

WJ
Completions
Report

APACHE PARAMOUNT NOGHA
300/B23-66-40-125-45/0

2

3

6

6

4

0

1

2

5

4

5



File: WID# 1995, 1998, 2006 & 2007
10 August 2004

Mr. Greg D. Hladun
Senior Staff Drilling Engineer
Apache Canada Ltd.
1000, 700 - 9th Avenue SW
Calgary, AB T2P 3V4

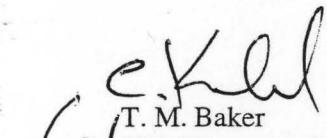
Dear Mr. Hladun:

**Well Termination Record for Apache Paramount Lac Maunoir C-34 (1995), Apache
Paramount Nogha B-23 (1998), Apache Paramount West Nogha K-14 (2006) & Apache Paramount
Tunago Lake E-44 (2007)**

Thank you for your submission of the Well Termination Record forms for the said wells. Please note that the spud date is the date when a particular drilling unit (which has been approved to drill) first penetrates the earth. Although an approved Approval to Drill a Well is required to set conductor pipe with a rat hole rig, spud-in occurs when the approved drilling unit begins the drilling of a proposed well. We have made changes to the Well Termination Record forms that have been submitted to reflect the above. Additionally, a few minor corrections were made to the forms.

If you have any questions, please do not hesitate to contact Chris Knoechel at 299-3866.

Yours truly,


T. M. Baker
Chief Conservation Officer

Attachment

c.c. Mimi Fortier - DIAND

444 Seventh Avenue SW
Calgary, Alberta T2P 0X8

444, Septième Avenue S.-O.
Calgary (Alberta) T2P 0X8

Canada

Telephone/Téléphone : (403) 292-4800
Facsimile/Télécopieur : (403) 292-5503
<http://www.neb-one.gc.ca>

INTEGRATED PRODUCTION SERVICES



Project Management & Engineering

CLEAN OUT/SWABBING

APACHE CANADA LIMITED

Well Name: APACHE NOGHA B-23
UWI: 300_B-23-66-40 125-45-0

FIELD: COLVILLE LAKE

FORMATION: MOUNT CLARK

TEST DATE: March 22 - April 4, 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*

Project Management & Engineering, A Division of Integrated Production Services
Property Management Production Optimization Exploitation / Engineering Services Pressure Transient Analysis
1000, 840 – 7th Avenue S. W. Calgary, Alberta T2P 3G2 Tel: (403) 266-0909 Fax: (403) 269-4136
Website: www.ipsadvantage.com

APACHE CANADA LIMITED
300 B-23-66-40 125-45-0
Start Test Date: 2004/03/22
Final Test Date: 2004/04/04

Integrated Production Services

Field Measurements

APACHE NOGHA B-23
Formation: MOUNT CLARK
Job Number: CX04-201

	Date	Time	Clock		WHT	Orifice	Static	Diff	Temp	Rate	Gas	Cum	Fld	Oil	Cum	H2O	Cum				
			Tbg	Csg							Gas	Gas	Vol	BSW	Gain	Oil	Gain	H2O	pH	Salinity	API
			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	2004/03/22	16:00:00																			
2																					
3																					
4		16:30:00		6																	
5	2004/03/23	08:00:00																			
6	2004/03/24	09:00:00																			
7		10:00:00		0		0.0															
8	2004/03/25	12:30:00		225																	
9																					
10	2004/03/26	09:00:00		200		26.0															
11																					
12																					
13		13:00:00																			
14	2004/03/27	09:30:00		3977																	
15	2004/03/28	08:00:00		3600																	
16																					
17																					
18																					
19		13:30:00		0																	
20																					
21																					
22																					
23		15:15:00																			
24																					
25																					
26																					
27																					
28		18:00:00																			
29																					
30	2004/03/29	07:30:00																			
31																					

Integrated Production Services

Field Measurements

APACHE CANADA LIMITED
300 B-23-66-40 125-45-0
Start Test Date: 2004/03/22
Final Test Date: 2004/04/04

Integrated Production Services

Field Measurements

APACHE NOGHA B-23
Formation: MOUNT CLARK
Job Number: CX04-201

Date	Time	Clock		WHT	Orifice	Static	Diff	Temp	Rate	Gas	Cum	Fld	Oil	Cum	H2O	Cum	pH	Salinity	API
		Tbg	Csg							Gas	Gas	Vol	BSW	Gain	Oil	Gain	H2O		
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	ppm	° API					
63	2004/04/01																		
64		08:30:00																	
65																			
66																			
67																			
68		14:00:00																	
69																			
70		16:00:00																	
71																			
72																			
73		16:30:00																	
74	2004/04/02	08:00:00																	
75																			
76																			
77		09:00:00																	
78																			
79																			
80																			
81		09:15:00																	
82																			
83																			
84																			
85		09:30:00																	
86																			
87																			
88																			
89		09:45:00																	
90																			
91		11:00:00																	
92																			
93		14:00:00																	

APACHE CANADA LIMITED
300 B-23-66-40 125-45-0
Start Test Date: 2004/03/22
Final Test Date: 2004/04/04

Integrated Production Services

Field Measurements

APACHE NOGHA B-23
Formation: MOUNT CLARK
Job Number: CX04-201

	Clock										Gas	Cum	Fld	Oil	Cum	H2O	Cum		
	Date	Time	Tbg	Csg	WHT	Orifice	Static	Diff	Temp	Rate	Gas	Vol	BSW	Gain	Oil	Gain	H2O	pH	Salinity
	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	
94	2004/04/02																		
95		15:00:00																	
96																			
97																			
98																			
99		18:00:00																	
100																			
101	2004/04/03	07:30:00																	
102																			
103																			
104																			
105		08:30:00																	
106																			
107		10:30:00																	
108																			
109																			
110		11:00:00																	
111																			
112																			
113		12:00:00																	
114																			
115																			
116																			
117		13:45:00																	
118																			
119																			
120		14:00:00	30																
121		14:30:00	56																
122		15:00:00	69																
123		15:30:00	79																
124		16:00:00	88																

Integrated Production Services

Field Measurements

Date	Time	Clock		WHT	Orifice	Static	Diff	Temp	Rate	Gas	Cum	Fld	Oil	Cum	H2O	Cum			
		Tbg	Csg							Gas	Gas	Vol							
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		
125	2004/04/03																		
126	2004/04/04	07:45:00	Secure well over night.																
127		07:50:00	Arrive on location.																
128			600																
129			Obtain Corelab gas samples off wellhead - #'s V0005965 and V0005148.																
130			Rig in frac pump.																
131			09:00:00	Attend safety meeting.															
132				Begin acid squeeze.															
133				Squeeze complete.															
134			11:00:00	Rig out pump.															
135				6800															
136				Pressure up to choke and open to flow 38.1mm choke.															
137			11:10:00	0															
138				Shut in.															
139			11:22:00	5750															
140				Open to flow 38.1mm.															
141			11:22:00	0															
142				Shut in.															
143			11:26:00	5000															
144				Open to flow.															
145			11:26:00	0															
146				Rig up to swab.															
147			11:45:00	4100															
148				Open to flow.															
149			11:45:00	0															
150			12:00:00	Swab #1 : Tag - surface, Pull - 300m, Recover - 1.0m ³ .															
151				Swab #2 : Tag - 260m, Pull - 550m, Recover - 1.0m ³ , Total - 2.0m ³ .															
152			13:05:00	Swab #3 : Tag - 550m, Pull 1000m, Recover - 1.25m ³ , Total - 3.25m ³ .															
153				Swab #4 : Tag - 1000m, Pull - 1395m, Recover - 0.5m ³ , Total - 3.75m ³ .															
154				Returns are 100 % frac oil.															
155			13:45:00	Swab #5 : Tag - 1250m, Pull - 1395m, Recover - 1.0m ³ , Total - 4.75m ³ .															
				Swab #6 : Tag - 1360m, Pull - 1395m, Recover - 0.0m ³ , Total - 4.75m ³ .															

