ConocoPhillips

MAIL ROOM
SALLE DE COURIER
2014 MAY 16 A 11:27
NEB/ONE

ConocoPhillips Canada
401 - 9th Avenue S.W.
P.O. Box 130, Station "M"
Calgary, Alberta T2P 2H7
(403) 233-4000

May 13, 2014

Chief Conservation Officer
National Energy Board
444 Seventh Avenue SW
Calgary, AB
T2P 0X8
Canada

Attention: Patrick Smyth

SUBJECT: OA-1211-002 - Submission of COPRC Mirror Lake P-20 Well History Report

Dear Sir:

ConocoPhillips Canada Resources Corp. ("ConocoPhillips") hereby submits the Well History Report for COPRC Mirror Lake P-20 as per requirement 3 of the Approval to Drill a Well Term and Conditions. This submission contains:

- Two paper copies of the Well History Report
- Two paper copies of all Well Logs
- One electronic copy of the Well History Report
- One LAS copy of final log prints
- Two paper copies of Geological Report (included in End of Well report)
- One electronic copy of Geological Report
- Two paper copies of Mud Gas Log (included in End of Well report)
- One electronic copy of Mud Gas Log

Also enclosed is one copy of the Well Termination record for the above noted well.

Please direct any questions or concerns concerning this submission to my attention at (403) 233-3250 or Cyril Jenkins at (403) 233-3326.

Sincerely,

Eric Hanson, P.Geol (AB)
Supervisor Central Mackenzie Valley
Chinook Appraisal

National Energy Board | Office national de l'énergie

WELL TERMINATION RECORD

Well Name	COPRC Mirror Lake P-20 65-10 127- 00	Well ID	2080
Operator	ConocoPhillips Canada Resources Corp.	Current Well Status	Suspended
Total Depth	3152m KB	Licence No.	Exploration Licence 470
Location Unit	P	Section 20	Grid 65-10 126-45
Coordinates (NAD27)	*Surface*	Lat 64 ° 59 ' 58.0 "	Long 126 ° 47 ' 15.3 "
	Bottom Hole	Lat 65 ° 00 ' 8.1 "	Long 126 ° 48 ' 40.2 "
Region	NWT Mainland		
Target Formation	Canol	Field/Pool	/
Elevation KB/RT	257.60 m	Ground Level / Seafloor	252.40 m
Spud/Re-Entry Date	29-Jan-14	Rig Release Date	2/23/2014

CASING AND CEMENTING PROGRAM

O.D. (mm)	Weight (kg/m)	Grade	Setting Depth (m KB)	Cementing (m^3)
244.5	53.57	J-55	602.0	40.0
177.8	38.69	P-110	2152	35.0
114.3	17.26	P-110	2909	20.0

PLUGGING PROGRAM

Type of Plug	Interval (m KB)	Felt	Depth (m KB)	Cement (m^3)
Select	-	Select		
Select	-	Select		
Select	-	Select		
Select	-	Select		
Select	-	Select		

PERFORATION

Interval (m KB)	Comments
3040-3119	Stage 1
2943-3022	Stage 2
2846-2905	Stage 3
2749-2828	Stage 4. The other 6 of total 10 stage fracked in this well are described in End of Well report

Lost Circulation/Overpressure Zones: n/a

Equipment Left on Seafloor (Describe): n/a

Provision for Re-entry (Describe and attach sketch): The well has been left with 60.3 mm tubing landed in a Weatherford WDH packer set above the top set of perforations at 2026 m KB

Other Downhole Completion/Suspension: Surface read our downhole gauges are located on the tubing 6 meters above the on/off tool on the packer

"I certify that the information provided on this form is true and correct"

Name	*Eric Hanson*	Telephone	(403) 233-3250 Ext
Job Designation	Team Lead, CMV project	E-Mail	eric.S.Hanson@cop.com
Operator	ConocoPhillips Canada Resources Corp.		
Signature		Date	05/12/2014

Responsible Officer of Company

NATIONAL ENERGY BOARD USE ONLY

The details of this document have been examined and verified by

Job Designation _____ Well Identifier _____ Unique Well Identifier _____

Signature _____ Date _____

NEB Authority

ConocoPhillips Resources Canada CORP.

COPRC Mirror Lake P-20 Final Well Report

Grid # 65°10′, 126°45′

2014/04/21



COPRC Mirror Lake P-20

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1.0 Introduction

1.1 Summary

The COPRC Mirror Lake P-20 well was spudded on January 30, 2014 and the rig was released on February 23 2014 after reaching a total depth of 3152 m KB with a total of 25 operating days on the well.

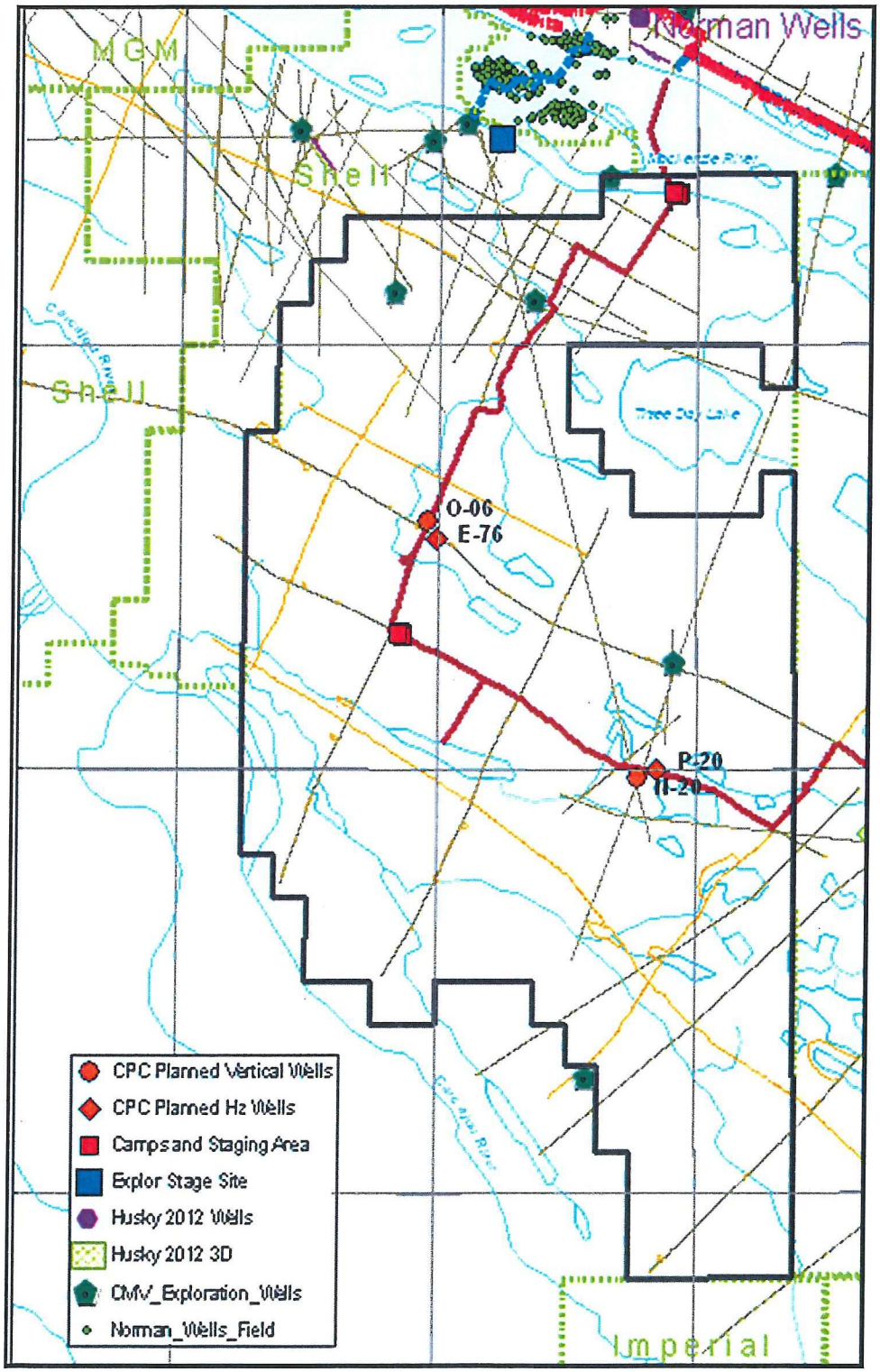
Construction operations to support ConocoPhillips' winter 2013/14 exploration program began on November 22, 2013 with the start of construction of access roads from ConocoPhillips' staging area to the E-76 well site. Initial profiling of the Mackenzie River ice cover was done on November 30 2013 and construction of the ice bridge was undertaken working from both the EL470 and Norman Wells sides of the river. Clearing of the ice bridge route was conducted with flooding and thickening of the 6 km ice bridge beginning in early December. The ice bridge was considered thick enough to support normal loads on December 11 2013 and it was capable of taking full loads by January 30, 2014.

