

2 single

INTEGRATED PRODUCTION SERVICES



Project Management & Engineering

SINGLE POINT TEST

APACHE CANADA LIMITED

Well Name: APACHE NOGHA M-17

UWI: 300_M-17-66-36 125-48-0

FIELD: COLVILLE LAKE

FORMATION: MOUNT CLARK 'A'

TEST DATE: March 13-16, 2004

DISTRIBUTION: Walter Stock, Calgary, AB
via email: walterf.stock@apachecorp.com
Lee Forbes, Calgary, AB
via email: lee.forbes@apachecorp.com

PREPARED BY: Roberta (Robbie) Lailey

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EXTENDED GAS ANALYSIS

V0005693 - 5		1970	52136-2004-1252
CONTAINER IDENTITY	METER ID	WELL LICENSE NUMBER	LABORATORY FILE NUMBER
Apache Canada Ltd.			6
OPERATOR		PAGE	
M-17-66-36-125-48-0	Apache Nogha M17-66-36-125-48-0	350.0	344.0
LOCATION (UWI)	WELL NAME	KB ELEV (m)	GR ELEV (m)
Nogha	Mount Clark A	IPS	
FIELD OR AREA	POOL OR ZONE	SAMPLER	

TEST TYPE AND NO.		TEST RECOVERY				
Wellhead						
1398.0 - 1401.0	POINT OF SAMPLE		SAMPLE POINT ID			
	PUMPING	FLOWING	GAS LIFT	SWAB		
WATER		m ³ /d	OIL	m ³ /d	GAS	m ³ /d
TEST INTERVAL or PERFS (meters)						
SEPARATOR	RESERVOIR	OTHER	8125	@	°C	8776 @ 22 °C
		CONTAINER WHEN SAMPLED	CONTAINER WHEN RECEIVED			
at 11:45 hrs		Pressures, kPa (gauge)		Temperatures, °C		
2004 03 16	2004 04 06	2004 04 14	ST		@	°C
DATE SAMPLED (Y/M/D)	DATE RECEIVED (Y/M/D)	DATE ANALYZED (Y/M/D)	ANALYST	AMT. AND TYPE CUSHION	MUD RESISTIVITY	

COMPONENT	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE ACID GAS FREE	mL/m ³ AIR FREE AS RECEIVED
H ₂	0.0000	0.0000	
He	0.0056	0.0056	
N ₂	0.1912	0.1912	
CO ₂	0.0000	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.7478	0.7478	
C ₂	0.0331	0.0331	117.5
C ₃	0.0125	0.0125	45.9
iC ₄	0.0029	0.0029	12.6
C ₄	0.0032	0.0032	13.5
iC ₅	0.0013	0.0013	6.3
C ₅	0.0008	0.0008	3.9
C ₆	0.0008	0.0008	4.2
C ₇₊	0.0008	0.0008	4.7
Total	1.0000	1.0000	208.6

CALCULATED GROSS HEATING VALUE MJ/m ³ @ 15°C & 101.325 kPa (abs.)		CALCULATED VAPOR PRESSURE kPa (abs.) @ 40 °C	
32.97	32.97	89.9	
MOISTURE FREE		MOISTURE & ACID GAS FREE	
PENTANES PLUS			
CALCULATED TOTAL SAMPLE PROPERTIES (AIR=1) @ 15°C & 101.325 kPa MOISTURE FREE AS SAMPLED			
0.828	kg/m ³	0.676	19.6
DENSITY		RELATIVE DENSITY	
RELATIVE MOLECULAR MASS			
CALCULATED PSEUDOCRITICAL PROPERTIES			
AS SAMPLED		ACID GAS FREE	
4339.2	kPa (abs)	185.8	K
4339.2	kPa (abs)	185.8	K
pPc	pTc	pPc	pTc
C ₇₊ PROPERTIES @ 15°C & 101.325 kPa		MOLE FRACTION	LOCATION
737.1	kg/m ³	97.1	0.0000000
DENSITY		MOLECULAR WEIGHT	
HYDROGEN SULPHIDE		Kitagawa	

REMARKS:

H2S was not detected in the field by Kitagawa.

NOTE: THE GROSS HEATING VALUE HAS BEEN CALCULATED IN ACCORDANCE TO
AGA REPORT #5 AND ALL PROPERTIES HAVE BEEN CALCULATED UTILIZING
GPA 2145 - 00 PHYSICAL CONSTANTS.

