PARAMOUNTRESOURCES LTD.

PARA et al FORT LIARD

N-01

200/N-01/00

MATTSON SAND

FEB 28-MAR 10, 2001

Well Test Data

Contact

GRANT HARTER
Well Testing Manager

Nisku: (780) 955-7525

GENERAL INFORMATION

Client Information:

Company: PARAMOUNT RESOURCES LTD.

Contact: PARAMOUNT RESOURCES LTD.

Phone: 403-290-3626 Fax: 403-266-6032 e-mail:

Site Information:

Contact: WAYNE/ AL IRONSIDE

Phone: Fax: e-mail:

Well Information:

Name: PARA et al FORD LIARD N-01

Operator: PARAMOUNT RESOURCES LTD.

Location-Downhole: N-01

Location-Surface: N-01

Test Information:

Company:	SOLID PRODUCTION SERVICES LTD.		
Representative:	GRANT HARTER		
Supervisor:	RYAN WHITE		
Test Type:	SINGLE POINT TEST	Job Number:	064
Test Unit:	PT-501		
Start Date:	2001/02/28	Start Time:	19:05:00
End Date:	2001/03/10	End Time:	10:55:00
Report Date:	2001/04/09	Prepared By:	LAURA D. DOMINICK
Remarks:		Qualified By:	

WELL INFORMATION

Well Name : PARA et al FORD LIARD N-01

Well Operator : PARAMOUNT RESOURCES LTD.

Well Location : N-01

Location-Surface : N-01

Field : FORT LIARD **Well Type : Vertical**

Pool : UNDEFINED

Formation : MATTSON SAND

Perforation Type : GINS			Producing Through : Tubing	Size	88.90 mm
Pool Datum	m	KB	Elevation Referenced From	492.10 m	GL
Datum Depth	m	KB	Elevation Referenced To	487.00 m	GL
			Offset	5.10 m	

Production Intervals

Production Interval & MPP Reference To : KB MPP Pressure Reference : None

	From - m	To - m		Depth - m	Pressure - kPa
1.	1778.00	1782.00	1.	1780.00	
2.	1785.00	1787.50	2.	1786.25	
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		
8.			8.		
9.			9.		
10.			10.		
11.			11.		
12.			12.		

Remarks :

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

FieldNotes
METER REPORT

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

Gas Meter 1

Meter Type:	Orifice Meter	
Meter Size:	146.30	mm
Previous Gas Production:	0.000	10^3m^3
Tap Type:	Flange	
Tap Location:	Downstream	
Gas Gravity (G):	0.603	
CO_2:	1.62	%
H_2S:	0.00	%
N_2:	0.23	%
Critical Temperature (T_C):	198.51	K
Critical Pressure (P_C):	4680.98	kPa

Oil Meter 1

Meter Type:	Measured Rate	
Measurement Type:	Cumulative	
Columns for Measured Rate:		
Previous Oil Production:	0.000	m^3
Previous Water Production:	0.000	m^3

Oil Meter 2

Meter Type:	Produced Volume	
Measurement Type:	Cumulative	
Columns for Produced Volume:		
Previous Oil Production:	0.000	m^3
Previous Water Production:	0.000	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	$10^3m^3/$	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
1	2001/02/28	17:00:00	0.00	0.00	0.00	0	0	0	0	0.00	0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
2		17:45:00	0.75	Rig off B.O.P's.																	
3		18:45:00	1.75	Rig up flow line to well head.																	
4		19:02:00	2.03	Bar dropped.																	
5		19:02:27	2.04	Perf guns went off.																	
6		19:05:00	2.08			310		0													
7		19:10:00	2.17			670		0													
8		19:15:00	2.25			1550		0													
9		19:30:00	2.50			4600		0													
10		19:45:00	2.75			7000		0													
11		20:00:00	3.00			8750		0													
12		20:05:00	3.08	Rig up wireline to drop perf guns.																	
13		20:40:00	3.67	Perf guns dropped.																	
14		21:50:00	4.83	Start running in to perform gradient and set recorders.																	
15		23:15:00	6.25	Rig out wireline.																	
16		23:20:00	6.33			13410		0													
17		23:30:00	6.50	Open to flow on 7.14mm choke.																	
18		23:30:00	6.50			13430		200													
19		23:35:00	6.58			10100	6	400													
20		23:37:00	6.62	Cut choke to 6.35mm.																	
21		23:40:00	6.67			7710	8	400													
22		23:45:00	6.75			6500	8	400													
23		23:46:00	6.77	Cut choke to 5.15mm, Meter in service on 50.8mm orifice plate.																	
24		23:59:59	7.00		50.80				0	0.00	0	0.00	0.00								
25		23:59:59	7.00			5040	8	520	710	1.74	11	20.80	0.00								
26	2001/03/01	00:05:00	7.08	Change orifice to 25.4mm, Increased back pressure.																	
27		00:05:00	7.08		25.40																
28		00:15:00	7.25			4840	8	600	758	31.35	12	22.47	0.23								
29		00:30:00	7.50			4870	8	600	772	31.85	12	22.83	0.46								
30		01:00:00	8.00			4900	11	610	772	31.85	13	22.79	0.94								
31		01:30:00	8.50			6230	10	690	545	22.64	13	16.45	1.35								

2001/02/28 17:00:00 To 2001/03/01 05:30:00

Gas	5.692	Cum.	5.692	10^3m^3
Oil	0.000	Cum.	0.000	m^3
Water	0.922	Cum.	0.922	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
32	2001/03/01	01:30:00	8.50	Obstruction at Choke rock to clear.																	
33		02:00:00	9.00			6840	10	700	758	30.36	8	22.27	1.75								
34		02:05:00	9.08	Well hydrating at choke, started to produce fluid, Increased choke to 5.55mm.																	
35		02:10:00	9.17	Increased backpressure.																	
36														1.28							
37		02:30:00	9.50			5760	10	700	1655	17.92	6	24.79	2.24								
38		03:00:00	10.00			5850	10	700	1813	18.91	6	26.65	2.77	1.93	100	0.65	0.65	0.00	0.00	0.65	0.65
39				Grindout = 100%H^2o, Trace cond, Sal = 39,111ppm , ph=7, Trace of sediment.																	
40		03:30:00	10.50			5860	10	690	1848	19.41	6	27.26	3.34								
41		04:00:00	11.00			6130	10	690	1862	19.41	6	27.36	3.91	2.07	100	0.14	0.78	0.00	0.00	0.14	0.78
42		04:30:00	11.50			6130	10	690	1827	19.66	4	27.39	4.48								
43		05:00:00	12.00			6130	10	700	2034	21.15	4	29.99	5.07	2.21	100	0.14	0.92	0.00	0.00	0.14	0.92
44		05:02:00	12.03	Kimray in service, Adjust back pressure.																	
45				Grindout = 100% H^2o, Trace cond, Sal = 39,111ppm, ph=7, Trace sediment.																	
46		05:30:00	12.50			6210	10	700	1848	22.15	2	29.37	5.69								
47		06:00:00	13.00			6250	10	700	1820	22.89	0	29.77	6.31	2.35	100	0.14	1.06	0.00	0.00	0.14	1.06
48				Total hour flowed 6.5hrs.																	
49				Cumm gas flared = $6.31*10^3m^3$.																	
50				Cumm Fluid produced = $1.063m^3$.																	
51		06:30:00	13.50			6350	10	700	1820	22.89	0	29.77	6.93								
52		07:00:00	14.00			6400	10	700	1820	22.89	0	29.77	7.55	2.35		0.00	1.06	0.00	0.00	0.00	1.06
53				Two H.P gas samples taken.Cylinder #'s 96800000 & 00019832 and one stock tank fluid sample of water to be sent to AGAT.																	
54		07:30:00	14.50			6410	10	715	1862	24.14	0	30.91	8.18								
55		08:00:00	15.00			6470	10	715	1862	23.89	-2	30.89	8.82	2.35		0.00	1.06	0.00	0.00	0.00	1.06
56		08:30:00	15.50			6460	10	725	1841	24.39	-2	31.04	9.47								
57		09:00:00	16.00			6490	10	725	1855	24.14	-2	30.99	10.12	2.42	100	0.07	1.14	0.00	0.00	0.07	1.14
58				Grindout unobtainable.																	
59		09:30:00	16.50			6520	10	725	1855	23.89	-2	30.83	10.76								
60		10:00:00	17.00			6550	10	725	1862	24.39	-2	31.21	11.41	2.42		0.00	1.14	0.00	0.00	0.00	1.14
61		10:30:00	17.50			6570	10	725	1875	24.64	-2	31.49	12.06								
62		11:00:00	18.00			6590	10	725	1875	25.38	2	31.68	12.72	2.49	100	0.07	1.21	0.00	0.00	0.07	1.21

