

ACL NOGHE
300/K-14-66-40-126-02/0

N.E.B. COPY

Completion Report

6640126000



File: WID# 2006, 2007
14 January 2004

300K146640 126/00
02/00

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

Dear Mr. Hladun:

**Approval to Drill a Well (ADW) for:
Apache Paramount Tunago Lake E-44 (2007) & Apache Paramount West Nogha K-14 (2006)**

Please be advised that your application for an "Approval to Drill a Well", pursuant to section 83 of the *Canada Oil and Gas Drilling Regulations* is approved for the wells "Apache Paramount Tunago Lake E-44" and "Apache Paramount West Nogha K-14". Please note well name change for E-44. Attached is a signed "Approval to Drill a Well" form for both E-44 and K-14, of which one copy is to be posted in a conspicuous place at the drill site as per the *Canada Oil and Gas Drilling Regulations*.

Any changes or deviation from the program will require the additional specific approval of the Chief Conservation Officer. Please be reminded that all oil and gas activities are, at minimum, to meet the requirements of the *Canada Oil and Gas Drilling Regulations*, the *Oil and Gas Occupational Safety and Health Regulations* and the *Canada Labour Code, Part II*. Conditions of approval are attached.

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. M. 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.gc.ca>

Attachment

14 January 2004

Approval to Drill a Well for:
Apache Paramount Tunago Lake E-44
Apache Paramount West Nogha K-14

1. Daily drilling reports are to be faxed by 8:30 am to the attention of the Chief Conservation Officer (fax number (403) 292-5876). Please contact Trena Barnes (phone number (403) 299-3192) should there be any difficulty in delivery of the daily drilling reports.
2. Geological reports are to be submitted daily which include sample descriptions, strip logs and gas detection readings.
3. Please provide immediate copies of any log run as well as two copies of all final prints and digital files in LASII format of all logs run.
4. Information to be submitted to the Chief Conservation Officer includes all logs run, drill chips samples, core and fluid samples collected, descriptions and analyses performed on any core, DST results and any pressure and temperature data collected. Actual samples collected are to be submitted to the Core and Sample Repository at the Geological Survey of Canada - Calgary. The "unwashed" samples must have any oil emulsion fluid removed prior to delivery. Additionally, a copy of the core and sample transmittal letter should be forwarded to the Chief Conservation Officer.
5. As per section 122 of the *Canada Oil and Gas Drilling Regulations* formation leak-off tests are to be conducted after the drilling out of surface casing. The leak-off test data and plot are to be faxed in with the accompanying daily drilling report.
6. Well suspension operations are required to meet the requirements of the *Canada Oil and Gas Drilling Regulations*. Upon program termination and well suspension/abandonment a "Well Termination Record" is required to be submitted and a wellbore schematic is to be included.

7. A copy of the *Canada Oil and Gas Drilling Regulations* as well as the *Oil and Gas Occupational Safety and Health Regulations* are to be kept at the drill site and available on request by any person at the drill site (section 102 of the *Canada Oil and Gas Drilling Regulations* and paragraph 125.1(e) of the *Canada Labour Code, Part II*, respectively).

8. Please note the following provisions taken from the *Canada Oil and Gas Operations Act* regarding the powers of a Conservation Officer. Conservation Officers are normally trained in various industry oil and gas safety courses. Please note that while neither the Act nor regulations require a Conservation Officer to possess any industry safety courses to enter and inspect a drilling site, however, we do ensure that our inspectors are fully trained and have all the prerequisite training to enter any site. Conservation Officers appointed by the Board are only required to provide the person in charge of a drill site proof of their certificate of designation.
9. Apache shall implement or cause to be implemented all of the policies, practices, mitigative measures, recommendations and procedures for the protection of the environment referred to in its application.

Attachment

14 January 2004

**Approval to Drill a Well for:
Apache Paramount Tunago Lake E-44
Apache Paramount West Nogha K-14**

10. Within 30 days of the completion the well Apache shall file with the Chief Conservation Officer a confirmation, by an officer of the company, that the approved Project was completed in compliance with all applicable conditions in the Approval to Drill a Well. If compliance with any of these conditions cannot be confirmed, the officer of the company shall file with the Chief Conservation Officer details as to why compliance cannot be confirmed.
11. Apache shall meet the Guideline for Ambient Air Quality Standards in the Northwest Territories when conducting any flaring associated with the Coville Lake Drilling Program.



DEC 17 2003

Exploratory Delineation
 Development Service

APPROVAL TO DRILL A WELL

This application is submitted under Section 82 of the *Canada Oil and Gas Drilling Regulations*. When approved under Section 83 of the Regulations, it is the requisite approval for the commencement of drilling operations.

Well Name: APACHE PARAMOUNT WEST NOGHA K-14

Operator: APACHE CANADA LTD.

Contractor: AKITA DRILLING LTD.

Drilling Rig or Unit: AKITA RIG #51

Location-Unit: K Section: 14

Coordinates: Lat: 66° 33' 39.042"

Area: NOGHA

Elevation-KB/RT: 312.44mKB (ASL)

Approx. Spud Date: FEBRUARY 15, 2004

Anticipated Total Depth: 1355 M

Drilling Program No.:

Interest Identifier: SAHTU SETTLEMENT

Estimated Well Cost: \$4,500,000

Grid: 66° 40', 126° 00'

Long.: 126° 03' 02. 842"

Field / Pool: N/A

GL / Seafloor: 307.54

Est. Days on Location: 30

Target: MT. CLARK

EVALUATION PROGRAM

FIVE

Five-metre sample

TWO POINT FIVE

Five-metre sample

FIVE METRE

Conventional sample intervals

TWO POINT FIVE METRE SAMPLE

Conventional sample

FIVE METRE SAMPLE

Logs and Tests

SURFACE TO TOP MOUNT CAP CLASTICS

TOP MOUNT CAP CLASTICS TO BASE MOUNT CAP CLASTICS

BASE MOUNT CLASTIC TO TOP MOUNT CLARK SAND 'A'

TOP MOUNT CLARK 'A' SAND TO TOP PROTEROZOIC

TOP PROTEROZOIC TO T. D.

CASING AND CEMENTING PROGRAM

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m KB)	Cementing
<u>339.7 MM</u>	<u>101 kg/m</u>	<u>K-55</u>	<u>60 M</u>	<u>10T ARCTIC SET</u>
<u>244.5 MM</u>	<u>59.53 kg/m</u>	<u>L-80</u>	<u>550 M</u>	<u>8T ARCTIC SET</u>
				<u>23T CLASS 'G'</u>
<u>177.8 MM</u>	<u>43.16 kg/m</u>	<u>L-80</u>	<u>1355 M</u>	<u>27T CLASS 'G'</u>

BOP Equipment: SHAFFER SPHERICAL 279MM 21MPa, 1-SHAFFER LWS 244MM 21MPa DOUBLE GATE RAM, 1-SHAFFER LWS 279MM 21MPa SINGLE GATE, VALVCON 318L 21MPa 5 STATION ACCUM, ELECTRIC REMOTE, CAMERON

Other Information: WKM 51m x 76mm 21 MPa CHOKER MANIFOLD.

CORING: POSSIBLE 18m CORE CAMBRIAN MOUNT CLARK

LOGS: DSI ARRAY SONIC - GR-CAL, AIT-GR-X/Y/CAL,

LDT-TLD-PE-CNL-X/Y/CAL

Signed: Bob Phillips Title: SR. DRILLING SUPT.

Name: Bob Phillips

Date: DEC 5/03

Company: APACHE CANADA LTD.

Phone: (403) 261-1316

APPROVAL

An approved copy of this notice is to be posted at each wellsite.

Date: January 14/04

Signed:

C. V. Bell

File: 9211-A074-1-2

65 / Chief Conservation Officer

WID: 2006

UWI: 300K146640126000



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
T. M. Baker
Chief Conservation Officer
for

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>



AUG 04 2004

WELL TERMINATION RECORD

This record is submitted in compliance with Section 184 of the Canada Oil and Gas Drilling Regulations.

Well Name: Apache Paramount West Nogha K-4 Area: Nogha

Grid Area: 66° 40', 126° 00' Field / Pool: NIA

Interest Identifier: Sahlu Settlement Final Coordinates: Lat: 66° 33' 39.092" Long: 126° 03' 02.832"

Drilling Unit: Akita Rig #51 Elevations-KB/RT: 313.2 (ASL) GL/Seafloor: 307.54

Spud Date: Mar 11, 2004 Surface: R.R.: Mar 21, 2004 Total Depth: 1104

O.D. (mm)	Weight (kg/m)	Grade	Depth Set (m KB)	Cement (m³)
<u>339.7</u>	<u>101.2</u>	<u>K-55</u>	<u>65</u>	<u>7.4 m³ Arctic Set</u>
<u>244.5</u>	<u>59.53</u>	<u>L-80</u>	<u>548</u>	<u>18.1 m³ class G</u>
				<u>5.9 m³ Arctic Set, topped up with 8.4 m³ Arctic Set.</u>
<u>177.8</u>	<u>43.16</u>	<u>L-80</u>	<u>1404</u>	<u>22.7 m³ class G</u>

PLUGGING PROGRAM

Approval of the following program was obtained by (person)

from (person) _____ of the _____

by means of _____ on _____

Type of Plug	Interval (m KB)	Felt	Cement (m³)
--------------	-----------------	------	-------------

Well is cased to T.D. Cemented full length.