Integrated Production Services Field Measurements

Clock		Tbg	Csg	WHT	Orifice	Static	Diff	Temp	Gas		Fid	BSW	Oil	Cum	H2O	Cum	pH	Salinity	API
Date	Time								Rate	Gas									
YYYY/mm	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³		ppm	° API
1	2004/03/13	14:00:00	New report started for Mount Clark 'A' zone																
2			Wireline running in hole with collar stop.																
3			Wireline at surface, with collar stop.																
4		16:00:00	Wireline running in hole with recorders and hanger.																
5			Wireline at surface.																
6		17:00:00	10811		0.00	0	0.0	0.0	0.000	0.000	0.000	0.0	0.000	0.000	0.000	0.000			
7			Pressure up to choke and open to flow, 24/64 = 9.53mm.																
8		17:05:00	8153																
9			Fluid to surface.																
10		17:10:00	9766																
11		17:15:00	9392	-3.0	0.00	0	0.0	0.0	0.000	0.000									
12		17:30:00	7525	-4.0	44.45	745	42.3	22.0	74.252	0.773									
13		17:45:00	6981	-4.0		717	37.3	22.0	68.478	1.517									
14		18:00:00	6607	-4.0	44.45	724	34.8	22.0	66.391	2.219	2.450	0.0	2.450	2.450	0.000	0.000			
15			Samples taken, 2 high pressure gas #'s V0008060 and V0007676.																
16		18:30:00	6126	-4.0		703	33.8	22.0	64.570	3.583									
17			Salinity of water is to high to measure.																
18			Returns are water and frac oil, sand = 17%.																
19		19:00:00	5876	-4.0	44.45	669	32.6	22.0	62.028	4.902	0.180	55.0	0.081	2.531	0.099	0.099		6	
20		19:30:00	5700	-4.0		641	31.9	21.0	60.320	6.177									
21			Returns are water and frac oil, sand = 24%.																
22		20:00:00	5569	-5.0	44.45	607	30.9	20.0	58.067	7.410	0.090	75.0	0.022	2.554	0.067	0.166		6	
23		20:30:00	5440	-5.0		600	30.4	19.0	57.403	8.613									
24		21:00:00	5369	-5.0	44.45	586	29.9	18.0	56.446	9.799	0.080	75.0	0.020	2.574	0.060	0.227		6	
25		21:30:00	5288	-5.0		579	29.6	18.0	55.868	10.969									
26		22:00:00	5226	-5.0	44.45	572	29.4	18.0	55.386	12.127	0.090	80.0	0.018	2.592	0.072	0.298		6	
27			Returns are water and frac oil, sand = 50%.																
28		22:30:00	5174	-5.0		565	29.1	18.0	54.809	13.275									
29		23:00:00	5133	-5.0	44.45	558	28.9	18.0	54.327	14.412	0.060	80.0	0.012	2.604	0.048	0.347		6	
30		23:30:00	5080	-5.0		552	28.4	17.0	53.695	15.537									
31	2004/03/14	00:00:00	5056	-5.0	44.45	552	28.1	18.0	53.311	16.652	0.050	80.0	0.010	2.614	0.040	0.387		6	264000