2001/02/28 17:00:00 To 2001/03/01 05:30:00

Gas	5.692	Cum.	5.692 10^3m^3
Oil	0.000	Cum.	0.000 m^3
Water	0.922	Cum.	0.922 m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
63	2001/03/01	11:30:00	18.50			6610	10	725	1862	25.63	2	31.72	13.38								
64		11:30:00	18.50	Shut in well.End of test.Record build ups.																	
65		11:30:00	18.50		0.00				0	0.00	0	0.00	13.38								
66				SUMMARY.																	
67				Cumm hours flowed = 12 hrs.																	
68				Cumm gas flared = 13.38*10^3m^3.																	
69				Cumm fluid produced = 1.21m^3.																	
70		11:35:00	18.58			7620		725													
71		11:40:00	18.67			8750		800													
72		11:45:00	18.75			9490		825													
73		12:00:00	19.00			11680		950													
74		12:15:00	19.25			12690		975													
75		12:30:00	19.50			13340		975													
76		13:00:00	20.00			13980		975													
77		13:30:00	20.50			14230		890													
78		14:00:00	21.00			14330		875													
79		14:30:00	21.50			14430		875													
80		15:00:00	22.00			14510		800													
81		15:30:00	22.50			14530		800													
82		16:00:00	23.00			14560		800													
83		16:30:00	23.50			14560		800													
84		17:00:00	24.00			14570		800													
85		17:30:00	24.50			14580		800													
86		18:00:00	25.00			14590		800													
87		18:30:00	25.50			14590		800													
88		18:45:00	25.75	Blead off casing.																	
89		19:00:00	26.00			14650		0													
90		19:30:00	26.50			14650		0													
91		20:00:00	27.00			14650		0													
92		20:30:00	27.50			14650		0													
93		21:00:00	28.00			14650		0													

2001/03/01 05:30:00 To 2001/03/02 05:30:00

Gas	7.685	Cum.	13.377 10^3m^3
Oil	0.000	Cum.	0.000 m^3
Water	0.285	Cum.	1.207 m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
94	2001/03/01	21:30:00	28.50			14650		0													
95		22:00:00	29.00			14650		0													
96		22:30:00	29.50			14650		0													
97		23:00:00	30.00			14650		0													
98		23:30:00	30.50			14650		0													
99		23:59:59	31.00			14650		0													
100	2001/03/02	00:30:00	31.50			14650		0													
101		01:00:00	32.00			14650		0													
102		01:30:00	32.50			14650		0													
103		02:00:00	33.00			14650		0													
104		02:30:00	33.50			14650		0													
105		03:00:00	34.00			14650		0													
106		03:30:00	34.50			14650		0													
107		04:00:00	35.00			14650		0													
108		04:30:00	35.50			14650		0													
109		05:00:00	36.00			14650		0													
110		05:30:00	36.50			14650		0													
111		06:00:00	37.00			14650		0													
112		06:30:00	37.50			14660		0													
113		07:00:00	38.00			14660		0													
114		13:00:00	44.00	Rig up wireline to run plug.																	
115		13:45:00	44.75	Plug set.																	
116		14:00:00	45.00	Rig off wellhead.Wait on rig work.No more flowing on N-01.																	
117	2001/03/03	12:00:00	67.00	First shot of first perforation. 1739.5m -1745.0m.																	
118		12:10:00	67.17					50													
119		12:15:00	67.25					650													
120		12:20:00	67.33					2250													
121		12:30:00	67.50					4250													
122		12:45:00	67.75					4300													
123		13:00:00	68.00					4350													
124		13:15:00	68.25					4400													

2001/03/01 05:30:00 To 2001/03/02 05:30:00

Gas	7.685	Cum.	13.377	10^3m^3
Oil	0.000	Cum.	0.000	m^3
Water	0.285	Cum.	1.207	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
125	2001/03/03	14:30:00	69.50					8400													
126		14:30:00	69.50	Begin running in with second shot.																	
127		15:25:00	70.42					9250													
128		15:30:00	70.50	Second shot fired. 1745.0m - 1750m.																	
129		15:35:00	70.58					9300													
130		15:40:00	70.67					9400													
131		15:45:00	70.75					9500													
132		16:00:00	71.00					9700													
133		16:15:00	71.25					9800													
134		16:30:00	71.50					9825													
135		17:15:00	72.25	Begin running in with third shot.																	
136		17:30:00	72.50					10150													
137		18:00:00	73.00					10400													
138		18:18:00	73.30	Third shot fired. 1731.5m - 1736.5m.																	
139		18:25:00	73.42					10450													
140		18:30:00	73.50					10450													
141		18:45:00	73.75					10450													
142		19:00:00	74.00					10450													
143		19:15:00	74.25					10450													
144		19:30:00	74.50					10450													
145		19:30:00	74.50	Begin running in with fourth shot.																	
146		20:00:00	75.00					10500													
147		20:28:00	75.47	Fourth shot fired. 1684m - 1689m.																	
148		20:30:00	75.50					10400													
149		20:35:00	75.58					10380													
150		20:40:00	75.67					10300													
151		20:45:00	75.75					10250													
152		21:00:00	76.00					10200													
153		21:15:00	76.25					10100													
154		21:30:00	76.50					10050													
155		21:30:00	76.50	Computalog shut down for the night, record build ups.																	

2001/03/03 12:00:00 To 2001/03/04 05:30:00

Gas	0.000	Cum.	13.377	10^3m^3
Oil	0.000	Cum.	0.000	m^3
Water	0.000	Cum.	1.207	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
156	2001/03/03	22:00:00	77.00					10000													
157		22:30:00	77.50					9900													
158		23:00:00	78.00					9900													
159		23:59:59	79.00					9900													
160	2001/03/04	00:30:00	79.50					9900													
161		01:00:00	80.00					9900													
162		01:30:00	80.50					9925													
163		02:00:00	81.00					9950													
164		02:30:00	81.50					9975													
165		03:00:00	82.00					10000													
166		03:30:00	82.50					10025													
167		04:00:00	83.00					10050													
168		04:30:00	83.50					10050													
169		05:00:00	84.00					10050													
170		05:30:00	84.50					10050													
171		06:00:00	85.00					10050													
172		06:30:00	85.50					10050													
173		07:00:00	86.00					10050													
174		07:30:00	86.50					10050													
175		08:00:00	87.00					10100													
176		08:15:00	87.25					10200													
177		08:15:00	87.25	Open well to lift fluid. 36/64 or a 14.29mm choke.																	
178		08:20:00	87.33	14.29				9000													
179		08:22:00	87.37	Meter in service.57.15 mm orifice.																	
180		08:25:00	87.42		0.00				0	0.00	0	0.00	13.38								
181		08:25:00	87.42	14.29	57.15			8650	1834	76.64	-10	290.56	13.38	2.49		0.00	1.21	0.00	0.00	0.00	1.21
182		08:29:00	87.48	Increase orifice to 76.2mm.																	
183		08:30:00	87.50	14.29	76.20			8650	1379	15.93	-12	210.70	14.25	2.49		0.00	1.21	0.00	0.00	0.00	1.21
184		08:32:00	87.53	Fluid to surface.																	
185		08:35:00	87.58					9800	627	0.50	-11	25.69	14.66								
186		08:40:00	87.67					11400	1413	0.75	1	44.88	14.78								