Lost Circulation/Overpressure Zones: _____

Equipment left on Seafloor (Describe): _____

Provision for Re-entry (Describe and attach sketch): 50% lost circ from 297-277 100% lost circ 277-548

Cores: Type: NIA Intervals: Drilled blind from 277 to 548

Other Downhole Completion/Suspension Equipment: _____

CERTIFICATION

I certify on the basis of personal knowledge of operations undertaken at the above named well that the above information is accurate.

Signed: Greg Hladun P.Eng Title: Senior Staff Drilling Engineer

Name: Greg D Hladun Date: June 24, 2004

Company: Apache Canada Ltd.

Well Status
Suspended <input type="checkbox"/>
Completed <input type="checkbox"/>
Abandoned <input type="checkbox"/>

Acknowledged by: _____

C. K. Kel
for/Chief Conservation Officer

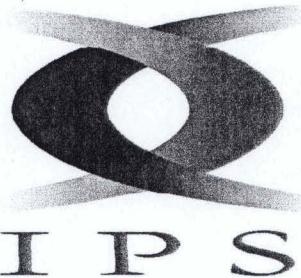
Date: Aug 10/04

File: 9211-A075-1-2

UWI: 300K146640126000

WID: 2006

INTEGRATED PRODUCTION SERVICES



Project Management & Engineering

CLEAN UP/SWAB

APACHE CANADA LIMITED

Well Name: APACHE PARAMOUNT WEST NOGHA K-14
UWI: 300_K-14-66-39 126-03-0

FIELD: COLVILLE LAKE

FORMATION: MOUNT CLARK 'C'

TEST DATE: April 3-5, 2004

DISTRIBUTION: Walter Stock, Calgary, AB
via email: walterf.stock@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



EXTENDED GAS ANALYSIS

V0003386 - 1
CONTAINER IDENTITY

2006
WELL LICENSE NUMBER

52136-2004-1387
LABORATORY FILE NUMBER

Apache Canada Ltd.
K-14-66-39-126-3-0
LOCATION (UWI)

OPERATOR
Apache Paramount West Nogha K14-66-39-126-3-0
WELL NAME

1
PAGE
313.2 308.4
KB ELEV (m) GR ELEV (m)

Nogha
FIELD OR AREA

Mount Clark B C
POOL OR ZONE

IPS
SAMPLER

TEST TYPE AND NO. TEST RECOVERY

Wellhead

		POINT OF SAMPLE		SAMPLE POINT ID			
1369.7 - 1379.0		PUMPING	FLOWING	GAS LIFT		SWAB	
		WATER	m³/d	OIL	m³/d	GAS	m³/d
SEPARATOR	RESERVOIR	575	@ °C	20 @ 22 °C			-10
		OTHER	CONTAINER WHEN SAMPLED	CONTAINER WHEN RECEIVED	SEPARATOR	OTHER	Temperatures, °C

at 18:15 hrs

2004 04 02 2004 04 20 2004 04 27 CM ANALYST AMT. AND TYPE CUSHION MUD RESISTIVITY
DATE SAMPLED (Y/M/D) DATE RECEIVED (Y/M/D) DATE ANALYZED (Y/M/D) °C

COMPONENT	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE AS ACID GAS FREE	ml/m³ AIR FREE AS RECEIVED
H ₂	0.0010	0.0010	
He	0.0036	0.0037	
N ₂	0.1469	0.1497	
CO ₂	0.0182	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.7858	0.8003	
C ₂	0.0389	0.0396	138.1
C ₃	0.0040	0.0041	14.7
iC ₄	0.0005	0.0005	2.2
C ₄	0.0003	0.0003	1.3
iC ₅	Trace	Trace	Trace
C ₅	Trace	Trace	Trace
C ₆	Trace	Trace	Trace
C ₇	0.0002	0.0002	1.2
C ₈	0.0006	0.0006	3.3
C ₉	Trace	Trace	Trace
C ₁₀₊	0.0000	0.0000	0.0
Total	1.0000	1.0000	160.8

CALCULATED GROSS HEATING VALUE MJ/m³ @ 15°C & 101.325 kPa (abs.)		CALCULATED VAPOR PRESSURE kPa (abs.) @ 40 °C	
32.90		33.50	9.1
MOISTURE FREE	MOISTURE & ACID GAS FREE		PENTANES PLUS
0.804 kg/m³	0.657	19.0	RELATIVE MOLECULAR MASS
0.804 kg/m³	0.657	19.0	RELATIVE MOLECULAR MASS
CALCULATED PSEUDOCRITICAL PROPERTIES AS SAMPLED		ACID GAS FREE	
4461.4 kPa (abs)	188.0 K	4407.2 kPa (abs)	185.8 K
p _{Pc}	p _{Tc}	p _{Pc}	p _{Tc}
C ₇₊ PROPERTIES @ 15°C & 101.325 kPa		MOLE FRACTION	LOCATION
760.6 kg/m³	101.2	0.0000000	Field
DENSITY	MOLECULAR WEIGHT		HYDROGEN SULPHIDE

REMARKS:

H₂S was not detected in the field by Kitagawa.
Sample and Duplicate were air contaminated.

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.

APACHE CANADA LIMITED
300k-14-66-39 126-03-0
Start Test Date: 2004/04/03
Final Test Date: 2004/04/05

Integrated Production Services

Field Measurements

APACHE PARAMOUNT WEST NOGHA K-14
Formation: MOUNT CLARK 'C'

Date	Time	Clock		WHT	Orifice	Static	Diff	Temp	Rate	Gas	Cum	Fld	Oil	Cum	H2O	Cum			
		Tbg	Csg							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	2004/04/03	19:00:00	NEW REPORT STARTED FOR MOUNT CLARK 'C' ZONE																
2			HOLD SAFETY MEETING																
3		19:15:00	RIG OUT WIRELINE, RIG IN TO SWAB																
4			BLEED OFF TO TEST VESSEL																
5			SWAB #1 TAG AT SURFACE PULL 582 m RETURNS ARE FRAC OIL CUT 3.0% ACID																
6		19:30:00	0								1.380	3.0	1.339	1.339	0.041	0.041	1	12000	52.2
7			SWAB #2 TAG 394 m PULL 943 m FRAC OIL CUT 3.0% ACID																
8		19:50:00	0								1.540	3.0	1.494	2.832	0.046	0.088	1	12000	
9			SWAB #3 TAG 943 m PULL 1157 m FRAC OIL CUT 1.5% SEDIMENT																
10		20:20:00	0								0.290	1.5	0.286	3.118	0.004	0.092			
11			SWAB #4 TAG 1030 m PULL 1320 m FRAC OIL CUT 2.0% SEDIMENT																
12		20:45:00	0								0.370	2.0	0.363	3.481	0.007	0.099			
13			SWAB #5 TAG ? PULL 1320 m FRAC OIL CUT 12.0% SEDIMENT																
14		21:00:00	0								0.080	12.0	0.070	3.551	0.010	0.109			
15			SWAB #6 TAG ? PULL 1320 m FRAC OIL CUT 50.0% ACID 3.0% SEDIMENT																
16		21:20:00	0								0.230	53.0	0.108	3.659	0.122	0.231	1	10000	52.8
17			SWAB #7 TAG ? PULL 1320 m																
18		21:45:00	DRY SWAB																
19			SWAB #8 TAG ? PULL 1320 m																
20		22:15:00	DRY SWAB																
21			SWAB #9 TAG ? PULL 1320 m																
22		23:15:00	DRY SWAB																
23	2004/04/04	00:15:00	SWAB #10 TAG ? PULL 1320 m																
24		00:15:00	DRY SWAB																
25		00:15:00	SHUT IN WELL, RECORD BUILD UPS																
26		00:30:00	0																
27		01:00:00	0																
28		02:00:00	0																
29		03:00:00	0																
30		04:00:00	0																
31		05:00:00	0			0.00	0	0.0	0.0	0.000	0.000	0.000	0.0	0.000	3.659	0.000	0.231		

APACHE CANADA LIMITED
300k-14-66-39 126-03-0
Start Test Date: 2004/04/03
Final Test Date: 2004/04/05

Integrated Production Services

Field Measurements

APACHE PARAMOUNT WEST NOGHA K-14
Formation: MOUNT CLARK 'C'
Job Number: GP04-217

Date	Time	Clock		WHT	Orifice	Static	Diff	Temp	Rate	Gas	Cum	Fld	Oil	Cum	H2O	Cum		
		Tbg	Csg							Gas	Vol	BSW					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
32	2004/04/04																	
33		06:00:00																
34																		
35		06:15:00															1	12000
36																		
37		06:35:00															1	12000
38																		
39																		
40		07:40:00																
41																		
42																		
43																		
44		09:20:00																
45																		
46																		
47		10:40:00																
48		11:00:00																
49		12:00:00																
50																		
51																		
52		14:15:00																
53																		
54		14:22:00																
55																		
56																		
57																		
58		14:40:00																
59																		
60		14:55:00																
61																		
62		15:10:00																

APACHE CANADA LIMITED
300k-14-66-39 126-03-0
Start Test Date: 2004/04/03
Final Test Date: 2004/04/05