Integrated Production Services Field Measurements

Date	Clock Time	Tbg	Csg	WHT	Orifice	Static	Diff	Temp	Gas		Cum	Fld	Vol	BSW	Gain	Cum	H2O	Cum	pH	Salinity	API
									Rate	Gas											
YYYY/mm	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	m ³	m ³	ppm	° API	
32	2004/03/14	Returns are water and frac oil, sand = 36%.																			
33		00:30:00	5020		-5.0		552	28.1	18.0	53.311	17.763										
34		01:00:00	4991		-5.0	44.45	552	27.9	18.0	53.118	18.871	0.050	80.0	0.010	2.624	0.040	0.426				
35		01:30:00	4973		-5.0		538	27.9	18.0	52.540	19.972										
36		02:00:00	4951	6975	-5.0	44.45	538	27.9	17.0	52.635	21.067	0.040	77.0	0.009	2.633	0.031	0.457				
37		Returns are water and frac oil, sand = 31%.																			
38		02:30:00	4930		-5.0		538	27.6	16.0	52.441	22.162										
39		03:00:00	4880		-5.0	44.45	538	27.6	16.0	52.441	23.254	0.060	75.0	0.015	2.648	0.045	0.502				
40		03:30:00	4860		-5.0		531	27.4	16.0	51.958	24.342										
41		04:00:00	4848		-5.0	44.45	531	27.4	16.0	51.958	25.424	0.010	75.0	0.003	2.650	0.007	0.510				
42		Returns are water and frac oil, sand = 21%.																			
43		04:30:00	4841		-5.0		531	27.9	16.0	52.437	26.512										
44		05:00:00	4860		-5.0	44.45	524	27.9	16.0	52.143	27.601	0.030	75.0	0.007	2.658	0.022	0.532				
45		05:30:00	4860		-5.0		531	27.4	16.0	51.958	28.686										
46		06:00:00	4821	6975	-6.0	44.45	524	27.1	16.0	51.378	29.762										
47		06:30:00	4812		-5.0		524	27.6	18.0	51.672	30.835										
48		07:00:00	4812		-6.0	44.45	524	27.4	18.0	51.482	31.910	0.010	75.0	0.003	2.660	0.007	0.540				
49		07:30:00	4803		-6.0		524	27.4	18.0	51.482	32.983										
50		08:00:00	4793		-5.0	44.45	524	27.4	18.0	51.482	34.055	0.010	75.0	0.003	2.663	0.007	0.547				
51		08:30:00	4790		-5.0		517	27.4	18.0	51.190	35.125										
52		09:00:00	4784		-5.0	44.45	517	27.4	19.0	51.099	36.190	0.010	75.0	0.003	2.665	0.007	0.555				
53		09:30:00	4783		-5.0		517	27.4	19.0	51.099	37.255										
54		10:00:00	4781	6975	-5.0	44.45	517	27.4	19.0	51.099	38.319	0.010	75.0	0.003	2.668	0.007	0.562				
55		10:30:00	4761		-5.0		517	27.4	20.0	51.008	39.383										
56		11:00:00	4748		-5.0	44.45	517	27.4	20.0	51.008	40.445	0.010	75.0	0.003	2.670	0.007	0.570				
57		11:30:00	4778		-5.0		517	27.4	22.0	50.829	41.506										
58		12:00:00	4790		-5.0	44.45	510	27.4	22.0	50.538	42.562	0.020	75.0	0.005	2.675	0.015	0.585				
59		12:30:00	4767		-5.0		517	27.1	22.0	50.545	43.615										
60		13:00:00	4763		-5.0	44.45	517	27.2	22.0	50.640	44.669	0.020	75.0	0.005	2.680	0.015	0.600				
61		13:30:00	4772		-5.0		517	27.2	22.0	50.640	45.724										
62		14:00:00	5074	7000	-5.0	44.45	483	22.4	22.0	44.597	46.716	0.020	80.0	0.004	2.684	0.016	0.616				

