates.**

NOTE - See Alpine Telemetry Report for real time data acquisition.

Recovery Description:

Total fluid recovery reversed out was 552 meters, consisting of 20 meters gasified mud, 200 meters muddy gasified salt water, 332 meters salt water.
Salinity = 37,500 PPM

Gas to surface.

Gas Bomb: 1 Sampler: 1
Fluid Sample: 11 Sent to: **AGAT LAB**

Drill Stem Testing - Tool Diagram / Description

Company: CANADIAN FOREST OIL LTD.
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Job Ticket #: D2-6397 DST#: 2
Test Date: 03/19/1999 830hrs

Well Name: CDN FOREST ET AL LIARD K-32

Location: K-32-60-10-132-15

Conventional Bottomhole

Drill Collar Stands:	6
Drill Collar Singles:	0
Drill Pipe Stands:	76
Drill Pipe Singles:	0
Heavy Wt. Pipe Stands:	3
Heavy Wt. Pipe Singles:	0
Total Drill Collars/Pipe and Tools:	1646.21m
Total Drill Pipe Above K.B.:	11.21m
Total Depth:	1695m

20.97m

Tool / Drill Stem Information:

Tool Weight:	6000.00 daN
Drill Collar Inside Diameter:	60.00 mm
Drill Collar Total Length:	111.48 m
Drill Pipe Inside Diameter:	97.00 mm
Drill Pipe Total Length:	1457.58 m
Heavy Weight Pipe Diameter:	73.00 mm
Heavy Weight Pipe Length:	56.18 m
Bottom Choke Diameter:	12.70 mm
Number of Packers: 2 Dia.:	196.00 mm

Depth: 1635.00m

Tool Remarks:

Well License #1860

60.26m

81.23

Total Depth: 1695.00m

Item	Length
P.O. Sub	0.62
C.O. Sub	0.31
REC#044	1.80
S.I.Tool	2.17
HMV Stroke	1.90
REC#039	1.80
Telemetry Tool	5.86
Jars	1.65
Safety Joint	0.72
Packer	2.24
Packer	1.90
Stub	0.34
ASE Carrier	2.25
REC#014	
REC#145	
Perf	1.52
C.O. Sub	0.31
Drill Collar	54.93
C.O. Sub	0.31
Bullnose	0.60

Drill Stem Testing - Gas Recovery Measurements

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Well Name: CDN FOREST ET AL LIARD K-32

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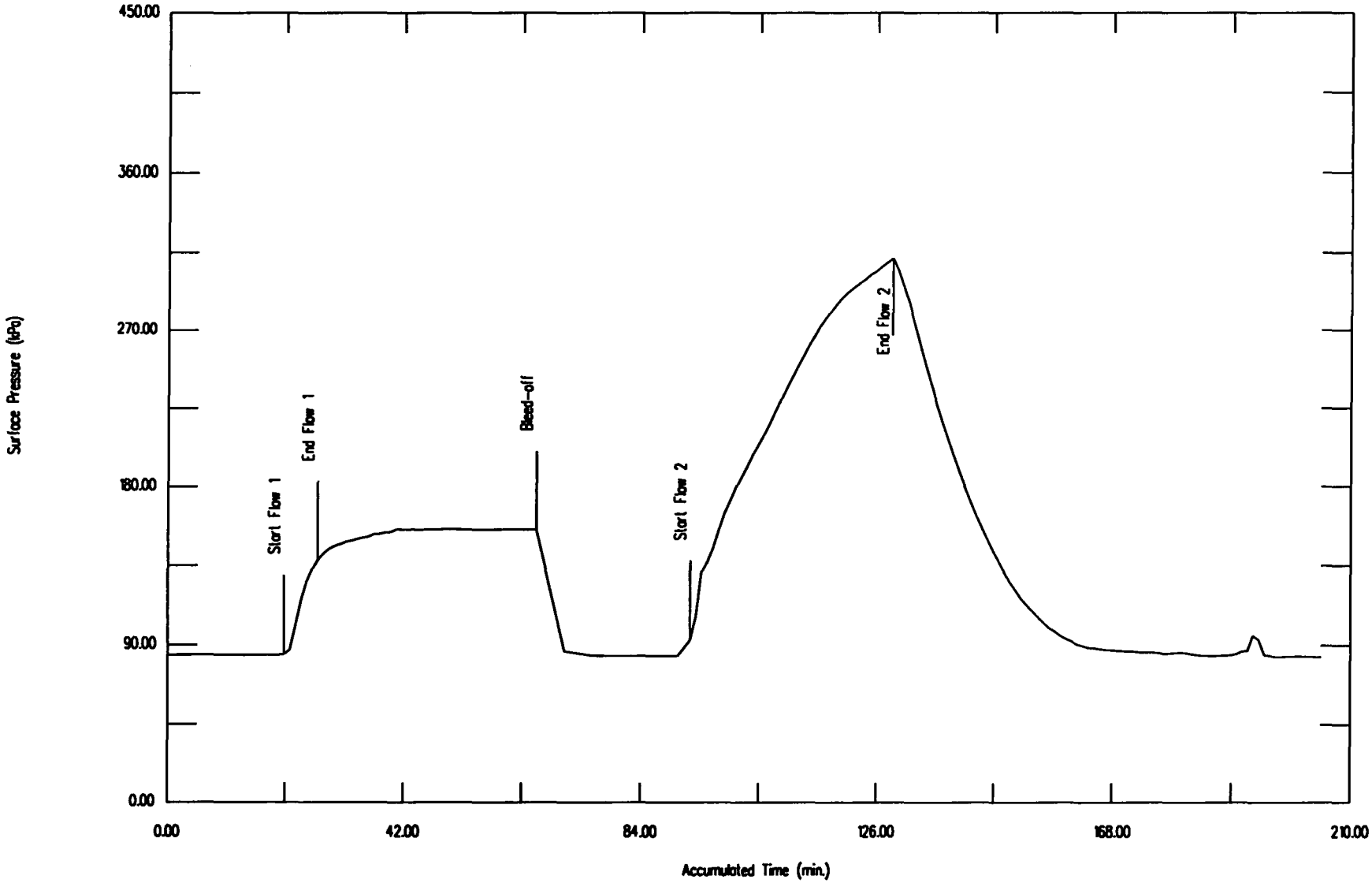
Gas Measurements for Flow # 2

Gas Recovery Measured With: **Willis Choke**

Time (min.)	Orifice (mm)	Pressure (kPa)	Rate (m^3/d)
40	6.35	180	1711.00
45	6.35	140	1458.00
50	6.35	90	1164.00
55	6.35	0	0.00
60	6.35	0	0.00
65	6.35	0	0.00
70	6.35	0	0.00
75	6.35	0	0.00

SURFACE PRESSURE VS. TIME

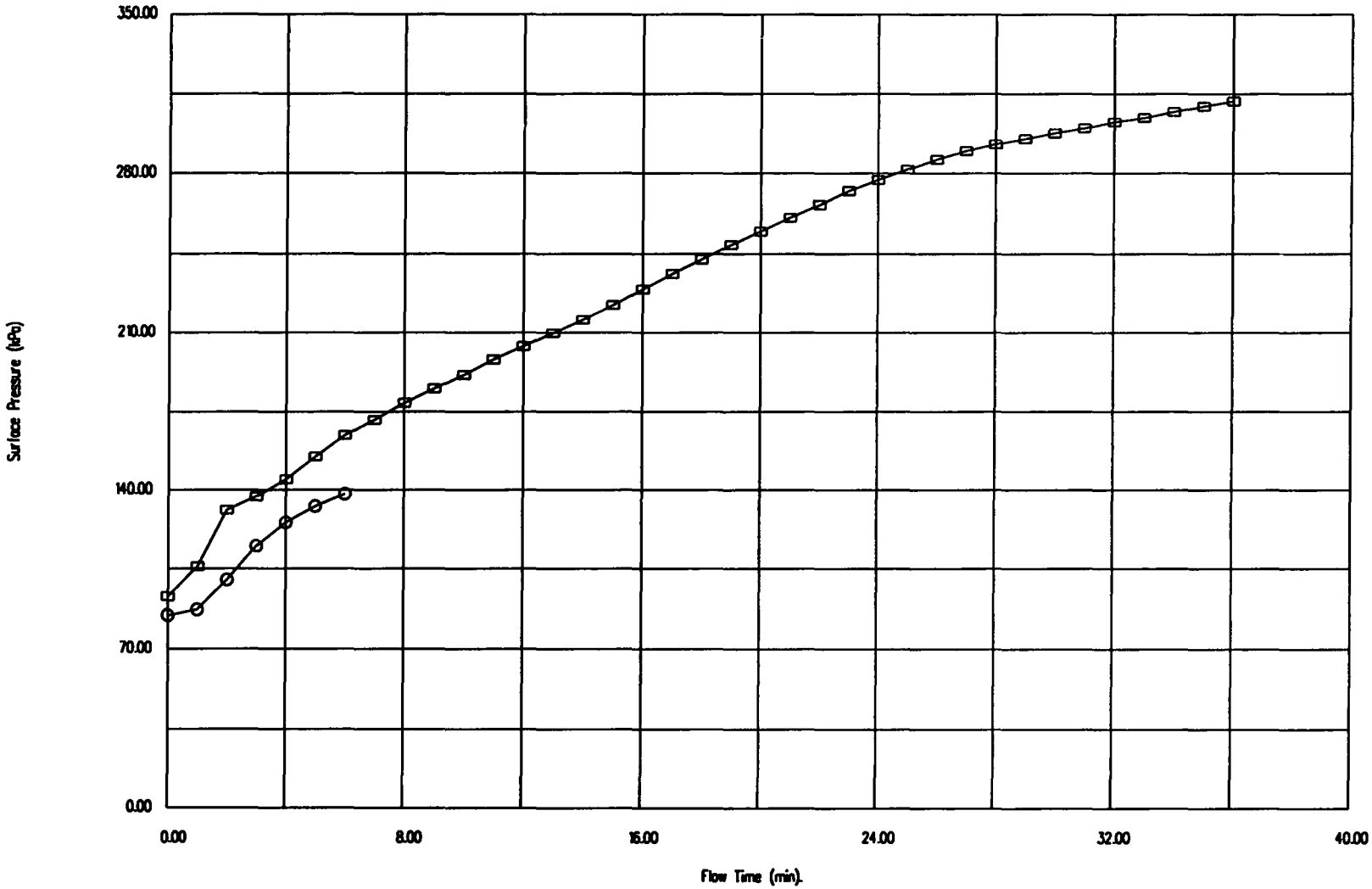
Well Name: CDN FOREST LIARD
Location : K-32-60-10-132-15
D.S.T. # 2