2001/03/03 12:00:00 To 2001/03/04 05:30:00

Gas	0.000	Cum.	13.377	10^3m^3
Oil	0.000	Cum.	0.000	m^3
Water	0.000	Cum.	1.207	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
187	2001/03/04	08:42:00	87.70	Decrease choke to a 28/64 or a 11.11mm.																	
188		08:45:00	87.75	11.11				13600	2620	2.99	12	119.51	15.07								
189		08:50:00	87.83					13800	2096	25.63	9	314.82	15.82								
190		08:55:00	87.92					13800	1820	18.17	6	248.35	16.80								
191		08:55:00	87.92	Increase choke to a 32/64 or a 12.70mm.																	
192		09:00:00	88.00	12.70				13700	1758	18.66	6	247.43	17.66								
193		09:05:00	88.08					13900	1793	22.15	0	275.73	18.57								
194		09:10:00	88.17		76.20			13950	1800	30.36	-4	326.52	19.61								
195		09:15:00	88.25					13950	1793	31.11	-6	331.37	20.75	14.71	100	12.22	13.43	0.00	0.00	12.22	13.43
196		09:21:00	88.35	Shut in well.Well dry.																	
197		09:21:00	88.35		0.00				0	0.00	0	0.00	20.75								
198				SUMMARY.																	
199				CUMM HOURS FLOWED = 1.1 HRS.																	
200				CUMM GAS FLARED = 7.37*10³M³																	
201				CUMM FLUID LIFTED = 12.220 M³. 100% H²O SALINITY = 33,778 PPM.																	
202		09:25:00	88.42	Begin running in with fifth shot.																	
203		09:30:00	88.50					14450													
204		10:00:00	89.00					14450													
205		10:30:00	89.50					14500													
206		11:00:00	90.00					14700													
207		11:30:00	90.50					14700													
208		11:45:00	90.75	Fifth shot fired. 1684m - 1689m.																	
209		12:00:00	91.00					14700													
210		12:15:00	91.25					14700													
211		12:30:00	91.50					14700													
212		12:45:00	91.75	Begin running in with sixth shot.																	
213		14:00:00	93.00					14700													
214		14:30:00	93.50					14700													
215		14:50:00	93.83					14700													
216		14:54:00	93.90	Sixth shot fired. 1463m - 1469m.																	
217		14:55:00	93.92					14700													

2001/03/04 05:30:00 To 2001/03/05 06:00:00

Gas	7.377	Cum.	20.754	10^3m^3
Oil	0.000	Cum.	0.000	m^3
Water	12.220	Cum.	13.427	m^3

Fast

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	$10^3m^3/$	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
218	2001/03/04	15:00:00	94.00					14700													
219		15:05:00	94.08					14700													
220		15:15:00	94.25					14700													
221		15:30:00	94.50					14700													
222		16:00:00	95.00					14700													
223		17:00:00	96.00					14700													
224		18:00:00	97.00					14700													
225		19:00:00	98.00					14700													
226		20:00:00	99.00					14700													
227		21:00:00	100.00					14700													
228		22:00:00	101.00					14700													
229		23:00:00	102.00					14700													
230		23:59:59	103.00					14700													
231	2001/03/05	01:00:00	104.00					14700													
232		02:00:00	105.00					14700													
233		03:00:00	106.00					14700													
234		04:00:00	107.00					14700													
235		05:00:00	108.00					14700													
236		06:00:00	109.00					14700													
237		07:00:00	110.00					14700													
238		08:00:00	111.00					14700													
239		09:00:00	112.00					14700													
240		10:00:00	113.00					14700													
241		10:45:00	113.75	Begin running in with seventh shot.																	
242		11:00:00	114.00					14700													
243		11:30:00	114.50					14700													
244		11:35:00	114.58	Seventh shot fired.																	
245		12:00:00	115.00					14550													
246		12:30:00	115.50					14600													
247		12:45:00	115.75	Begin running in with eighth shot.																	
248		13:00:00	116.00					14600													

2001/03/04 05:30:00 To 2001/03/05 06:00:00

Gas	7.377	Cum.	20.754	10^3m^3
Oil	0.000	Cum.	0.000	m^3
Water	12.220	Cum.	13.427	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
249	2001/03/05	13:30:00	116.50					14600													
250		13:40:00	116.67	Eighth shot fired.																	
251		13:45:00	116.75					14600													
252		13:50:00	116.83					14600													
253		13:55:00	116.92					14600													
254		14:00:00	117.00					14600													
255		14:30:00	117.50					14600													
256		15:00:00	118.00					14600													
257		15:15:00	118.25	Begin rigging in snubbers.																	
258		17:25:00	120.42	Pressure test flow line with well gas.Pressure test good. 14575 Kpa on Casing.																	
259		17:30:00	120.50	Open well to clean up well on a 32/64 or a 12.70mm Choke.																	
260		17:33:00	120.55	Increase choke to a 14.29mm.																	
261		17:35:00	120.58					13300													
262		17:38:00	120.63	Meter in service.101.60mm orifice.																	
263		17:39:00	120.65	Increase choke to a 40/64 or a 15.86mm.																	
264		17:40:00	120.67		0.00				0	0.00	0	0.00	20.75	14.71		0.00	13.43	0.00	0.00	0.00	13.43
265		17:40:00	120.67		101.60			12700	1551	26.38	-23	575.04	20.75								
266		17:42:00	120.70	Increase choke to a 43/64 or a 17.07mm.																	
267		17:44:00	120.73	Increase choke to 48/64 or a 19.05mm.																	
268		17:45:00	120.75	19.05			14	11900	1931	31.85	-23	706.38	22.98								
269		17:50:00	120.83				16	12100	1896	31.85	-22	698.09	25.42								
270		17:55:00	120.92				20	12100	1862	30.86	-20	677.24	27.80								
271		18:00:00	121.00				21	12100	1855	32.35	-20	692.18	30.18								
272		18:05:00	121.08				24	12000	1986	30.61	-10	680.50	32.57								
273		18:10:00	121.17				24	12100	1999	29.61	-8	668.55	34.91								
274		18:15:00	121.25				26	12100	2041	30.36	-8	684.06	37.26								
275		18:30:00	121.50				32	12100	1806	36.33	-6	700.53	44.47	15.99	0	1.28	14.71	1.28	1.28	0.00	13.43
276		18:34:00	121.57	Shut in well.End of clean up.																	
277				SUMMARY.																	
278				CUMM HOURS FLOWED = 1 HR.																	
279				CUMM GAS FLARED = 23.72*10³M³.																	

2001/03/05 06:00:00 To 2001/03/06 06:00:00

Gas	23.713	Cum.	44.467	10^3m^3
Oil	1.279	Cum.	1.279	m^3
Water	0.000	Cum.	13.427	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
280	2001/03/05			CUMM FLUID PRODUCED = 1.28*M³. 100% CONDENSATE. A.P.I =58.2 @ 15.6°C.																	
281		19:00:00	122.00					14550													
282		20:00:00	123.00					14550													
283		21:00:00	124.00					14550													
284		22:00:00	125.00					14550													
285		23:00:00	126.00					14550													
286		23:59:59	127.00					14550													
287	2001/03/06	01:00:00	128.00					14550													
288		02:00:00	129.00					14550													
289		03:00:00	130.00					14550													
290		04:00:00	131.00					14550													
291		05:00:00	132.00					14550													
292		06:00:00	133.00					14550													
293		07:00:00	134.00					14550													
294	2001/03/07	07:01:00	158.02	Check pressure on well.																	
295	2001/03/07	07:30:00	158.50	14500 Kpa on casing.																	
296		14:00:00	165.00	Attempt to bleed down tubing.Tubing bleed down unsuccessful.																	
297		15:30:00	166.50											17.65	100	1.66	16.37	0.00	1.28	1.66	15.09
298				Salinity of water = 28,444 ppm.																	
299		15:30:00	166.50	Wireline to run plug.																	
300		16:00:00	167.00	Plug set.																	
301		16:20:00	167.33	Bleed off 14600 Kpa on tubing.																	
302		16:35:00	167.58	Tubing bleed off.																	
303		17:00:00	168.00	shut down for night.																	
304	2001/03/08	07:00:00	182.00	Check pressure on well.																	
305		07:30:00	182.50	13700 Kpa on casing.																	
306		08:00:00	183.00	Wireline to pull plug.																	
307		10:45:00	185.75	Open well to clean up gun junk.																	
308		11:30:00	186.50	Shut in well.Minimal gun junk lifted.																	
309		12:00:00	187.00	Wireline to run plug.																	
310		12:20:00	187.33	Plug set.																	