Integrated Production Services Field Measurements

Date	Clock Time	Tbg	Csg	WHT	Office	Static	Diff	Temp	Gas		Fid	BSW	Oil	Cum	H2O	Cum	pH	Salinity	API
									Rate	Cum									
YYYY/mm	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³			° API
Hydrating at choke, increase methanol, change and inspect choke.																			
63	2004/03/14																		
64		14:30:00	4524	-5.0		552	29.1	22.0	53.882	47.742									
65		15:00:00	4458	-5.0	44.45	524	28.4	24.0	51.875	48.844	0.060	80.0	0.012	2.696	0.048	0.664		6	230000
66		15:30:00	4448	-5.0		524	28.4	24.0	51.875	49.924									
67		16:00:00	4380	-4.0	44.45	531	28.4	24.0	52.167	51.008	0.040	80.0	0.008	2.704	0.032	0.696		6	230000
68		16:30:00	4381	-4.0		524	27.9	24.0	51.409	52.087									
69		17:00:00	4370	-4.0	44.54	524	27.9	24.0	51.620	53.160	0.040	80.0	0.008	2.712	0.032	0.728		6	234000
70		17:30:00	4370	-3.0		531	28.4	24.0	52.381	54.244									
71		18:00:00	4360	-3.0	44.45	524	28.1	24.0	51.596	55.327	0.010	80.0	0.002	2.714	0.008	0.736		6	228000
72		18:30:00	4337	-3.0		524	27.9	24.0	51.409	56.400									
73		19:00:00	4349	-4.0	44.45	524	27.9	25.0	51.320	57.470	0.010	80.0	0.002	2.716	0.008	0.744		6	225000
74		19:30:00	4333	-4.0		531	27.6	24.0	51.415	58.540									
75		20:00:00	4443	-5.0	44.45	524	28.1	25.0	51.506	59.612	0.010	80.0	0.002	2.718	0.008	0.752		6	221000
Hydrating at choke, increase methanol injection.																			
76																			
77		20:30:00	4403	-5.0		538	27.1	24.0	51.224	60.682									
78		21:00:00	4753	-5.0	44.45	496	28.4	23.0	50.781	61.745	0.020	85.0	0.003	2.721	0.017	0.769		6	220000
79		21:30:00	4530	-5.0		538	27.6	23.0	51.792	62.813									
80		22:00:00	4605	-5.0	44.45	503	27.4	23.0	50.157	63.875									
81		22:30:00	4728	-5.0		531	28.4	23.0	52.259	64.942									
82		23:00:00	4571	-5.0	44.45	524	28.1	23.0	51.686	66.025	0.010	90.0	0.001	2.722	0.009	0.778		6	210000
Returns are showing 50% drilling mud.																			
83																			
84		23:30:00	4493	-5.0		517	27.6	23.0	50.927	67.094									
85	2004/03/15	00:00:00	4583	-5.0	44.45	517	27.6	23.0	50.927	68.155									
86		00:30:00	4611	-5.0		524	27.9	23.0	51.499	69.222									
87		01:00:00	4649	-5.0	44.45	517	27.6	23.0	50.927	70.289	0.010	90.0	0.001	2.723	0.009	0.787		6	202000
88		01:30:00	4693	-5.0		517	27.4	23.0	50.739	71.348									
89		02:00:00	4847	-5.0	44.45	503	27.1	22.0	49.965	72.397	0.010	95.0	0.001	2.724	0.009	0.796		6	197000
Returns are showing 55% drilling mud.																			
90																			
91		02:30:00	5031	-4.0		517	27.4	23.0	50.739	73.446									
92		03:00:00	4927	-4.0	44.45	510	26.9	23.0	49.979	74.495	0.010	95.0	0.001	2.724	0.009	0.806		6	197000
93		03:30:00	5001	-4.0		483	26.4	23.0	48.390	75.519									

Integrated Production Services Field Measurements

Date	Clock Time	Tbg	Csg	WHT	Office	Static	Diff	Temp	Gas		Fid	BSW	Oil		Cum	H2O	Cum	pH	Salinity	API
									Rate	Gas			Gain	Oil		Gain				
YYYY/mm	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /10 ³ m ³	Vol	m ³	%	m ³	m ³	m ³	m ³	m ³	m ³	ppm	° API
94	2004/03/15	04:00:00	5214	-4.0	44.45	476	25.6	23.0	47.351	76.517										
95			Line heater down due to mechanical problems with generator.																	
96		04:30:00	5137	-4.0		490	25.1	17.0	47.955	77.509										
97		05:00:00	5133	-4.0	44.45	483	24.9	12.0	47.905	78.508										
98		05:30:00	5173	-4.0		476	25.1	8.0	48.161	79.509										
99		06:00:00	5118	-4.0	44.45	476	24.9	4.0	48.325	80.514	0.010	95.0	0.001	2.725	0.009	0.815	6	194000		
100			Returns are showing 75% drilling mud.																	
101		06:30:00	4587	-4.0		552	27.4	-11.0	55.613	81.596										
102		07:00:00	4335	-3.0	44.45	496	24.9	-22.0	51.781	82.715	0.060	80.0	0.012	2.737	0.048	0.863	6			
103		07:30:00	4301	-3.0		483	24.4	-22.0	50.680	83.782										
104		08:00:00	4247	-3.0	44.45	483	24.4	-25.0	51.004	84.842	0.100	80.0	0.020	2.757	0.080	0.943	6	172000		
105			Returns are a 20 frac oil, 80 % water, with 20 % sand.																	
106		08:30:00	4183	-3.0		483	24.4	-25.0	51.004	85.904										
107		09:00:00	4185	-3.0	44.45	483	24.4	-26.0	51.113	86.968	0.150	70.0	0.045	2.802	0.105	1.048	6	164000		
108			Returns are 70 % water, 30 % frac oil, 8 % sand.																	
109		09:30:00	4222	-3.0		476	24.4	-26.0	50.801	88.030										
110		10:00:00	4192	-3.0	44.45	476	24.4	-26.0	50.801	89.088	0.100	80.0	0.020	2.822	0.080	1.128	6	200000		
111			Returns are 80 % water, 4 % drilling mud, 20 % frac oil, 1 % sand.																	
112		10:30:00	4183	-3.0		476	24.4	-26.0	50.801	90.146										
113		11:00:00	4241	-3.0	44.45	476	24.4	-24.0	50.584	91.202	0.100	70.0	0.030	2.852	0.070	1.198	6	220000		
114		11:30:00	4209	-3.0		476	24.4	-24.0	50.584	92.256										
115		12:00:00	4150	-3.0	44.45	476	24.4	-24.0	50.584	93.310	0.070	70.0	0.021	2.873	0.049	1.247	6	232000		
116			Returns are 70 % water, 30 % frac oil, 2 % sand, 5 % drilling mud.																	
117		12:30:00	4150	-3.0		476	24.4	-24.0	50.584	94.364										
118		13:00:00	4155	-3.0	44.45	476	24.4	-24.0	50.584	95.418	0.080	75.0	0.020	2.893	0.060	1.307	5	232000		
119			Returns are 75 % water, 25 % frac oil, 1 % sand, 4 % drilling mud.																	
120		13:30:00	4160	-1.0		469	23.9	-24.0	49.745	96.463										
121		14:00:00	4162	-1.0	44.45	469	24.1	-24.0	49.956	97.501	0.080	70.0	0.024	2.917	0.056	1.363	5	232000		
122		14:30:00	4211	-1.0		476	23.9	-23.0	49.949	98.542										
123		15:00:00	4195	-1.0	44.45	469	23.9	-22.0	49.535	99.578	0.080	75.0	0.020	2.937	0.060	1.423	6	180000		
124		15:30:00	4202	-1.0		476	24.1	-22.0	50.055	100.616										