The Mirror Lake P-20 well pad was completed on January 17 2014 and Beaver Rig 2 was mobilized from its previous location at the E-76 well site beginning on January 24, 2014 and rig up was complete by January 29. Mirror Lake P-20 was spudded on January 30 2014 and the rig was released on February 23 2014 after reaching a total depth of 3152 metres of which 1000 metres was drilled horizontally in the Canol formation. The well required a total of 25 days for operations from spud to rig release.
Drilling operations were conducted with no major issues and no safety incidents. The top of the Canol target zone was encountered at 1935 meters (TVD). Intermediate hole was drilled to 2152 M MD and logged with Schlumberger open hole tools down to 2065 m. The log run consisted of the AIT-TLD-HGNS-GR-BHC-TLD2-EMS-EMA-ERCD logging tools. An intermediate 177.8 mm casing string was run and cemented to surface without any issues. The horizontal hole was logged using logging while drilling (LWD) tools which provides Gamma Ray data. A 114.3 mm liner was run to bottom at 3152 m KB, set and cemented full length in preparation for completion operations.

Completion operations began on February 18 2014 with the setup of water tanks and well site trailers. Rig up of completions equipment began on February 27 2014 and completions operations commenced March 3 2014 when coil tubing was used to clean out the wellbore. Hydraulic fracturing operations began March 5 and were completed by March 10 2014. A total of 10 stages were fracked in the P-20 well, with each frac consisting of about 790 m^3 of water and 100 tonnes of sand proppant.
The well was again cleaned out using a coil tubing rig and then a production packer was set at 2026 m KB on wireline. A tubing head was made up on the wellhead in preparation for Flowback operations. Nabors Service Rig #414 was rigged up on the well on March 13 and ran a string of 60.3 mm tubing complete with Weatherford surface readout down hole gauges and landed the tubing string in het packer. All

wellhead and down hole pressure tests were good. Nabors Service Rig #414 was released on March 18 2014 after the well had flowed to testers for 23 hours.
Mirror Lake P-20 began flowing on March 18 and was flowed until April 7 2014. The well was flowed for a total 506 hours. Down hole pressure gauges were left in the well to monitor pressure build up following flowback; these gauges will be recovered next season. All completions equipment was rigged out by April 8 2014 and the well was left with wellhead installed and valves locked.
No major incidents happened while conducting completions operations on P-20 in 2014.

1.2 Locality Map



2.0 General Data

2.1 Well Name

COPRC Mirror Lake P-20

2.2 Unique Well Identifier

300P206500126450

2.3 Operator and Drilling Contractor

ConocoPhillips Canada Resources Corporation

Beaver Drilling Ltd. Rig #2

2.4 Difficulties and Delays

There were no significant drilling issues or delays experienced on this well.

3.0 Summary of Drilling Operations

3.1 Elevations

Ground Level: 284.15 m

Kelly Bushing: 289.35 m

KB – Ground Level: 5.20 m

3.2 Total depth

3152 m KB

3.3 Spud Date and Time

January 29 2014 @ 00:00 Hours

3.4 Date Drilling Completed

Drilling completed 2/20/2104

3.5 Rig Release Date and Time

Rig Released 02 /23/13 @2400 Hrs.

3.6 Well Status

Suspended

3.7 Hole sizes and depths

Surface Hole: 311 mm to 602 m KB

Intermediate Hole: 222 mm to 2152 m KB

Main Hole: 156 mm to 3152 m KB (TD)

3.8 Casing and Cementing Record

3.8.1 Conductor Hole

508 mm conductor set at 20 m. Cemented to surface with 10 t class 'G' Arctic blend cement.

3.8.2 Surface Hole

244.5 mm, 53.57 kg/m, J-55 LTC set at 602.0 m KB. Cemented to surface with 40 t RFC 1740 cement.

3.8.3 Intermediate Hole

177.8 mm, 38.69 kg/m P-110 LTC set at 2152.0 m KB. Cemented to surface with 19 t HiLITE 1400 lead cement followed by 16 t Class 'G' tail cement.

3.8.4 Production Hole

114.3 mm, 17.26 kg/m P-110 LTC liner set at 2909 m KB(TD). Cemented to liner top with 20 t Class 'G' cement.

3.9 Drilling Fluids

3.9.1 Surface Hole

Gel Chemical (MI Swaco)

3.9.2 Intermediate/Main Hole

Versaclean Mineral Oil (MI Swaco)

3.10 Formation Leak Off Tests

3.10.1 Surface Casing Drill out

A Formation Integrity Test (FIT) was conducted on Mirror Lake P-20 on February 7, 2014 at a depth of 609 m KB after drilling out the surface casing shoe at 602 m KB and making 7 metres of new hole. The FIT at 609 m KB was conducted with 995.0 kg/m^3 OBM in the hole and was taken to a pressure of 4991 kPa with no leak off. This equates to an equivalent fracture gradient of 1810 kPa/m.

3.11 Time Distribution

Casing: 51.75 hrs.

Cementing: 38.50 hrs.

Drilling: 410.25 hrs.

Formation Evaluation: 22.0 hrs.

Rig Move: 218.75 hrs.

Rig Maintenance: 38.25 hrs.