Integrated Production Services

Field Measurements

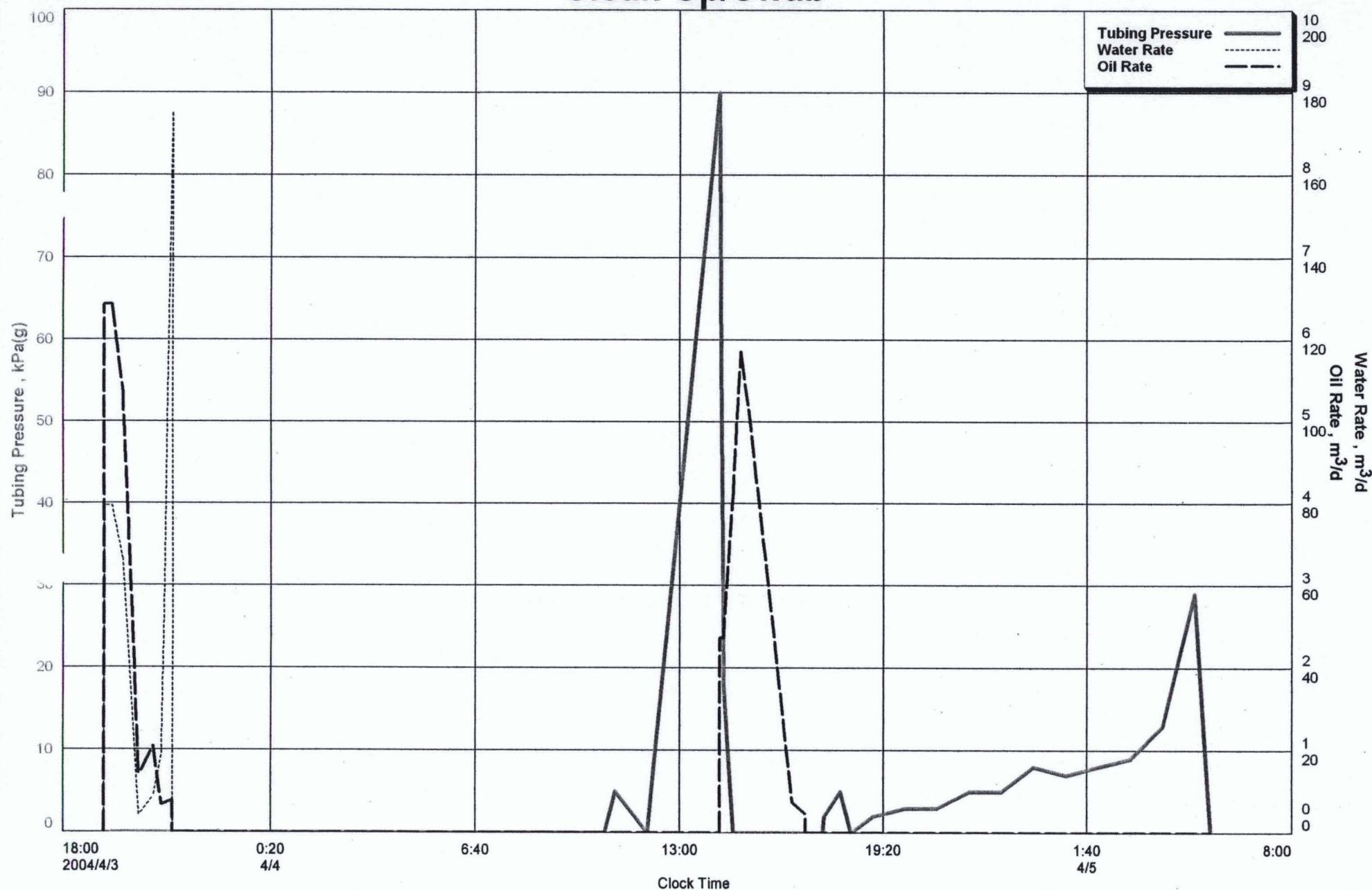
APACHE PARAMOUNT WEST NOGHA K-14
Formation: MOUNT CLARK 'C'

Date	Time	Clock		WHT	Orifice	Static	Diff	Temp	Rate	Gas	Cum	Fld	Oil	Cum	H2O	Cum			
		Tbg	Csg	°C	mm	kPa(g)	kPa	°C	10 ³ m ³	10 ³ m ³	m ³	BSW	Gain	Oil	Gain	H2O	pH	Salinity	API
63	2004/04/04			SWAB #6 TAG 1070m PULL 1320m															
64		15:30:00		DRY SWAB															
65				SWAB #7 TAG 1200m PULL 1320m															
66		16:30:00		0								0.410	0.0	0.410	7.619	0.000	0.231		
67				SWAB #8 TAG ? PULL 1320m															
68		16:55:00		0								0.080	0.0	0.080	7.699	0.000	0.231		
69				SHUT IN @ CHOKE MANIFOLD TO RECORD PRESSURE BUILDUPS															
70		17:00:00		-22		0.00	0	0.0	0.0	0.000	0.000	0.000	0.0	0.000	7.699	0.000	0.231		
71		17:30:00		2															
72		18:00:00		5															
73				RUN IN TO SWAB															
74				SWAB #9 TAG ? PULL 1320m DRY SWAB															
75		18:20:00		DRY SWAB															
76		18:30:00		SHUT IN RIG OUT SWAB EQUIPMENT RECORD BUILD UP PRESSURES															
77		19:00:00		2															
78		20:00:00		3															
79		21:00:00		3															
80		22:00:00		5															
81		23:00:00		5															
82	2004/04/05	00:00:00		8															
83		01:00:00		7															
84		02:00:00		8															
85		03:00:00		9															
86		04:00:00		13															
87		05:00:00		29															
88				SAMPLES TAKEN FROM WELLHEAD CORE CONTAINERS (V0006983, V0001429)															
89				WIRE LINE RIG UP TO RUN PLUG															
90				END OF CLEAN UP/SWAB FOR MOUNT CLARK 'C' ZONE															
91				SECURE WELL AND RIG OUT TEST EQUIPMENT															
92		05:30:00		0	0	0.0	0.00	0	0.0	0.0	0.000	0.000	0.0	0.000	7.699	0.000	0.231		

APACHE CANADA LIMITED
300_K-14-66-39 126-03-0
Start Test Date: 2004/04/03
Final Test Date: 2004/04/05

APACHE PARAMOUNT WEST NOGHA K-14
Formation: MOUNT CLARK 'C'
Job Number: GP04-217

Clean Up/Swab





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

DATE: 2004-03-31
REPORT No.: 02

WELL NAME:	ACL NOGHA 300-K-14	Licence No:	WID 2006	PAGE No:	1	of	1
LOCATION:	300-K-14-66°-39'-126°-03'-0			AFE No.			NT-04-0335
OBJECTIVE:	Complete lower & upper Mount Clark for gas production			AFE Amount:			\$1,076,000.00
Formation:	Perforations (mMD):	Formation:	Perforations (m):	Rig In Date:			2004-03-29
	to		to	Rig Out Date:			yyyy-mm-dd
	to		to	Rig Contractor / No.:			Nabors # 203
	to		to	Csg. Dia (mm):	177.80	Set At (m):	1,404.00
	to		to	Liner (mm):	N/A	Top At (m):	N/A
	to		to	Liner Bot. (mMD):	N/A	PBTD (mMD):	1,386.80
	to		to	Tbg. O.D. (mm):	73.00	Landed (m):	
	to		to	Anchor (mm):	N/A	Set At (m):	N/A

BOP Press Test (Yes / No): **Satisfactory (Yes / No):** Function Test (Yes / No): Safety Meeting: 7:00 2004-03-30

24 Hr. Ops. Summary: Test BOP's, run in bit scraper & 73mm tbg, circulate over to oil & test csg 7 mpa/OK. Rig won't power up.

Tomorrow's Plan: Fix problem with rig, pull tbg. Log & perforate.

EUB NOTIFICATIONS: Rig Move | Flaring |

Serial Number: 2224 22 22

07:00 Hrs: Safety/procedure meeting, DWA Checked ESD's

07:00 hrs: Safety/procedure meeting. DWA. Check Test POBIs. Rigged in floor 8, equiv for winter work.

12-22 Hrs. Made up & Drill with 150mm bit. 177.5mm copper & 73mm I. 80 tbs.

10:00 Hrs: Made up & RIH with 152mm bit, 177.8mm
Tanged PRTD. @ 1826.8 mslh. Rigged in to circulate.

Tagged PBTD @ 1386.8 mK

16:00 Hrs: Wait on frac oil.

18:00 Hrs: Started circulating over to frac oil.
18:30 Hrs: Circulation. Safe operating. Turned over to night shift.

19:00 Hrs: Crew change. Safety meeting. Turned over to night shift. Flight inspection will be performed. Turnaround 7 hrs/12 min/OK.

Finish circulating well over to frac oil. Test csg to 7 mpa/10 min/OK.

10 Hrs: Service rig having problem, rig won't come off idle. There is air to all the controls. Methanol all lines, try in rig cab. Every so often will power up, but not all the times. Rig manager in contact with Nabor's mechanics, tried different options. Seems to be in electrical panel box for the motor. SCV after 24 hr test- 0 kpa, left open.

Northridge	9999	70031	\$200.00
Northern Services	9999	70031	\$340.00
EMS Sahtu	9999	70017	\$900.00
Eveready Trucking	9999	70074	\$1,400.00

07:00 Hrs: Turn well over to day crew.