Integrated Production Services Field Measurements

Date	Clock Time	Tbg	Csg	WHT	Office	Static	Diff	Temp	Gas		Fid	BSW	Oil		H2O	Cum	pH	Salinity	API
									Rate	Cum			Gain	Cum	Gain				
YYYY/mm	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³			° API
A.P.I. = 59.4 @ 15.6°C.																			
125	2004/03/15	16:00:00	4180	-1.0	44.45	476	24.4	-22.0	50.370	101.662	0.080	60.0	0.032	2.969	0.048	1.471	5	224000	
126		16:30:00	4170	-1.0		476	24.4	-22.0	50.370	102.711									
127		17:00:00	4180	-2.0	44.45	469	24.4	-22.0	50.058	103.757	0.120	80.0	0.024	2.993	0.096	1.567	5	232000	
128		17:30:00	4220	-2.0		469	23.9	-22.0	49.535	104.795									
129		18:00:00	4158	-2.0	44.45	476	24.9	-22.0	50.891	105.841	0.110	70.0	0.033	3.026	0.077	1.644	5	220000	
A.P.I. = 58.7 @ 15.6°C.																			
130																			
131		18:30:00	4160	-2.0		469	24.9	-23.0	50.684	106.899									
132		19:00:00	4163	-2.0	44.45	462	24.9	-24.0	50.474	107.953	0.060	75.0	0.015	3.041	0.045	1.689	5	220000	
133		19:30:00	4156	-2.0		469	24.9	-24.0	50.791	109.007									
134		20:00:00	4145	-2.0	44.45	469	24.9	-25.0	50.900	110.067	0.090	75.0	0.022	3.063	0.067	1.757	5	220000	
135		20:30:00	4149	-2.0		462	24.9	-27.0	50.799	111.126									
136		21:00:00	4191	-2.0	44.45	455	24.9	-27.0	50.477	112.181	0.100	75.0	0.025	3.088	0.075	1.832	5	220000	
137		21:30:00	4149	-2.0		476	24.9	-28.0	51.549	113.244									
138		22:00:00	4226	-2.0	44.45	476	24.6	-28.0	51.233	114.314	0.090	75.0	0.022	3.111	0.067	1.899	5	220000	
139		22:30:00	4157	-2.0		469	24.9	-28.0	51.230	115.382									
140		23:00:00	4190	-2.0	44.45	462	24.9	-28.0	50.909	116.446	0.100	70.0	0.030	3.141	0.070	1.969	5	215000	
141		23:30:00	4196	-2.0		469	24.9	-28.0	51.230	117.510									
142	2004/03/16	00:00:00	4211	-2.0	44.45	476	24.9	-29.0	51.661	118.581	0.110	70.0	0.033	3.174	0.077	2.046	5	214000	
A.P.I. = 58.7 @ 15.6°C.																			
143																			
144																			
Returns are 70% water, 30% frac oil, 1% sand, 6% drilling mud.																			
145		00:30:00	4160	-2.0		469	24.9	-29.0	51.341	119.654									
146		01:00:00	4185	-2.0	44.45	476	24.9	-30.0	51.774	120.728	0.070	70.0	0.021	3.195	0.049	2.095	5	207000	
147		01:30:00	4164	-2.0		476	24.9	-30.0	51.774	121.807									
148		02:00:00	4166	-2.0	44.45	476	24.9	-30.0	51.774	122.886	0.070	65.0	0.024	3.219	0.046	2.141	5	201000	
149		02:30:00	4186	-2.0		469	24.6	-30.0	51.138	123.958									
150		03:00:00	4212	-3.0	44.45	469	24.6	-30.0	51.138	125.023	0.040	60.0	0.016	3.235	0.024	2.165	5	198000	
151		03:30:00	4202	-3.0		469	24.6	-30.0	51.138	126.088									
152		04:00:00	4158	-3.0	44.45	462	24.6	-30.0	50.817	127.150	0.080	60.0	0.032	3.267	0.048	2.213	5	195000	
153		04:30:00	4181	-3.0		462	24.6	-30.0	50.817	128.209									
154		05:00:00	4201	-3.0	44.45	462	24.6	-30.0	50.817	129.268	0.080	55.0	0.036	3.303	0.044	2.257	5	194000	
155		05:30:00	4239	-3.0		455	24.4	-31.0	50.396	130.322									