SURFACE PRESSURE VS. FLOW TIME

Well Name: CDN FOREST LIARD
Location : K-32-60-10-132-15
D.S.T. # 2

SYMBOL LEGEND
o Flow 1
□ Flow 2



WELL NAME:CDN FOREST LIARD D.S.T. #2

LOCATION: K-32-60-10-132-15

FLOW CALCULATIONS FOR:

FLOW CALCULATION PARAMETERS

NET CHAMBER VOLUME(cu m) = 11.32
GAS GRAVITY = 0.65
AVERAGE CHAMBER TEMP(Kel) = 299.65

TIME (real)	ACCUM.TIME (min)	PRESSURE (kPa)	dP/dT (kPa/min)	Z-FACTOR (Real Gas)	GAS (cu m/d)
00:00:00	0.00	84.31	0.00		
00:00:15	0.25	84.17	-0.56		
00:00:30	0.50	84.39	0.88		
00:05:30	5.50	84.42	0.01		
00:10:30	10.50	84.43	0.00		
00:12:45	12.75	84.35	-0.04		
00:13:45	13.75	84.30	-0.05		
00:14:45	14.75	84.35	0.05		
00:15:45	15.75	84.30	-0.05		
00:16:45	16.75	84.26	-0.04		
00:17:45	17.75	84.43	0.17		
00:18:45	18.75	84.34	-0.09		
00:19:45	19.75	84.39	0.05		
FIRST FLOW:	MINS				
00:20:45	0.00	84.69	0.00	0.9979	0.00
00:21:45	1.00	87.24	2.55	0.9978	395.03
00:22:45	2.00	100.11	12.87	0.9975	1994.40
00:23:45	3.00	115.04	14.93	0.9972	2314.49
00:24:45	4.00	125.63	10.59	0.9969	1642.12
00:25:45	5.00	132.82	7.19	0.9967	1115.10
00:26:45	6.00	138.26	5.44	0.9966	843.81
FIRST SHUT-IN:	MINS				
00:26:45	0.00	138.26	0.00		
00:27:45	1.00	141.87	3.61		
00:28:45	2.00	144.59	2.72		
00:29:45	3.00	146.08	1.49		
00:30:45	4.00	147.23	1.15		
00:31:45	5.00	148.50	1.27		
00:32:45	6.00	149.21	0.71		
00:33:45	7.00	150.13	0.92		
00:34:45	8.00	150.88	0.75		

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TIME (real)	ACCUM.TIME (min)	PRESSURE (kPa)	dP/dT (kPa/min)	Z-FACTOR (Real Gas)	GAS (cu m/d)
00:35:45	9.00	151.49	0.61		
00:36:45	10.00	152.94	1.45		
00:37:45	11.00	153.07	0.13		
00:38:45	12.00	153.78	0.71		
00:39:45	13.00	154.31	0.53		
00:40:45	14.00	155.67	1.36		
00:41:45	15.00	155.58	-0.09		
00:42:45	16.00	155.54	-0.04		
00:43:45	17.00	155.63	0.09		
00:44:45	18.00	155.32	-0.31		
00:45:45	19.00	155.58	0.26		
00:46:45	20.00	155.76	0.18		
00:47:45	21.00	155.58	-0.18		
00:48:45	22.00	155.72	0.14		
00:49:45	23.00	155.89	0.17		
00:50:30	23.75	155.80	-0.12		
00:55:30	28.75	155.53	-0.05		
01:00:30	33.75	155.70	0.03		
01:05:30	38.75	155.56	-0.03		
BLEED OFF					
01:05:30	0.00	155.56	0.00		
01:10:30	5.00	86.49	-13.81		
01:15:30	10.00	84.02	-0.49		
01:20:30	15.00	83.88	-0.03		
01:25:30	20.00	83.83	-0.01		
01:30:30	25.00	83.86	0.01		
SECOND FLOW: MINS					
01:32:45	0.00	92.81	0.00	0.9977	0.00
01:33:45	1.00	106.04	13.23	0.9974	2050.49
01:34:45	2.00	131.24	25.20	0.9968	3908.14
01:35:45	3.00	137.16	5.92	0.9966	918.24

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TIME (real)	ACCUM.TIME (min)	PRESSURE (kPa)	dP/dT (kPa/min)	Z-FACTOR (Real Gas)	GAS (cu m/d)
01:36:45	4.00	144.76	7.60	0.9964	1179.04
01:37:45	5.00	155.01	10.25	0.9962	1590.56
01:38:45	6.00	164.53	9.52	0.9959	1477.63
01:39:45	7.00	171.38	6.85	0.9958	1063.39
01:40:45	8.00	178.94	7.56	0.9956	1173.83
01:41:45	9.00	185.27	6.33	0.9954	983.00
01:42:45	10.00	191.30	6.03	0.9953	936.55
01:43:45	11.00	198.09	6.79	0.9951	1054.77
01:44:45	12.00	203.83	5.74	0.9950	891.79
01:45:45	13.00	209.74	5.91	0.9948	918.34
01:46:45	14.00	215.87	6.13	0.9947	952.67
01:47:45	15.00	222.64	6.77	0.9945	1052.31
01:48:45	16.00	229.54	6.90	0.9943	1072.70
01:49:45	17.00	236.32	6.78	0.9942	1054.22
01:50:45	18.00	242.62	6.30	0.9940	979.74
01:51:45	19.00	248.97	6.35	0.9938	987.67
01:52:45	20.00	254.75	5.78	0.9937	899.14
01:53:45	21.00	260.76	6.01	0.9936	935.06
01:54:45	22.00	266.25	5.49	0.9934	854.27
01:55:45	23.00	272.27	6.02	0.9933	936.88
01:56:45	24.00	277.05	4.78	0.9932	743.99
01:57:45	25.00	281.70	4.65	0.9930	723.85
01:58:45	26.00	286.04	4.34	0.9929	675.66
01:59:45	27.00	289.76	3.72	0.9928	579.19
02:00:45	28.00	292.75	2.99	0.9928	465.57
02:01:45	29.00	295.02	2.27	0.9927	353.48
02:02:45	30.00	297.51	2.49	0.9926	387.76
02:03:45	31.00	299.73	2.22	0.9926	345.73
02:04:45	32.00	302.45	2.72	0.9925	423.63
02:05:45	33.00	304.36	1.91	0.9925	297.48
02:06:45	34.00	307.00	2.64	0.9924	411.22
02:07:45	35.00	309.49	2.49	0.9924	387.87
02:08:45	36.00	311.77	2.28	0.9923	355.18

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TIME (real)	ACCUM.TIME (min)	PRESSURE (kPa)	dP/dT (kPa/min)	Z-FACTOR (Real Gas)	GAS (cu m/d)
	SECOND SHUT-IN: MINS				
02:08:45	0.00	311.77	0.00		
02:09:45	1.00	304.73	-7.04		
02:10:45	2.00	295.21	-9.52		
02:11:45	3.00	285.84	-9.37		
02:12:45	4.00	273.14	-12.70		
02:13:45	5.00	260.66	-12.48		
02:14:45	6.00	249.09	-11.57		
02:15:45	7.00	237.82	-11.27		
02:16:45	8.00	226.96	-10.86		
02:17:45	9.00	216.79	-10.17		
02:18:45	10.00	207.09	-9.70		
02:19:45	11.00	197.55	-9.54		
02:20:45	12.00	188.55	-9.00		
02:21:45	13.00	179.88	-8.67		
02:22:45	14.00	171.70	-8.18		
02:23:45	15.00	164.02	-7.68		
02:24:45	16.00	157.06	-6.96		
02:25:45	17.00	149.98	-7.08		
02:26:45	18.00	143.48	-6.50		
02:27:45	19.00	137.51	-5.97		
02:28:45	20.00	131.73	-5.78		
02:29:45	21.00	126.25	-5.48		
02:30:45	22.00	121.58	-4.67		
02:31:45	23.00	116.86	-4.72		
02:32:45	24.00	113.02	-3.84		
02:33:45	25.00	109.58	-3.44		
02:34:45	26.00	106.23	-3.35		
02:35:45	27.00	103.07	-3.16		
02:36:45	28.00	99.95	-3.12		
02:37:45	29.00	97.94	-2.01		
02:38:45	30.00	95.52	-2.42		
02:39:45	31.00	93.73	-1.79		