APACHE CANADA LIMITED
300 B-23-66-40 125-45-0
Start Test Date: 2004/03/22
Final Test Date: 2004/04/04

Integrated Production Services

Field Measurements

APACHE NOGHA B-23
Formation: MOUNT CLARK
Job Number: CX04-201

	Clock										Gas	Cum	Fld	Oil	Cum	H2O	Cum			
	Date	Time	Tbg	Csg	WHT	Orifice	Static	Diff	Temp	Rate	Gas	Vol	BSW	Gain	Oil	Gain	H2O	pH	Salinity	API
	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	
156	2004/04/04																			
157		13:50:00	0																	
158		13:55:00	0																	
159		14:00:00	0																	
160		14:15:00	0																	
161		14:30:00	0																	
162		14:45:00	0																	
163																				
164																				
165																				
166		15:00:00	0	0	0.0	0.00	0	0.0	0.0	0.000	0.000	0.000	0.0	0.000	0.000	0.000	0.000			



APACHE CANADA LTD. DAILY OPERATIONS WELL ACTIVITY

DATE: 2004-03-19
REPORT No.: 01

WELL NAME:	APACHE NOGHA B-23	Licence No:	WID 1998	PAGE No:	1	of	1
LOCATION:	300-B-23-66°-40'-125°-45'-0	AFE No.	NT-04-0504				
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production	AFE Amount:	\$1,034,000.00				
Formation:	Perforations (mkb):	Formation:	Perforations (mKB):	Rig In Date:	2004-02-09		
	to		to	Rig Out Date:	yyyy-mm-dd		
	to		to	Rig Contractor / No.:	Nabors # 62		
	to		to	Csg. Dia (mm):	177.80	Set At (m):	1,476.00
	to		to	Liner (mm):	N/A	Top At (m):	N/A
	to		to	Liner Bot. (mMD):	N/A	PBTD (mMD):	1,453.50
	to		to	Tbg. O.D. (mm):	73.00	Landed (m):	0.00
	to		to	Anchor (mm):	N/A	Set At (m):	N/A

BOP Press Test (Yes / No): Y Satisfactory (Yes / No): Y Function Test (Yes / No): Y Safety Meeting: 17:00 2004-03-18

24 Hr. Ops. Summary: Remove drilling rig BOP, dress csg stump, install tbg head, P/T secondary seals to 21.0 Mpa - OK, install service rig BOP & P/T - OK

Tommorow's Plan: Tally, drift & RIH 73 mm L-80 tbg c/w177.8 mm scraper c/w 152.2 mm bit

NEB NOTIFICATIONS: Rig Move 2004-02-09 Flaring

OPERATION SUMMARY SCV (KPa) 0 SICP (KPa) 0 SITP (KPa) 0

COST SUMMARY

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Packer set at (m):	0.00
Gas: E^3 m ³ /d			Amount Used (m ³):	Casing annulus volume (m ³):	0.00
Oil / Condensate: m ³ /d			Recovered (m ³):	Tubing volume (m ³):	4.35
Water: m ³ /d			Cum. Recovered (m ³):	Bottom to perf. Volume (m ³):	0.00
Swab / Flow Time: Hrs			Left To Recover (m ³):	TOTAL WELL VOLUME (m³):	

Man Down Drill			BOP TESTS			BOP Drill		
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: High -29°C, Low -37°C, Clear, 25 km/hr wind		
6.0	Rig:	10	Annular	1.4	10.0	10 min	Road Conditions:	Icy
Cummulative:	6.0	Service:	4	Pipe	1.4	21.0	10 min	Engineer: Bruce Beveridge Phone No: 403-261-1385
Downtime:	0.0	ACL:	1	Blind	1.4	21.0	10 min	Reported To: Phone No:
Cum. Downtime:	0.0	Total:	15	Valves	1.4	21.0	10 min	Reported By: Walter F. Stock Phone No: 600-700-7716



**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-03-20

REPORT No.: 0

2004-03-20

02

WELL NAME:	APACHE NOGHA B-23	Licence No:	WID 1998	PAGE No:	1	of	1
LOCATION:	300-B-23-66°-40'-125°-45'-0			AFE No.			NT-04-0504
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production			AFE Amount:			\$1,034,000.00
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):	Rig In Date:			2004-02-09
Mt Clark (Proposed)	1,441.0 to 1,444.0		to	Rig Out Date:			yyy-mm-dd
	to		to	Rig Contractor / No.:			Nabors # 62
	to		to	Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00
	to		to	Liner (mm):	N/A	Top At (mKB):	N/A
	to		to	Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50
	to		to	Tbg. O.D. (mm):	73.00	Landed (mKB):	1,435.00
	to		to	Packer (mm):	177.80	Set at (mKB):	1,428.24

BOP Press. Test (Yes / No): Y Satisfactory (Yes / No): Y Function Test (Yes / No): Y Safety Meeting: 7:00 2004-03-19

24 Hr. Ops. Summary: Off load tbg jts. RIH w/bit & scraper, tag PBTD at 1,456 mKb. Circulate well to frac oil. POOH. R/U E-line, run CBL-VDL-GR-CCL log.

Tommorow's Plan: M/U & RIH with 127 mm "TCP" gun assembly.

NEB NOTIFICATIONS: Rig Move 2004-02-09 Flaring

OPERATION SUMMARY SCV (KPa) 0 SICP (KPa) 0 SITP (KPa) 0 **COST SUMMARY**

Operations for 2004-03-19

2400-0800: Off load 165x73.0mm, EU6, L-80 tbg jts on to pipe racks. Tally, drift & RIH w/151 - 73.0mm tbg jts c/w 177.8 mm scraper & 152.4 mm bit. Tag PBTD at 1,456 mKB (pipe tally).

0800-1500: Hold safety & operations meeting. Function test BOP - ok. Rig up to reverse circulate well over to frac oil, thaw pump lines, circulate well over to frac oil @ 0.85 m3/min @ 7.8 Mpa. Total fluid pumped was 27.0 m3. Fluid recovered was 18.5 m3 water & trace amounts of cement.

1500-1900: POOH & stand back tbq in derrick, remove bit & scraper assembly.

1900-2345: R/U Schlumberger. RIH w/CBL-VDL-GR-CCL log. Log from PBTD to 550 mKB (surface casing shoe at 603.7 mKB). Log shows good cement bond across surface csg shoe. Log indicates relatively good bond from PBTD to 1325 mKB with chevron affects from csg collars, however it should be noted that logging was completed with less than 24 hrs of curing time on cement. No pressure pass was done for this reason.

2345-2400: Rig service, function test blind rams - ok.

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Frac oil	Packer set at (m):	1428.24
Gas: E ³ m ³ /d	0.00	0.00	Amount Used (m ³):	27.00	Frac Oil	Casing annulus volume (m ³): 21.69
Oil / Condensate: m ³ /d	0.00	0.00	Recovered (m ³):	27.00	Fresh Water	Tubing volume (m ³): 4.33
Water: m ³ /d	0.00	0.00	Cum. Recovered (m ³):	27.00	Fresh Water	Bottom to perf. Volume (m ³): 0.38
Swab / Flow Time: Hrs	0.00	0.00	Left To Recover (m ³):	27.00	Frac Oil	TOTAL WELL VOLUME (m³): 26.40

Man Down Drill		BOP TESTS			BOP Drill			
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: High -27°c, Low -41°c, Clear, 35 km/hr wind		
24.0	Rig:	10	Annular			Road Conditions:	Icy	
Cummulative:	26.0	Service:	4	Pipe		Engineer:	Bruce Beveridge	Phone No: 403-261-1385
Downtime:	0.0	ACL:	1	Blind		Reported To:	Phone No:	
Cum. Downtime:	0.0	Total:	15	Valves		Reported By:	Walter F. Stock	Phone No: 600-700-7716



APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY

DATE: 2004-03-21

REPORT No.: 03

WELL NAME:	APACHE NOGHA B-23			Licence No:	WID 1998	PAGE No:	1 of 4		
LOCATION:	300-B-23-66°-40'-125°-45'-0			AFE No.	NT-04-0504				
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production			AFE Amount:	\$1,034,000.00				
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):	Rig In Date:	2004-02-09				
Mt Clark (Proposed)	1,441.5 to 1,444.5			Rig Out Date:	yyyy-mm-dd				
	to			Rig Contractor / No.:	Nabors # 62				
	to			Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00		
	to			Liner (mm):	N/A	Top At (mKB):	N/A		
	to			Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50		
	to			Tbg. O.D. (mm):	73.00	Landed (mKB):	1,435.00		
	to			Packer (mm):	177.80	Set at (mKB):	1,428.24		
BOP Press. Test (Yes / No): Y		Satisfactory (Yes / No): Y		Function Test (Yes / No): Y	Safety Meeting:		7:00 2004-03-20		
24 Hr. Ops. Summary:		Off load tbg jts. RIH w/bit & scraper, tag PBTD at 1,456 mKB. Circulate well to frac oil. POOH. R/U E-line, run CBL-VDL-GR-CCL log.							
Tommorow's Plan:		M/U & RIH with 127 mm "TCP" gun assembly.							
NEB NOTIFICATIONS:		Rig Move	2004-02-09	Flaring					
OPERATION SUMMARY		SCV (KPa) 0	SICP (KPa) 0	SITP (KPa) 0	COST SUMMARY				
Operations for 2004-03-20 2400-0800: Hold safety & operations meeting, discuss potential dangers concerning "TCP" gun assemblies. M/U & RIH with the following assembly: 1 - 127.0 mm ERHSC gun w/39 gr "DP" charges, 17 spm, 60° phasing (3.0 m) 1 - 60.3 mm Mechanical firing head (1.55 m) 1 - 60.3 mm EUE, pup jt (3.08 m) 1 - 60.3 mm x 47.63 mm gun release sub (0.36 m) 3.0 mm Flow sub c/w 8-25.4 mm holes (0.24 m) 1 - 60.3 mm x 73.0 mm x/o (0.20 m) 1 - 73.0 mm Otis "RN" nipple w/55.58 mm profile & 51.05 mm no-go (0.50 m) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt (2.47 m) 1 - 73.0 mm Otis "R" nipple w/55.58 mm profile (0.47 m) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt (2.49 m) 1 - 177.8 mm Halliburton "PLT" 10K "DGP" production pkr (1.90 m) 1 - 177.8 mm Halliburton "XXL" HD on-off tool w/55.58 mm "R" profile (1.06 m) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt (3.10 m) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 tbg jt (9.63 m) 1 - 73.0 mm Otis "X" nipple w/58.75 mm profile (0.36 m) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt - marker jt (1.25 m) 147 - 73.0 mm EUE, 9.67 kg/m, L-80 tbg jts (1,410.54 m) Set packer, install tbg hanger, land tbg in 8,000 DaN compression. R/U E-Line, RIH w/GR-CCL log for confirmation pass. Log indicates gun landed 0.5 m deep, inform Calgary of results, received confirmation to leave gun as is - will perforate 1,441.5-1444.5 mKB (Original interval was 1,441.0-1,444.0 mKB) Con't on next page.....		Contractor	Service Provided	Code	Amount				
		Nabors #62	Drilling Rig	70019	\$20,474.00				
		Schlumberger	GR-CCL log	70049	\$2,328.00				
		Halliburton	Tool Hand	70017	\$650.00				
		Regs	WaterTruck	70017	\$200.00				
		SRP	Truck Tbg	70074	\$4,300.00				
Daily Cost:	\$27,952.00								
Previous Cost:	\$194,481.00								
Cum. Cost:	\$222,433.00								
Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Frac oil	Packer set at (m):	1428.24			
Gas: E ³ m ³ /d	0.00	0.00	Amount Used (m ³):	27.00	Frac Oil	Casing annulus volume (m ³):	21.69		
Oil / Condensate: m ³ /d	0.00	0.00	Recovered (m ³):	27.00	Fresh Water	Tubing volume (m ³):	4.33		
Water: m ³ /d	0.00	0.00	Cum. Recovered (m ³):	27.00	Fresh Water	Bottom to perf. Volume (m ³):	0.38		
Swab / Flow Time: Hrs	0.00	0.00	Left To Recover (m ³):	27.00	Frac Oil	TOTAL WELL VOLUME (m³):	26.40		
Man Down Drill		BOP TESTS			BOP Drill				
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: High -33°C, Low -44°C, Overcast, 15 km/hr wind			
12.0	Rig: 10	Annular				Road Conditions: Icy			
Cumulative:	38.0	Service: 4	Pipe			Engineer:	Bruce Beveridge	Phone No:	403-261-1385
Downtime:	0.0	ACL: 1	Blind			Reported To:		Phone No:	
Cum. Downtime:	0.0	Total: 15	Valves			Reported By:	Walter F. Stock	Phone No:	600-700-7716



APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY

DATE: 2004-03-21
REPORT No.: 03

WELL NAME:	APACHE NOGHA B-23			Licence No:	WID 1998	PAGE No:	2	of	4
LOCATION:	300-B-23-66°-40'-125°-45'-0				AFE No.	NT-04-0504			
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production				AFE Amount:	\$1,034,000.00			
Formation:	Perforations (mMD):	Formation:	Perforations (m):		Rig In Date:	2004-02-09			
Mt Clark (Proposed)	1,441.0	to	1,444.0	to	Rig Out Date:	yyyy-mm-dd			
	to			to	Rig Contractor / No.:	Nabors # 62			
	to			to	Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00	
	to			to	Liner (mm):	N/A	Top At (mKB):	N/A	
	to			to	Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50	
	to			to	Tbg. O.D. (mm):	73.00	Landed (mKB):	1,435.00	
	to			to	Packer (mm):	177.80	Set at (mKB):	1,428.24	

Operations for 2004-03-20 Continued from page 1

0800-1400: P/T packer assembly & csg to 7.0 Mpa for 15 min - ok, release pressure. R/O E-Line. N/D BOP. N/U & P/T wellhead assembly to 21.0 Mpa - ok. Wellhead secured, turn operations back over to Drilling Dept to commence with rigging out of drilling rig & related equipment.

Well will not be perforated until drilling rig has been moved off of location.

.. Csg. @
604.0

18

APACHE CANADA LTD.

WELL DIAGRAM "Final"

Report No 3

Page: 3 of 4

WELL NAME:		Apache Paramount 300-B-23			
PREPARED BY:		Walter F. Stock		DATE:	2004-03-20
ELEVATIONS (meters):			Licence No:		WID 1998
TD	1,476.00	KB Elev.	315.75	KB to CF Dist. H	3.94
PBTD	1,456.00	Ground Elev.	311.27	KB to Ground	4.48
CASING/TUBING	SIZE (mm)	WEIGHT (Kg/m)	GRADE	DEPTHs (m)	
Surface Casing	244.50	53.50	J-55	604.00	46 Jts
			LT&C		
Production Casing	177.80	43.16	L-80	1,476.00	112 Jts
			LT&C		
Prod Liner					
Tubing	73.00	9.67	L-80	1,410.54	147 Jts
			EUE		

BOTTOM HOLE ASSEMBLY:

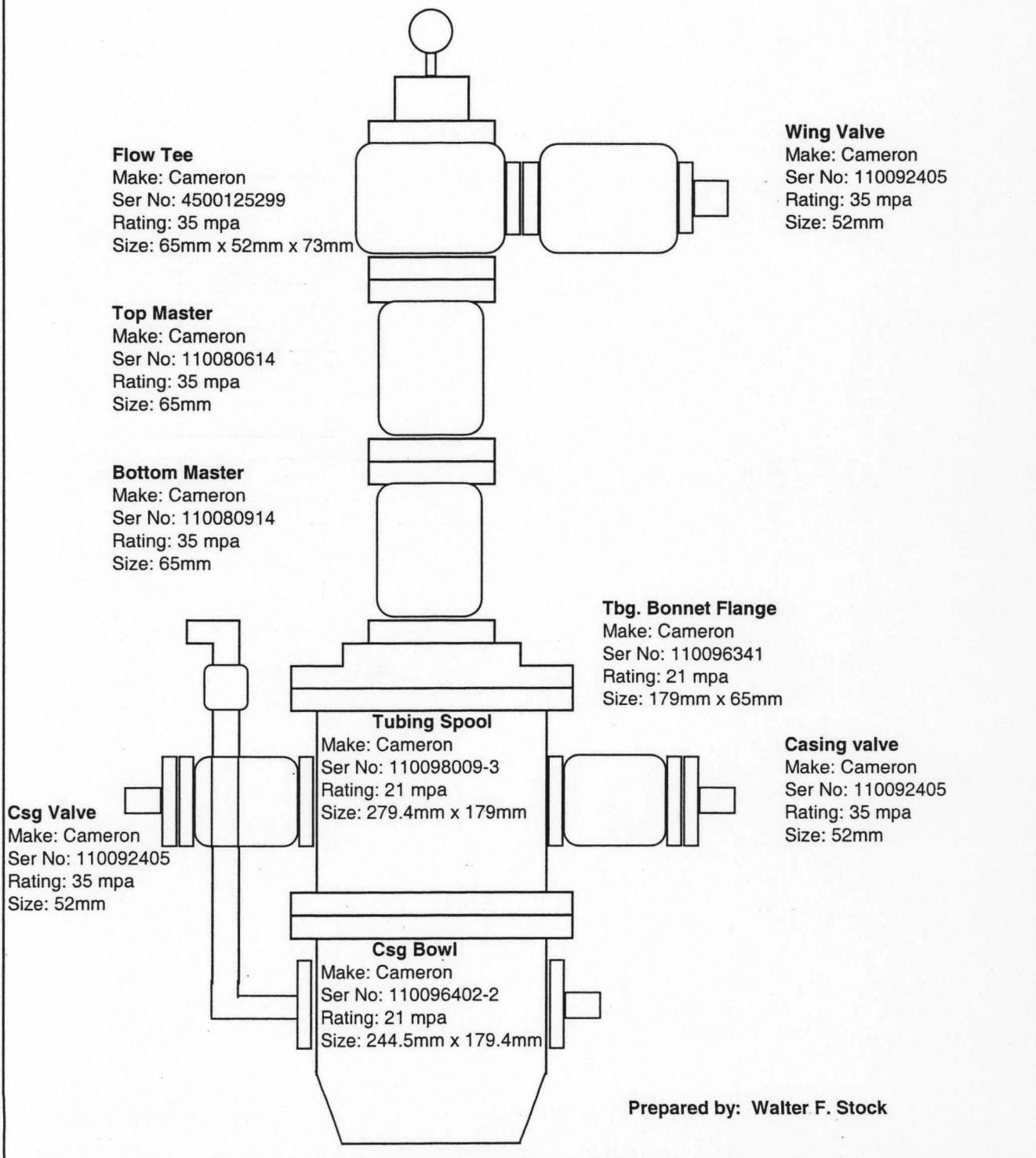
PERIODIC INTERVALS

Mount Clark 1,441.5 - 1,444.5 mKB

NOTE

PBTD @
1,456.0
-od Csg @
1,476.0

TD @ 1,476.0 m





**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-03-23
REPORT No.: 04

WELL NAME:	APACHE NOGHA B-23			Licence No: WID 1998		PAGE No:	1	of	1	
LOCATION:	300-B-23-66°-40'-125°-45'-0					AFE No.	NT-04-0504			
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production					AFE Amount:	\$1,034,000.00			
						Rig In Date:	2004-02-09			
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):			Rig Out Date:	2004-03-21			
Mt Clark (Open)	1,441.5 to 1,444.5			to		Rig Contractor / No.:				
	to			to		Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00	
	to			to		Liner (mm):	N/A	Top At (mKB):	N/A	
	to			to		Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50	
	to			to		Tbg. O.D. (mm):	73.00	Landed (mKB):	1,435.00	
	to			to		Packer (mm):	177.80	Set at (mKB):	1,428.24	
BOP Press. Test (Yes / No): N/A			Satisfactory (Yes / No): N/A			Function Test (Yes / No): N/A			Safety Meeting: 15:00	2004-03-22
24 Hr. Ops. Summary:		Drop bar, detonate "TCP" gun assembly.								
Tommorow's Plan:		R/U Schlumberger to pump 2.0 m ³ frac oil								
NEB NOTIFICATIONS:		Rig Move	Flaring							
OPERATION SUMMARY		SCV (KPa) 0	SICP (KPa) 0	SITP (KPa) 137		COST SUMMARY				
<p>Operations for 2004-03-22</p> <p>1500-1700: Travel from Traver's base camp to location. Load Schlumberger E-line unit on to low-boy (broken rear springs), haul back to Norman Wells.</p> <p>Hold safety meeting, remove cap from wellhead - drop bar. Detonate gun assembly, perforate the Mount Clark interval 1,441.5 - 1,444.5 mKB.</p> <p>Well went on initial vacuum, monitor pressure, 15 min SITP = 137 Kpa. Shut-in & re well.</p> <p>Unable to stay on location due to blizzard conditions, extremely high winds ~ 65 to 70 km/hr. Travel back to base camp.</p>						Contractor	Service Provided	Code	Amount	
						IPS	Perforating	70049	\$1,500.00	
						SRP	Fuel	70037	\$23,500.00	
Daily Cost:	\$25,000.00									
Previous Cost:	\$222,433.00									
Cum. Cost:	\$247,433.00									
Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Frac oil		Packer set at (m):	1428.24			
Gas: E ³ m ³ /d	0.00	0.00	Amount Used (m ³):	0.00	Frac Oil	Casing annulus volume (m ³):	21.69			
Oil / Condensate: m ³ /d	0.00	0.00	Recovered (m ³):	27.00	Fresh Water	Tubing volume (m ³):	4.33			
Water: m ³ /d	0.00	0.00	Cum. Recovered (m ³):	27.00	Fresh Water	Bottom to perf. Volume (m ³):	0.38			
Swab / Flow Time: Hrs	0.00	0.00	Left To Recover (m ³):	27.00	Frac Oil	TOTAL WELL VOLUME (m³):	26.40			
Man Down Drill			BOP TESTS			BOP Drill				
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: High -4°C, Low -33°C, Overcast, 65 km/hr wind				
0.0	Rig:	0	Annular			Road Conditions:	Icy			
Cumulative:	0.0	Service:	1	Pipe		Engineer:	Bruce Beveridge	Phone No:	403-261-1385	
Downtime:	0.0	ACL:	1	Blind		Reported To:	Phone No:			
Cum. Downtime:	0.0	Total:	2	Valves		Reported By:	Walter F. Stock	Phone No:	600-700-7716	



APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY

DATE: 2004-03-24

REPORT No.: 05

WELL NAME:	APACHE NOGHA B-23		Licence No: WID 1998		PAGE No:	1	of	1
LOCATION:	300-B-23-66°-40'-125°-45'-0				AFE No.	NT-04-0504		
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production				AFE Amount:	\$1,034,000.00		
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):		Rig In Date:	2004-02-09		
Mt Clark (Open)	1,441.5	to	1,444.5	to	Rig Out Date:	2004-03-21		
	to			to	Rig Contractor / No.:			
	to			to	Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00
	to			to	Liner (mm):	N/A	Top At (mKB):	N/A
	to			to	Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50
	to			to	Tbg. O.D. (mm):	73.00	Landed (mKB):	1,435.00
	to			to	Packer (mm):	177.80	Set at (mKB):	1,428.24
BOP Press. Test (Yes / No): N/A		Satisfactory (Yes / No): N/A		Function Test (Yes / No): N/A		Safety Meeting:		8:00
24 Hr. Ops. Summary:		Shut down, roads require plowing						
Tommorow's Plan:		R/U Schlumberger to pump 2.0 m³ frac oil						
NEB NOTIFICATIONS:		Rig Move	Flaring					
OPERATION SUMMARY		SCV (KPa) 0	SICP (KPa) 0	SITP (KPa) 137		COST SUMMARY		
Operations for 2004-03-23				Contractor	Service Provided	Code	Amount	
				IPS	E-Line	70049	\$6,200.00	
				IPS	Tester's	70035	\$3,200.00	
				Schlumberger	Pumper	70034	\$17,963.00	
				Daily Cost:	\$27,363.00			
				Previous Cost:	\$247,433.00			
				Cum. Cost:	\$274,796.00			
Reservoir Fluid Summary		Daily	Cumulative	Load Fluid Type:	Frac oil	Packer set at (m):	1428.24	
Gas:	E³ m³/d	0.00	0.00	Amount Used (m³):	0.00	Frac Oil	Casing annulus volume (m³): 21.69	
Oil / Condensate:	m³/d	0.00	0.00	Recovered (m³):	27.00	Fresh Water	Tubing volume (m³): 4.33	
Water:	m³/d	0.00	0.00	Cum. Recovered (m³):	27.00	Fresh Water	Bottom to perf. Volume (m³): 0.38	
Swab / Flow Time: Hrs		0.00	0.00	Left To Recover (m³):	27.00	Frac Oil	TOTAL WELL VOLUME (m³): 26.40	
Man Down Drill			BOP TESTS			BOP Drill		
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: High -24°C, Low -31°C, Clear, 10 km/hr wind		
0.0	Rig:	0	Annular			Road Conditions: Icy		
Cumulative:	0.0	Service:	1	Pipe		Engineer:	Bruce Beveridge	Phone No: 403-261-1385
Downtime:	0.0	ACL:	1	Blind		Reported To:	Phone No:	
Cum. Downtime:	0.0	Total:	2	Valves		Reported By:	Walter F. Stock	Phone No: 600-700-7716



**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-03-27

REPORT No.:

2004-03-27

08



**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-03-29

REPORT No.:

2004-03-29

10

WELL NAME:	APACHE NOGHA B-23	Licence No:	WID 1998	PAGE No:	1	of	1
LOCATION:	300-B-23-66°-40'-125°-45'-0	AFE No.	NT-04-0504				
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production	AFE Amount:	\$1,034,000.00				
Formation:	Perforations (mKB):	Rig In Date:	2004-03-28				
Mt Clark (Open)	1,441.5 to 1,444.5	Formation:	Perforations (mKB):	Rig Out Date:			
	to		to	Rig Contractor / No.:	Shehtah #14		
	to		to	Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00
	to		to	Liner (mm):	N/A	Top At (mKB):	N/A
	to		to	Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50
	to		to	Tbg. O.D. (mm):	73.00	Landed (mKB):	1,435.00
	to		to	Packer (mm):	177.80	Set at (mKB):	1,428.24

BOP Press. Test (Yes / No): N/A Satisfactory (Yes / No): N/A Function Test (Yes / No): N/A Safety Meeting: 8:00 2004-03-28

24 Hr. Ops. Summary:	R/U Shehtah service rig, hold safety meeting, conduct rig inspection - ok. R/U S-Line, drop perf gun to cellar Pulled 8 swabs, recovered 4.3 m ³ frac fluid
----------------------	---

Tommorow's Plan: Rig in acidizing equipment

NEB NOTIFICATIONS: Rig Move 25-Mar-04 Flaring

OPERATION SUMMARY SCV (kPa) 0 SICP (kPa) 0 SITP (kPa) 3600 **COST SUMMARY**

Operations for 2004-03-28

0800-1330: SITP = 3,600 Kpa (dead weight). Spot equipment on location. Rig in equipment to Apache & NEB regulations. Hold safety & operations meeting. Rig in & fire boiler. Lay out pump lines. Conduct full rig inspection - ok.