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type: OIL	Packer set at (m): 0.00
Gas: E³ m³/d			Amount Used (m ³): 25.00	Casing annulus volume (m ³): 20.90
Oil / Condensate: m³/d			Recovered (m ³):	Tubing volume (m ³): 4.10
Water: m³/d			Cum. Recovered (m ³):	Bottom to perf. Volume (m ³): 0.00
Swab / Flow Time: Hrs			Left To Recover (m ³): 25.00	TOTAL WELL VOLUME (m³): 25.00

Man Down Drill		BOP TESTS			BOP Drill		
Service Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: Snow,Low-20 oC, High -10 oC, wind 25 km/h	
24.0	Rig:	10	Annular	1.4	7	10 min	Road Conditions: icy
48.0	Service:	10	Pipe	1.4	14	10 min	Engineer: Bruce Beveridge Phone No: 403-261-1385
0.0	ACL:	2	Blind	1.4	14	10 min	Reported To: Walter Stock Phone No: 403-531-8146
0.0	Total:	22	Valves	1.4	14	10 min	Reported By: Mike Periard Phone No: 926-0118



APACHE CANADA LTD. DAILY OPERATIONS WELL ACTIVITY

DATE: 2004-04-02

REPORT No.:

2004-04-02

04

WELL NAME:	ACL NOGHA 300-K-14	Licence No:	WID 2006	PAGE No:	1	of	4
LOCATION:	300-K-14-66°-39'-126°-03'-0	AFE No.	NT-04-0335				
OBJECTIVE:	Complete lower & upper Mount Clark for gas production	AFE Amount:	\$1,076,000.00				
Formation:	Perforations (mMD):	Formation:	Perforations (m):	Rig In Date:	2004-03-29		
Mount Clark "A"	1,360.8 to 1,363.2		to	Rig Out Date:	yyyy-mm-dd		
Mount Clark "B"	1,369.7 to 1,372.5		to	Rig Contractor / No.:	Nabors # 203		
Mount Clark "C"	1,375.0 to 1,379.0		to	Csg. Dia (mm):	177.80	Set At (m):	1,404.00
	to		to	Liner (mm):	N/A	Top At (m):	N/A
	to		to	Liner Bot. (mMD):	N/A	PBTD (mMD):	1,386.80
	to		to	Tbg. O.D. (mm):	73.00	Landed (m):	1,369.42
				Anchor (mm):	N/A	Set At (m):	N/A

BOP Press Test (Yes / No): YES Satisfactory (Yes / No): YES Function Test (Yes / No): YES Safety Meeting: 7:00 2004-04-01

24 Hr. Ops. Summary: Finish swabbing, space out. Strip off BOP's, install wellhead & test. Swab well down, bullhead acid. Swab well down, set recorders on bottom at 2014 hrs. Pull dry swabs, one hour build-ups.

Tomorrow's Plan: One hour build-ups

EUB NOTIFICATIONS: Big Move | [View Details](#) | [Edit](#) | [Delete](#) | [Flaring](#)

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	OIL	Acid	Packer set at (m):	0.00
Gas: E ³ m ³ /d			Amount Used (m ³):	5.80	2.40	Casing annulus volume (m ³):	20.90
Oil / Condensate: m ³ /d			Recovered (m ³):	4.01		Tubing volume (m ³):	4.10
Water: m ³ /d			Cum. Recovered (m ³):	4.01		Bottom to perf. Volume (m ³):	0.00
Swab / Flow Time: Hrs			Left To Recover (m ³):	1.79	2.40	TOTAL WELL VOLUME (m³):	25.00

Man Down Drill		BOP TESTS			BOP Drill			
Service Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: overcast ,Low-22 oC, High -0 oC, wind 10 km/h		
14:24.0	Rig: 10	Annular				Road Conditions: icy		
Cumulative: 96.0	Service: 10	Pipe				Engineer:	Bruce Beveridge	Phone No: 403-261-1385
Downtime: 0.0	ACL: 2	Blind				Reported To:	Walter Stock	Phone No: 403-531-8146
Cum. Downtime: 0.0	Total: 22	Valves				Reported By:	Mike Periard	Phone No: 926-0118



APACHE CANADA LTD. SWAB REPORT

Date: 2004-04-02

Page No: 2 OF 4

Well Name & Location: ACL NOGHA K-14

Test Date: 2004-04-01

Report No.

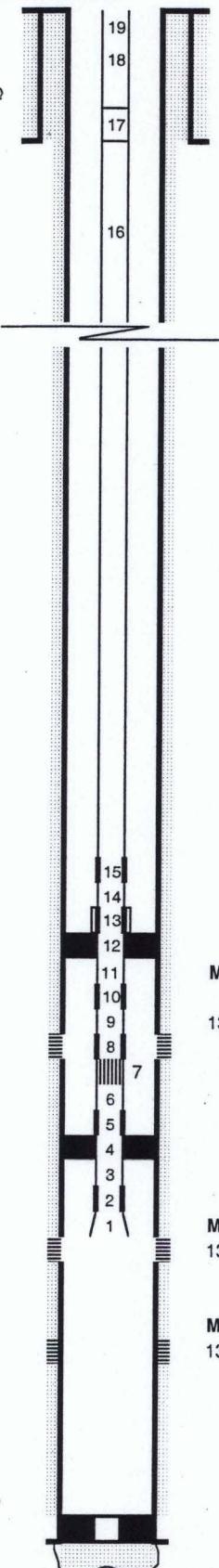
4

Zone: Mount Clark "B" & "C"

Page: 1

Perfs: 1369.7 - 1372.5 & 1375.0 - 1379.0 mkb

Supervisor: M. Periard / B. Beitz

Surf. Csg. @
548 m

APACHE CANADA LTD.
WELL DIAGRAM "Final"

Report No 4

Page: 3 OF 4

WELL NAME: ACL NOGHA 300-K-14

PREPARED BY: Mike Periard/Barry Beitz

DATE: 2004-04-01

ELEVATIONS (meters):
Licence No: WID 2006

TD	1,404.20	KB Elev.	313.20	KB to CF Dist. H	4.70
PBTD	1,386.80	Ground Elev.	308.00	KB to Ground	5.20
CASING/TUBING	SIZE (mm)	WEIGHT (Kg/m)	GRADE	DEPTHS (m)	
Surface Casing	244.50	53.50	J-55	548.00	37 jts.
			LT&C		
Production Casing	177.80	43.16	L-80	1,404.00	113 jts.
			LT&C		
Prod Liner	N/A				
Tubing	73.00	9.67	L-80	1,369.42	140 Jts
			EUE		

BOTTOM HOLE ASSEMBLY:

ITEM	DESCRIPTION	LENGTH (m)	Top at (m KB)
1	1 - 73 mm Re-entry guide	0.15	1,369.27
2	1 - 73 mm x 55.58 mm "RN" nipple c/w 51.05 mm No-Go	0.50	1,368.77
3	1 - 73 mm EUE 9.67 kg/m L-80 pup joint	1.25	1,367.52
4	177.8 mm Halliburton G-777 hydraulic set packer 11 daNs shear	1.68	1,365.84
5	1 - 73 mm x 55.58 mm "R" nipple	0.48	1,365.36
6	1 - 73 mm EUE 9.67 kg/m L-80 pup joint	0.64	1,364.72
7	1 - 73 mm Halliburton XA sliding sleeve c/w 58.75 mm X profile	1.12	1,363.60
8	1 - 73 mm blast joint	2.99	1,360.61
9	1 - 73 mm EUE 9.67 kg/m L-80 pup joint	2.47	1,358.14
10	1 - 73 mm x 58.75 mm X nipple	0.37	1,357.77
11	1 - 73 mm EUE 9.67 kg/m L-80 pup joint	2.47	1,355.30
12	177.8 mm Halliburton G-777 hydraulic set packer 11 daNs shear	1.68	1,353.62
13	177.8 mm Halliburton HD On/Off assembly c/w 58.75 mm X profile	0.67	1,352.95
14	1 - 73 mm EUE 9.67 kg/m L-80 pup joint	3.08	1,349.87
15	1 - 73 mm x 58.75 mm X nipple	0.37	1,349.50
16	139- 73mm, 9.67 kg/m, L-80 joints	1,332.19	17.31
17	2- 73mm, 9.67 kg/m, L-80 pup joint (1 x 0.20 m / 1 x 2.47 m)	2.67	14.64
18	1- 73mm, 9.67 kg/m, L-80 joint	9.53	5.11
	Compression of 5000 daN	-0.32	5.43
11	Log Correction	1.02	4.41
10	179.4 mm x 73 mm Cameron extended neck chemical line prep tbg. Hngr	0.26	4.15
9			4.15
8			4.15
7			4.15
6			4.15
5			4.15
4			4.15
3			4.15
2			4.15
1			4.15
Mount Clark "A"			
1360.8 - 1363.2			
Mount Clark "B"			
1369.7 - 1372.5			
Mount Clark "C"			
1375.0 - 1379.0			
PERFORATION INTERVALS			
1360.8 - 1363.2 mkb - Mount Clark "A"			
1369.7 - 1372.5 mkb - Mount Clark "B"			
1375.0 - 1379.0 mkb - Mount Clark "C"			
NOTE:			
Cement top @ 450 mKB.			