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TIME (real)	ACCUM.TIME (min)	PRESSURE (kPa)	dP/dT (kPa/min)	Z-FACTOR (Real Gas)	GAS (cu m/d)
02:40:45	32.00	92.37	-1.36		
02:41:45	33.00	90.63	-1.74		
02:42:45	34.00	89.71	-0.92		
02:43:45	35.00	88.75	-0.96		
02:44:45	36.00	88.49	-0.26		
02:45:45	37.00	88.06	-0.43		
02:46:45	38.00	87.54	-0.52		
02:47:45	39.00	87.33	-0.21		
02:48:45	40.00	87.12	-0.21		
02:49:45	41.00	86.82	-0.30		
02:50:45	42.00	86.65	-0.17		
02:51:45	43.00	86.57	-0.08		
02:52:45	44.00	86.13	-0.44		
02:53:45	45.00	86.09	-0.04		
02:54:45	46.00	86.19	0.10		
02:55:45	47.00	85.93	-0.26		
02:56:45	48.00	85.59	-0.34		
02:57:45	49.00	85.55	-0.04		
02:58:45	50.00	85.73	0.18		
02:59:45	51.00	85.87	0.14		
03:00:45	52.00	85.83	-0.04		
03:01:45	53.00	85.22	-0.61		
03:02:45	54.00	84.69	-0.53		
03:03:45	55.00	84.26	-0.43		
03:04:45	56.00	84.26	0.00		
03:05:45	57.00	84.00	-0.26		
03:06:45	58.00	84.32	0.32		
03:07:45	59.00	84.32	0.00		
03:08:45	60.00	84.54	0.22		
03:09:45	61.00	85.16	0.62		
03:10:45	62.00	86.57	1.41		
03:11:45	63.00	86.97	0.40		
03:12:45	64.00	95.45	8.48		
03:13:45	65.00	93.17	-2.28		
03:14:45	66.00	84.58	-8.59		

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TIME (real)	ACCUM.TIME (min)	PRESSURE (kPa)	dP/dT (kPa/min)	Z-FACTOR (Real Gas)	GAS (cu m/d)
03:15:45	67.00	84.23	-0.35		
03:16:45	68.00	83.41	-0.82		
03:17:45	69.00	83.46	0.05		
03:18:45	70.00	83.78	0.32		
03:19:45	71.00	83.74	-0.04		
03:20:45	72.00	83.88	0.14		
03:21:45	73.00	83.80	-0.08		
03:22:45	74.00	83.76	-0.04		
03:23:45	75.00	83.51	-0.25		
03:24:45	76.00	83.51	0.00		

Drill Stem Testing - Time / Pressure Listing

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Well Name: CDN FOREST ET AL LIARD K-32

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Chart Label	Comments	Time (Min.)	Delta P (KPa)	Pressure (KPa)	Abscissa (T+dt)/dt	Temp. (°C)
A	Initial Hydrostatic	0.00	0.00	17516.40		47.8
B	Start of 1st Flow	0.00	0.00	3195.60		48.2
		1.00	-412.00	2783.60		48.3
		2.00	-311.30	2884.30		48.9
		3.00	-190.90	3004.70		49.1
C	End of 1st Flow	4.00	208.40	3404.00		49.4
		1.00	417.80	3821.80	5.0000	49.6
		2.00	1033.60	4437.60	3.0000	49.8
		3.00	2340.30	5744.30	2.3333	50.0
		4.00	3732.70	7136.70	2.0000	50.1
		5.00	5268.60	8672.60	1.8000	50.2
		6.00	6904.00	10308.00	1.6667	50.3
		7.00	8492.00	11896.00	1.5714	50.4
		8.00	9790.60	13194.60	1.5000	50.5
		9.00	10661.00	14065.00	1.4444	50.6
		10.00	11141.30	14545.30	1.4000	50.7
		11.00	11376.30	14780.30	1.3636	50.8
		12.00	11505.90	14909.90	1.3333	50.9
		13.00	11586.90	14990.90	1.3077	51.0
		14.00	11637.80	15041.80	1.2857	51.0
		15.00	11672.60	15076.60	1.2667	51.0
		16.00	11701.50	15105.50	1.2500	51.1
		17.00	11718.90	15122.90	1.2353	51.2
		18.00	11736.20	15140.20	1.2222	51.2
		19.00	11750.10	15154.10	1.2105	51.2
		20.00	11760.50	15164.50	1.2000	51.3
		21.00	11769.80	15173.80	1.1905	51.3
		22.00	11777.90	15181.90	1.1818	51.4
		23.00	11783.70	15187.70	1.1739	51.4
		24.00	11790.60	15194.60	1.1667	51.4
		25.00	11795.30	15199.30	1.1600	51.4
		26.00	11799.90	15203.90	1.1538	51.5
		27.00	11803.40	15207.40	1.1481	51.5
		28.00	11806.80	15210.80	1.1429	51.5
		29.00	11810.30	15214.30	1.1379	51.5
		30.00	11813.80	15217.80	1.1333	51.5
		31.00	11817.20	15221.20	1.1290	51.5
		32.00	11819.60	15223.60	1.1250	51.6
		33.00	11823.00	15227.00	1.1212	51.6
		34.00	11825.30	15229.30	1.1176	51.6
		35.00	11827.70	15231.70	1.1143	51.6
		36.00	11830.00	15234.00	1.1111	51.6
		37.00	11832.30	15236.30	1.1081	51.6
		38.00	11834.60	15238.60	1.1053	51.6
		39.00	11835.80	15239.80	1.1026	51.6
		40.00	11838.10	15242.10	1.1000	51.6
		41.00	11840.40	15244.40	1.0976	51.7
		42.00	11842.70	15246.70	1.0952	51.7
		43.00	11843.90	15247.90	1.0930	51.7
		44.00	11845.00	15249.00	1.0909	51.7
		45.00	11846.20	15250.20	1.0889	51.7
		46.00	11848.50	15252.50	1.0870	51.7
		47.00	11849.70	15253.70	1.0851	51.7
		48.00	11852.00	15256.00	1.0833	51.7
		49.00	11853.10	15257.10	1.0816	51.7
		50.00	11854.30	15258.30	1.0800	51.7
		51.00	11856.60	15260.60	1.0784	51.8
		52.00	11856.60	15260.60	1.0769	51.8
		53.00	11857.80	15261.80	1.0755	51.8
		54.00	11860.10	15264.10	1.0741	51.8
		55.00	11860.10	15264.10	1.0727	51.8
		56.00	11861.20	15265.20	1.0714	51.8
		57.00	11863.50	15267.50	1.0702	51.8
		58.00	11863.50	15267.50	1.0690	51.8
		59.00	11863.50	15267.50	1.0678	51.8
		60.00	11863.50	15267.50	1.0667	51.8
		61.00	11863.50	15267.50	1.0656	51.8
		62.00	11864.70	15268.70	1.0645	51.9
		63.00	11864.70	15268.70	1.0635	51.8
		64.00	11865.90	15269.90	1.0625	51.9
		65.00	11865.90	15269.90	1.0615	51.9
D	End of 1st Shutin	66.00	11867.00	15271.00	1.0606	51.9
E	Start of 2nd Flow	0.00	0.00	2866.90		51.6
		1.00	42.90	2909.80		51.6