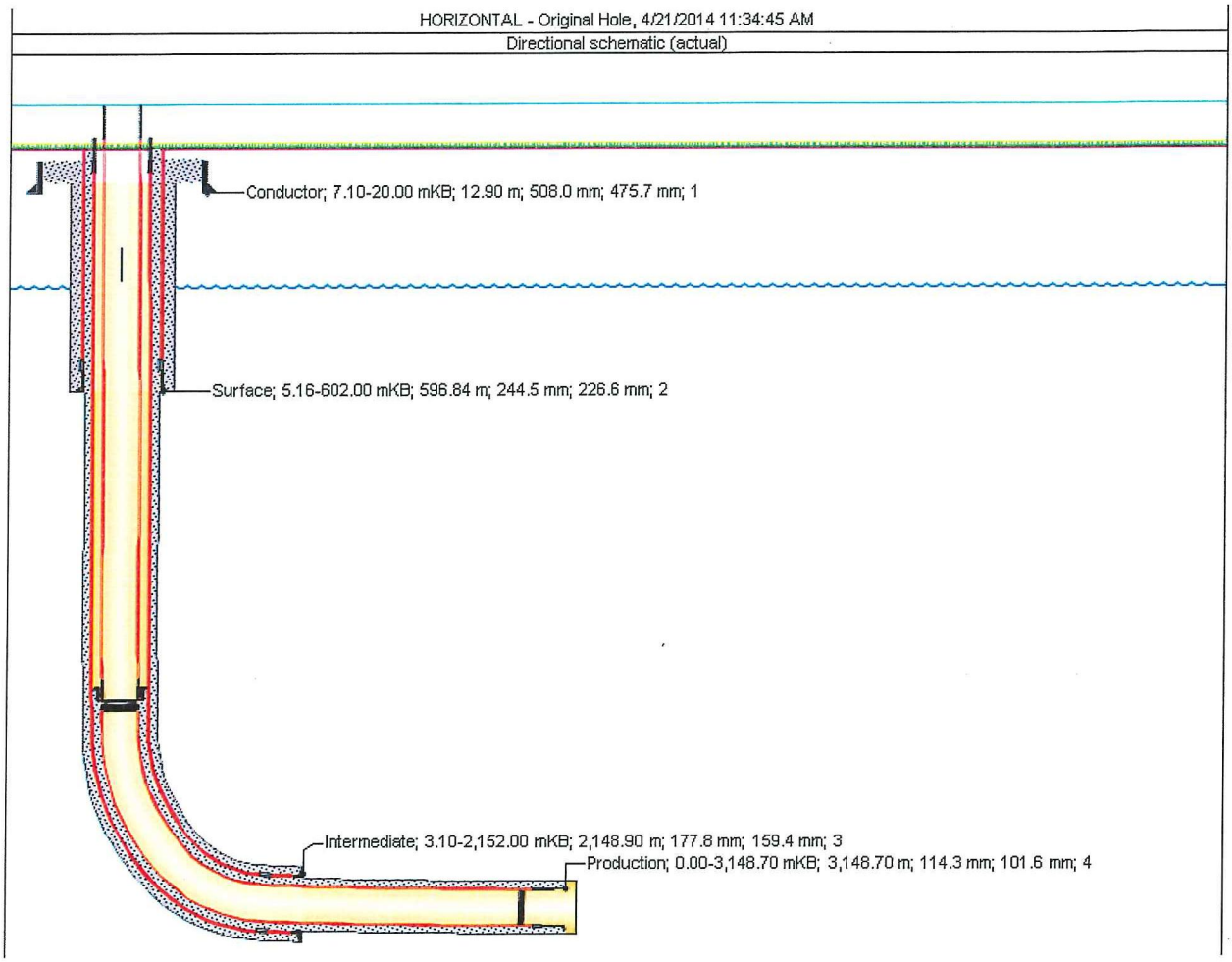
Wellhead/BOP testing: 42.25 hrs.

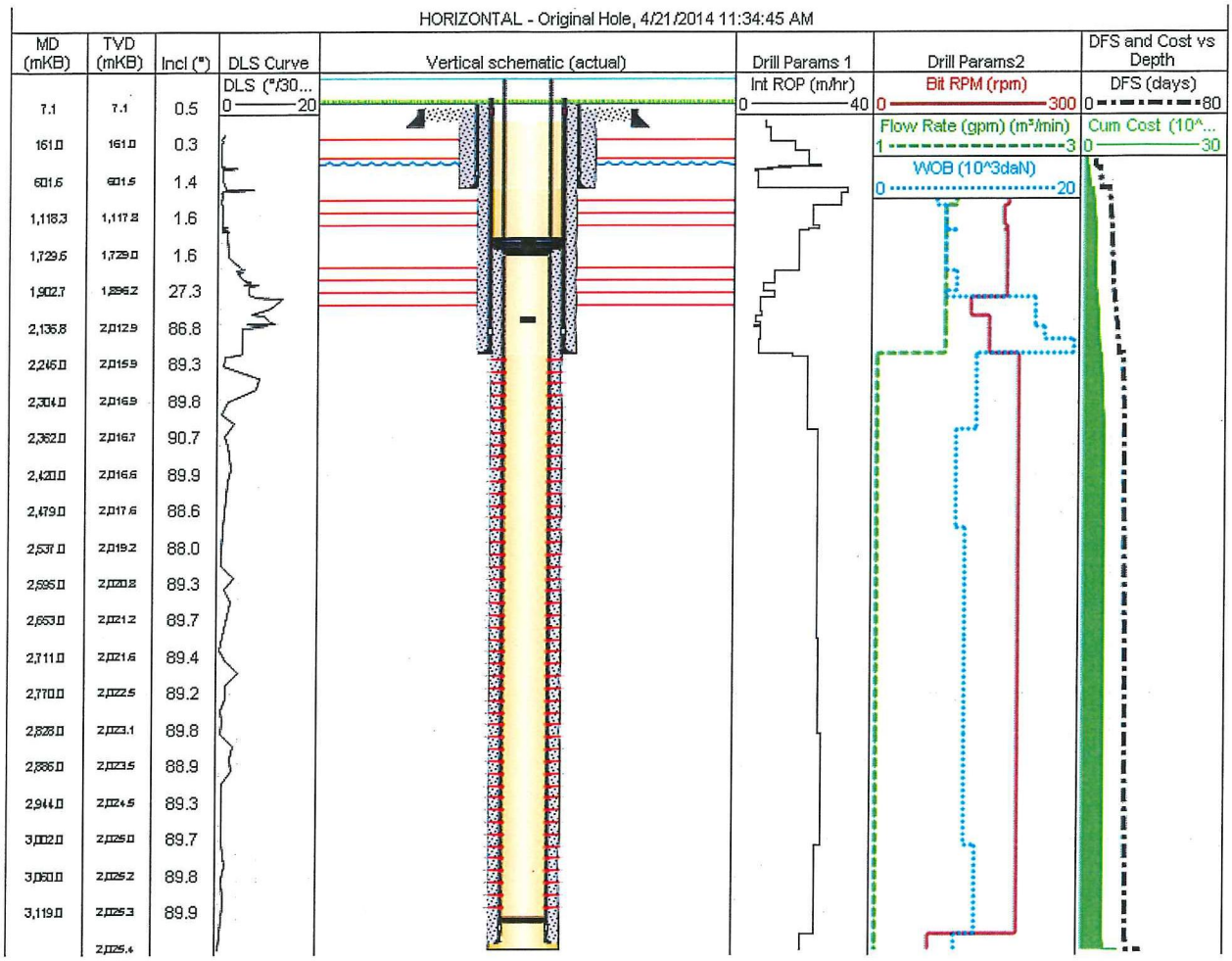
Trouble Time: 84.25 hrs.

3.12 Deviation Survey

The maximum deviation encountered on surface hole on this well was 2.3^0 at 450.0 m KB. The well kick off point was at approximately 1730 m KB and the well was deviated to horizontal at approximately 2152 m KB at intermediate casing point. The horizontal section of the well comprised some 1000 meters 0f 156 mm hole.

3.13 Composite Drilling Record




HORIZONTAL - Original Hole, 4/21/2014 11:34:45 AM
MD (mKB)
TVD (mKB)
Incl (°)
DLS Curve
DLS (°/30...
0
20
Vertical schematic (actual)
Drill Params 1
Int ROP (m/hr)
0
40
Drill Params2
Bit RPM (rpm)
0
300
Flow Rate (gpm) (m³/min)
1
3
WOB (10^3daN)
0
20
DFS and Cost vs Depth
DFS (days)
0
80
Cum Cost (10^...
0
30
7.1 7.1 0.5
161.0 161.0 0.3
601.6 601.5 1.4
1,118.3 1,117.8 1.6
1,729.6 1,729.0 1.6
1,902.7 1,896.2 27.3
2,135.8 2,012.9 86.8
2,245.0 2,015.9 89.3
2,304.0 2,016.9 89.6
2,362.0 2,016.7 90.7
2,420.0 2,016.6 89.9
2,479.0 2,017.6 88.6
2,537.0 2,019.2 88.0
2,595.0 2,020.8 89.3
2,653.0 2,021.2 89.7
2,711.0 2,021.6 89.4
2,770.0 2,022.5 89.2
2,828.0 2,023.1 89.8
2,886.0 2,023.5 88.9
2,944.0 2,024.5 89.3
3,002.0 2,025.0 89.7
3,060.0 2,025.2 89.8
3,119.0 2,025.3 89.9
2,025.4

4. Geology

4.1 Drill Cuttings

Drill cuttings were collected at 5 metre intervals from spud (20 m KB) to TD (3152 m KB). A set of bulk samples as well as a set of washed samples in vials have been delivered to the GNWT (03/12/2014).