2001/03/05 06:00:00 To 2001/03/06 06:00:00

Gas	23.713	Cum.	44.467	10^3m^3
Oil	1.279	Cum.	1.279	m^3
Water	0.000	Cum.	13.427	m^3

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
311	2001/03/08	12:30:00	187.50	Bleed off pressure above plug.																	
312		12:45:00	187.75	Pressure bleed off.																	
313		19:00:00	194.00	Rig off subber's and B.O.P.S.																	
314		19:15:00	194.25	Equalize tubing with casing gas.																	
315		19:30:00	194.50	Rig up wireline to pull plug.																	
316		20:00:00	195.00	Wireline pulled prong.																	
317		20:30:00	195.50	Wireline pulled plug.																	
318		21:15:00	196.25	Open well to clean up fluid.																	
319		21:30:00	196.50	Well dead wirline shut down for the night.																	
320		21:45:00	196.75	Open well to clean up .																	
321		22:00:00	197.00	Well dead no fluid, Shut in to stop cock.																	
322		22:05:00	197.08			2000		14500													
323		22:10:00	197.17			5500		14500													
324		22:15:00	197.25			7200		14500													
325		22:30:00	197.50			7200		14500													
326		22:45:00	197.75			7200		14500													
327		23:00:00	198.00			7200		14500													
328		23:00:00	198.00	Open to flow clean up.																	
329		23:05:00	198.08			2550		14500													
330		23:10:00	198.17			0		14500													
331		23:10:00	198.17	Fluid to surface.																	
332		23:15:00	198.25			5300	12	14500													
333		23:30:00	198.50			7800	16	14500													
334		23:45:00	198.75			11950	18	14500													
335		23:45:00	198.75	Shut in well cleaned up.																	
336		23:59:59	199.00			14200		14500						25.14	100	7.49	23.86	0.00	1.28	7.49	22.58
337				Summary																	
338				Flowed well for 45mins.																	
339				Fluid recovered = 7.49m³.																	
340	2001/03/09	07:15:00	206.25	Rig up flow line to Casing.																	
341		07:20:00	206.33	Pressure test flow line with well gas.Pressure test good.																	

2001/03/08 07:00:00 To 2001/03/09 07:15:00

Gas	0.000	Cum.	44.467	10^3m^3
Oil	0.000	Cum.	1.279	m^3
Water	7.488	Cum.	22.578	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
342	2001/03/09	07:30:00	206.50			14200		14500													
343		07:30:00	206.50	Open casing to clean up on a 32/64 or a 12.70mm choke.																	
344		07:35:00	206.58	12.70		14200		14000													
345		07:40:00	206.67			14225		13600													
346		07:41:00	206.68	Meter in service.101.60 mm Orifice.																	
347		07:41:00	206.68		0.00				0	0.00	0	0.00	44.47								
348		07:45:00	206.75		101.60	14250	10	13350	1510	23.39	-32	546.24	45.98	25.14		0.00	23.86	0.00	1.28	0.00	22.58
349		07:50:00	206.83			14400	12	13400	1496	23.39	-30	540.96	47.87								
350		07:55:00	206.92			14525	14	13400	1482	23.64	-32	544.08	49.76								
351		08:00:00	207.00			14750	16	13450	1482	23.64	-32	544.08	51.64	25.14		0.00	23.86	0.00	1.28	0.00	22.58
352		08:15:00	207.25			14800	20	13500	1462	23.39	-28	532.01	57.25								
353		08:30:00	207.50			14900	24	13500	1462	23.14	-24	524.00	62.75	25.14		0.00	23.86	0.00	1.28	0.00	22.58
354		08:30:00	207.50		0.00				0	0.00	0	0.00	62.75								
355		08:30:00	207.50	Shut in well.End of clean up.																	
356				SUMMARY.																	
357				CUMM HOURS FLOWED = 1 HR.																	
358				CUMM GAS FLARED = 18.28*10³M³.																	
359				CUMM FLUID PRODUCED = 0.00 M³.																	
360		11:20:00	210.33			14900		14400													
361		11:25:00	210.42	Pressure up to manifold.Pressure test good.																	
362		11:30:00	210.50	Open well to clean up on a 32/64 or a 12.70mm choke.																	
363		11:35:00	210.58			10050		14400													
364		11:37:00	210.62	Meter in service.101.60mm orifice.																	
365		11:40:00	210.67		0.00				0	0.00	0	0.00	62.75								
366		11:40:00	210.67	12.70	101.60	9750	15	14500	1407	13.94	-16	391.27	62.75								
367		11:45:00	210.75			1000	17	14450	1020	15.68	-12	352.30	64.04								
368		12:00:00	211.00			9950	22	14500	1117	16.42	-10	374.85	67.83								
369		12:15:00	211.25			9950	23	14500	1172	16.67	-7	384.05	71.78								
370		12:30:00	211.50			9950	24	14500	1103	18.41	-8	392.97	75.83	25.14		0.00	23.86	0.00	1.28	0.00	22.58
371		12:30:00	211.50		0.00				0	0.00	0	0.00	75.83								
372		12:30:00	211.50	Shut in well.End of clean up.Rig out production equipment.																	

2001/03/09 07:15:00 To 2001/03/10 05:30:00

Gas	42.284	Cum.	86.751	10^3m^3
Oil	1.981	Cum.	3.260	m^3
Water	11.228	Cum.	33.806	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
373	2001/03/09				SUMMARY.																
374					CUMM HOURS FLOWED = 1 HR.																
375					CUMM GAS FLARED = 13.08*10³M³.																
376					CUMM FLUID PRODUCED = 0.00 M³.																
377		15:00:00	214.00	Rig production equipment back in.																	
378		18:00:00	217.00	Wireline on location to set plug.																	
379		22:45:00	221.75	Rig in pressure tester to set packer.																	
380		22:50:00	221.83	Pressure up tubing to 3500 psi or 24132 kpa for 15 mins.																	
381		23:05:00	222.08	Rig off pressure tester.																	
382		23:15:00	222.25	Rig in wireline to pull prong.																	
383		23:59:59	223.00	Run in with wireline to pull plug																	
384	2001/03/10	00:45:00	223.75	Rig off wireline.																	
385		01:00:00	224.00			500		12500													
386		01:00:00	224.00	Open to flow tubing to clean up, fluid at surface 32/64 or 12.70mm.																	
387		01:05:00	224.08			1000	10	12500													
388		01:10:00	224.17			5000	16	12500													
389		01:15:00	224.25			7000	18	12500													
390		01:30:00	224.50			11200	22	12500													
391		01:35:00	224.58	Increased choke to 36/64 or 14.28mm. Obstructions at choke.																	
392		01:40:00	224.67	Meter in service.																	
393		01:45:00	224.75		101.60	12000	20	12500	965	9.96	-4	268.83	76.76								
394		01:45:00	224.75	Obstruction at choke rock choke to clear.																	
395		02:00:00	225.00			10200	20	12500	1034	16.93	-4	362.31	80.05	38.35	85	13.21	37.07	1.98	3.26	11.23	33.81
396		02:15:00	225.25	Shut well mist extracter freezing in P-tank.																	
397		02:15:00	225.25		0.00				0	0.00	0	0.00	80.05								
398		02:20:00	225.33			11500		12500													
399		02:25:00	225.42			14450		12500													
400		02:30:00	225.50			14450		12500													
401				SUMMARY.																	
402				CUMM HOURS FLOWED = 1HRS: 15MINS																	
403				CUMM GAS FLARED = 4.078 10^3m^3.																	