1330-1500: R/U IPS S-Line unit, bleed off tbg pressure to bullet, pressure bleed down to 0 Kpa on 10 min, no burnable gas was observed at surface. M/U & RIH with Otis "B" shifting tool to drop guns, locate gun release at 1,436 mKB. Drop gun to bottom of hole. Con't to RIH tag top of guns at 1,447.7 mKB (3.2 m below bottom shot). POOH w/slickline. R/O & release S-Line unit. Slickline is required on C-34.

1500-1900: R/U swab equipment, to swab out frac oil prior to pumping 2.0 m³ acid. Pulled a total of 8 swabs, recovered 4.3 m³ frac oil, last swab also had signs of gas, swabbed well down to top of Otis "X" profile at 1,414 mKB. Lay down swab equipment, shut-in & secure well for night.

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Frac oil		Packer set at (m):	1428.24
Gas: E ³ m ³ /d	0.00	0.00	Amount Used (m ³):	0.00	Frac Oil	Casing annulus volume (m ³):	21.69
Oil / Condensate: m ³ /d	0.00	0.00	Recovered (m ³):	4.30	Frac Oil	Tubing volume (m ³):	4.33
Water: m ³ /d	0.00	0.00	Cum. Recovered (m ³):	4.30	Frac Oil	Bottom to perf. Volume (m ³):	0.38
Swab / Flow Time: Hrs	0.00	0.00	Left To Recover (m ³):	22.70	Frac Oil	TOTAL WELL VOLUME (m³):	26.40

Man Down Drill		BOP TESTS			BOP Drill			
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: High -19°c, Low -26°c, Clear, 35 km/hr wind		
11.0	Rig:	5	Annular			Road Conditions:	Icy	
Cumulative:	11.0	Service:	5	Pipe		Engineer:	Bruce Beveridge	Phone No: 403-261-1385
Downtime:	0.0	ACL:	1	Blind		Reported To:		Phone No:
Cum. Downtime:	0.0	Total:	11	Valves		Reported By:	Walter F. Stock	Phone No: 600-700-7716



APACHE CANADA LTD. DAILY OPERATIONS WELL ACTIVITY

DATE: 2004-03-30

REPORT No.:

2004-03-30

11

WELL NAME:	APACHE NOGHA B-23	Licence No:	WID 1998	PAGE No:	1	of	1
LOCATION:	300-B-23-66°-40'-125°-45'-0	AFE No.	NT-04-0504				
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production	AFE Amount:	\$1,034,000.00				
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):	Rig In Date:	2004-03-28		
Mt Clark (Open)	1,441.5 to 1,444.5		to	Rig Out Date:			
	to		to	Rig Contractor / No.:	Shehtah #14		
	to		to	Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00
	to		to	Liner (mm):	N/A	Top At (mKB):	N/A
	to		to	Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50
	to		to	Tbg. O.D. (mm):	73.00	Landed (mKB):	1,435.00
	to		to	Packer (mm):	177.80	Set at (mKB):	1,428.24

BOP Press. Test (Yes / No): N/A Satisfactory (Yes / No): N/A Function Test (Yes / No): N/A Safety Meeting: 8:00 2004-03-29

24 Hr. Ops. Summary: Clean equipment

Tommorow's Plan: R/U acidizing equipment (Schlumberger)

NEB NOTIFICATIONS: Rig Move 25-Mar-04 **Flaring**

OPERATION SUMMARY SCV (kPa) 0 SICP (kPa) 0 SITP (kPa) TSTM **COST SUMMARY**

Operations for 2004-03-29

0800-1600: SITP = TSTM, SICP = 0 Kpa. Hold safety & operations meeting. Perform checks on equipment - clean equipment.

Schlumberger delayed due to late arrival of plastic totes from High Level, equipment to be on location for 0800 hrs Tuesday March 30.

It should be noted that Schlumberger had no way of hauling acid from Norman's to location. Plastic totes were flown in from High Level and are being rented from Airborne Energy Solutions.

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Frac oil		Packer set at (m):	1428.24
Gas: E ³ m ³ /d	0.00	0.00	Amount Used (m ³):	0.00	Frac Oil	Casing annulus volume (m ³):	21.69
Oil / Condensate: m ³ /d	0.00	0.00	Recovered (m ³):	4.30	Frac Oil	Tubing volume (m ³):	4.33
Water: m ³ /d	0.00	0.00	Cum. Recovered (m ³):	4.30	Frac Oil	Bottom to perf. Volume (m ³):	0.38
Swab / Flow Time: Hrs	0.00	0.00	Left To Recover (m ³):	22.70	Frac Oil	TOTAL WELL VOLUME (m³):	26.40

Man Down Drill		BOP TESTS			BOP Drill			
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: High -19°C, Low -26°C, Clear, 35 km/hr wind		
8.0	Rig:	5	Annular			Road Conditions:	Icy	
19.0	Service:	5	Pipe			Engineer:	Bruce Beveridge	Phone No: 403-261-1385
0.0	ACL:	1	Blind			Reported To:		Phone No:
0.0	Total:	11	Valves			Reported By:	Walter F. Stock	Phone No: 600-700-7716



APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY

DATE: 2004-03-31

REPORT No.:

2004-03-31

12

WELL NAME:	APACHE NOGHA B-23	Licence No:	WID 1998	PAGE No:	1	of	1
LOCATION:	300-B-23-66°-40'-125°-45'-0			AFE No.			NT-04-0504
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production			AFE Amount:			\$1,034,000.00
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):	Rig In Date:			2004-03-28
Mt Clark (Open)	1,441.5 to 1,444.5		to	Rig Out Date:			
	to		to	Rig Contractor / No.:			Shehtah #14
	to		to	Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00
	to		to	Liner (mm):	N/A	Top At (mKB):	N/A
	to		to	Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50
	to		to	Tbg. O.D. (mm):	73.00	Landed (mKB):	1,435.00
	to		to	Packer (mm):	177.80	Set at (mKB):	1,428.24

BOP Press. Test (Yes / No): N/A Satisfactory (Yes / No): N/A Function Test (Yes / No): N/A Safety Meeting: 8:00 Date: 2004-03-30

24 Hr. Ops. Summary:	Perform rig maintenance, man down drills

Tommorow's Plan: R/U Schlumberger, acidize lower Mount Clark

NEB NOTIFICATIONS: Rig Move 25-Mar-04 Flaring

OPERATION SUMMARY SCV (KPa) 0 SICP (KPa) 0 SITP (KPa) TSTM **COST SUMMARY**

Operations for 2004-03-30

0800-2000: SITP = TSTM, SICP = Function test ESD's on rig & rig pump

Spoke with Jason Kelly (Schlumberger Acid Supervisor) at ~0930 hrs, he had indicated to me that they were having problems with there tractor trailer unit at km 60 on the Nogha which is ~35 km from our location. The front chain which secures the front end of the skid pump unit had broken causing the front of the pump skid to slid ~ 3ft to one side, as a third party truck (tractor unit) had pulled up to offer assistance they noticed oil leaking from the tractor unit. Upon investigation it was discovered that a rod had gone through the side of the engine block. The Schlumberger tractor unit was unhitched and loaded on to a low boy. The third party tractor unit hitched up to the trailer.

After this was done it was noticed that the pipe rack containing Schlumbergers line pipe, sweeps & chicksans had broken, they had lost all of their line pipe, etc.

Jason Kelly then called me back again to inform me of the situation and that he was going back down the road to locate the missing equipment. At that time I had instructed him to park the pump unit at the Akita Camp which is located at km 68. At ~1745 hrs I had received a third phone call from Jason Kelly indicating that he had located enough of his lost line pipe, sweeps & chicksans that we would be able to commence with the acid job.

Given the time of day and also deteriorating weather conditions (high winds & heavy snowfall) it was decided to start with the acid job the following morning.