Drill Stem Testing - Time / Pressure Listing

Company: CANADIAN FOREST OIL LTD.
600, 800 - 6th Ave. S.W.
CALGARY, AB

Contact: DOUG SOLBERG

Job Ticket #: D2-6397 DST#: 2
Test Date: 03/19/1999 830hrs

Well Name: CDN FOREST ET AL LIARD K-32

Location: K-32-60-10-132-15

Chart Label	Comments	Time (Min.)	Delta P (KPa)	Pressure (KPa)	Abscissa (T+dt)/dt	Temp. (°C)	Chart Label	Comments	Time (Min.)	Delta P (KPa)	Pressure (KPa)	Abscissa (T+dt)/dt	Temp. (°C)
		2.00	53.30	2920.20		51.7			39.00	1880.80	4747.70		54.9
		3.00	84.50	2951.40		51.7			40.00	1915.60	4782.50		55.0
		4.00	122.70	2989.60		51.8			41.00	1949.10	4816.00		55.0
		5.00	157.40	3024.30		51.9			42.00	1978.10	4845.00		55.1
		6.00	188.70	3055.60		52.0			43.00	2009.30	4876.20		55.2
		7.00	222.30	3089.20		52.2			44.00	2039.40	4906.30		55.3
		8.00	261.60	3128.50		52.3			45.00	2078.80	4945.70		55.3
		9.00	302.10	3169.00		52.4			46.00	2110.00	4976.90		55.4
		10.00	340.30	3207.20		52.5			47.00	2142.40	5009.30		55.4
		11.00	384.30	3251.20		52.6			48.00	2171.40	5038.30		55.5
		12.00	427.10	3294.00		52.7			49.00	2202.60	5069.50		55.6
		13.00	478.00	3344.90		52.8			50.00	2238.50	5105.40		55.6
		14.00	527.80	3394.70		52.9			51.00	2270.90	5137.80		55.6
		15.00	584.50	3451.40		53.0			52.00	2309.10	5176.00		55.7
		16.00	637.80	3504.70		53.1			53.00	2336.90	5203.80		55.8
		17.00	694.50	3561.40		53.1			54.00	2372.70	5239.60		55.9
		18.00	744.30	3611.20		53.3			55.00	2408.60	5275.50		55.9
		19.00	803.30	3670.20		53.4			56.00	2444.50	5311.40		56.0
		20.00	865.80	3732.70		53.4			57.00	2481.50	5348.40		56.0
		21.00	920.20	3787.10		53.5			58.00	2512.80	5379.70		56.1
		22.00	981.50	3848.40		53.6			59.00	2542.90	5409.80		56.1
		23.00	1051.00	3917.90		53.6			60.00	2584.60	5451.50		56.1
		24.00	1120.40	3987.30		53.7			61.00	2619.30	5486.20		56.2
		25.00	1188.70	4055.60		53.5			62.00	2654.00	5520.90		56.3
		26.00	1255.80	4122.70		54.0			63.00	2692.20	5559.10		56.3
		27.00	1319.50	4186.40		54.0			64.00	2724.60	5591.50		56.4
		28.00	1382.00	4248.90		54.1			65.00	2770.90	5637.80		56.4
		29.00	1442.20	4309.10		54.2			66.00	2806.80	5673.70		56.4
		30.00	1497.70	4364.60		54.3			67.00	2839.20	5706.10		56.5
		31.00	1547.50	4414.40		54.3			68.00	2882.00	5748.90		56.5
		32.00	1606.50	4473.40		54.4			69.00	2915.60	5782.50		56.5
		33.00	1660.90	4527.80		54.5			70.00	2954.90	5821.80		56.5
		34.00	1714.20	4581.10		54.6			71.00	2994.30	5861.20		56.6
		35.00	1753.50	4620.40		54.6			72.00	3033.60	5900.50		56.6
		36.00	1783.60	4650.50		54.7			73.00	3067.20	5934.10		56.6
		37.00	1819.50	4686.40		54.8			74.00	3106.60	5973.50		56.7
		38.00	1854.20	4721.10		54.9			75.00	3144.70	6011.60		56.7

Drill Stem Testing - Time / Pressure Listing

Company: CANADIAN FOREST OIL LTD.
600, 800 - 6th Ave. S.W.
CALGARY, AB

Contact: DOUG SOLBERG

Job Ticket #: D2-6397 DST#: 2
Test Date: 03/19/1999 830hrs

Well Name: CDN FOREST ET AL LIARD K-32

Location: K-32-60-10-132-15

Chart Label	Comments	Time (Min.)	Delta P (KPa)	Pressure (KPa)	Abscissa (T+dt)/dt	Temp. (°C)
		76.00	3178.30	6045.20		56.8
		77.00	3217.70	6084.60		56.8
		78.00	3254.70	6121.60		56.8
F	End of 2nd Flow	79.00	3295.20	6162.10		56.8
		1.00	562.50	6724.60	84.0000	56.9
		2.00	3240.80	9402.90	42.5000	56.9
		3.00	5755.90	11918.00	28.6667	57.0
		4.00	7254.70	13416.80	21.7500	57.1
		5.00	7909.80	14071.90	17.6000	57.1
		6.00	8194.60	14356.70	14.8333	57.2
		7.00	8354.30	14516.40	12.8571	57.2
		8.00	8457.30	14619.40	11.3750	57.2
		9.00	8532.50	14694.60	10.2222	57.2
		10.00	8588.10	14750.20	9.3000	57.2
		11.00	8633.20	14795.30	8.5455	57.2
		12.00	8669.10	14831.20	7.9167	57.2
		13.00	8698.00	14860.10	7.3846	57.1
		14.00	8721.20	14883.30	6.9286	57.1
		15.00	8742.00	14904.10	6.5333	57.1
		16.00	8759.40	14921.50	6.1875	57.1
		17.00	8775.60	14937.70	5.8824	57.1
		18.00	8788.30	14950.40	5.6111	57.1
		19.00	8801.00	14963.10	5.3684	57.1
		20.00	8811.50	14973.60	5.1500	57.1
		21.00	8821.90	14984.00	4.9524	57.0
		22.00	8831.10	14993.20	4.7727	57.0
		23.00	8839.20	15001.30	4.6087	57.0
		24.00	8847.30	15009.40	4.4583	57.0
		25.00	8855.40	15017.50	4.3200	57.0
		26.00	8862.40	15024.50	4.1923	56.9
		27.00	8868.20	15030.30	4.0741	56.9
		28.00	8874.00	15036.10	3.9643	56.9
		29.00	8879.70	15041.80	3.8621	56.9
		30.00	8885.50	15047.60	3.7667	56.9
		31.00	8890.20	15052.30	3.6774	56.9
		32.00	8894.80	15056.90	3.5938	56.9
		33.00	8899.40	15061.50	3.5152	56.8
		34.00	8904.00	15066.10	3.4412	56.8
		35.00	8907.50	15069.60	3.3714	56.8
		36.00	8912.20	15074.30	3.3056	56.8
		37.00	8915.60	15077.70	3.2432	56.8
		38.00	8919.10	15081.20	3.1842	56.8
		39.00	8922.60	15084.70	3.1282	56.8
		40.00	8926.00	15088.10	3.0750	56.8
		41.00	8929.50	15091.60	3.0244	56.8
		42.00	8933.00	15095.10	2.9762	56.8
		43.00	8935.30	15097.40	2.9302	56.8
		44.00	8938.80	15100.90	2.8864	56.8
		45.00	8941.10	15103.20	2.8444	56.8
		46.00	8943.40	15105.50	2.8043	56.7
		47.00	8945.70	15107.80	2.7660	56.7
		48.00	8948.00	15110.10	2.7292	56.7
		49.00	8950.30	15112.40	2.6939	56.7
		50.00	8953.80	15115.90	2.6600	56.6
		51.00	8955.00	15117.10	2.6275	56.6
		52.00	8957.30	15119.40	2.5962	56.6
		53.00	8959.60	15121.70	2.5660	56.6
		54.00	8961.90	15124.00	2.5370	56.6
		55.00	8964.20	15126.30	2.5091	56.6
		56.00	8965.40	15127.50	2.4821	56.6
		57.00	8967.70	15129.80	2.4561	56.6
		58.00	8970.00	15132.10	2.4310	56.6
		59.00	8971.20	15133.30	2.4068	56.5
		60.00	8973.50	15135.60	2.3833	56.5
		61.00	8974.70	15136.80	2.3607	56.5
		62.00	8977.00	15139.10	2.3387	56.5
		63.00	8978.10	15140.20	2.3175	56.5
		64.00	8979.30	15141.40	2.2969	56.6
		65.00	8981.60	15143.70	2.2769	56.5
		66.00	8982.80	15144.90	2.2576	56.2
		67.00	8985.10	15147.20	2.2388	56.7
		68.00	8986.20	15148.30	2.2206	56.6
		69.00	8987.40	15149.50	2.2029	56.6
		70.00	8988.50	15150.60	2.1857	56.6