2001/03/09 07:15:00 To 2001/03/10 05:30:00

Gas	42.284	Cum.	86.751	10^3m^3
Oil	1.981	Cum.	3.260	m^3
Water	11.228	Cum.	33.806	m^3

	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
404	2001/03/10			CUMM FLUID PRODUCED = 13.21m³.																	
405		04:30:00	227.50	Pressure test flow line with well gas.Pressure test good.																	
406		04:45:00	227.75	Open well on a 32/64 or a 12.70mm choke.																	
407		04:45:00	227.75			14600		12000													
408		04:50:00	227.83			14600	8	10000													
409		04:55:00	227.92			14600	8	8000													
410		04:55:00	227.92		101.60				0	0.00	0	0.00	80.05								
411				Meter in service.																	
412		05:00:00	228.00			14600	8	7200	1585	10.70	-14	362.06	81.31								
413		05:15:00	228.25			14600	12	6000	792	9.21	-14	240.82	84.45								
414		05:30:00	228.50			14600	12	5900	551	8.96	-14	201.94	86.75								
415		05:45:00	228.75			14600	12	5800	551	8.96	-14	201.89	88.85								
416		06:00:00	229.00			14600	12	5800	551	7.47	-14	184.31	90.87								
417		06:30:00	229.50			14600	14	5800	552	7.47	-10	182.83	94.69								
418		07:00:00	230.00			14600	14	5800	538	7.47	-10	180.84	98.48	2.14	100	0.07	37.14	0.00	3.26	0.07	33.87
419		07:30:00	230.50			14600	15	5800	538	7.22	-10	177.79	102.21								
420		08:00:00	231.00			14600	17	5750	517	7.22	-10	174.81	105.89								
421		08:30:00	231.50			14600	18	5700	510	7.22	-10	173.80	109.52	2.14		0.00	37.14	0.00	3.26	0.00	33.87
422		08:30:00	231.50	Shut in casing.End of clean up.Rig up flow line to tubing.																	
423				SUMMARY.																	
424				CUMM HOURS FLOWED = 3.75 HRS.																	
425				CUMM GAS FLARED = 29.47*10³M³.																	
426				CUMM FLUID PRODUCED = 0.069 M³. 100% WATER & METHANOL.																	
427		08:50:00	231.83			14600		11500													
428		08:50:00	231.83	Pressure test flow line with tubing pressure.Pressure test good.																	
429		08:55:00	231.92	Open tubing to clean up on a 32/64 or a 12.70mm choke.																	
430		08:59:00	231.98	Meter in service.101.60mm orifice.																	
431		09:00:00	232.00		0.00				0	0.00	0	0.00	109.52								
432		09:00:00	232.00	12.70	101.60	11800	22	12200	979	15.93	-12	348.22	109.52	2.14		0.00	37.14	0.00	3.26	0.00	33.87
433		09:05:00	232.08			11400	22	12400	896	14.68	-13	321.43	110.68								
434		09:10:00	232.17			11300	24	12400	883	13.69	-11	306.78	111.77								

2001/03/09 07:15:00 To 2001/03/10 05:30:00

Gas	42.284	Cum.	86.751	10^3m^3
Oil	1.981	Cum.	3.260	m^3
Water	11.228	Cum.	33.806	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064

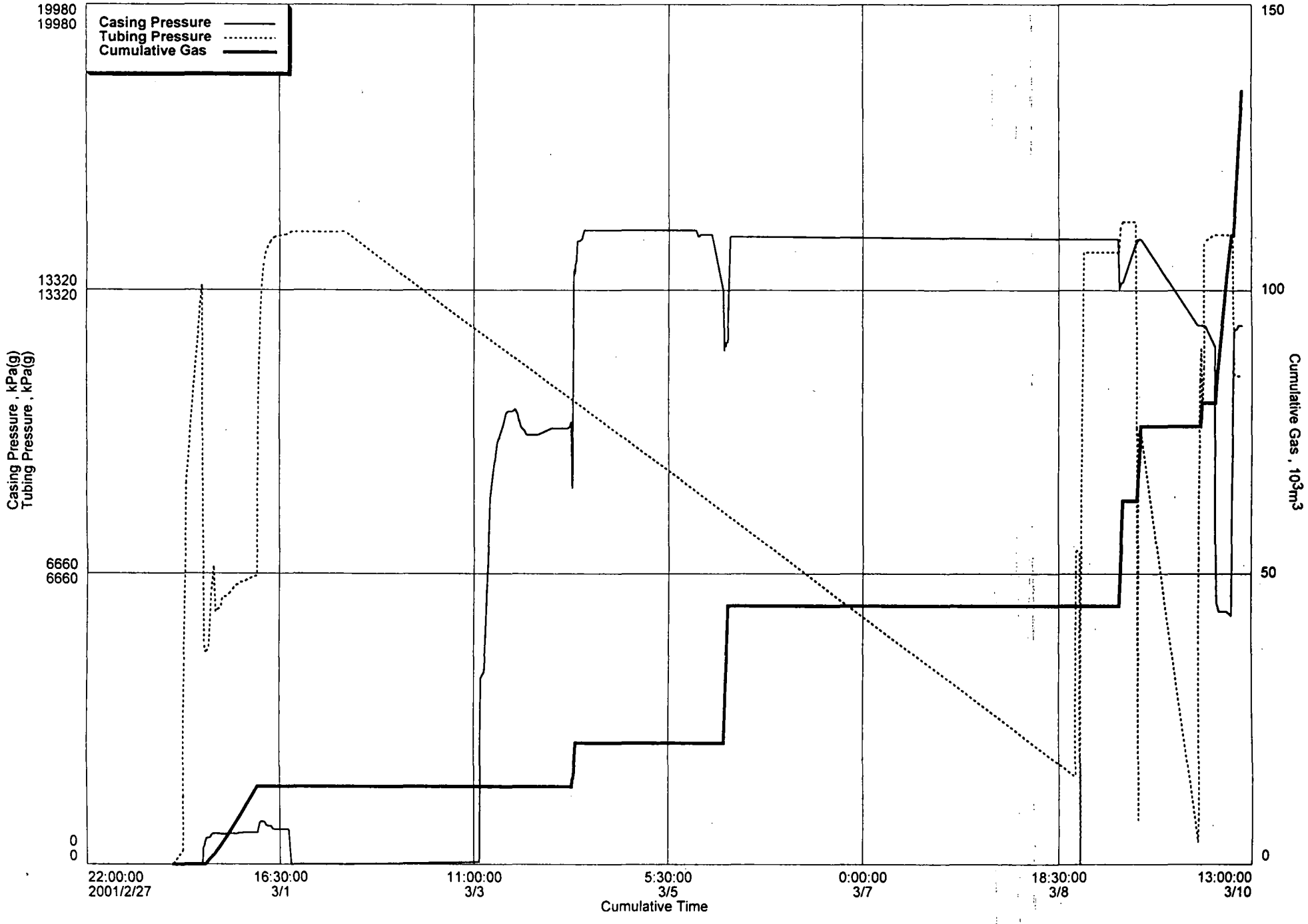
	Date	Clock Time	Cum Time	Choke Size	Orifice Size	Tbg Pres	Tbg Tem	Csg Pres	Static Pres	Diff Pres	Me Tem	Gas Rate	Cum Gas	Fld Vol	BSW	Inc Fld	Cum Fld	Inc Oil	Cum Oil	Inc BSW	BSW Vol
	yyyy/mm/d	hh:mm:s	hr	mm	mm	kPa(g)	°C	kPa(g)	kPa(g	kPa	°C	10^3m^3/	10^3m^3	m^3	%	m^3	m^3	m^3	m^3	m^3	m^3
435	2001/03/10	09:15:00	232.25			11300	24	12400	862	13.44	-12	301.27	112.83	2.14		0.00	37.14	0.00	3.26	0.00	33.87
436		09:30:00	232.50			11300	24	12400	896	13.69	-14	310.97	116.02								
437		09:45:00	232.75			11300	24	12450	896	13.94	-14	313.79	119.27	2.14		0.00	37.14	0.00	3.26	0.00	33.87
438		10:00:00	233.00			11300	25	12500	896	13.94	-12	312.46	122.53								
439		10:30:00	233.50			11300	28	12500	896	13.94	-12	312.46	129.04	2.14		0.00	37.14	0.00	3.26	0.00	33.87
440		10:55:00	233.92			11300	30	12500	896	13.94	-12	312.46	134.47	2.14		0.00	37.14	0.00	3.26	0.00	33.87
441		10:55:00	233.92						0	0.00	0	0.00	134.47								
442				Shut in well.End of clean up.Rig out production equipment.																	
443				SUMMARY.																	
444				CUMM HOURS FLOWED = 2 HRS.																	
445				CUMM GAS FLARED = 24.95*10³M³.																	
446				TOTAL GAS FLARED 134.47*3m3.																	
447				CUMM FLUID PRODUCED = 0.00 M³.																	