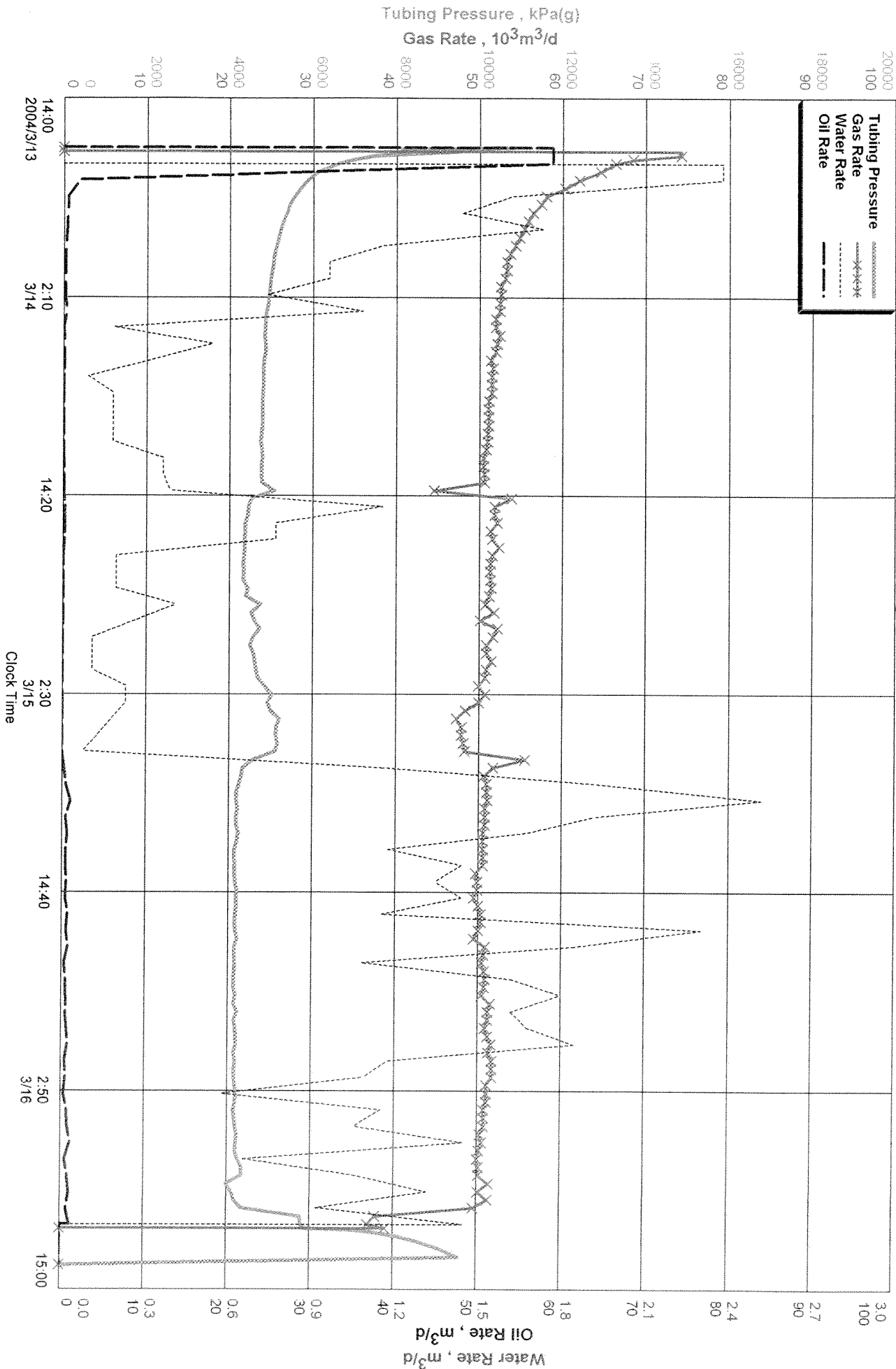
Integrated Production Services Field Measurements