Drill Stem Testing - Time / Pressure Listing

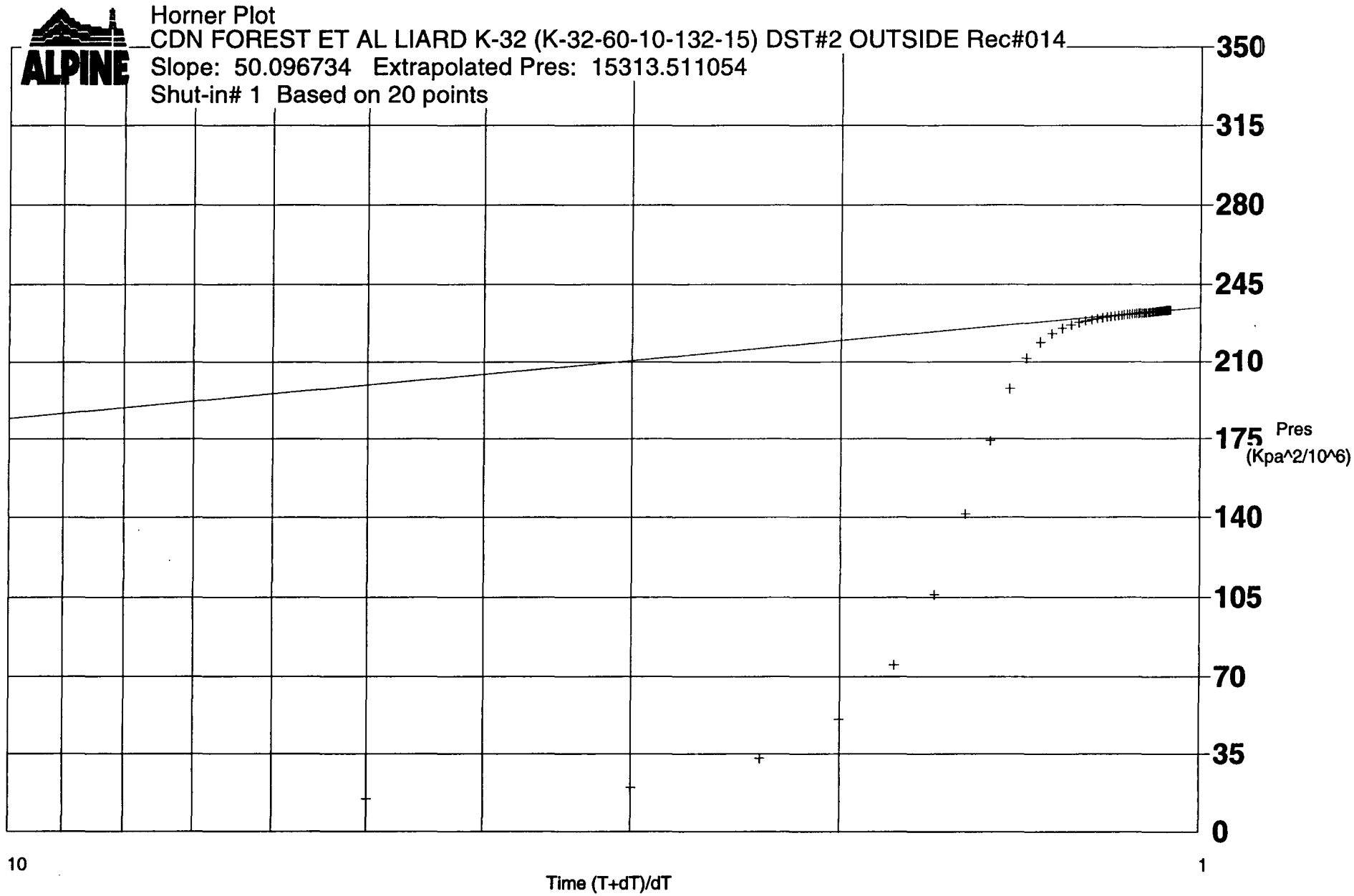
Company: CANADIAN FOREST OIL LTD.
600, 800 - 6th Ave. S.W.
CALGARY, AB

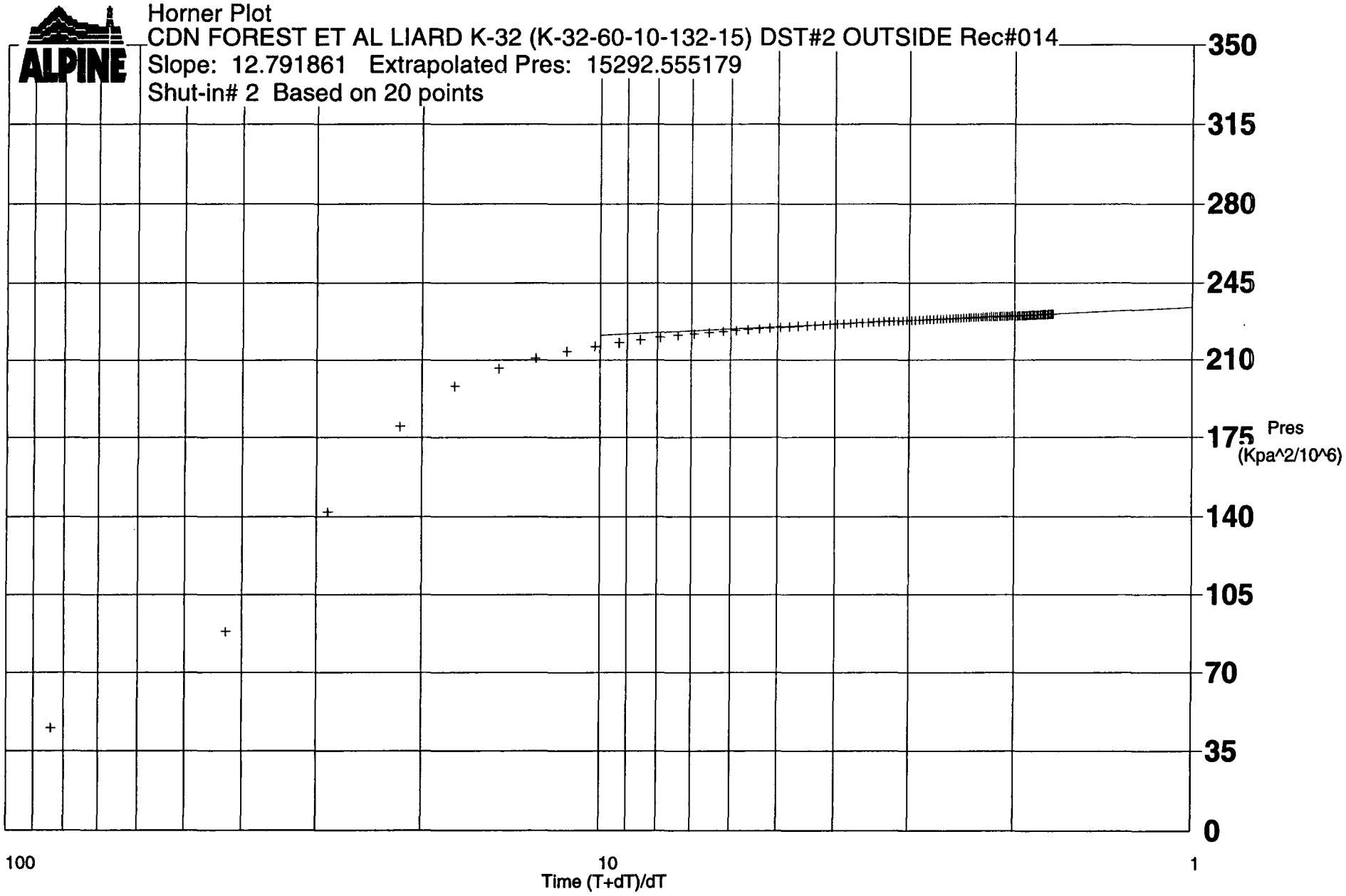
Contact: DOUG SOLBERG

Job Ticket #: D2-6397 DST#: 2
Test Date: 03/19/1999 830hrs

Well Name: CDN FOREST ET AL LIARD K-32
Location: K-32-60-10-132-15

Chart Label	Comments	Time (Min.)	Delta P (KPa)	Pressure (KPa)	Abscissa (T+dt)/dt	Temp. (°C)
		71.00	8989.70	15151.80	2.1690	56.6
		72.00	8992.00	15154.10	2.1528	56.5
		73.00	8993.20	15155.30	2.1370	56.5
		74.00	8994.30	15156.40	2.1216	56.5
		75.00	8995.50	15157.60	2.1067	56.5
		76.00	8996.60	15158.70	2.0921	56.5
		77.00	8997.80	15159.90	2.0779	56.5
		78.00	8999.00	15161.10	2.0641	56.5
		79.00	9000.10	15162.20	2.0506	56.5
		80.00	9001.30	15163.40	2.0375	56.5
		81.00	9002.40	15164.50	2.0247	56.5
		82.00	9003.60	15165.70	2.0122	56.5
		83.00	9004.70	15166.80	2.0000	56.4
		84.00	9005.90	15168.00	1.9881	56.5
		85.00	9005.90	15168.00	1.9765	56.5
		86.00	9008.20	15170.30	1.9651	56.5
		87.00	9008.20	15170.30	1.9540	56.5
		88.00	9009.40	15171.50	1.9432	56.4
		89.00	9010.50	15172.60	1.9326	56.4
		90.00	9011.70	15173.80	1.9222	56.4
		91.00	9011.70	15173.80	1.9121	56.4
		92.00	9014.00	15176.10	1.9022	56.4
		93.00	9014.00	15176.10	1.8925	56.4
		94.00	9015.20	15177.30	1.8830	56.4
		95.00	9016.30	15178.40	1.8737	56.4
		96.00	9017.50	15179.60	1.8646	56.4
		97.00	9017.50	15179.60	1.8557	56.4
		98.00	9018.60	15180.70	1.8469	56.4
		99.00	9019.80	15181.90	1.8384	56.4
		100.00	9020.90	15183.00	1.8300	56.4
		101.00	9020.90	15183.00	1.8218	56.4
		102.00	9020.90	15183.00	1.8137	56.4
		103.00	9022.10	15184.20	1.8058	56.3
		104.00	9023.30	15185.40	1.7981	56.3
		105.00	9024.40	15186.50	1.7905	56.4
		106.00	9025.60	15187.70	1.7830	56.4
		107.00	9025.60	15187.70	1.7757	56.4
		108.00	9026.70	15188.80	1.7685	56.3
		109.00	9026.70	15188.80	1.7615	56.3
		110.00	9027.90	15190.00	1.7545	56.3
		111.00	9029.10	15191.20	1.7477	56.3
		112.00	9029.10	15191.20	1.7411	56.3
		113.00	9030.20	15192.30	1.7345	56.3
		114.00	9031.40	15193.50	1.7281	56.3
G	End of 2nd Shutin	115.00	9031.40	15193.50	1.7217	56.3
Q	Final Hydrostatic	0.00	0.00	17122.90		55.5