2001/03/10 05:30:00 To 2001/03/10 10:55:00

Gas	47.715	Cum.	134.466	10^3m^3
Oil	0.000	Cum.	3.260	m^3
Water	0.069	Cum.	33.875	m^3

PARAMOUNT RESOURCES LTD.
N-01
Start Test Date: 2001/02/28
Final Test Date: 2001/03/10

PARA et al FORD LIARD N-01
Formation: MATTSON SAND
Pool: UNDEFINED
Job Number: 064



C:\VOLUME 31\Paramount Resources Ltd\Param N-01_J#064\N-01-PRD-FEB 28-MAR10-01 FLD 09-Apr-01 Ver 1.552

Fast

AGAT® Laboratories

GAS ANALYSIS

Container Identification	Laboratory Number
AGAT 12861	G68442B

Operator Name
PARAMOUNT RESOURCES LTD.

Unique Well Identifier	Well Name	Elevation			
NOT AVAILABLE	PARA et al FORT LIARD N-01	KB m	492.10	GRD m	487.00

Field or Area	Pool or Zone	Sampler's Company
FORT LIARD	MATTSON SAND	SOLID PRODUCTION SERVICES

Test Type	Test No.	Test Recovery	Name of Sampler

Test Interval or Perfs		Sampling Point
1739.50-1750.00	1684.00-1689.00	METER RUN
1731.50-1736.50	mKB	

	Separator	Reservoir	Source	Sampled	Received
Pressure (kPa)			1827	1827	1900
Temperature (°C)			6	6	21

Date Sampled	Date Received	Date Reported	Analyst
Mar 04, 2001	Mar 08, 2001	Mar 19, 2001	

Other Information

COMP	MOLE FRACTION		PETROLEUM LIQUID
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	mL • m³
H2	0.0001	0.0001	
He	0.0001	0.0001	
N2	0.0023	0.0023	
CO2	0.0162	0.0000	
H2S	0.0000	0.0000	
C1	0.9401	0.9558	
C2	0.0271	0.0275	
C3	0.0074	0.0075	27.2
IC4	0.0015	0.0015	6.5
NC4	0.0022	0.0022	9.3
IC5	0.0008	0.0008	3.9
NC5	0.0007	0.0007	3.4
C6	0.0007	0.0007	3.8
C7+	0.0008	0.0008	5.0
Total	1.0000	1.0000	59.1

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

Air Free As Received	Moisture & Acid Gas Free
38.99	39.62

RELATIVE DENSITY (CALCULATED)

Moisture Free	Moisture & Acid Gas Free
0.603	0.588

PSEUDO CRITICAL PROPERTIES (CALCULATED)

As Sampled		Acid Gas Free	
pPc (abs) kPa	pTc K	pPc (abs) kPa	pTc K
4643	198.4	4598	196.6

RELATIVE MOLECULAR MASS

Total Gas	C_7+
17.5	102.0

VAPOUR PRESSURE	H_2S g/m³
73.35 kPa	0.00

AGAT® Laboratories

GAS ANALYSIS

Container Identification	Laboratory Number
AGAT 12997	G68442A

Operator Name
PARAMOUNT RESOURCES LTD.

Unique Well Identifier	Well Name	Elevation			
NOT AVAILABLE	PARA et al FORT LIARD N-01	KB m	492.10	GRD m	487.00

Field or Area	Pool or Zone	Sampler's Company
FORT-LIARD	MATTSON SAND	SOLID PRODUCTION SERVICES

Test Type	Test No.	Test Recovery	Name of Sampler

Test Interval or Perfs		Sampling Point
1739.50-1750.00	1684.00-1689.00	METER RUN
1731.50-1736.50	mKB	

	Separator	Reservoir	Source	Sampled	Received
Pressure (kPa)			3448	3448	2000
Temperature (°C)			9	9	21

Date Sampled	Date Received	Date Reported	Analyst
Mar 04, 2001	Mar 08, 2001	Mar 19, 2001	PL

Other Information

COMP	MOLE FRACTION		PETROLEUM LIQUID
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	mL • m³
H2	0.0001	0.0001	
He	0.0001	0.0001	
N2	0.0011	0.0011	
CO2	0.0171	0.0000	
H2S	0.0000	0.0000	
C1	0.9388	0.9553	
C2	0.0271	0.0276	
C3	0.0077	0.0078	28.3
IC4	0.0016	0.0016	7.0
NC4	0.0023	0.0023	9.7
IC5	0.0009	0.0009	4.4
NC5	0.0008	0.0008	3.9
C6	0.0010	0.0010	5.5
C7+	0.0014	0.0014	8.9
Total	1.0000	1.0000	67.7

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

Air Free As Received	Moisture & Acid Gas Free
39.21	39.87

RELATIVE DENSITY (CALCULATED)

Moisture Free	Moisture & Acid Gas Free
0.607	0.591

PSEUDO CRITICAL PROPERTIES (CALCULATED)

As Sampled		Acid Gas Free	
pPc (abs) kPa	pTc K	pPc (abs) kPa	pTc K
4644	199.1	4597	197.2

RELATIVE MOLECULAR MASS

Total Gas	C_7+
17.6	104.2

VAPOUR PRESSURE	H_2S g/m³
63.32 kPa	0.00

AGAT® Laboratories

WATER ANALYSIS

Container Identification	Laboratory Number
PB 1A	W68442A

Operator Name
PARAMOUNT RESOURCES LTD.

Unique Well Identifier	Well Name	Elevation			
N-01	PARA ET AL FORT LIARD N-01	KB m	492.10	GRD m	487.00

Field or Area	Pool or Zone	Sampler's Company
FORT LIARD	MATTSON SAND	SOLID PRODUCTION SERVICES

Test Type	Test No.	Test Recovery	Name of Sampler

Test Interval or Perfs		Sampling Point		Separator	Reservoir	Source	Sampled	Received
1739.50-1750.00	1684.00-1689.00	PRESSURE TANK	Pressure (kPa)					
1731.50-1736.50	mKB		Temperature (°C)					

Date Sampled	Date Received	Date Reported	Analyst
Mar 04, 2001	Mar 08, 2001	Mar 16, 2001	LN

Other Information

Cations

ION	mg/L	Mass Fraction	mmol/L
Na	601.0	0.015	26.1
K	19200.0	0.473	491.1
Ca	174.0	0.004	4.3
Mg	16.5	Trace	0.7
Fe	31.2	0.001	0.6

Anions

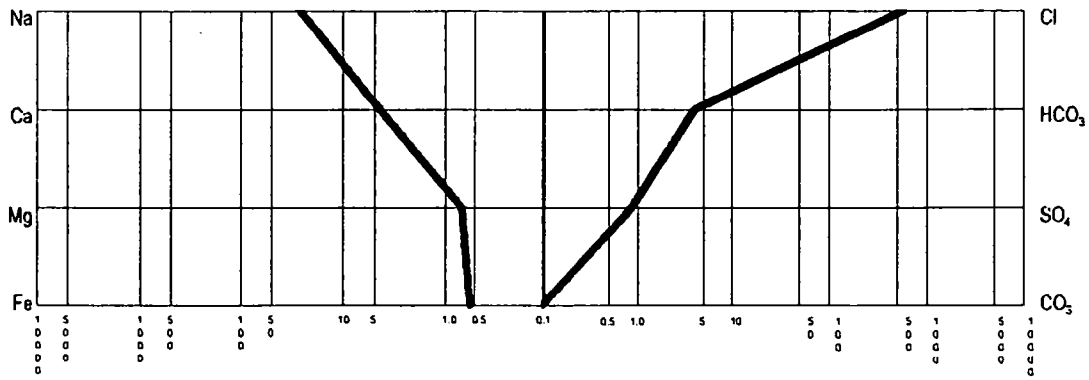
ION	mg/L	Mass Fraction	mmol/L
Cl	20244.0	0.499	571.0
HCO_3	244.0	0.006	4.0
SO_4	82.7	0.002	0.9
CO_3	Nil	Nil	Nil
OH	Nil	Nil	Nil

Other Measurements

Measurement	Value
Total Dissolved Solids (Calculated) mg/L	40593
Observed pH	6.94
H2S (25°C) mg/L	N/D
Relative Density (25°C)	1.027
Resistivity / OHM•m (25°C)	0.163
Salinity %	3.56

Total Cations	528.4	Total Anions	576.7

Logarithmic Pattern mmol/L



AGAT® Laboratories

HYDROCARBON LIQUID ANALYSIS

Container Identification	Laboratory Number
PB#1	C69078A

Operator Name
PARAMOUNT RESOURCES LTD.