4.2 Cores

No Cores were cut on the Mirror Lake P-20 well.

4.3 Lithology

Formation	Prognosis		Sample		
Marker Tops	**TVD**	**SS**	**MD**	**TVD**	**SS**
Quaternary	5		5.0	5.0	
Little Bear	28		43.0	43.0	252.85
Slater River	196.5		208	208	81.35
Arctic Red	930		958	957.85	-668.5
Martin House	1083		1106.4	1106.22	-816.87
Imperial	1117		1139.0	1138.82	-849.47
Upper Canol	1903.0		1900.70	1894.75	-1605.40
Lower Canol	1928.5		1939.0	1927.33	-1637.98
TD	2022.50		3152.0	2024.98	-1735.63

5. Well Evaluation

5.1 Open Hole Logs

Hole Section	Run Number	Log description	Depth In	Depth Out
Intermediate	1	AIT-TLD-HGNS-GR-BHC-TLD2-EMS-EMA-ERCD	2066	600
Intermediate	2	USIT (unpressured pass)	2066	600
	3	USIT (pressure pass) run in cased hole to evaluate cement bond of 177.8 mm intermediate casing	2066	600

5.2 Summary of Hydraulic Fracturing Operations

Completion operations commenced February 18 when a tank farm was initially set up for water storage for the P-20 fracturing operations. Completions equipment rig up began February 27 and was completed on March 2 and pressure testing of all fracturing equipment began.

Coil tubing operations began on March 3 when coil was run to bottom to ensure that the wellbore was clean and no obstructions existed. The first stage of the hydraulic fracturing program commenced on March 5. A total of 10 stages were fracked over a 6 day period ending on March 10, 2014.

5.3 Completion Operations Commence

Completion operations commenced February 27, 2014

5.4 Fracturing Operations Completed

Hydraulic fracturing operations ended March 10, 2014

5.5 Perforated Intervals

Date	Stage	Perf interval mKB	Perf interval mKB	Perf interval mKB	Perf interval mKB	Perf interval mKB
02/07/14	1	3118 - 3119	3098 - 3099	3079 - 3080	3059 - 3060	3040 – 3041
02/10/14	1A	3118 - 3119	3098 - 3099	3079 - 3080	3059 - 3060	3040 – 3041
02/12/14	2	3021 - 3022	3001 - 3002	2982 - 2983	2962 - 2963	2943 - 2944
02/12/14	3	2904 - 2905	2885 - 2886	2866 - 2867	2846 - 2847	
02/13/14	4	2827 - 2828	2807 - 2808	2788 - 2789	2769 - 2770	2749 - 2750
02/14/14	5	2730 - 2731	2710 - 2711	2691 - 2692		
02/14/14	6	2672 - 2673	2652 - 2653	2633 - 2634		
02/15/14	7	2613 - 2614	2594 - 2595	2575 - 2576	2555 - 2556	2536 - 2537
02/15	8	2516 - 2517	2497 - 2498	2478 - 2479	2458 - 2459	2439 - 2440
02/16/14	9	2419 - 2420	2400 - 2401	2381 - 2382	2361 - 2362	2342 - 2343
02/17/14	10	2322 - 2323	2304 - 2305	2284 - 2285	2264 - 2265	2245 - 2246

5.6 Multi Stage Fracturing Operations

Date	Stage	Interval m KB	Avg. treating Pressure kPa	Total Proppant pumped 't'	Total Water Pumped m^3
02/11/14	1	3040 – 3119	31,500	99.9	1303.8
02/12/14	2	2943 – 3022	39,000	100.0	731.9
02/13/14	3	2846 – 2905	30,600	100.0	707.8
02/13/14	4	2749 – 2828	34,600	107.0	689.2
02/14/14	5	2691 – 2731	36,800	113.7	698.4
02/15/14	6	2633 – 2673	37,300	104.7	770.4
02/15/14	7	2536 – 2614	36,100	107.0	697.1
02/16/14	8	2436 – 2517	34,400	102.8	672.6
02/16/14	9	2342 – 2420	37,400	106.5	658.3
02/17/14	10	2245 - 2323	35,700	104.0	707.4

5.7 Well Flowback and Flow testing

Flow testing commenced on COPRC Mirror Lake P-20 when Nabors Service rig #414 began to rig up on March 13 2014. The service rig was fully inspected the next day and all equipment was pressure tested including Weatherford's test equipment. A string of 60.3 mm tubing was run and landed in a Weatherford WDH production packer set at 2026 m KB, above the perforated intervals.

On March 16, the well was opened on a 32/64" choke and the well began to flow unassisted. The well was allowed to flow for 23 hours and was then shut in. Nabors Service rig #414 was rigged out on March 17 and the well was turned over to the testers.

The E-76 well was flowed until 15:00 on April 7 for a total of 23 days or a total 0f 506 hours flowed. The total load fluid recovered was 1857 m^3 out of a total load fluid volume of 7920 m^3.

5.8 Flowback Volumes

Date	Load Fluid Recovered (LFR) m^3	Total Load Fluid Recovered (TFLR) m^3	Hydrocarbon Liquids recovered Daily m^3	Total Hydrocarbon Liquids Recovered m^3
03/16/14				
03/17/14				
03/18/14	144.97	144.97	0	0
03/19/14	148.65	293.62	0	0
03/20/14	261.39	555.01	0.65	0.65
03/21/14	179.42	734.43	2.04	2.69
03/22/14	123.74	858.17	3.56	6.25
03/23/14	117.33	975.5	4.55	10.80
03/24/14	103.21	1078.71	4.65	15.35
03/25/14	87.53	1166.24	4.52	19.87
03/26/14	78.15	1244.39	4.36	24.23
03/27/14	70.7	1315.59	4.34	28.57
03/28/14	63.68	1379.27	4.21	32.78
03/29/14	111.18	1490.45	8.24	41.02
03/30/14	51.25	1541.70	3.99	45.01
03/31/14	49.09	1590.79	4.27	49.28
04/01/14	46.31	1637.10	3.98	53.26
04/02/14	43.06	1680.16	3.73	56.99
04/03/14	44.7	1724.86	3.71	60.70
04/04/14	40.47	1765.33	3.67	64.37
04/05/14	39.66	1804.99	3.78	68.15
04/06/14	37.96	1842.95	3.64	71.79
04/07/14	14.09	1857.04	1.37	73.16