TD @ 1404.2 m

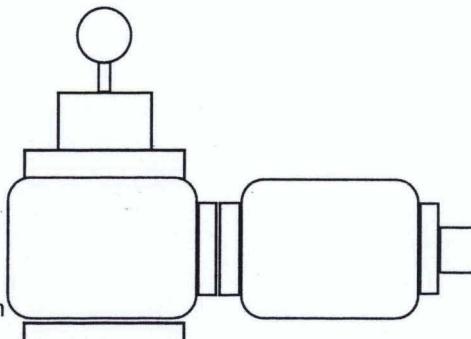
 PBTD @
1386.8 m
Prod Csg @
1404.0 m

Flow Tee
Make: Cameron
Ser No: 4500125299
Rating: 35 mpa
Size: 65mm x 52mm x 73mm

Top Master
Make: Cameron
Ser No: 110095937-3
Rating: 35 mpa
Size: 65mm

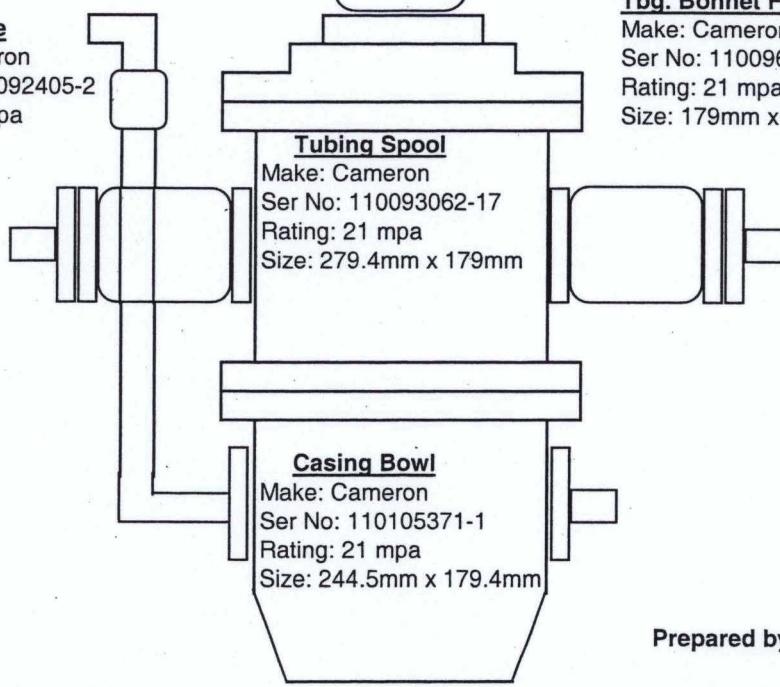
Bottom Master
Make: Cameron
Ser No: 110095937-2
Rating: 35 mpa
Size: 65mm

Casing valve
Make: Cameron
Ser No: 110092405-2
Rating: 35 mpa
Size: 52mm



Wing Valve
Make: Cameron
Ser No: 110031440-92
Rating: 35 mpa
Size: 52mm

Tbg. Bonnet Flange
Make: Cameron
Ser No: 110096341-1
Rating: 21 mpa
Size: 179mm x 65mm



Casing valve
Make: Cameron
Ser No: 110092405-19
Rating: 35 mpa
Size: 52mm



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

DATE: 2004-04-03

REPORT No.: 05

WELL NAME:	ACL NOGHA 300-K-14			Licence No:	WID 2006		PAGE No:	1 of 3															
LOCATION:	300-K-14-66°-39'-126°-03'-0			AFE No.	NT-04-0335																		
OBJECTIVE:	Complete lower & upper Mount Clark for gas production			AFE Amount:	\$1,076,000.00																		
Formation:	Perforations (mMD):	Formation:	Perforations (m):	Rig In Date:	2004-03-29																		
Mount Clark "A"	1,360.8 to 1,363.2		to	Rig Out Date:	yyyy-mm-dd																		
Mount Clark "B"	1,369.7 to 1,372.5		to	Rig Contractor / No.:	Nabors # 203																		
Mount Clark "C"	1,375.0 to 1,379.0		to	Csg. Dia (mm):	177.80	Set At (m):	1,404.00																
	to		to	Liner (mm):	N/A	Top At (m):	N/A																
	to		to	Liner Bot. (mMD):	N/A	PBTD (mMD):	1,386.80																
	to		to	Tbg. O.D. (mm):	73.00	Landed (m):	1,369.42																
				Anchor (mm):	N/A	Set At (m):	N/A																
BOP Press. Test (Yes / No):	YES	Satisfactory (Yes / No):	YES	Function Test (Yes / No):	YES	Safety Meeting:	7:00	2004-04-02															
24 Hr. Ops. Summary:	One hour build-ups. Pull two swabs, build-ups while waiting for slickline. Set plug & test. Open sleeve & pump 2m3 oil into Mount Clark "A". Set recorders and swab tbg dry, two- one hour swabs.																						
Tomorrow's Plan:	Monitor tbg pressure.																						
EUB NOTIFICATIONS:	Rig Move	Flaring																					
OPERATION SUMMARY	SCV (kPa)	SICP (kPa)	SITP (kPa)	COST SUMMARY																			
Operations for 2004-04-02																							
<p>07:00 Hrs: Safety/procedure meeting. DWA. Checked ESD's. One hour build-ups.</p> <p>08:00 Hrs: SITP = 386. Bleed off well. Burnable gas to surface. Pulled 2 swabs. Recovered 0.16m3 fracoil total = 4.17 m3. Sand in sample. Shut in for build ups while waiting on wireline to run plug. Press built from 4 kpa to 631 kpa. Gas bombs V0003386 & V0002433. Refer to Swab Report # 1</p> <p>19:00 Hrs: Crew change. Safety/procedure meeting. Turned over to night shift.</p> <p>30 Hrs: R/U slickline, run in and set plug in "R" profile at 1365.36 mKB, fluid level at 1140m. Schlumberger pressure test line, fill tbg 3.3m3 oil and test plug to 30 mpa/OK.</p> <p>10:15 Hrs: Slickline run in and open sleeve(8 hits).</p> <p>11:00 Hrs: Pressure test treating line 30 mpa. Pump 100 lts to catch fluid. Pump at 0.08m3/min @ 28 mpa, after 300 lts pumped pressure starts to drop gradually. Final pressure 26 mpa @ 0.07m3/min. Pressure after 5 mins- 19 mpa.</p> <p>24:00 Hrs: R/D pump line, check tbg pressure- 16.2 mpa. Open to testers, well dead. R/U slickline(SITP- 2784 kpa) and run recorders, couldn't get past "X" at 1349.50 mKB. Try different running tool, set recorders in "X" profile @ 1357.77 mKB at 0155 hrs.</p> <p>02:00 Hrs: R/U to swab, fluid at surface. Pull 5 swabs, recover 3.84m3 oil, pulled two dry swabs, wait for one hour swab. Pull two- one hour swabs, dry. Shut in well and monitor build-ups. Refer to Swab Report # 2</p>																							
07:00	Hrs:	Turn	well	over	to	day	crew.																
<table border="1"> <tr> <td>Daily Cost:</td> <td colspan="4">\$66,783.00</td> </tr> <tr> <td>Previous Cost:</td> <td colspan="4">\$506,306.00</td> </tr> <tr> <td>Cum. Cost:</td> <td colspan="4">\$573,089.00</td> </tr> </table>									Daily Cost:	\$66,783.00				Previous Cost:	\$506,306.00				Cum. Cost:	\$573,089.00			
Daily Cost:	\$66,783.00																						
Previous Cost:	\$506,306.00																						
Cum. Cost:	\$573,089.00																						
Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	OIL	Acid	Mt Clark A	Packer set at (m):	0.00															
Gas: E ³ m ³ /d			Amount Used (m ³):	5.80	2.40	5.50	Casing annulus volume (m ³):	20.90															
Oil / Condensate: m ³ /d			Recovered (m ³):	0.16	0.00	3.84	Tubing volume (m ³):	4.10															
Water: m ³ /d			Cum. Recovered (m ³):	4.17	0.00	3.84	Bottom to perf. Volume (m ³):	0.00															
Swab / Flow Time: Hrs			Left To Recover (m ³):	1.63	2.40	1.66	TOTAL WELL VOLUME (m³):	25.00															
Man Down Drill			BOP TESTS			BOP Drill																	
Service Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: clear ,Low-22 oC, High -11 oC, wind 50 km/h																	
aily: 24.0	Rig: 10	Annular				Road Conditions: icy																	
Cumulative: 120.0	Service: 10	Pipe				Engineer: Bruce Beveridge	Phone No: 403-261-1385																
Downtime: 0.0	ACL: 2	Blind				Reported To: Walter Stock	Phone No: 403-531-8146																
Cum. Downtime: 0.0	Total: 22	Valves				Reported By: Mike Periard	Phone No: 926-0118																



APACHE CANADA LTD. SWAB REPORT

Date: 2004-04-04

Page No: 2 OF 2

Well Name & Location: ACL NOGHA K-14

Test Date: 2004-04-02

Report No.

6

Zone: Mount Clark "B" & "C"

Page: 1

Perfs: 1369.7 - 1372.5 & 1375.0 - 1379.0 mkh

Supervisor: M. Periard / B. Beitz



APACHE CANADA LTD. SWAB REPORT

Date: 2004-04-03
Page No: 3 of 3

Well Name & Location: ACL NOGHA K-14

Zone: Mount Clark "A"

Perfs: 1360.8-1363.2 mKB

Test Date: 2004-04-02 Report No.