Unique Well Identifier	Well Name	Elevation
N-01	PARA et al FORT LIARD N-01	KB m 492.10 GRD m 487.00

Field or Area	Pool or Zone	Sampler's Company
NWT	MATTSON SAND	SOLID PRODUCTION SERVICES

Test Type	Test No.	Test Recovery	Name of Sampler
		N-01 - 60 deg 10' Latitude 123 deg 15' Longitude	

Test Interval or Perfs		Sampling Point		Separator	Reservoir	Source	Sampled	Received
1739.50-1750.00	1684.00-1689.00	PRESSURE TANK	Pressure (kPa)					
1731.50-1736.50	1644.0-1648.0 mKB		Temperature (°C)					

Date Sampled	Date Received	Date Reported	Analyst
Mar 05, 2001	Mar 15, 2001	Mar 29, 2001	KK

Other Information
INTERVAL 1455.00-1469.00 mKB

COMP.	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N2	0.0000	0.0000	0.0000
CO2	0.0000	0.0000	0.0000
H2S	0.0000	0.0000	0.0000
C1	0.0002	TRACE	0.0001
C2	0.0013	0.0004	0.0007
C3	0.0077	0.0030	0.0044
IC4	0.0067	0.0034	0.0045
NC4	0.0198	0.0102	0.0130
IC5	0.0314	0.0200	0.0240
NC5	0.0375	0.0239	0.0283
C6	0.0901	0.0682	0.0766
C7+	0.8053	0.8709	0.8484
TOTAL	1.0000	1.0000	1.0000

Observed Properties of C7+ Residue (15/15° C)

Density	*Relative Density*	*API @ 15°*
766.8 kg/m³	0.7675	52.9

Relative Molecular Mass: 122.5

Calculated Properties of Total Sample (15/15° C)

Density	*Relative Density*	*API @ 15°*
747.0 kg/m³	0.7476	57.8

Relative Molecular Mass: 113.3

Calculations for C6 and C7 are based on Boiling Point Grouping. If Carbon Number Grouping had been done, the mole fractions would be (C6: 0.2456) (C7+:0.6498)

Note: Sampling Point, Unique Well Identifier and/or Pool or Zone information was unavailable at time of reporting. This information is integral to AGAT's WinFLUID, a comparison, history and trending analysis system.

AGAT® Laboratories

PROPERTIES OF C6+ FRACTION

File No.	Company	Well No.
C69078A	PARAMOUNT RESOURCES LTD.	N-01

BOILING POINT RANGE (C)	COMPONENT		MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
36.1 - 68.9	HEXANES	C6	0.0884	0.0672	0.0756
68.9 - 98.3	HEPTANES	C7	0.1056	0.1045	0.1128
98.3 - 125.6	OCTANES	C8	0.0976	0.1102	0.1157
125.6 - 150.6	NONANES	C9	0.0513	0.0650	0.0669
150.6 - 173.9	DECANES	C10	0.0479	0.0674	0.0682
173.9 - 196.1	UNDECANES	C11	0.0290	0.0448	0.0448
196.1 - 215.0	DODECANES	C12	0.0163	0.0274	0.0270
215.0 - 235.0	TRIDECANES	C13	0.0129	0.0235	0.0230
235.0 - 252.2	TETRADECANES	C14	0.0081	0.0158	0.0153
252.2 - 270.6	PENTADECANES	C15	0.0055	0.0115	0.0110
270.6 - 287.8	HEXADECANES	C16	0.0016	0.0037	0.0035
287.8 - 302.8	HEPTADECANES	C17	0.0010	0.0024	0.0023
302.8 - 317.2	OCTADECANES	C18	0.0003	0.0009	0.0008
317.2 - 330.0	NONADECANES	C19	0.0002	0.0004	0.0004
330.0 - 344.4	EICOSANES	C20	0.0000	0.0001	0.0001
344.4 - 357.2	HENEICOSANES	C21	0.0000	0.0001	0.0001
357.2 - 369.4	DOCOSANES	C22	0.0000	0.0000	0.0000
369.4 - 380.0	TRICOSANES	C23	0.0000	0.0000	0.0000
380.0 - 391.1	TETRACOSANES	C24	0.0000	0.0000	0.0000
391.1 - 401.7	PENTACOSANES	C25	0.0000	0.0000	0.0000
401.7 - 412.2	HEXACOSANES	C26	0.0000	0.0000	0.0000
412.2 - 422.2	HEPTACOSANES	C27	0.0000	0.0000	0.0000
422.2 - 431.7	OCTACOSANES	C28	0.0000	0.0000	0.0000
431.7 - 441.1	NONACOSANES	C29	0.0000	0.0000	0.0000
441.1 - PLUS	TRIACONTANES PLUS	C30+	0.0000	0.0000	0.0000

BOILING POINT RANGE (C)	AROMATICS		MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
80.0	BENZENE	C6	0.0370	0.0286	0.0241
110.6	TOLUENE	C7	0.0940	0.0856	0.0733
136.2	ETHYLBENZENE	C8	0.0072	0.0076	0.0065
138.4 - 144.4	XYLENES	C8	0.0653	0.0685	0.0583
168.9	1,2,4 TRIMETHYLBENZENE	C9	0.0072	0.0085	0.0073

BOILING POINT RANGE (C)	NAPHTHENES		MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
48.9	CYCLOPENTANE	CC5	0.0017	0.0010	0.0010
72.2	METHYLCYCLOPENTANE	MCC5	0.0359	0.0299	0.0291
81.1	CYCLOHEXANE	CC6	0.0826	0.0687	0.0654
101.1	METHYLCYCLOHEXANE	MCC6	0.0986	0.0957	0.0922

The above hexanes plus values are based upon a measured mass fraction and a calculated mole fraction, and assume a total hydrocarbon recovery from the chromatographic system.