5.9 Flare Volumes

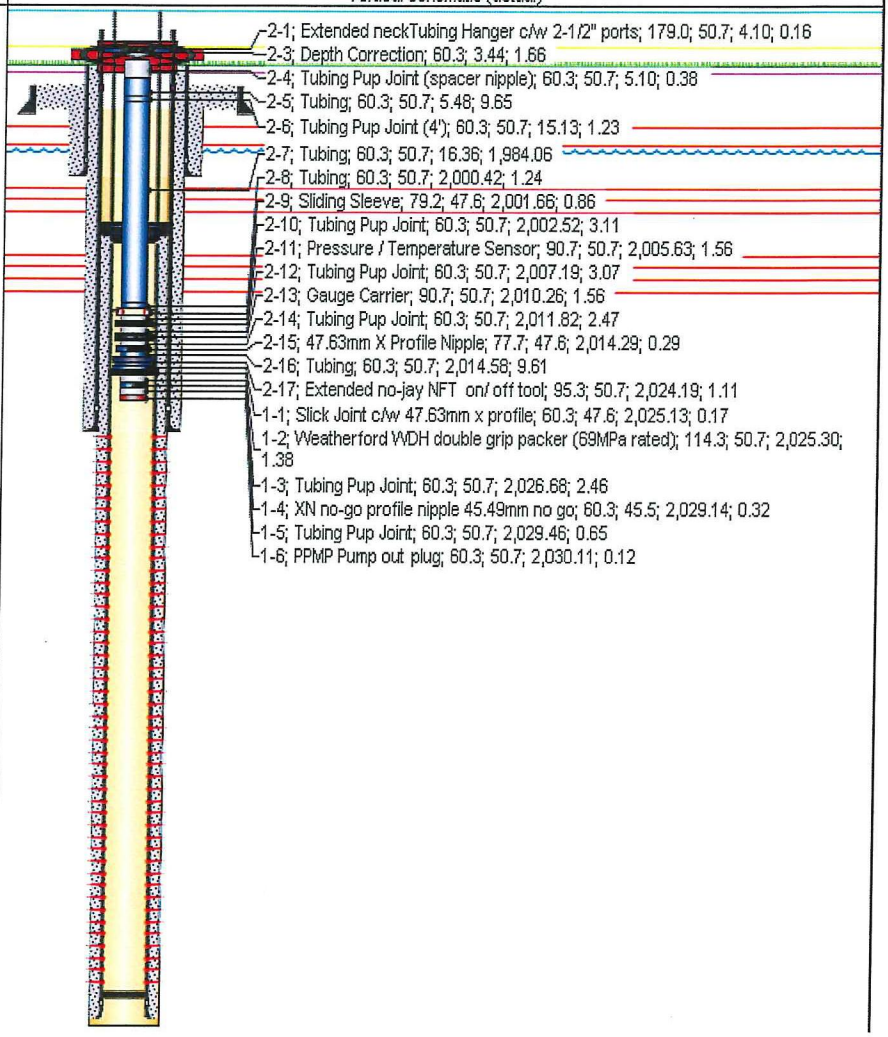
Date	Daily volume Flared E^3m^3	Total Volume flared E^3m^3
03/16/14		
03/17/14	5.17	5.17
03/18/14	7.94	13.11
03/19/14	22.75	41.03
03/20/14	49.39	108.7
03/21/14	70.83	179.53
03/22/14	84.05	263.58
03/23/14	89.36	352.94
03/24/14	90.33	443.27
03/25/14	91.09	534.36
03/26/14	92.58	626.94
03/27/14	93.51	720.45
03/28/14	92.41	812.86
03/29/14	92.31	905.17
03/30/14	92.21	997.38
03/31/14	91.37	1088.75
04/01/14	90.20	1178.95
04/02/14	89.59	1268.54
04/03/14	88.45	1356.99
04/04/14	88.02	1445.01
04/05/14	87.38	1532.39
04/06/14	86.32	1618.71
04/07/14	32.25	1650.96

5.10 Current Wellbore Schematic

HORIZONTAL - Original Hole, 4/25/2014 1:15:55 PM

MD (mKB)	TVD (mKB)	Incl (°)
4.1	4.1	0.5
8.1	8.1	0.5
161.0	161.0	0.3
602.0	601.9	1.4
1,727.2	1,726.6	1.7
1,816.0	1,814.7	11.8
2,000.4	1,970.3	52.2
2,014.3	1,978.4	57.1
2,029.5	1,986.1	62.5
2,152.0	2,013.6	89.0
2,303.0	2,016.9	89.8
2,362.0	2,016.7	90.7
2,439.0	2,016.7	89.6
2,498.0	2,018.1	88.2
2,575.0	2,020.5	88.5
2,634.0	2,021.1	89.8
2,710.0	2,021.6	89.4
2,770.0	2,022.5	89.2
2,846.0	2,023.1	89.9
2,905.0	2,023.9	89.1
2,982.0	2,024.8	89.6
3,041.0	2,025.1	89.8
3,118.0	2,025.3	89.9

Vertical schematic (actual)

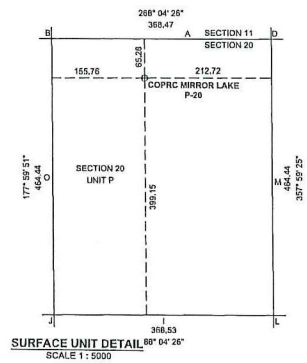


5.11 Suspension Status

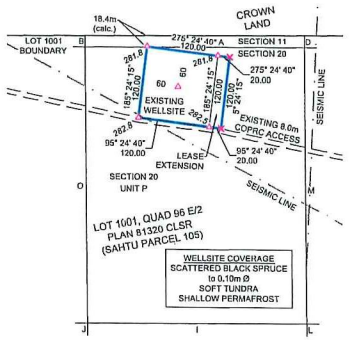
COPRC Mirror Lake P-20 is suspended. A StreamFlo 34.5 MPa wellhead with two master valves is installed and chained and locked.

Appendices to Well History Report

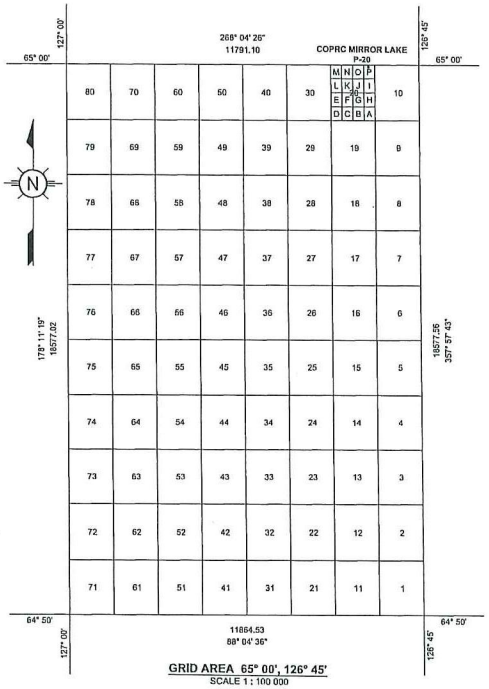
I. Final Survey Plot of COPRC Mirror Lake P-20