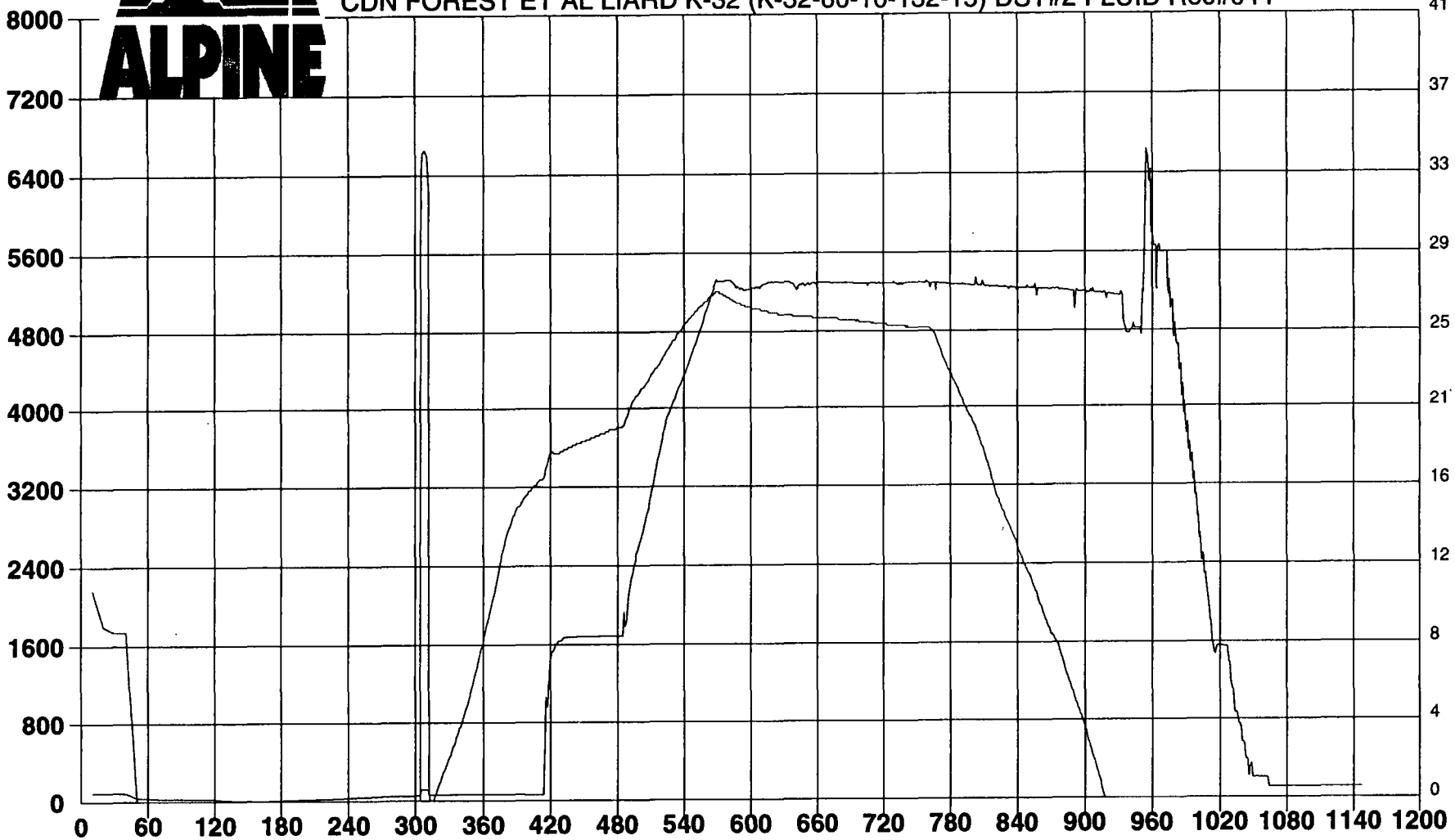

Horner Plot
CDN FOREST ET AL LIARD K-32 (K-32-60-10-132-15) DST#2 OUTSIDE Rec#014
Slope: 50.096734 Extrapolated Pres: 15313.511054
Shut-in# 1 Based on 20 points
350
315
280
245
210
175
140
105
70
35
0
Pres
(Kpa^2/10^6)
10
1
Time (T+dT)/dT


Horner Plot
CDN FOREST ET AL LIARD K-32 (K-32-60-10-132-15) DST#2 OUTSIDE Rec#014
Slope: 12.791861 Extrapolated Pres: 15292.555179
Shut-in# 2 Based on 20 points
350
315
280
245
210
175
140
105
70
35
0
Pres
(Kpa^2/10^6)
100
10
1
Time (T+dT)/dT