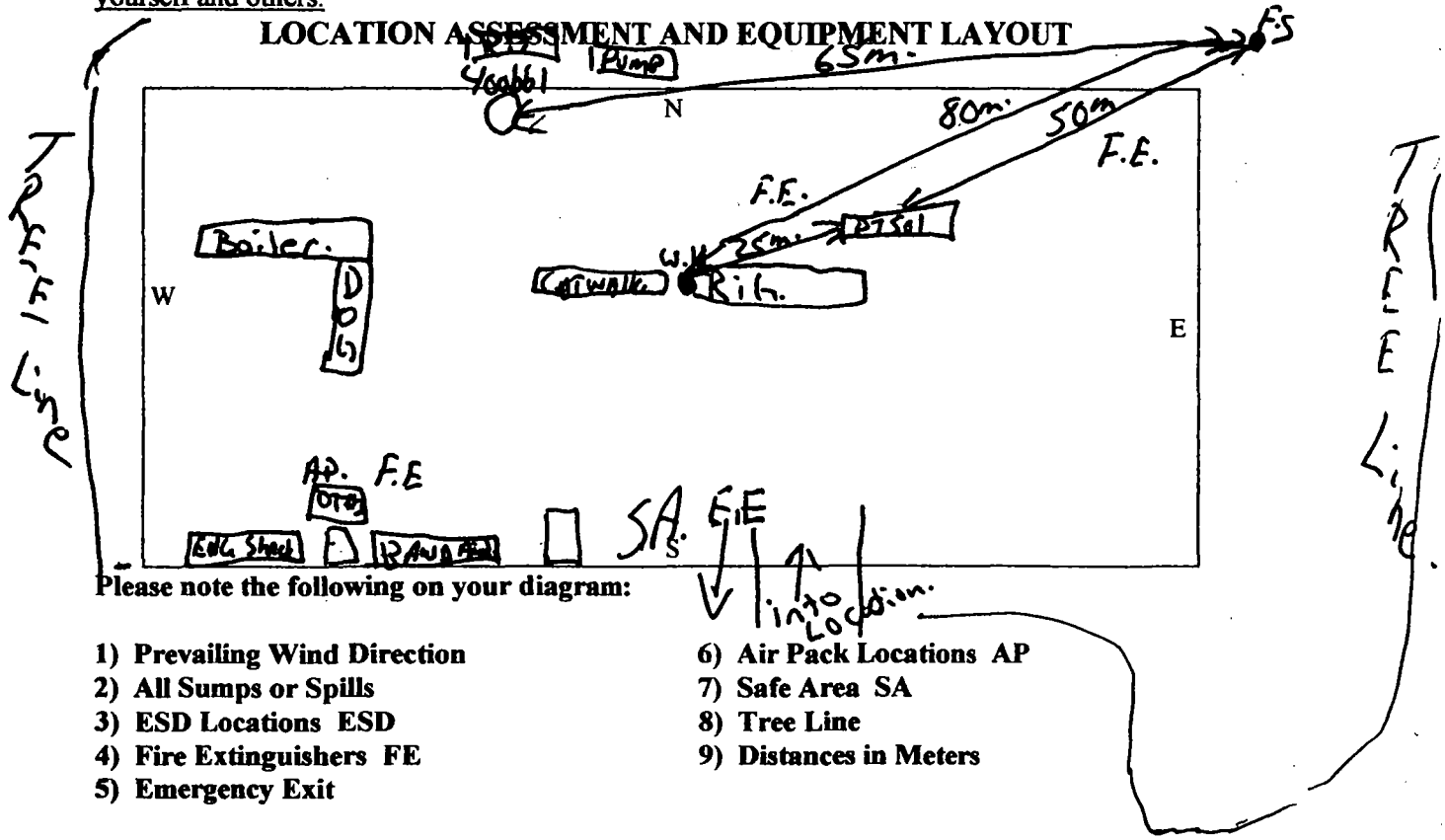
SOLID PRODUCTION SERVICES
PRE-JOB/SAFETY SUMMARY

Company: Paramount Resources Ltd.
Location: Para et al Liardn-o1
Start Date: 01/02/26 **Company Rep:** Al Ironside
Directions to Lease: From Paramount Maxhamish sign on Liard highway. Approx 115 Km. Go left. Follow main road to a T. Go right at T for approx 10km. Where road bends to left go right into.

Phone Numbers	Office	Mobile	Motel
Company Rep		403-861-3845	
Day Supervisor	780-955-7525	780-914-0045	
Night Supervisor	780-955-7525	780-499-2423	
Safety Supervisor			
RCMP	867-770-4221		
Hospital	867-770-4301		
Air Ambulance	867-770-3116		
OHS			

Pre-Job Discussion
Be extra careful during work hours. Injuries tend to happen when people are tired. Look out for yourself and others.

LOCATION ASSESSMENT AND EQUIPMENT LAYOUT



Please note the following on your diagram:

1) **Prevailing Wind Direction**
2) **All Sumps or Spills**
3) **ESD Locations ESD**
4) **Fire Extinguishers FE**
5) **Emergency Exit**
6) **Air Pack Locations AP**
7) **Safe Area SA**
8) **Tree Line**
9) **Distances in Meters**

SOLID PRODUCTION SERVICES
PRE-JOB/SAFETY SUMMARY con't

	H2S	First Aid	CPR	WHMIS	TDGR
R.White **Senior Supervisor**	☒	☒	☐	☒	☒
S.Truscott **Night Supervisor**	☒	☒	☐	☒	☒
T.Peterson **Day Operator**	☒	☒	☐	☒	☒
T.Wells **Night Operator**	☒	☒	☐	☒	☒
_____ **Day Assistant**	☐	☐	☐	☐	☐
_____ **Night Assistant**	☐	☐	☐	☐	☐

Company Rep - Personnel and Equipment Checklist

Personnel

	Poor	Fair	Good	Excellent
Knowledge	☐	☐	☐	☐
Conduct	☐	☐	☐	☐

Equipment

	Poor	Fair	Good	Excellent
Condition	☐	☐	☐	☐
Performance	☐	☐	☐	☐
Cleanliness	☐	☐	☐	☐

Company Rep Comments

_____

_____

_____

_____

_____

_____ _____

COMPANY REPRESENTATIVE **SOLID SENIOR SUPERVISOR**

SOLID PRODUCTION SERVICES
SAMPLE INFORMATION & RECEIPT

COMPANY: Paramount Resources Ltd
LOCATION: N-01
OPERATED BY: Paramount
SAMPLE DATE: 01/03/04
FLOW RATE #: 28.889 $10^3m^3/d$
FORMATION NAME AND ZONE: Mattson Sand

JOB #: 064
FIELD: Fort Liard

TIME: 0530 hrs

SEND RESULTS TO COMPANY ABOVE AND SOLID PRODUCTION SERVICES LTD.
ATTN: LYNETTE CHILEEN FAX # 955-3412

	CONTAINER #	PRESSURE	TEMP DEG C
WELLHEAD SAMPLES	1.____	____	
	2.____	____	
HIGH PRESS. GAS	1.96800000	1862 Kpa	2
	2.00019832	1862 Kpa	2
LOW PRESS. GAS	1.____	____	
	2.____	____	
HIGH PRESS. LIQUID	1.____	____	
	2.____	____	
LOW PRESS. LIQUID	1.____	____	
	2.____	____	

STOCK TANK SAMPLES (WATER): 1
NO. OF SAMPLES (OIL OR CONDENSATE): 0

PRODUCTION RATES: GAS28.889 E3M^3/D OIL/COND0M3D H2O1-2M3D

PRESSURES:

TUBING	6200
CASING	700
SEPARATOR	1862

SAMPLES DELIVERED TO: Agat **BY:** Solid

SAMPLES RECEIVED BY: ____ **DATE:**

SOLID PRODUCTION SERVICES
SAMPLE INFORMATION & RECEIPT

COMPANY: Paramount Resources Ltd
LOCATION: N-01
OPERATED BY: Paramount
SAMPLE DATE: 01/03/04
FLOW RATE #: 260 10^3m^3
FORMATION NAME AND ZONE: Mattson Sand

JOB #: 064
FIELD: Fort Liard
TIME: 0900

SEND RESULTS TO COMPANY ABOVE AND SOLID PRODUCTION SERVICES LTD.
ATTN: LYNETTE CHILEEN FAX # 955-3412

	CONTAINER #	PRESSURE	TEMP DEG C
WELLHEAD SAMPLES	1._____	_____	
	2._____	_____	
HIGH PRESS. GAS	1.00012861	1827 Kpa	6
	2.00012997	3448 Kpa	9
LOW PRESS. GAS	1._____	_____	
	2._____	_____	
HIGH PRESS. LIQUID	1._____	_____	
	2._____	_____	
LOW PRESS. LIQUID	1._____	_____	
	2._____	_____	

STOCK TANK SAMPLES (WATER) : 2
NO. OF SAMPLES (OIL OR CONDENSATE) : 0

PRODUCTION RATES: GAS260 E3M^3/D OIL/COND0M3D H2O0M3D

PRESSURES:
TUBING
CASING 13900 Kpa
SEPARATOR 1827 Kpa

SAMPLES DELIVERED TO: AGAT **BY:** Solid

SAMPLES RECEIVED BY: _____ **DATE:**