Page: 2

Supervisor: M. Periard / B. Beitz

5

Load Fluid to Recover: 5.50 m3 Oil
m3 Water

Load Recovered: 3.84 m³ Oil
m³ Water

Load Left to Recover: 1.66 m3 Oi

Oil Prod. Today

m3 Water

m³ Cumm

Our Water Water Today



APACHE CANADA LTD.
SWAB REPORT

Date: 2004-04-04
Page No: 2 of 3

Well Name & Location: ACL NOGHA K-14								Test Date: 2004-04-03	Report No. 6					
Zone: Mount Clark "A"								Page: 1	Supervisor: M. Periard / B. Beitz					
Swab No.	Time Out	Fluid Level mkb	Swab Depth mkb	Total Fluid		Water Cut %	Solids Cut %	Water Volume		Oil Volume		Solids Volume		Remarks Salinity, PH, H2S etc
				This Run m3	Cum m3			This Run m3	Cum. m3	This Run m3	Cum. m3	This Run m3	Cum. m3	
	7:00													Shut well in monitor pressure
	7:00													tbg- 5 kpa
	8:00													tbg - 20 kpa
	8:40													Pulled recorders BHT = 1844 kpa. BHT- 24.
	9:38													Continue build ups
	9:38													tbg - 34 kpa
	10:00													tbg - 49 kpa
	11:00													tbg - 81 kpa
	12:00													tbg - 105 kpa
	13:00													tbg - 141 kpa
	14:00													tbg - 198 kpa
	15:00													tbg - 216 kpa
	15:10													tbg - 222 kpa
	15:10													Bled off well. Burnable gas to surface
1	19:30	Surf	582	1.38	1.38					1.38	1.38			Sal- 12%, PH-1, API- 52.2
2	19:50	394	943	1.54	2.92	3		0.05	0.05	1.49	2.87			Sal- 12%, PH-1
3	20:20	943	1157	0.29	3.21	3		0.01	0.05	0.28	3.16			
4	20:45	1030	1320	0.37	3.58	1.5		0.01	0.06	0.36	3.52			
5	21:00		1320	0.08	3.66	2		0.00	0.06	0.08	3.60			
6	21:20	1250	1320	0.23	3.89	50	3	0.11	0.17	0.12	3.71	0.01	0.01	Sal- 10%, PH-1, API- 52.8
7	21:45		1320	0.00	3.89				0.17	0.00	3.71			Dry swab
8	22:15		1320	0.00	3.89				0.17	0.00	3.71			Dry swab
9	23:15		1320		3.89				0.17		3.71			Dry swab
10	0:15		1320		3.89				0.17		3.71			Dry swab
	1:00				3.89				0.17		3.71			Tbg- 0 kpa
	2:00				3.89				0.17		3.71			Tbg- 0 kpa
	3:00				3.89				0.17		3.71			Tbg- 0 kpa
	4:00				3.89				0.17		3.71			Tbg- 0 kpa
					3.89				0.17		3.71			Carried forward to next page
Load Fluid to Recover: 9.96 m3 Oil				Load Recovered: m3 Oil				Load Left to Recover: 9.96 m3 Oil						
				m3 Water				m3 Water				m3 Water		
Oil Prod. Today				m3	m3 Cumm.		Water Prod. Today				m3	m3 Cumm.		



APACHE CANADA LTD. SWAB REPORT

Date: 2004-04-04

Page No: 3 of 3

Well Name & Location: ACL NOGHA K-14

Test Date: 2004-04-03

Report No.

6

Zone: Mount Clark "A"

Page: 2

Perfs: 1360.8-1363.2 mKB

Supervisor: M. Periard / B. Beitz



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

DATE: 2004-04-05
REPORT No.: 07

WF'L NAME:	ACL NOGHA 300-K-14	Licence No: WID 2006		PAGE No:	1 of 2
LOCATION:	300-K-14-66°-39'-126°-03'-0		AFE No.	NT-04-0335	
OBJECTIVE:	Complete lower & upper Mount Clark for gas production			AFE Amount:	\$1,076,000.00
Formation:	Perforations (mMD):	Formation:	Perforations (m):	Rig In Date:	2004-03-29
Mount Clark "A"	1,360.8 to 1,363.2		to	Rig Out Date:	yyyy-mm-dd
Mount Clark "B"	1,369.7 to 1,372.5		to	Rig Contractor / No.:	Nabors # 203
Mount Clark "C"	1,375.0 to 1,379.0		to	Csg. Dia (mm):	177.80 Set At (m): 1,404.00
	to		to	Liner (mm):	N/A Top At (m): N/A
	to		to	Liner Bot. (mMD):	N/A PBTD (mMD): 1,386.80
	to		to	Tbg. O.D. (mm):	73.00 Landed (m): 1,369.42
				Anchor (mm):	N/A Set At (m): N/A

BOP Press. Test (Yes / No): YES Satisfactory (Yes / No): YES Function Test (Yes / No): YES Safety Meeting: 7:00 2004-04-04

24 Hr. Ops. Summary: Wait one hour to pull swab, squeezed fracoil, swabbed well dry, shut in for build ups. At 0500 hrs tbg- 29 kpa, take two gas samples.
Run in recorders.

Tomorrow's Plan: Run in and set plug, bleed off tbg & fill with diesel. Rig out equipment.

EUB NOTIFICATIONS:		Rig Move	Flaring	COST SUMMARY			
OPERATION SUMMARY	SCV (kPa)	SICP (kPa)	SITP (kPa)	Contractor	Invoice #	Code	Amount
Operations for 2004-04-04							
07:00 Hrs:	Safety/procedure meeting. DWA. Checked ESD's.			Supervision	9999	70021	\$3,000.00
Wait one hour to pull swab. Pulled dry swab.				Nabors # 203	9999	70019	\$14,300.00
R/U S-line. RIH & set collar stop @ 1339 mkb. R/D S-line.				IPS	9999	70035	\$3,215.00
RIH with swab & tagged collar stop for depth control. Sandline tally good. Pulled swab. Dry swab. R/D swab equip. R/U S-line. Pulled collar stop & recorders.				IPS	9999	70049	\$6,050.00
BHP = 1835 kpa. BHT = 24.47 oC. Fluid level 1160 m.				Mackenzie Valley Logistics	9999	70064	
11:00 Hrs:	Waited on Schlumberger.			Total, Sahtu, tanks	9999	71051	\$200.00
13:00 Hrs:	R/U Schlumberger. Safety/procedure meeting. PT line 35 mpa.			SRP	9999	70031	\$1,000.00
Squeezed 2.0m3 fracoil into formation. Initial break 22.4 mpa. Feed rate 0.10 m3/min @ 19.8 mpa.. 5 min bled down to 18.9 mpa. R/D Schlumberger.				Northridge	9999	70031	\$200.00
14:00 Hrs:	R/U swab equip. Pulled 7 swabs. Recovered 4.04 m3. Dry swab.			Northern Services	9999	70031	\$340.00
18:20 Hrs:	Shut in for build ups until A.M.			EMS Sahtu	9999	70017	\$900.00
19:00 Hrs:	Crew change. Safety/procedure meeting. Turned over to night shift.			Eveready Trucking	9999	70074	\$1,400.00
Monitor tbg pressure until 0500 hrs, tbg- 29 kpa. Take two gas samples # V0006983 & # V0001429. Refer to Swab Report.				Hodgson	9999	70074	\$1,400.00
05:30 Hrs:	Slickline run in and set recorders at 1357.77 mKB, on bottom at 0640 hrs;			Northridge	9999	70074	\$3,500.00
07:00 Hrs:	Turn well over to day crew.			Schlumberger	9999	70034	\$13,070.00
				Communications	9999	70008	\$6,000.00
				Daily Cost:	\$54,575.00		
				Previous Cost:	\$634,700.00		
				Cum. Cost:	\$689,275.00		

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type:	Mt Clark B&C	Mt Clark A	Packer set at (m):	1353.62	1365.84
Gas: E ³ m ³ /d			Amount Used (m ³):	8.20	19.80	Casing annulus volume (m ³):	20.90	
Oil / Condensate: m ³ /d			Recovered (m ³):	0.00	4.04	Tubing volume (m ³):	4.10	
Water: m ³ /d			Cum. Recovered (m ³):	4.17	11.76	Bottom to perf. Volume (m ³):	0.00	
Swab / Flow Time: Hrs			Left To Recover (m ³):	4.03	8.04	TOTAL WELL VOLUME (m³):	25.00	

Man Down Drill			BOP TESTS			BOP Drill		
Service Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: clear ,Low-12 oC, High -3 oC, wind 5 km/h		
24.0	Rig: 10	Annular				Road Conditions: icy		
Cumulative: 172.0	Service: 10	Pipe				Engineer: Bruce Beveridge Phone No: 403-261-1385		
Downtime: 0.0	ACL: 2	Blind				Reported To: Walter Stock Phone No: 403-531-8146		
Cum. Downtime: 0.0	Total: 22	Valves				Reported By: Mike Periard Phone No: 926-0118		



APACHE CANADA LTD.
SWAB REPORT

Date: 2004-04-05

Page No: 2 of 2

Well Name & Location: ACL NOGHA K-14

Zone: Mount Clark "A"

Perfs: 1360.8-1363.2 mKB

Test Date: 2004-04-04

Report No.