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Frac oil	Packer set at (m):	1428.24
Gas: E ³ m ³ /d	0.00	0.00	Amount Used (m ³):	0.00	Casing annulus volume (m ³):	21.69
Oil / Condensate: m ³ /d	0.00	0.00	Recovered (m ³):	0.00	Tubing volume (m ³):	4.33
Water: m ³ /d	0.00	0.00	Cum. Recovered (m ³):	4.30	Bottom to perf. Volume (m ³):	0.38
Swab / Flow Time: Hrs	0.00	0.00	Left To Recover (m ³):	22.70	TOTAL WELL VOLUME (m³):	26.40

Man Down Drill		30-Mar-04	BOP TESTS			BOP Drill		
Drilling Rig Hours.		Personnel on Location	Component	Low	High	Time	Weather Conditions: High -16°C, Low -21°C, Snow, 15 km/hr wind	
12.0	Rig:	5	Annular				Road Conditions: Icy	
Cumulative:	31.0	Service:	5	Pipe			Engineer:	Bruce Beveridge
Downtime:	0.0	ACL:	1	Blind			Reported To:	Phone No:
Cum. Downtime:	0.0	Total:	11	Valves			Reported By:	Walter F. Stock
							Phone No:	600-700-7716



APACHE CANADA LTD. SWAB REPORT

Date: 2004-04-01

Page No: 2 of 2

Well Name & Location:

APACHE PARAMOUNT 300-B-23

Test Date: 2004-03-31

Report No.

13b

Zone: Mount Clark

Perfs 1.441.5 - 1.444.5 mKB

Page: 1

Supervisor: Walter

Load Fluid to Recover:

4.00 m³ Oil

Load Recovered:

2.00 m3 Water (Acid)

4.04 m³ C

Load Left to Recover:

-0.04 m3 Oil

m3 Water (Acid)

Oil Prod. Today

m3 0.00 m3 Cumm.

Water Prod. Today

m3



**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-04-02

REPORT No.: 14a

WELL NAME:	APACHE NOGHA B-23			Licence No: WID 1998			PAGE No:	1 of 2
LOCATION:	300-B-23-66°-40'-125°-45'-0						AFE No.	NT-04-0504
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production						AFE Amount:	\$1,034,000.00
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):	Rig In Date: 2004-03-28				
Mt Clark (Open)	1,441.5 to 1,444.5			Rig Out Date: Shehtah #14				
Mt Clark (Proposed)	1,420.0 to 1,426.0			Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00	
	to			Liner (mm):	N/A	Top At (mKB):	N/A	
	to			Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50	
	to			Tbg. O.D. (mm):	73.00	Landed (mKB):	1,435.00	
	to			Packer (mm):	177.80	Set at (mKB):	1,428.24	
BOP Press. Test (Yes / No):	N/A	Satisfactory (Yes / No):	N/A	Function Test (Yes / No):	N/A	Safety Meeting:	8:00	2004-03-31
24 Hr. Ops. Summary:	Pulled 4 swabs, recovered 0.02 m3 frac oil & 0.98 m3 acid water, last two swabs pulled dry.							
	R/U S-Line set "G" plug at 20 mKB. N/D wellhead assembly, N/U & P/T BOP - ok. Repair accumulator system.							
Tommorow's Plan:	R/U S-Line to pull plug, release packer & POOH w/tbg							
NEB NOTIFICATIONS:	Rig Move	25-Mar-04	Flaring					
OPERATION SUMMARY	SCV (KPa) 0	SICP (KPa) 1,200	SITP (KPa) 15	COST SUMMARY				
Operations for 2004-04-01				Contractor	Service Provided	Code	Amount	
0800-0830: SITP = 15 Kpa, SICP = 1,200 Kpa. Hold safety & operations meeting, function test ESD on rig & rig pump - ok.				IPS	E-Line	70049	\$6,200.00	
0830-1000: Open well, tubing pressure bled down to 0 Kpa with no after flow. R/U swab equipment. Pulled 4 swabs, recovered 0.02 m3 frac oil & 0.98 m3 acid water (Ph = 3). LFTR = 0.56 m3. Well was swabbed dry with TSTM gas flow after each swab.				IPS	Tester's	70035	\$3,200.00	
attached swab report				Shehtah	Rig 14	70019	\$7,800.00	
1000-1415: Waiting on S-Line to be released from Nabors #203 on K-14. Stump test BOP (low) 1,400 Kpa, (high) 14,000 Kpa, hydrl (low) 1,400 Kpa, (high) 10,000 Kpa - ok.				Akita	Camp	70005	\$2,500.00	
1415-1730: R/U IPS S-Line, RIH & set collar stop at 20.0 mKB, RIH & set 58.75 mm "G" pack blanking plug, pressure up on tbg to 14,000 Kpa to ensure plug is properly set - ok.				AOGS	Catering	70005	\$2,500.00	
1730-1930: N/D wellhead assembly, N/U & P/T BOP - ok, install steam heater & working floor, tarp in BOP, rig tbg tongs. Had trouble with accumulator system, would not pressure, found check valve was partially washed out, replace check valve, pressure up on system & function test BOP - ok. Shut-in & secure well for night.				Auburn	Wellsite Trailer	70031	\$180.00	
				Regs	Water Truck	70074	\$200.00	
				EMS Sahtu	Medic	70017	\$820.00	
				MacKenzie Valley	Trucking	70074	\$6,890.00	
				Daily Cost:	\$30,290.00			
				Previous Cost:	\$592,385.00			
				Cum. Cost:	\$622,675.00			
Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Frac oil			Packer set at (m):	1428.24
Gas: E ³ m ³ /d	0.00	0.00	Amount Used (m ³):	6.00	4.0m ³ oil & 2.0m ³ HCl	Casing annulus volume (m ³):	21.69	
Oil / Condensate: m ³ /d	0.00	0.00	Recovered (m ³):	4.50	4.0m ³ oil & 0.54m ³ HCl	Tubing volume (m ³):	4.33	
Water: m ³ /d	0.00	0.00	Cum. Recovered (m ³):	0.00		Bottom to perf. Volume (m ³):	0.38	
Swab / Flow Time: Hrs	0.00	0.00	Left To Recover (m ³):	1.54		TOTAL WELL VOLUME (m ³):	26.40	
Man Down Drill	30-Mar-04		BOP TESTS (Mpa)			BOP Drill	1-Apr-04	
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions:	High -13°C, Low -23°C, Clear, 5 km/hr wind	
12.0	Rig: 5	Annular	1.4	10.0	10 min	Road Conditions:	Icy	
55.0	Service: 8	Pipe	1.4	14.0	10 min	Engineer:	Bruce Beveridge	Phone No: 403-261-1385
0.0	ACL: 1	Blind	1.4	14.0	10 min	Reported To:	Phone No:	
0.0	Total: 14	Valves	1.4	14.0	10 min	Reported By:	Walter F. Stock	Phone No: 600-700-7716



APACHE CANADA LTD. SWAB REPORT

Date: 2004-04-02

Page No: 2 of 2

Well Name & Location:

APACHE PARAMOUNT 300-B-23

Test Date: 2004-04-01

Report No.

14b

Zone: Mount Clark

Perfs 1,441.5 - 1,444.5 mKB

Page: 1

Page: 1
Supervisor: Walter F. St

Load Fluid to Recovery:

4.00 m³ Oil

Load Recovered:

2.00 m³ Water (Acid)

4.06 m³ O₂

Lead I Left to Recover:

-0.06 m³ Oil

0.56 m³ Water (Acid)

Oil Prod. Today

m3 Water (cold)

Water Prod. Today

0.5
m³

m³ Water
m³ Gumm



**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-04-03

REPORT No.: 15b

WELL NAME:	APACHE NOGHA B-23			Licence No: WID 1998	PAGE No:	2	of	2
LOCATION:	300-B-23-66°-40'-125°-45'-0				AFE No.	NT-04-0504		
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production				AFE Amount:	\$1,034,000.00		
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):		Rig In Date:	2004-03-28		
Mt Clark (Open)	1,441.5 to 1,444.5			to	Rig Out Date:			
Mt Clark (Proposed)	1,420.0 to 1,426.0			to	Rig Contractor / No.:	Shehtah #14		
	to			to	Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00
	to			to	Liner (mm):	N/A	Top At (mKB):	N/A
	to			to	Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50
	to			to	Tbg. O.D. (mm):	73.00	Landed (mKB):	1,439.27
	to			to	Packer (mm):	177.80	Set at (mKB):	1,415.00

Operations for 2004-04-02

Bottom Hole Assembly:

- 1) 1 - 73.0 mm Wireline re-entry guide (0.15 m)
- 2) 1 - 73.0 mm Otis "RN" nipple c/w 55.58 mm profile & 51.05 mm no-go (0.50 m)
- 3) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt (2.47 m)
- 4) 1 - 73.0 mm Otis "R" nipple c/w 55.58 mm profile (0.48 m)
- 5) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt (2.47 m)
- 6) 1 - 177.8 mm x 73.0 mm Halliburton G-77 Hydraulic set production packer c/w 11,000 DaN strait up pull emergency shear release (1.68 m)
- 7) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt (1.25 m)
- 8) 1 - 73.0 mm Otis "XA" sliding sleeve c/w 58.75 mm profile (1.12 m)
- 9) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 tbg jt (9.63 m)
- 10) 1 - 73.0 mm Otis "X" nipple c/w 58.75 mm profile (0.37 m)
- 11) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt (2.47 m)
- 12) 1 - 177.8 mm x 73.0 mm Halliburton G-77 Hydraulic set production packer c/w 11,000 DaN strait up pull emergency shear release (1.68 m)
- 13) 1 - 177.8 mm x 73.0 mm "XL" HD on-off tool c/w 58.75 mm "X" profile (0.67 m)
- 14) 1 - 73.0 mm EUE, 9.67 kg/m, L-80 pup jt (3.09 m)
- 15) 1 - 73.0 mm Otis "X" nipple c/w 58.75 mm profile (0.37 m)
- 16) 147 - 73.0 mm EUE, 9.67 kg/m, L-80 tbg jts (1,410.54 m)
- 17) 1 - 179.4 mm x 73.0 mm Extended neck tubing hanger (0.18 m)

Tubing & BHA = 1,439.12

KB Diff = 1.76

Total Tally = 1,440.88

Packer Stroke = - 0.43

Wireline correction = - 1.27

Tubing Bottom at = 1,439.18



**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-04-04

REPORT No.: 16

WELL NAME:	APACHE NOGHA B-23			Licence No: WID 1998		PAGE No:	1	of	3			
LOCATION:	300-B-23-66°-40'-125°-45'-0					AFE No.	NT-04-0504					
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production					AFE Amount:	\$1,034,000.00					
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):			Rig In Date:	2004-03-28					
Mt Clark (Isolated)	1,441.5	to	1,444.5			Rig Out Date:						
Mt Clark (Open)	1,420.0	to	1,426.0			Rig Contractor / No.:	Shehtah #14					
		to				Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00			
		to				Liner (mm):	N/A	Top At (mKB):	N/A			
		to				Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50			
		to				Tbg. O.D. (mm):	73.00	Landed (mKB):	1,439.27			
		to				Packer (mm):	177.80	Set at (mKB):	1,415.00			
BOP Press. Test (Yes / No): N			Satisfactory (Yes / No): N/A			Function Test (Yes / No): Y			Safety Meeting: 8:00 2004-04-03			
24 Hr. Ops. Summary:		Space out tbg string, land tbg, N/D BOP, N/U & P/T wellhead - OK. Pulled 7 swabs, recovered 4.25 m³ frac oil.										
Tommorow's Plan:		R/U Schlumberger for acid squeeze										
NEB NOTIFICATIONS:	Rig Move	25-Mar-04	Flaring									
OPERATION SUMMARY	SCV (KPa) 0	SICP (KPa) 0	SITP (KPa) 0	COST SUMMARY								
Operations for 2004-04-03									Contractor	Service Provided	Code	Amount
0800-0900: SITP = 0 Kpa, SICP = 0 Kpa. Hold safety & operations meeting, function test ESD on rig & rig pump - ok. Function test BOP, test accumulator system - ok.									IPS	E-Line	70049	\$6,200.00
0900-1100: Release tubing from on-off, pull & lay down 2 - 73.0 mm tbg jts. M/U & RIH with three pup jts (3.08 m, 3.08 m & 1.25 m). P/U 1 - 73.0 mm tbg jt. Install tbg hanger, latch on to tubing string & pull 3,500 DaN OSW to ensure proper latch - ok. Land tubing string in 5,000 DaN compression. Remove working floor. N/D BOP, install & N/U flowing style wellhead assembly. P/T wellhead , tubing, on-off seals to 0.0 Mpa for 15 min - held 100%. Release pressure.									IPS	Tester's	70035	\$3,200.00
1100-1300: R/U IPS S-Line, RIH with Otis "B" shifting tool to open sliding sleeve located at 1,428.96 mKB. Open sleeve. R/O S-Line unit.									Shehtah	Rig 14	70019	\$9,300.00
1300-1600: Monitor tubing pressure for 1.0 hr. SITP = 0 Kpa. R/U swabbing equipment.									Akita	Camp	70005	\$2,500.00
Pulled 7 swabs									AOGS	Catering	70005	\$2,500.00
IFL = surface									Auburn	Wellsite Trailer	70031	\$180.00
FFL = 1,410 mKB (Otis 58.75 mm "X" profile located at 1,410 mKB									Regs	Water Truck	70074	\$200.00
Fluid Recovered = 4.26 m³									EMS Sahtu	Medic	70017	\$820.00
LFTR = 0.01 m³									MacKenzie Valley	Trucking	70074	\$6,572.00
Slight gas flow after each swab - TSTM									Halliburton	Downhole Equipment	71031	\$34,672.00
R/O swab equipment, shut-in & secure well for night.									Daily Cost:	\$66,144.00		
									Previous Cost:	\$674,106.00		
									Cum. Cost:	\$740,250.00		
Reservoir Fluid Summary		Daily	Cumulative	Load Fluid Type: Frac oil			Packer set at (m): 1,415.00					
Gas:	E³ m³/d	0.00	0.00	Amount Used (m³):	4.26	4.0m³ frac oil	Casing annulus volume (m³): 21.69					
Oil / Condensate:	m³/d	0.00	0.00	Recovered (m³):	4.25	4.0m³ frac oil	Tubing volume (m³): 4.33					
Water:	m³/d	0.00	0.00	Cum. Recovered (m³):	4.25		Bottom to perf. Volume (m³): 0.38					
Swab / Flow Time: Hrs		0.00	0.00	Left To Recover (m³):	0.01		TOTAL WELL VOLUME (m³): 26.40					
Man Down Drill		30-Mar-04		BOP TESTS (Mpa)			BOP Drill 2-Apr-04					
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions:	High -6°C, Low -14°C, Clear, 5 km/hr wind					
aily:	12.0	Rig:	5	Annular		Road Conditions:	Icy					
lulative:	79.0	Service:	5	Pipe		Engineer:	Bruce Beveridge	Phone No:	403-261-1385			
Downtime:	0.0	ACL:	1	Blind		Reported To:	Phone No:					
Cum. Downtime:	0.0	Total:	11	Valves		Reported By:	Walter F. Stock	Phone No:	600-700-7716			



APACHE CANADA LTD. SWAB REPORT

Date: 2004-04-04

Page No: 2 of 3

Well Name & Location:

APACHE PARAMOUNT 300-B-23

Test Date: 2004-04-03

Report No.