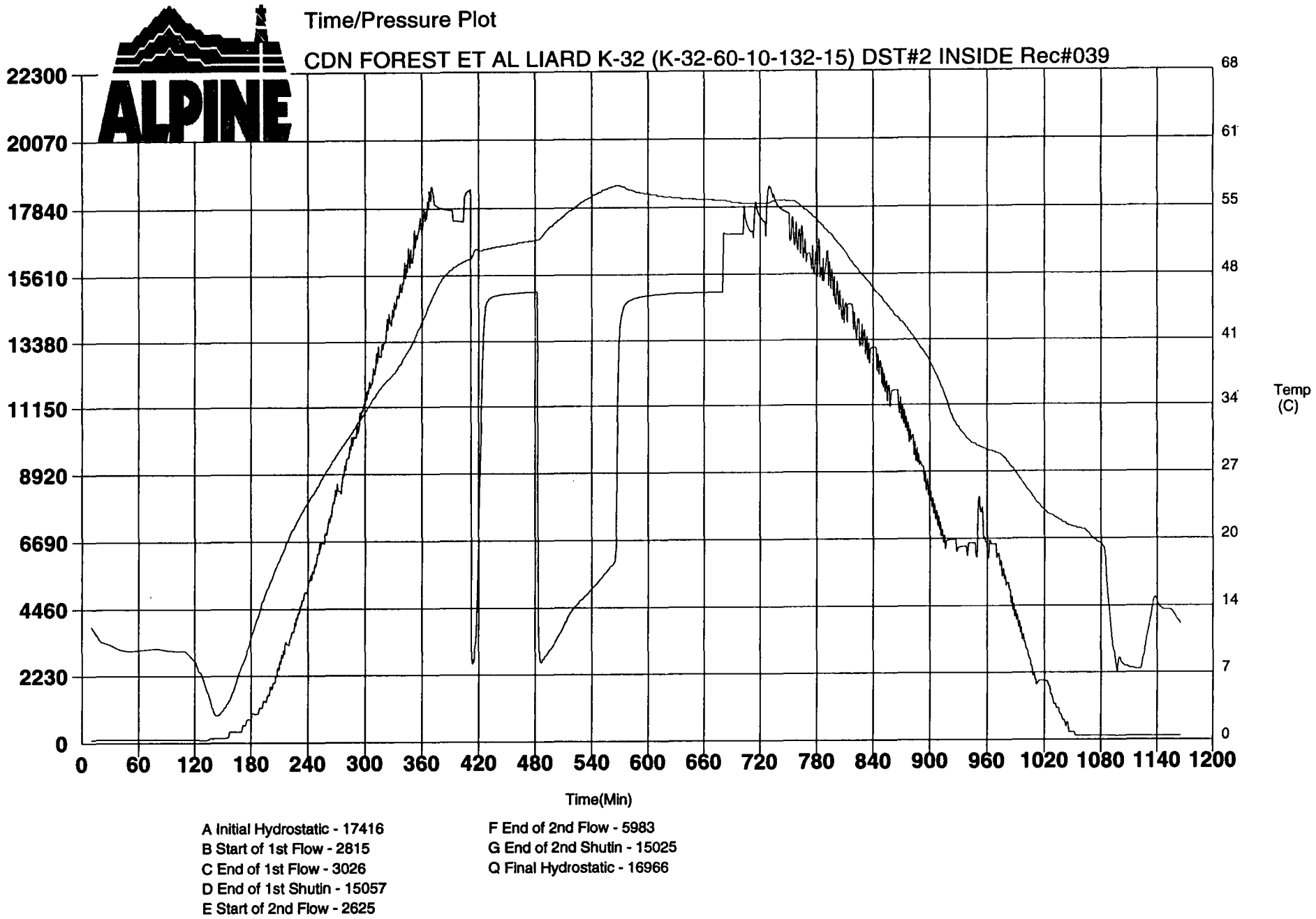
ALPINE

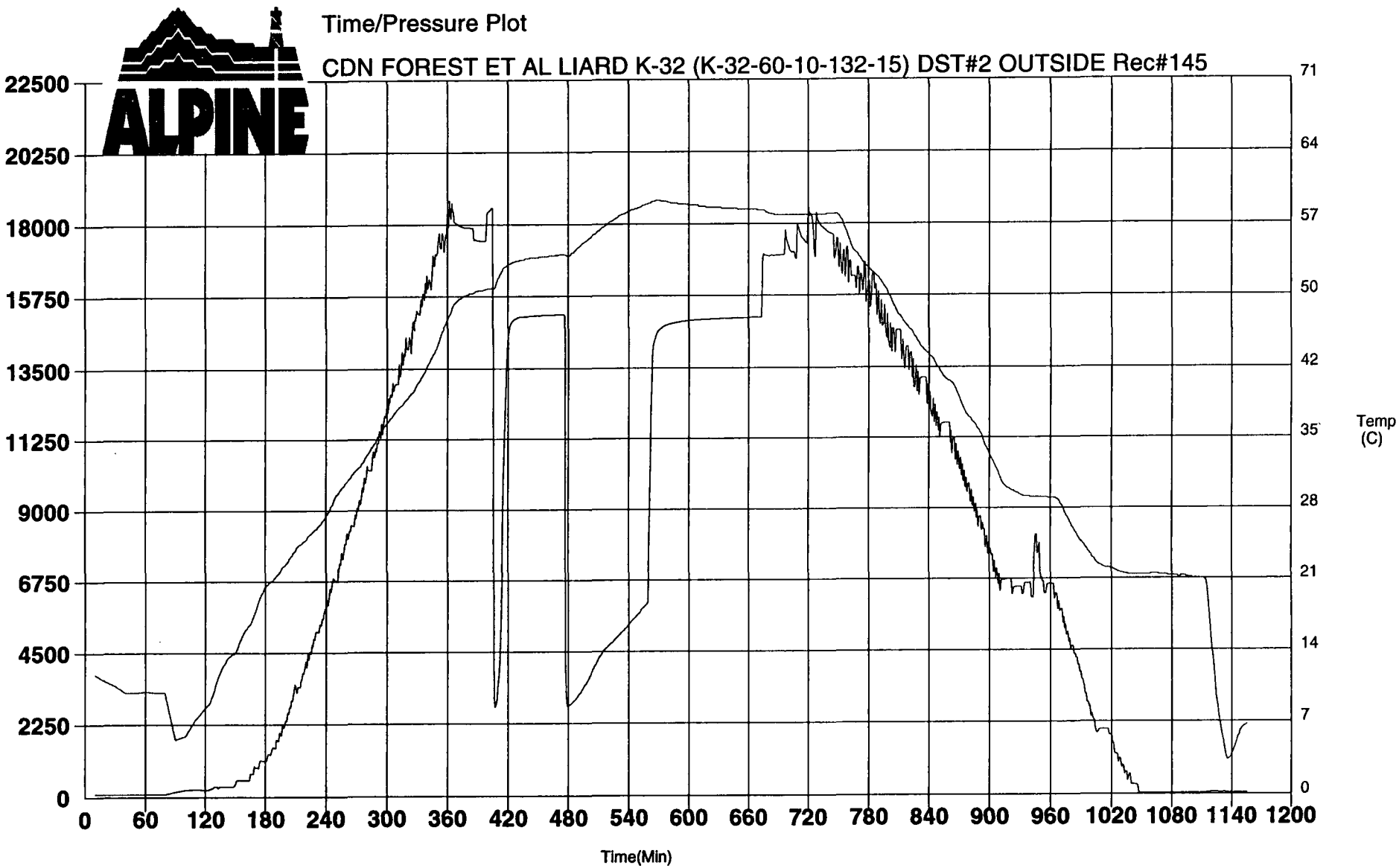
Time/Pressure Plot

CDN FOREST ET AL LIARD K-32 (K-32-60-10-132-15) DST#2 FLUID Rec#044



A Initial Hydrostatic - 57
B Start of 1st Flow - 954
C End of 1st Flow - 1527
D End of 1st Shutin - 1682
E Start of 2nd Flow - 1829
F End of 2nd Flow - 5331
G End of 2nd Shutin - 5291
Q Final Hydrostatic - 5275


ALPINE
Time/Pressure Plot
CDN FOREST ET AL LIARD K-32 (K-32-60-10-132-15) DST#2 INSIDE Rec#039
22300
20070
17840
15610
13380
11150
8920
6690
4460
2230
0
68
61
55
48
41
34
27
20
14
7
0
Temp (C)
0 60 120 180 240 300 360 420 480 540 600 660 720 780 840 900 960 1020 1080 1140 1200
Time(Min)
A Initial Hydrostatic - 17416
B Start of 1st Flow - 2815
C End of 1st Flow - 3026
D End of 1st Shutin - 15057
E Start of 2nd Flow - 2625
F End of 2nd Flow - 5983
G End of 2nd Shutin - 15025
Q Final Hydrostatic - 16966

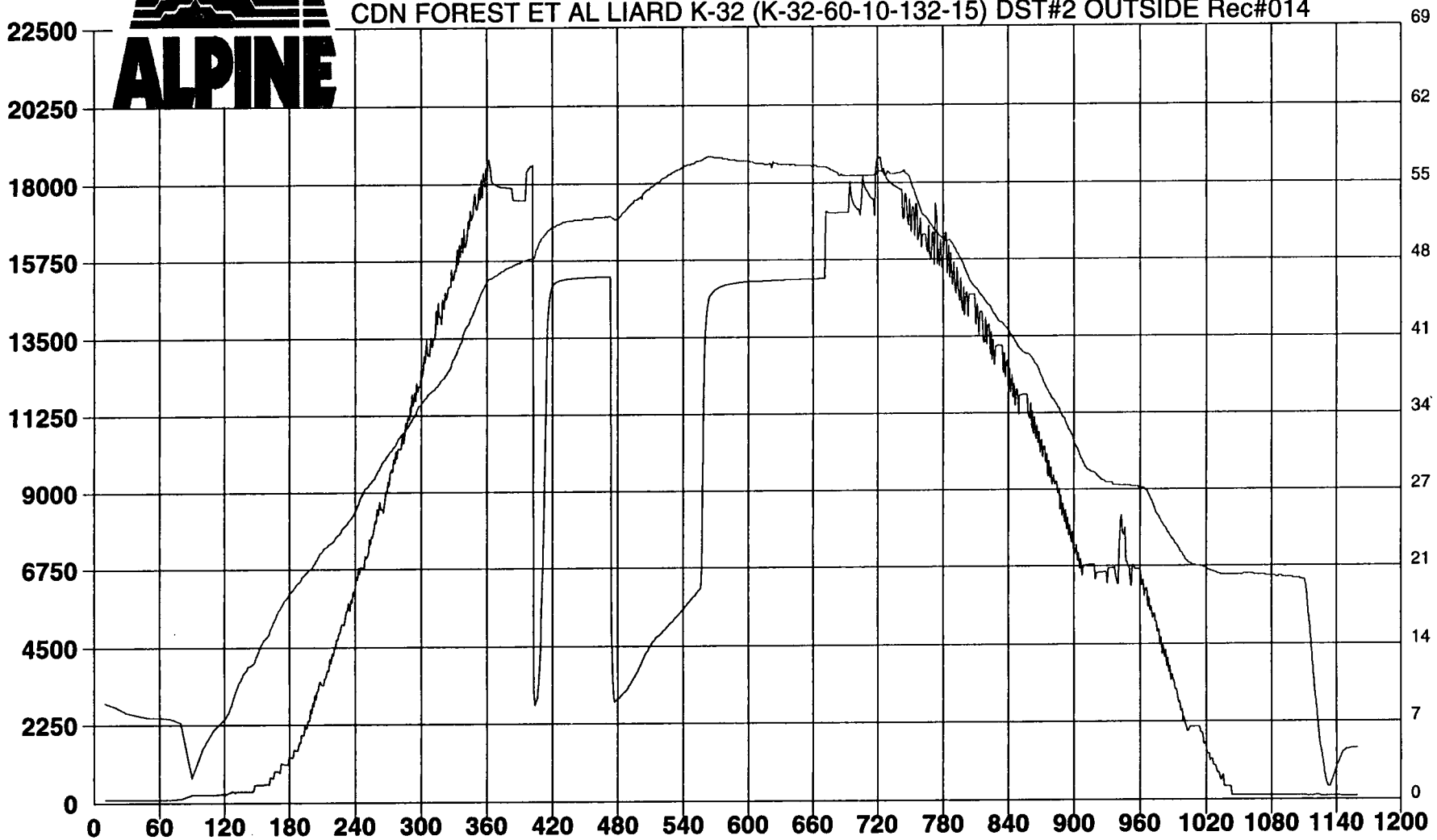


A Initial Hydrostatic - 17474
B Start of 1st Flow - 3024
C End of 1st Flow - 3882
D End of 1st Shutin - 15177
E Start of 2nd Flow - 2791
F End of 2nd Flow - 6043
G End of 2nd Shutin - 15066
Q Final Hydrostatic - 16991