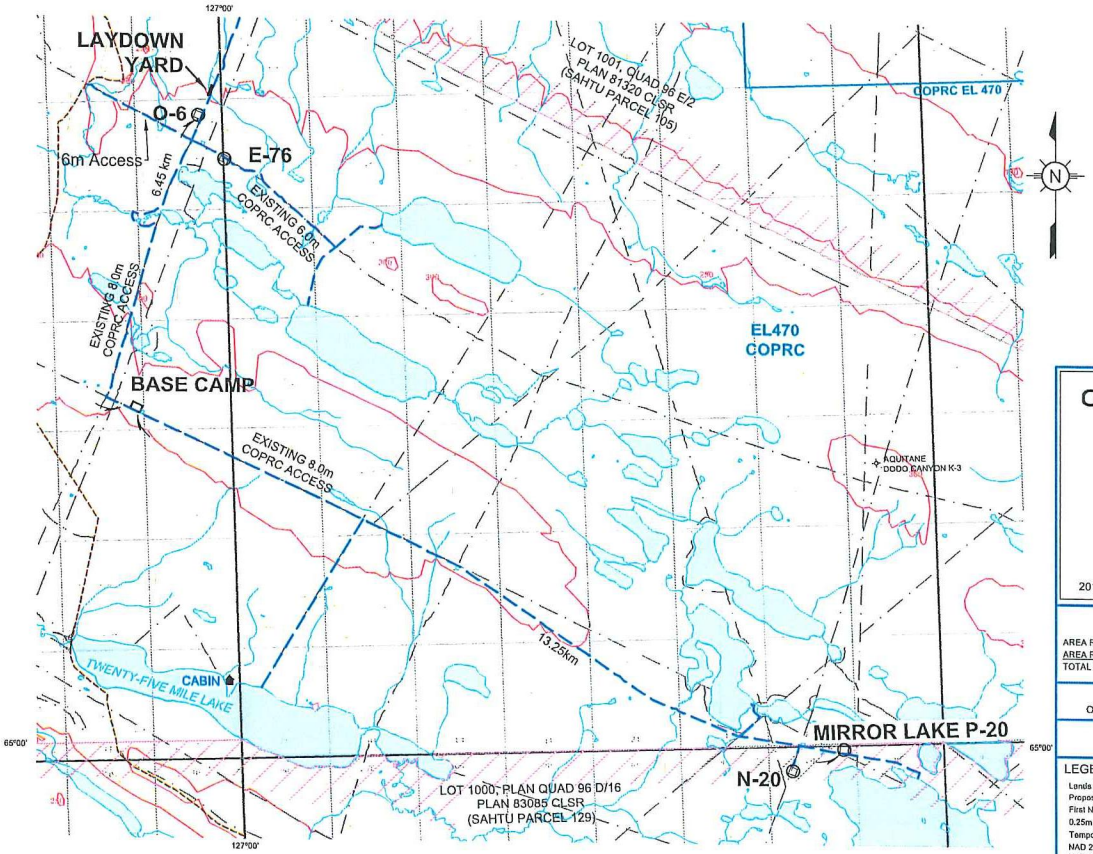
SURFACE UNIT DETAIL
SCALE 1 : 5000



WELLSITE DETAIL
SCALE 1 : 5000



GRID AREA 65° 00', 126° 45'
SCALE 1 : 100 000



ACCESS MAP
SCALE 1 : 50 000

NOTES:

	NO	YES
-The proposed well is at least 300m from any privately owned land or structures.	☐	☒
-The proposed well is at least 100m from the ordinary high water mark of a permanent water body.	☐	☒
-The proposed well and related areas are 100m from an archaeological/historical/traditional land use site.	☐	☒

Sahtu GeoMatics Ltd.
300-5940 FISHER ROAD S.E.
CALGARY, ALBERTA T2H 0W3
PH (403) 253-6101
FAX (403) 253-1985
Email calgary@chalsurv.com

REVISION NOTES:

No.	DATE	DESCRIPTION	By
0	2012-08-01	PLAN ISSUED	MB
1	2013-02-20	REVISED WELLSITE DIMENSIONS, MOVED WELLSITE TO 2013-2014 PROJECT	MB

ConocoPhillips Canada

CONOCOPHILLIPS CANADA RESOURCES CORP.

WELLSITE PLAN
OF
COPRC MIRROR LAKE P-20
IN UNIT P, SECTION 20
GRID AREA 65°00', 126°45'
EXPLORATION LICENCE 470

SAHTU SETTLEMENT AREA, TULITA DISTRICT
2012 NORTHWEST TERRITORIES RON ROBINSON C.L.S.

AREAS

AREA REQUIRED WITHIN EXISTING WELLSITE	1.44 ha.
AREA REQUIRED FOR WELLSITE EXTENSION	0.24 ha.
TOTAL AREA REQUIRED	1.68 ha.

ELEVATIONS
ON GROUND AT WELL LOCATION =283.3m

SURVEY DATES
JULY 17-20, 2012

LEGEND
- Lands to be Dealt with shown thus
- Proposed COPRC Access shown thus
- First Nations Surface Rights
- 0.25m spikes placed are shown thus △
- Temporary traverse points shown thus ×
- NAD 27 UTM coordinates are converted from NAD 83 and are derived from NRCAN Precise Point Positioning (PPP) website.
- Elevations are orthometric and were derived using the HTv2.0 geoid model.
- Bearings are UTM grid (NAD 27) Zone 9 and are referred through C.M. 129° W.
- Distances are in metres and decimals thereof.
- Contour Interval is 10m
- Position of foreign wells is based on NEB records.

UTM CO-ORDINATES
AT WELL CENTRE (UTM - ZONE 9)

NAD 27	NAD 83
N. 7210027.78	N. 7210224.91
E. 604406.01	E. 604315.48

GEOGRAPHIC CO-ORDINATES
AT WELL CENTRE

NAD 27	NAD 83
LAT. : 64°59'58.0" N.	LAT. : 64°59'58.2" N.
LONG. : 126°47'08.7" W.	LONG. : 126°47'15.3" W.

OPERATOR: CONOCOPHILLIPS CANADA RESOURCES CORP.

WITNESS

RON ROBINSON
CANADA LANDS SURVEYOR

SCALE:	DRAWN/CHECKED:	DATE:	CALC NO.:
AS SHOWN	MB/IC/RR	2013-02-21	36784
			ACAD NO.: 36784_P-20

II. Casing and Cementing Report

ConocoPhillips Canada

Casing Summary
Mirror Lake P-20 65-00 126-45

/ UWI	Surface Legal Location	District	Field Name	License No.
/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Conductor, 20.00mKB

Set Depth (mKB)	Set Tension (daN)	String Nominal OD (mm)	String Min Drift (mm)	Centralizers Count	Scratchers Count
20.00		508.0			

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Top Thread	Top (mKB)	Btm (mKB)	Section Length (m)	P Burst (kPa)	P Collapse (kPa)
	Casing Joints	508.0	475.7	197.926	K-55		7.10	20.00	12.90		10,342

Surface, 602.00mKB

Set Depth (mKB)	Set Tension (daN)	String Nominal OD (mm)	String Min Drift (mm)	Centralizers Count	Scratchers Count
602.00		244.5		12 x centralizers / 1 x cement basket	

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Top Thread	Top (mKB)	Btm (mKB)	Section Length (m)	P Burst (kPa)	P Collapse (kPa)
46	Casing Joints	244.5	226.6	53.574	J-55	LTC	5.16	587.97	582.81		13,927
1	Float Collar	244.5	226.6	53.574	J-55	LTC	587.97	588.33	0.36		13,927
1	Casing Joints	244.5	226.6	53.574	J-55	LTC	588.33	601.61	13.28		13,927
1	Float Shoe	244.5	226.6	53.574	J-55	LTC	601.61	602.00	0.39		

Intermediate, 2,152.00mKB

Set Depth (mKB)	Set Tension (daN)	String Nominal OD (mm)	String Min Drift (mm)	Centralizers Count	Scratchers Count
2,152.00		177.8		35 Volants from 2152m to 1698m, 10 micro seals from 1818m to 1698m,	

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Top Thread	Top (mKB)	Btm (mKB)	Section Length (m)	P Burst (kPa)	P Collapse (kPa)
1	Landing Joint	177.8	159.4	38.692	P-110	LTC	3.10	7.13	4.03		
1	Mandrel Hanger	177.8	159.4	38.692	P-110	LTC	7.13	8.15	1.02		
156	Casing Joints	177.8	159.4	38.692	P-110	LTC	8.15	2,136.75	2,128.60		
	Float Collar	177.8	159.4	38.692	P-110	LTC	2,136.75	2,137.18	0.43		42,954
1	Casing Joints	177.8	159.4	38.692	P-110	LTC	2,137.18	2,151.53	14.35		42,954
1	Float Shoe	177.8	159.4	38.692	P-110	LTC	2,151.53	2,152.00	0.47		42,954

Production, 3,148.70mKB

Set Depth (mKB)	Set Tension (daN)	String Nominal OD (mm)	String Min Drift (mm)	Centralizers Count	Scratchers Count
3,148.70		114.3		101 Volant Hydroforms	