004-04-04

2 of 3

Zone: Mount Clark
Perfs 1,420.0 - 1,426.0 mKB

Page: 1

1

Supervisor: Walter F. Stock



**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-04-05

REPORT No.: 17a

WELL NAME:	APACHE NOGHA B-23			Licence No: WID 1998	PAGE No:	1	of	3	
LOCATION:	300-B-23-66°-40'-125°-45'-0			AFE No.:	NT-04-0504				
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production			AFE Amount:	\$1,034,000.00				
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):	Rig In Date:	2004-03-28				
Mt Clark (Isolated)	1,441.5 to 1,444.5		to	Rig Out Date:					
Mt Clark (Open)	1,420.0 to 1,426.0		to	Rig Contractor / No.:	Shehtah #14				
	to		to	Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00		
	to		to	Liner (mm):	N/A	Top At (mKB):	N/A		
	to		to	Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50		
	to		to	Tbg. O.D. (mm):	73.00	Landed (mKB):	1,439.27		
	to		to	Packer (mm):	177.80	Set at (mKB):	1,415.00		
BOP Press. Test (Yes / No): N		Satisfactory (Yes / No): N/A		Function Test (Yes / No): N/A		Safety Meeting:		8:00	2004-04-04
24 Hr. Ops. Summary:									
Tommorow's Plan:		Bed load service rig & related equipment & move equipment to Norman Wells							
NEB NOTIFICATIONS:		Rig Move	25-Mar-04	Flaring					
OPERATION SUMMARY		SCV (KPa) 0	SICP (KPa) 0	SITP (KPa) 600	COST SUMMARY				
Operations for 2004-04-04									
<p>0800-0900: SITP = 600 Kpa, SICP = 0 Kpa. R/U Schlumberger to acidize the Upper Mt Clark interval 1,420.0-1,426.0 mKB. Hold safety & operations meeting, function test ESD on rig, rig pump & Schlumberger acid pumper - ok. Obtain two gas samples from well prior to rigging in Schlumberger.</p> <p>0900-1130: Off load acid totes from picker unit, empty totes into clean tank truck, mix & blend 3.0 m³ acid (15% HCl + 20% K046 (methanol) + 0.2% A262 + 2.5% F105). Perform titration test on acid = 15.2%. P/T treating lines to 35 Mpa - ok. Pump 3.0 m³ 15% HCl, displace with 5.5 m³ frac oil this includes 1.5 m³ over displacement. Pump rate of 0.4 m³/min @ 12.5 Mpa while acid was feeding into perfs, pump pressure increased to 16.5 Mpa @ 0.4 m³/min when frac oil was at perfs to over displace acid. ISITP = 16.0 Mpa, 15 min SITP = 6.5 Mpa. Open well, pressure bled down to 0 Kpa.</p> <p>1130-1400: R/U swabbing equipment. Pulled 7 swabs, recovered = 6.50 m³ (4.75 m³ frac oil & 1.75 m³ acid water), LFTR = 0.75 m³ frac oil & 1.25 m³ acid water, IFL = surface, FFL = 1,410 mKB (Otis 58.75 mm "X" profile located at 1,410 mKB). Fluid being recovered was very gasified, TSTM gas flow after each swab. See attached Swab Report</p> <p>1400-1500: Monitor & record tubing pressure for 1.0 hr.</p> <p>05 min SITP = 36 Kpa 10 min SITP = 73 Kpa 30 min SITP = 106 Kpa 45 min SITP = 149 Kpa 60 min SITP = 191 Kpa Con't on next page.....</p>									
Reservoir Fluid Summary		Daily	Cumulative	Load Fluid Type:	Frac oil	Packer set at (m):	1,415.00		
Gas:	E ³ m ³ /d	0.00	0.00	Amount Used (m ³):	8.50	5.5m ³ oil & 3.0m ³ HCl	Casing annulus volume (m ³):	21.69	
Oil / Condensate:	m ³ /d	0.00	0.00	Recovered (m ³):	6.50	4.7m ³ oil & 1.3m ³ HCl	Tubing volume (m ³):	4.33	
Water:	m ³ /d	0.00	0.00	Cum. Recovered (m ³):	6.50		Bottom to perf. Volume (m ³):	0.38	
Swab / Flow Time: Hrs		2.50	2.50	Left To Recover (m ³):	2.00		TOTAL WELL VOLUME (m³):	26.40	
Man Down Drill		30-Mar-04		BOP TESTS (Mpa)			BOP Drill	2-Apr-04	
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions:	High -2°c, Low -14°c, Clear, 5 km/hr wind		
Daily:	12.0	Rig: 5	Annular			Road Conditions:	Icy		
Cumulative:	91.0	Service: 6	Pipe			Engineer:	Bruce Beveridge	Phone No:	403-261-1385
Downtime:	0.0	ACL: 1	Blind			Reported To:		Phone No:	
Cum. Downtime:	0.0	Total: 12	Valves			Reported By:	Walter F. Stock	Phone No:	600-700-7716



**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-04-05

REPORT No.: 17b

WELL NAME:	APACHE NOGHA B-23	Licence No:	WID 1998	PAGE No:	2	of	3
LOCATION:	300-B-23-66°-40'-125°-45'-0			AFE No.			NT-04-0504
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production			AFE Amount:			\$1,034,000.00
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):	Rig In Date:			2004-03-28
Mt Clark (Isolated)	1,441.5 to 1,444.5		to	Rig Out Date:			
Mt Clark (Open)	1,420.0 to 1,426.0		to	Rig Contractor / No.:			Shehtah #14
	to		to	Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00
	to		to	Liner (mm):	N/A	Top At (mKB):	N/A
	to		to	Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50
	to		to	Tbg. O.D. (mm):	73.00	Landed (mKB):	1,439.27
	to		to	Packer (mm):	177.80	Set at (mKB):	1,415.00

Operations for 2004-04-04

1500-1530: Bleed off tubing pressure to bullet. RIH with swab equipment, pull from 1,400 mKB - dry swab. Inform Calgary of results. Rig out swab equipment.

1530-0700: R/U IPS S-Line, RIH & set tandem EMR's c/w bombwells into 58.75 mm "X" profile located in sliding sleeve assembly landed at 1,428.96 mKB, RIH and set collar stop. RIH w/Otis 58.75 mm plug assembly to isolate recorders & tubing from Upper Mt Clark interval at 1,420.0-1,426.0 mKB. Fill tubing with 4.1 m³ diesel. P/T plug & tbg to 7.0 Mpa for 15 min - ok. Bleed off pressure, R/O & release IPS S-Line. Chain & lock wellhead.

1700-2000: R/O service rig & related equipment. R/O IPS test equipment - all equipment will be located at central staging point prior to trucking into Norman Wells.

END OF REPORT



APACHE CANADA LTD. SWAB REPORT

Date: 2004-04-05

Page No: 3 of 3

Well Name & Location:

APACHE PARAMOUNT 300-B-23

Test Date: 2004-04-03

Report No.

Zone: Mount Clark

Perfs 1,420.0 - 1,426.0 mKB

Page:

Supervisor: Walter F. Stock

17a



**APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY**

DATE: 2004-05-16

REPORT No.: 21

WELL NAME:	APACHE NOGHA B-23			Licence No: WID 1998	PAGE No:	1	of	2			
LOCATION:	300-B-23-66°-40'-125°-45'-0			AFE No.	NT-04-0504						
OBJECTIVE:	Complete the Lower & Upper Mount Clark for gas production			AFE Amount:	\$1,034,000.00						
Formation:	Perforations (mKB):	Formation:	Perforations (mKB):	Rig In Date:	2004-03-28						
Lower Mt Clark	1,441.5	to	1,444.5		Rig Out Date:						
Upper Mt Clark	1,420.0	to	1,426.0		Rig Contractor / No.:						
		to		Csg. Dia (mm):	177.80	Set At (mKB):	1,476.00				
		to		Liner (mm):	N/A	Top At (mKB):	N/A				
		to		Liner Bot. (mKB):	N/A	PBTD (mKB):	1,453.50				
		to		Tbg. O.D. (mm):	73.00	Landed (mKB):	1,439.27				
		to		Packer (mm):	177.80	Set at (mKB):	1,415.00				
BOP Press. Test (Yes / No): N			Satisfactory (Yes / No): N/A			Function Test (Yes / No): N/A			Safety Meeting: 8:00		
24 Hr. Ops. Summary:		Rigged up, closed sleeve, pulled plug & recorders, run plug into X nipple, moved 2 loads to C-34, SDFN.									
Tommorow's Plan:		Final report									
NEB NOTIFICATIONS:		Rig Move	Flaring								
OPERATION SUMMARY		SCV (KPa)	SICP (KPa)	SITP (KPa) 913		COST SUMMARY					
Operations for 2004-05-15								Contractor	Service Provided	Code	Amount
Rigged up equip.								Airborne	Helicopter	70002	\$11,605.00
Attempted to grab gas sample but fluid @ surface so unable to.								CENS	Supervision	70021	\$1,650.00
RIH & closed XA sliding sleeve @ 1428.96 mkb.								IPS	Slickline	70049	\$31,182.00
RIH & pulled prong & plug from 55. 58 mm R nipple @ 1435.48 mkb.								ESSO	Fuel	70037	\$2,000.00
H & pulled recorders landed on top dart in 55.58 mm RN nipple @ 1438.43 mkb.								Mackenzie Hotel	Rooms & food	70005	\$3,400.00
H & pulled dart from the 55.58 mm RN nipple @ 1438.43 mkb.								Hodson	trucks	70031	\$2,200.00
Lower Mount Clark											
SITP = 11 kpa. SICP = vac											
BHP = 15424 kpa. BHT = 25.9 oC.											
Fluid @ surface.											
RIH & set a collar stop, a Camco A-3 plug & slip stop @ 18 mcf.											
Secured well.											
Moved 2 loads of equip tp C-34.											
SDFN.											
Reservoir Fluid Summary		Daily	Cumulative	Load Fluid Type:	Frac oil				Packer set at (m):	1,414.81	
Gas:	E ³ m ³ /d	0.00	0.00	Amount Used (m ³):	8.50	5.5m ³ oil & 3.0m ³ HCl		Casing annulus volume (m ³):	21.69		
Oil / Condensate:	m ³ /d	0.00	0.00	Recovered (m ³):	6.50	4.7m ³ oil & 1.3m ³ HCl		Tubing volume (m ³):	4.33		
Water:	m ³ /d	0.00	0.00	Cum. Recovered (m ³):	6.50			Bottom to perf. Volume (m ³):	0.38		
Swab / Flow Time: Hrs		2.50	2.50	Left To Recover (m ³):	2.00			TOTAL WELL VOLUME (m³):	26.40		
Man Down Drill		30-Mar-04		BOP TESTS (Mpa)			BOP Drill				
Drilling Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions:	Low - 20C, High + 60C, clear				
ily:	Rig:	Annular				Road Conditions:					
Cumulative:	91.0	Service: 4	Pipe			Engineer:	Bruce Beveridge	Phone No:	403-261-1385		
Downtime:	0.0	ACL: 1	Blind			Reported To:	Walter Stock	Phone No:			
Cum. Downtime:	0.0	Total: 5	Valves			Reported By:	Mike Periard	Phone No:	780-926-0118		