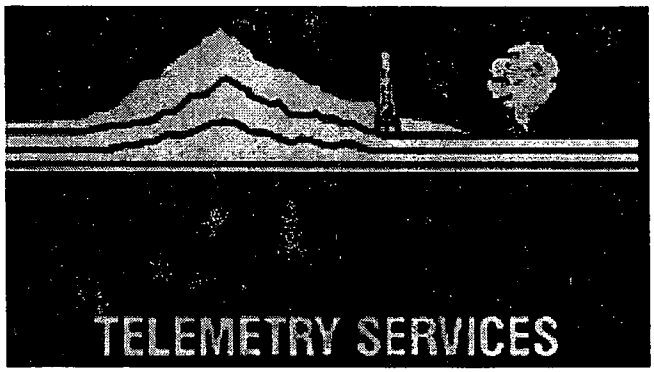
ALPINE

Time/Pressure Plot

CDN FOREST ET AL LIARD K-32 (K-32-60-10-132-15) DST#2 OUTSIDE Rec#014



A Initial Hydrostatic - 17516
B Start of 1st Flow - 3196
C End of 1st Flow - 3404
D End of 1st Shutin - 15271
E Start of 2nd Flow - 2867
F End of 2nd Flow - 6162
G End of 2nd Shutin - 15194
Q Final Hydrostatic - 17123



Real Time Test Report

Prepared for: **CANADIAN FOREST OIL**
600, 800 - 6th Ave. S.W.
CALGARY, AB

Well Name: **CDN FOREST ET AL LIARD K-32**
Location: **K-32-60-10-132-15**

Test Date: **03/19/1999**

Job Ticket #: **T3770-1** DST#: **2**

TELEMETRY SERVICES

Real Time Testing Report

Company: CANADIAN FOREST OIL LTD.
600, 800 - 6th Ave. S.W.
CALGARY, AB

Contact: DOUG SOLBERG

Job Ticket #: T3770-1 DST#: 2
Test Date: 03/19/1999 830hrs

Well Name: CDN FOREST ET AL LIARD K-32
Location: K-32-60-10-132-15

General Information:

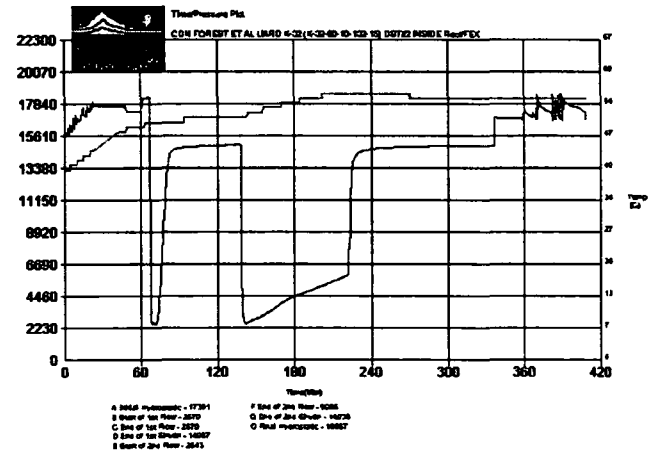
Test Type: **CONV. BOTTOM HOLE**
Interval: **1635m -1695m**
Formation: **PERMIAN FANTASQUE**
KB Elevation: **404.50m**
Ground Elevation: **400.10m**
Total Depth: **1695.00m**
Test Mode: **Gas**

Tester: **B. HOLLINGSHEAD**
Truck No.: **Unit 115**
Contractor: **NABORS**
Rig No.: **6**
Hole Diameter: **222mm**
Hole Condition: **GOOD**
Bottom Hole Temperature: **56.60 C**

Telemetry Recorder Information:

INSIDE
Recorder #: **FEK** Depth: **1628.49 m**

Flag Points:	Time:	Pressure:
A Initial Hydrostatic	0.00	17301.3
B Start of 1st Flow	0.00	2578.9
C End of 1st Flow	4.08	2879.1
D End of 1st Shutin	65.10	14987.1
E Start of 2nd Flow	0.00	2543.2
F End of 2nd Flow	80.22	5906.0
G End of 2nd Shutin	114.54	14938.4
Q Final Hydrostatic	0.00	16857.2



Test Run Information:

Start Time: **830hrs**
Reached Test Depth: **1200hrs**
Pull Out Time: **1730hrs**
Tool Out Of Hole: **2330hrs**
Water Loss: **7.00cm³**
Mud Drop: **NO**
VIS: **90.00S/L**
Filter Cake: **1.00mm**
Pump Time: **30min**
Reversed Out: **YES**
Mud Type: **GEL CHEMICAL**
Mud Weight: **1095.00kg/m³**
Amount of fill: **0.00m**
Amount of cushion: **0.00**
Type of cushion:

General Remarks:

Mechanically successful. *Test results suggest moderate permeability within the zone tested.

Maximum gas rates as reported by Alpine Closed Chamber are as follows:

PREFLOW: 2314.49 m3/day.

FINAL FLOW: 3908.14 m3/day.

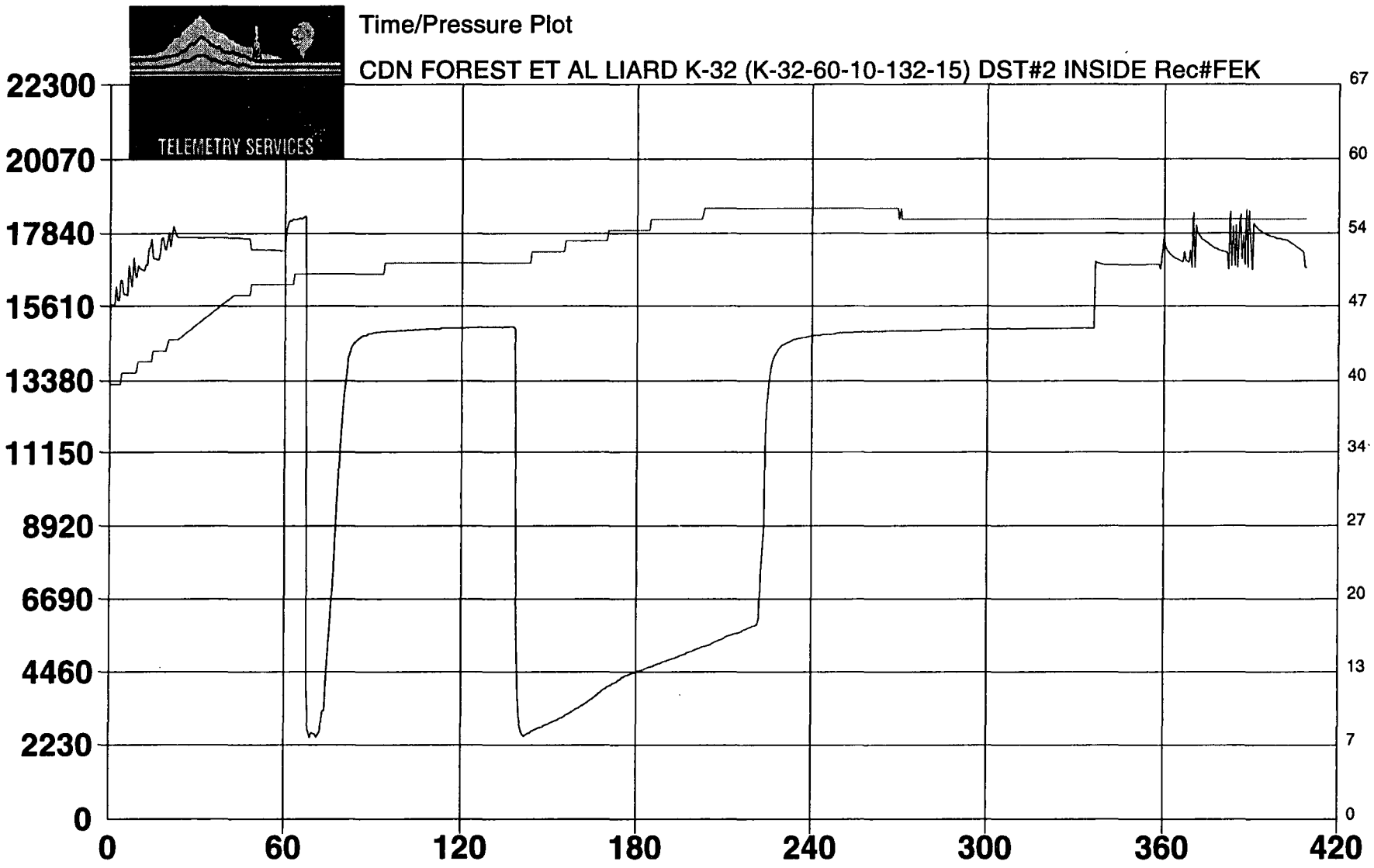
Went to conventional flow after 40 minutes of closed chamber.

***** See gas volume charts for gas rates.**

Recovery Description:

Total fluid recovery reversed out was 552 meters, consisting of 20 meters gasified mud, 200 meters muddy gasified salt water, 332 meters salt water.
Salinity = 37,500 PPM

Gas to surface.



A Initial Hydrostatic - 17301
B Start of 1st Flow - 2579
C End of 1st Flow - 2879
D End of 1st Shutin - 14987
E Start of 2nd Flow - 2543
F End of 2nd Flow - 5906
G End of 2nd Shutin - 14938
Q Final Hydrostatic - 16857