7

Page: 1

Supervisor: M. Periard / B. Beitz

Swab No.	Time Out	Fluid Level mkb	Swab Depth mkb	Total Fluid		Water Cut %	Solids Cut %	Water Volume		Oil Volume		Solids Volume		Remarks Salinity, PH, H2S etc	
				This Run m3	Cum m3			This Run m3	Cum. m3	This Run m3	Cum. m3	This Run m3	Cum. m3		
				3.89				0.17		3.71		0.01	Fluid carried forward		
	7:00			3.89				0.17		3.71		0.01	Wait one hour to pull swab		
1	7:40		1320	3.89				0.17		3.71		0.01	Dry swab		
	7:55			3.89				0.17		3.71		0.01	Wireline set collar stop		
2	9:00		1340	3.89				0.17		3.71		0.01	Tagged collar stop Dry swab		
	9:30			3.89				0.17		3.71		0.01	Pulled collar stop & recorders		
	10:40			3.89				0.17		3.71		0.01	Build ups		
	11:00			3.89				0.17		3.71		0.01	tbg - 5 kpa		
	12:40			3.89				0.17		3.71		0.01	Frac oil squeeze, used 6.0m3 oil		
	14:10			3.89				0.17		3.71		0.01	Rigged out pumper		
	14:20			0.23	4.12			0.17	0.23	3.94		0.01	tbg - 90 kpa open to vessel		
3	14:40	surf	400	1.03	5.15			0.17	1.03	4.97		0.01			
4	14:55	400	855	1.22	6.37			0.17	1.22	6.19		0.01			
5	15:10	765	1320	1.07	7.44			0.17	1.07	7.26		0.01			
6	15:30	1070	1320		7.44			0.17		7.26		0.01	Dry swab		
7	16:30	1200	1320	0.41	7.85			0.17	0.41	7.67		0.01			
8	16:55		1320	0.08	7.93			0.17	0.08	7.75		0.01			
9	18:20		1320		7.93			0.17		7.75		0.01	Dry swab, shut in for build-ups		
	19:00				7.93			0.17		7.75		0.01	Tbg- 2 kpa		
	20:00				7.93			0.17		7.75		0.01	Tbg- 3 kpa		
	21:00				7.93			0.17		7.75		0.01	Tbg- 3 kpa		
	22:00				7.93			0.17		7.75		0.01	Tbg- 5 kpa		
	23:00				7.93			0.17		7.75		0.01	Tbg- 5 kpa		
	0:00				7.93			0.17		7.75		0.01	Tbg- 8 kpa		
	1:00				7.93			0.17		7.75		0.01	Tbg- 7 kpa		
	2:00				7.93			0.17		7.75		0.01	Tbg- 8 kpa		
	3:00				7.93			0.17		7.75		0.01	Tbg- 9 kpa		
	4:00				7.93			0.17		7.75		0.01	Tbg- 13 kpa		
	5:00				7.93			0.17		7.75		0.01	Tbg- 29 kpa, take two gas samples		
					7.93			0.17		7.75		0.01	# V0006983 & # V0001429		
Load Fluid to Recover:				12.08	m3 Oil	Load Recovered:				4.04	m3 Oil	Load Left to Recover:			
					m3 Water						m3 Water				
Oil Prod. Today				m3	m3 Cumm.	Water Prod. Today				m3	m3 Cumm.				



APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY

DATE: 2004-04-06

REPORT No.: 08

WELL NAME:	ACL NOGHA 300-K-14		Licence No: WID 2006	PAGE No:	1	of	1
LOCATION:	300-K-14-66°-39'-126°-03'-0			AFE No.	NT-04-0335		
OBJECTIVE:	Complete lower & upper Mount Clark for gas production			AFE Amount:	\$1,076,000.00		
Formation:	Perforations (mMD):	Formation:	Perforations (m):	Rig In Date:	2004-03-29		
Mount Clark "A"	1,360.8 to 1,363.2		to	Rig Out Date:	yyyy-mm-dd		
Mount Clark "B"	1,369.7 to 1,372.5		to	Rig Contractor / No.:	Nabors # 203		
Mount Clark "C"	1,375.0 to 1,379.0		to	Csg. Dia (mm):	177.80	Set At (m):	1,404.00
	to		to	Liner (mm):	N/A	Top At (m):	N/A
	to		to	Liner Bot. (mMD):	N/A	PBTD (mMD):	1,386.80
	to		to	Tbg. O.D. (mm):	73.00	Landed (m):	1,369.42
				Anchor (mm):	N/A	Set At (m):	N/A

BOP Press. Test (Yes / No): YES Satisfactory (Yes / No): YES Function Test (Yes / No): YES Safety Meeting: 7:00 2004-04-05

24 Hr. Ops. Summary: Run in and set plug, bleed off tbg & fill with diesel. Rig out equipment.

Tomorrow's Plan:

EUB NOTIFICATIONS: Rig Move Flaring

OPERATION SUMMARY SCV (kPa) SICP (kPa) SITP (kPa)

Operations for 2004-04-05
07:00 Hrs: Safety/procedure meeting. DWA. Checked ESD's.
Run in and set plug at 1352.95 mKB. Filled tbg. With diesel. R/D wireline.
09:00 Hrs: Finished rigging out rig & equip.
Cleaned wellhead & lease.
Moved rig & equip to Norman Wells.

Contractor	Invoice #	Code	Amount
Supervision	9999	70021	\$3,000.00
Nabors # 203	9999	70019	\$14,300.00
IPS	9999	70035	\$3,215.00
IPS	9999	70049	\$27,610.00
Mackenzie Valley Logistics	9999	70064	
Total, Sahtu, tanks	9999	71051	\$200.00
SRP	9999	70031	\$1,000.00
Northridge	9999	70031	\$200.00
Northern Services	9999	70031	\$340.00
EMS Sahtu	9999	70017	\$900.00
Eveready Trucking	9999	70074	\$1,400.00
Hodgson	9999	70074	\$1,400.00
Northridge	9999	70074	\$3,500.00
North Wright Air	9999	70002	\$5,000.00
North Ridge	9999	70017	\$17,008.00
Daily Cost:	\$79,073.00		
Previous Cost:	\$689,275.00		
Cum. Cost:	\$768,348.00		

Reservoir Fluid Summary	Daily	Cumulative	Load Fluid Type: Mt Clark B&C	Mt Clark A	Packer set at (m):	1353.62	1365.84
Gas: E ³ m ³ /d			Amount Used (m ³):	8.20	23.20	Casing annulus volume (m ³):	20.90
Oil / Condensate: m ³ /d			Recovered (m ³):	0.00	0.00	Tubing volume (m ³):	4.10
Water: m ³ /d			Cum. Recovered (m ³):	4.17	11.76	Bottom to perf. Volume (m ³):	0.00
Swab / Flow Time: Hrs			Left To Recover (m ³):	4.03	11.44	TOTAL WELL VOLUME (m³):	25.00

Man Down Drill		BOP TESTS			BOP Drill		
Service Rig Hours.	Personnel on Location	Component	Low	High	Time	Weather Conditions: clear ,Low-12 oC, High -3 oC, wind 5 km/h	
Downtime:	Rig: 10	Annular				Road Conditions:	icy
Cumulative:	172.0	Service: 10	Pipe			Engineer:	Bruce Beveridge Phone No: 403-261-1385
Downtime:	0.0	ACL: 2	Blind			Reported To:	Walter Stock Phone No: 403-531-8146
Cum. Downtime:	0.0	Total: 22	Valves			Reported By:	Mike Periard Phone No: 926-0118



APACHE CANADA LTD.
DAILY OPERATIONS WELL ACTIVITY

DATE: yyyy-mm-dd
REPORT No.: ##

WELL NAME:	ACL NOGHA 300-K-14	Licenc No.	WID 2006	PAGE No:	2	of	#
LOCATION:	300-K-14-660-39'-1260-03'-0			AFE No. / Location Code:			

LOCATION	APACHE NOGHA K-14	DATE 2004-04-05	SOUR WELL <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
CONTRACTOR	Nabors, IPS, Eveready, EMS Sahtu	NO.OF MEN	

Services must conform to their inter-company safety policies as well as NEB / OH & S / Apache / ERP safety policies. All services must follow guidelines & information discussed in all pre-job safety & procedure meetings. This permit is valid until job completion unless otherwise stated.

DESCRIPTION OF WORK General rig operations & all related services.

Set plug, bleed off tbg and fill with diesel.

Rig out equipment.

Print & initial

	1	22	
	2	23	
	3	24	
	4	25	
SAFETY PRECAUTIONS	5	26	
Wind direction	6	27	
Pinch points	7	28	
PPE: Safety glasses, coveralls, gloves Etc.	8	29	
Heavy equipment	9	30	
Overhead lifting	10	31	
No running	11	32	
Have good communication	12	33	
Be careful	13	34	
Frost bite	14	35	
Stay away from slickline sheaves	15	36	
	16	37	
	17	38	
	18	39	
	19	40	
	20	41	
SAFETY CHECKLIST	21	42	

EQUIPMENT	EQUIPMENT (cont'd)	PROCEDURES	HAZARD IDENTIFICATION
<input checked="" type="checkbox"/> SAFETY TRAILER	<input checked="" type="checkbox"/> PROPER PERSONAL PROTECTIVE EQUIPMENT	<input checked="" type="checkbox"/> GAS FREE AREA TEST	<input checked="" type="checkbox"/> FIRE
<input checked="" type="checkbox"/> SAFETY PERSONNEL	<input type="checkbox"/> _____	<input checked="" type="checkbox"/> OXYGEN CONTENT TEST	<input type="checkbox"/> H2S
<input checked="" type="checkbox"/> FIRST AID KIT	<input type="checkbox"/> _____	<input type="checkbox"/> FLAMMABLE MATERIAL CHECK	<input checked="" type="checkbox"/> EXPLOSION
<input checked="" type="checkbox"/> STRETCHER	TRAINING	<input checked="" type="checkbox"/> HAZARDOUS AREAS IDENTIFIED	<input checked="" type="checkbox"/> HIGH PRESSURE LINES
<input checked="" type="checkbox"/> EYE/SKIN WASH/SHOWER	<input checked="" type="checkbox"/> REVIEWED 'SAFETY ORIENTATION BOOKLET'	<input checked="" type="checkbox"/> OVERHEAD CLEARANCES	<input checked="" type="checkbox"/> HEAVY EQUIPMENT
<input type="checkbox"/> RESUSCITATOR(S)	<input checked="" type="checkbox"/> EMERGENCY RESPONSE PLAN REVIEWED	<input checked="" type="checkbox"/> UNDERGROUND HAZARDS IDENTIFIED	<input checked="" type="checkbox"/> NOISE
<input checked="" type="checkbox"/> BREATHING APPARATUS	<input checked="" type="checkbox"/> SAFETY MEETING	<input type="checkbox"/> LOCK-OUT PROCEDURES REQUIRED	<input type="checkbox"/> POWER LINES
<input type="checkbox"/> RESPIRATOR	<input checked="" type="checkbox"/> DRILLS (MAN DOWN/H2S/FIRE)	<input checked="" type="checkbox"/> ESCAPE ROUTES IDENTIFIED (UPWIND)	<input type="checkbox"/> PIPELINES
<input checked="" type="checkbox"/> H2S DETECTOR	<input checked="" type="checkbox"/> BOP CERTIFICATION	<input checked="" type="checkbox"/> MUSTER AREAS IDENTIFIED	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> COMBUSTIBLE GAS DETECTOR	<input checked="" type="checkbox"/> FIRSTAID	<input checked="" type="checkbox"/> FIRE WATCH REQUIRED	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> OXYGEN DETECTOR	<input checked="" type="checkbox"/> H2S CERTIFICATION (ALIVE/RESCUE)	<input checked="" type="checkbox"/> SAFETY PERSON	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> FIRE EXTINGUISHER	<input checked="" type="checkbox"/> WHMIS	<input checked="" type="checkbox"/> ENVIRONMENTAL CONSIDERATIONS	<input type="checkbox"/> _____
<input type="checkbox"/> LIGHTING	<input checked="" type="checkbox"/> TDG	<input checked="" type="checkbox"/> CONFINED SPACE - CODE OF PRACTICE	<input type="checkbox"/> _____
<input type="checkbox"/> SAFETY BELTS	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> SIGNS POSTED	<input type="checkbox"/> _____	<input type="checkbox"/> _____	<input type="checkbox"/> _____
FOREMAN'S SIGNATURE	Mike Periard	CONTRACTOR'S SIGNATURE	
FOREMAN'S SIGNATURE	Barry Beitz		