Date	Clock Time	Tbg	Csg	WHT	Orifice	Static	Diff	Temp	Gas		Fid	BSW	Oil	Cum	H2O	Cum	pH	Salinity	API
									Rate	Cum									
YYYY/mm	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³			° API
156	2004/03/16	06:00:00	4222	7000	-4.0	44.45	455	24.6	-31.0	50.605	131.374	0.110	55.0	0.049	3.353	0.061	2.317	5	192000
157			Returns are 55% water, 45% frac oil, 0.50% sand, 5.50% drilling mud.																
158			A.P.I. = 57.6 @ 15.6°C.																
159		06:30:00	4203		-3.0		462	24.1	-30.0	50.290	132.425								
160		07:00:00	4261		-3.0	44.45	462	23.9	-30.0	50.077	133.471	0.050	55.0	0.022	3.375	0.028	2.345	5	192000
161		07:30:00	4360		-3.0		462	23.9	-31.0	50.187	134.515								
162		08:00:00	4360		-3.0	44.45	462	23.9	-31.0	50.187	135.561	0.080	55.0	0.036	3.411	0.044	2.389	5	192000
163		08:30:00	3990		-3.0		476	24.6	-30.0	51.457	136.620								
164		09:00:00	4112		-3.0	44.45	455	24.4	-29.0	50.176	137.678	0.100	55.0	0.045	3.456	0.055	2.444	5	190000
165		09:30:00	4192		-3.0		476	24.6	-29.0	51.344	138.736								
166		10:00:00	4360	7000	-3.0	44.45	455	23.9	-29.0	49.651	139.788	0.070	55.0	0.032	3.488	0.039	2.482	5	190000
167		10:30:00	5782		-5.0		338	17.7	-29.0	37.800	140.699								
168		11:00:00	5805		-8.0	44.45	331	17.2	-29.0	36.951	141.477	0.110	55.0	0.049	3.537	0.061	2.543	5	192000
169		11:15:00	5896		-10.0		331	19.2	-29.0	39.073	141.873								
170		11:15:00	Shut well in at wing valve, hydrates in flowline. Monitor buildups.																
171			2 high pressure gas samples taken #'s V0000652 and V0005693.																
172		11:20:00	6894																
173		11:25:00	7259																
174		11:30:00	7542																
175		11:45:00	8125																
176		12:00:00	8527																
177		12:30:00	9141																
178		13:00:00	9574																
179			End of buildups																
180			Shut in master valve, secure well and rig out test equipment																
181		13:30:00	0	0	0.0	0.00	0	0.0	0.0	0.000	141.873	0.000	0.0	0.000	3.537	0.000	2.543		

PACHE CANADA LIMITED
00 M-17-66-36 125-48-0
Start Test Date: 2004/03/13
Final Test Date: 2004/03/16