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Top Thread	Top (mKB)	Btm (mKB)	Section Length (m)	P Burst (kPa)	P Collapse (kPa)
1	Pup Joint	114.3	101.6	17.263	P-110	LTC	0.00	0.45	0.45		52,262
1	Casing Joints	114.3	101.6	17.263	P-110	LTC	0.45	2.90	2.45		52,262
1	Mandrel Hanger	114.3	101.6	17.263	P-110	LTC	2.90	3.14	0.24		52,262
124	Casing Joints	114.3	101.6	17.263	P-110	LTC	3.14	1,727.18	1,724.04		52,262
1	Latch Assembly	114.3	101.6	17.263	P-110	LTC	1,727.18	1,727.49	0.31		52,262
1	Seal Bore Sub	114.3	101.6	17.263	P-110	LTC	1,727.49	1,728.28	0.79		52,262
1	Liner Top Packer	114.3	101.6	17.263	P-110	LTC	1,728.28	1,729.64	1.36		52,262
100	Casing Joints	114.3	101.6	17.263	P-110	LTC	1,729.64	3,133.90	1,404.26		52,262
1	Float Collar	114.3	101.6	17.263	P-110	LTC	3,133.90	3,134.27	0.37		52,262
1	Casing Joints	114.3	101.6	17.263	P-110	LTC	3,134.27	3,148.02	13.75		52,262
1	Float Shoe	114.3	101.6	17.263	P-110	LTC	3,148.02	3,148.70	0.68		52,262

ConocoPhillips Canada

Cement Summary

Mirror Lake P-20 65-00 126-45

Production

UWI	Surface Legal Location	District	Field Name	License No.
/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Original Hole

Wellbore Name	Profile Type	Kick Off Depth (mKB)	Vertical Section Direction (°)
Original Hole			

Section Des	Size (mm)	Act Top (mKB)	Act Btm (mKB)
SURFAC	311.0	18.00	602.00
INTRM1	222.0	602.00	2,152.00
PROD1	156.0	2,152.00	3,152.00

UHWB Split System, FMC on 2/6/2014 11:00

Type	Install Date
UHWB Split System	2/6/2014

Des	Make	Model	WP (kPa)	Service	SN
Cap installed until drilling rig is off location	STREAM FLOW Crown				
Left Csg valve	STREAM FLOW Crown	Gate Valve	69,000		217331-03
Right CSG valve	STREAM FLOW Crown	Gate Valve	69,000		217330-38
Left intermediate casing valve	STREAM FLOW Crown	Gate Valve	34,500		44648-010-507
Right intermediate casing valve	STREAM FLOW Crown	Gate Valve	34,000		44648-010-625
Right wing valve	STREAM FLOW Crown	Gate Valve	69,000		217331-06
Left wing valve	STREAM FLOW Crown	Gate Valve	69,000		217330-36
lower master valve	STREAM FLOW Crown	Gate Valve	69,000		217330-49
upper master valve	STREAM FLOW Crown	Gate Valve	69,000		217331-05
Tubing Head	STREAM FLOW Crown		69,000		228095-01
Well head adaptor	STREAM FLOW Crown		69,000		227369
Tee	STREAM FLOW Crown		69,000		220073-3
Casing Bowl	STREAM FLOW Crown	CC-22	34,500	OIL	CC-CH115x958SOWSV-10-2
Intermediate spool	STREAM FLOW Crown	FBD100	34,500	OIL	FBD100-TH115x115SV-00-2

Conductor, 20.00mKB

Casing Description	Wellbore	Run Date	Set Depth (mKB)	Stick Up (mKB)	Set Tension (daN)
Conductor	Original Hole	1/10/2013	20.00	-7.10	

Centralizers Count

Scratchers Count

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Top Conn Sz (mm)	Top Thread	Section Length (m)	Top (mKB)	Btm (mKB)
	Casing Joints	508.0	475.7	197.926	K-55			12.90	7.10	20.00

Surface, 602.00mKB

Casing Description	Wellbore	Run Date	Set Depth (mKB)	Stick Up (mKB)	Set Tension (daN)
Surface	Original Hole	2/5/2014	602.00	-5.16	

Centralizers Count

12 x centralizers / 1 x cement basket

Scratchers Count

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Top Conn Sz (mm)	Top Thread	Section Length (m)	Top (mKB)	Btm (mKB)
46	Casing Joints	244.5	226.6	53.574	J-55		LTC	582.81	5.16	587.97
1	Float Collar	244.5	226.6	53.574	J-55		LTC	0.36	587.97	588.33
1	Casing Joints	244.5	226.6	53.574	J-55		LTC	13.28	588.33	601.61
1	Float Shoe	244.5	226.6	53.574	J-55		LTC	0.39	601.61	602.00

Intermediate, 2,152.00mKB

Casing Description	Wellbore	Run Date	Set Depth (mKB)	Stick Up (mKB)	Set Tension (daN)
Intermediate	Original Hole	2/14/2014	2,152.00	-3.10	

Centralizers Count

35 Volants from 2152m to 1698m, 10 micro seals from 1818m to 1698m,

Scratchers Count

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Top Conn Sz (mm)	Top Thread	Section Length (m)	Top (mKB)	Btm (mKB)
	Landing Joint	177.8	159.4	38.692	P-110		LTC	4.03	3.10	7.13
	Mandrel Hanger	177.8	159.4	38.692	P-110		LTC	1.02	7.13	8.15
156	Casing Joints	177.8	159.4	38.692	P-110		LTC	2,128.60	8.15	2,136.75
1	Float Collar	177.8	159.4	38.692	P-110		LTC	0.43	2,136.75	2,137.18
1	Casing Joints	177.8	159.4	38.692	P-110		LTC	14.35	2,137.18	2,151.53
1	Float Shoe	177.8	159.4	38.692	P-110		LTC	0.47	2,151.53	2,152.00

ConocoPhillips Canada

Cement Summary

Mirror Lake P-20 65-00 126-45

Production

API / UWI	Surface Legal Location	District	Field Name	License No.
200/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Production, 3,148.70mKB

Casing Description	Wellbore	Run Date	Set Depth (mKB)	Stick Up (mKB)	Set Tension (daN)
Production	Original Hole	2/20/2014	3,148.70	0.00	

Centralizers Count	Scratchers Count
101 Volant Hydroforms	

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Top Conn Sz (mm)	Top Thread	Section Length (m)	Top (mKB)	Btm (mKB)
1	Pup Joint	114.3	101.6	17.263	P-110		LTC	0.45	0.00	0.45
1	Casing Joints	114.3	101.6	17.263	P-110		LTC	2.45	0.45	2.90
1	Mandrel Hanger	114.3	101.6	17.263	P-110		LTC	0.24	2.90	3.14
124	Casing Joints	114.3	101.6	17.263	P-110		LTC	1,724.04	3.14	1,727.18
1	Latch Assembly	114.3	101.6	17.263	P-110		LTC	0.31	1,727.18	1,727.49
1	Seal Bore Sub	114.3	101.6	17.263	P-110		LTC	0.79	1,727.49	1,728.28
1	Liner Top Packer	114.3	101.6	17.263	P-110		LTC	1.36	1,728.28	1,729.64
100	Casing Joints	114.3	101.6	17.263	P-110		LTC	1,404.26	1,729.64	3,133.90
1	Float Collar	114.3	101.6	17.263	P-110		LTC	0.37	3,133.90	3,134.27
1	Casing Joints	114.3	101.6	17.263	P-110		LTC	13.75	3,134.27	3,148.02
1	Float Shoe	114.3	101.6	17.263	P-110		LTC	0.68	3,148.02	3,148.70

Production, Casing, 2/21/2014 06:15

Cementing Start Date	Cementing End Date	Wellbore
2/21/2014	2/21/2014	Original Hole

Evaluation Method
Returns to Surface

Cement Evaluation Results
Hold safety meeting with Schlumberger cementers prior to cementing 114.3mm production liner, rig up Schlumberger cementers to cement 114.3mm production liner, pump 8m3 of 1000kg/m3 CW8 pre-flush, stop and pressure test line to 35,000kPA (held OK), bleed off pressure, then pump 5m3 of 1200kg/m3 MUDPUSH II pre-flush spacer and then pump 20 tonnes/14.7m3 (20% excess) of 1900kg/m3 Conventional Class G Tail Cement with 0.6% Fluid Loss + 0.5% Dispersant + 0.2% Anti Foam + 0.2% Retarder + 72L/tonne Gas Control Agent from 3148.70mMD to 1727.49mMD. Drop dart and displace 19.8m3 of fresh water. Bump plug 3,500kpa over final circulating pressure of 19,200kPA at 9:05hrs on February 21st 2014, bleed pressure and check floats (holding OK). pressure up to 28,000kPA and set liner with liner top packer at 1727.49mMD, circulate out pre-flush and 2m3 of excess cement out, displace hole with fresh water, rig out cementers, flowcheck, rig up laydown truck, laydown drill pipe and heavy weight drill pipe, run in the rest of the drill pipe in the derrick, laydown drill pipe, rig up and run USIT log and pressure pass USIT log, rig up power tongs, run 114.3mm tie-back liner, space out, land mandrel seal assembly and tie into top of liner top packer, remove landing joint, pressure test packoff seal assembly, pressure test 114.3mm x 177.8mm annulus to 15,000kPA with Schlumberger cementers.