APACHE CANADA LTD.
PIPE TALLY REPORT

DATE:

-004-03-30

Report No.

#

PAGE No.:

of

Well Name: ACL NOGHA 300-K-14Pipe Size 73 mm / EUDate: 2003-04-30Location: 300-K-14-660-39'-1260-03'-0Wt. / Grd. 9.67 kg/m, L-80Checked By: Mike Periard

No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	Tally Summary	Cumm.
1	9.62	9.62	41	9.63	394.81	81	9.60	777.47	121	9.62	1159.63	161		1341.83	1>10	96.37
2	9.61	19.23	42	9.43	404.24	82	9.64	787.11	122	9.53	1169.16	162		1341.83	11>20	96.51
3	9.61	28.84	43	9.65	413.89	83	9.61	796.72	123	9.63	1178.79	163		1341.83	21>30	95.88
4	9.67	38.51	44	9.65	423.54	84	8.75	805.47	124	9.58	1188.37	164		1341.83	31>40	96.42
5	9.63	48.14	45	9.66	433.20	85	9.60	815.07	125	9.59	1197.96	165		1341.83	41>50	96.02
6	9.65	57.79	46	9.43	442.63	86	9.61	824.68	126	9.60	1207.56	166		1341.83	51>60	96.10
7	9.63	67.42	47	9.65	452.28	87	9.62	834.30	127	9.62	1217.18	167		1341.83	61>70	95.34
8	9.67	77.09	48	9.63	461.91	88	9.62	843.92	128	9.19	1226.37	168		1341.83	71>80	95.23
9	9.63	86.72	49	9.65	471.56	89	9.65	853.57	129	9.60	1235.97	169		1341.83	81>90	95.32
10	9.65	96.37	50	9.64	481.20	90	9.62	863.19	130	9.61	1245.58	170		1341.83	91>100	95.33
Tot.	96.37	96.37	Tot.	96.02	481.20	Tot.	95.32	863.19	Tot.	95.57	1245.58	Tot.	0.00	1341.83	Total	958.52
																958.52

No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	Tally Summary	Cumm.
11	9.68	106.05	51	9.63	490.83	91	9.63	872.82	131	9.61	1255.19	171		1341.83	101>110	95.72
12	9.67	115.72	52	9.63	500.46	92	8.82	881.64	132	9.64	1264.83	172		1341.83	111>120	95.77
13	9.66	125.38	53	9.44	509.90	93	9.60	891.24	133	9.62	1274.45	173		1341.83	121>130	95.57
14	9.61	134.99	54	9.64	519.54	94	9.63	900.87	134	9.63	1284.08	174		1341.83	131>140	96.25
15	9.64	144.63	55	9.61	529.15	95	9.62	910.49	135	9.63	1293.71	175		1341.83	141>150	0.00
16	9.66	154.29	56	9.62	538.77	96	9.62	920.11	136	9.62	1303.33	176		1341.83	151>160	0.00
17	9.64	163.93	57	9.64	548.41	97	9.64	929.75	137	9.63	1312.96	177		1341.83	161>170	0.00
18	9.63	173.56	58	9.64	558.05	98	9.51	939.26	138	9.62	1322.58	178		1341.83	171>180	0.00
19	9.66	183.22	59	9.63	567.68	99	9.63	948.89	139	9.61	1332.19	179		1341.83	181>190	0.00
20	9.66	192.88	60	9.62	577.30	100	9.63	958.52	140	9.64	1341.83	180		1341.83	191>200	0.00
	96.51	192.88	Tot.	96.10	577.30	Tot.	95.33	958.52	Tot.	96.25	1341.83	Tot.	0.00	1341.83	Total	383.31
																1341.83

No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	Pups	Length	Cumm.
21	9.65	202.53	61	8.93	586.23	101	9.58	968.10	141		1341.83	181		1341.83	1		0.00
22	9.01	211.54	62	9.66	595.89	102	9.63	977.73	142		1341.83	182		1341.83	2		0.00
23	9.67	221.21	63	9.63	605.52	103	9.41	987.14	143		1341.83	183		1341.83	3		0.00
24	9.65	230.86	64	9.61	615.13	104	9.62	996.76	144		1341.83	184		1341.83	4		0.00
25	9.65	240.51	65	9.61	624.74	105	9.63	1006.39	145		1341.83	185		1341.83	5		0.00
26	9.66	250.17	66	9.63	634.37	106	9.63	1016.02	146		1341.83	186		1341.83	6		0.00
27	9.68	259.85	67	9.62	643.99	107	9.61	1025.63	147		1341.83	187		1341.83	7		0.00
28	9.67	269.52	68	9.42	653.41	108	9.61	1035.24	148		1341.83	188		1341.83	8		0.00
29	9.62	279.14	69	9.61	663.02	109	9.63	1044.87	149		1341.83	189		1341.83	9		0.00
30	9.62	288.76	70	9.62	672.64	110	9.37	1054.24	150		1341.83	190		1341.83	10		0.00
Tot.	95.88	288.76	Tot.	95.34	672.64	Tot.	95.72	1054.24	Tot.	0.00	1341.83	Tot.	0.00	1341.83	Tot.	0.00	0.00

No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	No.	Length	Cumm.	Additional Equipment		
31	9.66	298.42	71	9.62	682.26	111	9.63	1063.87	151		1341.83	191		1341.83			
32	9.66	308.08	72	9.60	691.86	112	9.62	1073.49	152		1341.83	192		1341.83			
33	9.62	317.70	73	9.34	701.20	113	9.62	1083.11	153		1341.83	193		1341.83			
34	9.67	327.37	74	9.62	710.82	114	9.63	1092.74	154		1341.83	194		1341.83			
35	9.61	336.98	75	9.02	719.84	115	9.65	1102.39	155		1341.83	195		1341.83			
36	9.65	346.63	76	9.61	729.45	116	9.63	1112.02	156		1341.83	196		1341.83			
37	9.63	356.26	77	9.61	739.06	117	9.61	1121.63	157		1341.83	197		1341.83			
38	9.67	365.93	78	9.59	748.65	118	9.16	1130.79	158		1341.83	198		1341.83			
39	9.60	375.53	79	9.61	758.26	119	9.60	1140.39	159		1341.83	199		1341.83			
	9.65	385.18	80	9.61	767.87	120	9.62	1150.01	160		1341.83	200		1341.83			
	96.42	385.18	Tot.	95.23	767.87	Tot.	95.77	1150.01	Tot.	0.00	1341.83	Tot.	0.00	1341.83			

Drlg. Rig K.B [T.H.] 4.15
Serv. Rig K.E [T.H.] 2.4

K.B. Diff: 1.75
Log Correction: 1.02 m

Total 01>100: 958.52
Total 101>200: 383.31
Total 01>200: 1341.83



APACHE CANADA LTD.
WELL FLOW SUMMARY REPORT

DATE: yyyy-mm-dd **Report No.** #
PAGE No.: ## **of** ##

TEST DATE: yyyy-mm-dd TESTING COMPANY: METER RUN: 102.26 REPORTED BY:
LOCATION: 300-K-14-660-39'-1260-03'-0 UNIT No. / TYPE: DIFF. RANGE: 1724 x 99.6
OBJECTIVE: GAS TO (Flare / Line): GAS GRAVITY: 0.65 Page:

SUMMARY:

PRODUCTION HRS (This Report): _____ Hrs.
GAS FLARED (This Report): _____ E³ m³
COND/OIL PRODUCED (This Report): _____ m³
WATER PRODUCED (This Report): _____ m³

PRODUCTION HRS (Total):
GAS FLARED (Total):
COND/OIL PRODUCED (Total):
WATER PRODUCED (Total):

_____ Hrs. LOAD FLUID PRODUCED (This Report): _____ m³
_____ E³ m³ LOAD FLUID PRODUCED (Total): _____ m³
_____ m³ LOAD FLUID LEFT: _____ m³
_____ m³ LOAD FLUID TYPE:

% H₂S