APACHE NOGHA M-17
Formation: MOUNT CLARK 'A'
Job Number: CX04-169

Single Point Test

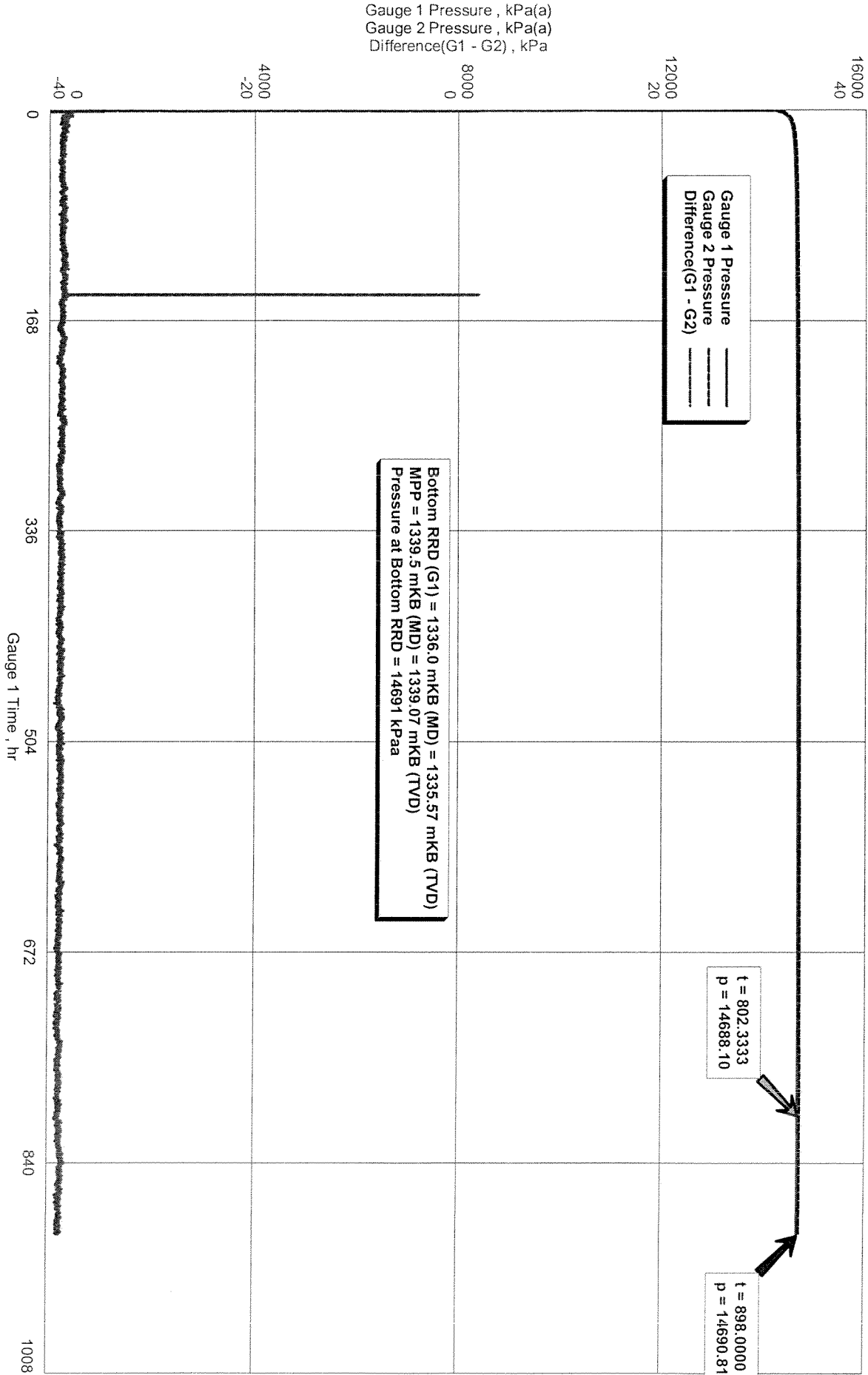


Para et al Nogha
M-17

Start Test Date: 2004/04/04
Final Test Date: 2004/05/12

Formation: Mount Cap 1337.57 - 1340.57 mKB TVD

RECORDER DIFFERENCE PLOT



Para et al Nogha
M-17
Start Test Date: 2004/04/04
Final Test Date: 2004/05/12

Formation: Mount Cap 1337.57 - 1340.57 mKB TVD

TOP RECORDER