Comment
Hold safety meeting with Schlumberger cementers prior to cementing 114.3mm production liner, rig up Schlumberger cementers to cement 114.3mm production liner, pump 8m3 of 1000kg/m3 CW8 pre-flush, stop and pressure test line to 35,000kPA (held OK), bleed off pressure, then pump 5m3 of 1200kg/m3 MUDPUSH II pre-flush spacer and then pump 20 tonnes/14.7m3 (20% excess) of 1900kg/m3 Conventional Class G Tail Cement with 0.6% Fluid Loss + 0.5% Dispersant + 0.2% Anti Foam + 0.2% Retarder + 72L/tonne Gas Control Agent from 3148.70mMD to 1727.49mMD. Drop dart and displace 19.8m3 of fresh water. Bump plug 3,500kpa over final circulating pressure of 19,200kPA at 9:05hrs on February 21st 2014, bleed pressure and check floats (holding OK). pressure up to 28,000kPA and set liner with liner top packer at 1727.49mMD, circulate out pre-flush and 2m3 of excess cement out, displace hole with fresh water, rig out cementers, flowcheck, rig up laydown truck, laydown drill pipe and heavy weight drill pipe, run in the rest of the drill pipe in the derrick, laydown drill pipe, rig up and run USIT log and pressure pass USIT log, rig up power tongs, run 114.3mm tie-back liner, space out, land mandrel seal assembly and tie into top of liner top packer, remove landing joint, pressure test packoff seal assembly, pressure test 114.3mm x 177.8mm annulus to 15,000kPA with Schlumberger cementers.

1, 1,727.49-3,148.70mKB

Top Depth (mKB)	Bottom Depth (mKB)	Full Return?	Vol Cement Re...	Top Plug?	Bottom Plug?
1,727.49	3,148.70	Yes	2.00	No	Yes

Initial Pump Rate (m³/min)	Final Pump Rate (m³/min)	Avg Pump Rate (m³/min)	Final Pump Pressure (kPa)	Plug Bump Pressure (kPa)
0.500	0.200	0.500	19,200	22,700

Pipe Reciprocated?	Reciprocation Stroke Length (m)	Reciprocation Rate (spm)	Pipe Rotated?	Pipe RPM (rpm)
No			No	

Tagged Depth (mKB)	Tag Method	Depth Plug Drilled Out To (mKB)	Drill Out Diameter (mm)	Drill Out Date

Production Liner Cement

Fluid Type	Fluid Description	Amount (1000kg)	Class	Volume Pumped (m³)
Production Liner Cement	Conventional 1900 Class G Cement	14.7	Class G	14.70

Estimated Top (mKB)	Estimated Bottom Depth (mKB)	Percent Excess Pumped (%)	Yield (m³/tonne)	Mix H20 Ratio (m³/tonne)
1,727.49	3,148.70	20.0	0.760	0.36

Free Water (%)	Density (kg/m³)	Plastic Viscosity (cP)	Thickening Time (hr)	1st Compressive Strength (kP
	1,900.0			

Cement Fluid Additives

Add	Type	Conc
Anti Foam		0.2
Dispersant		0.5
Fluid Loss		0.6

ConocoPhillips Canada

Cement Summary
Mirror Lake P-20 65-00 126-45

Production

UWI	Surface Legal Location	District	Field Name	License No.
/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Cement Fluid Additives

Add	Type	Conc
Gas Control Agent		
Retarder		0.2

III. Drilling Fluid Summary

ConocoPhillips Canada

Mud Properties Summary (legal size)

COPRC MIRROR LAKE P-20 65-00 126-45

API / UWI	Surface Legal Location	License No.	Well Configuration Type	Ground Elevation (m)	Casing Flange Elevation (m)	KB-Ground Distance (m)	KB-Casing Flange Distance (m)
200/D-020/L094P1699	P-20 65-00 126-45	EL 470	HORIZONTAL	284.15	283.95	5.20	5.40

Rigs

AFE / RFE	Job Typ	Job SubTyp	Plan TMD (mKB)	Plan Form	Contractor	Rig Name/#	Rig Type	Rig Accept Date	RR Date
10351812	DRILLING ORIGINAL			Lower Canol	Beaver Drilling Ltd.	2	DRILLING-DOUBLE	1/24/2014	2/23/2014

Fluid / Mud Checks

Date	Depth (mKB)	Depth (TVD) (mKB)	Type	Dens (kg/m³)	Vis (s/L)	PV Calc (Pa•s)	YP Calc (Pa)	Gel (10s) (Pa)	Gel (10m) (Pa)	API Filtrate (mL/30 min)	pH	Pom (mL/mL)	Retort Solids (%)	CaCl (ppm)	Ca (mg/L)	Chlor (mg/L)	K	LCM	Lime (kg/m³)	LGS (%)	Mg (mg/L)	MBT (kg/m³)	n	OW Ratio	Pf (mL/mL)	Pm (mL/mL)	Pot (mg/L)	Sand (%)	Solids, Corr. (%)	Wellbore
1/28/2014																														Original Hole
1/29/2014	184.00	184.00	Gel-Chem	1,060.0	46	13.0	4.5	1.0	4.0	13.0	9.0				120	1,500	4			3.7			1		0.100			0.1	3.8	Original Hole
1/30/2014	301.00	301.00	Gel-Chem	1,050.0	65	23.0	7.0	2.0	4.5	14.0	8.5				120	800	7			2.9			1		0.100			0.1	3.1	Original Hole
1/31/2014	450.00	449.94		1,080.0	107						9.0																			Original Hole
2/2/2014	550.00	549.91	Gel-Chem	1,100.0	53	9.0	10.0	10.0	20.0		10.5		6.3				66						0						6.3	Original Hole
2/3/2014	602.00	601.89		1,010.0	30						11.0																			Original Hole
2/4/2014	602.00	601.89	Gel-Chem	1,035.0	75	25.0	11.0	5.5	15.0		8.5		2.2				16						0						0.4	Original Hole
2/4/2014	602.00	601.89	Gel-Chem	1,085.0	78	27.0	11.0	5.0	11.0		9.0		5.3				15						0						2.7	Original Hole
2/5/2014	602.00	601.89	Gel-Chem	1,080.0	58	27.0	7.0	2.0	5.0		9.0		5.0				6						1						2.4	Original Hole
2/7/2014	780.00	779.53	Megadril D invert	995.0	62	15.0	3.5	6.0	11.0			3.200	10.0		31	161,771	13		12	8.8			0	80/20				2.6	8.8	Original Hole
2/8/2014	1,377.00	1,376.44	Megadril D invert	965.0	50	8.0	2.5	3.0	8.0			3.200	8.5		29	179,998	2		12	7.4			1	84/16				2.6	7.4	Original Hole
2/9/2014	1,756.00	1,755.36	Megadril D invert	1,020.0	50	16.0	4.0	6.0	14.5			4.000	10.5		27	219,005	13		15	8.1			0	83/17				2.8	9.0	Original Hole
2/10/2014	1,902.00	1,895.58	Megadril D invert	1,020.0	50	16.0	4.0	6.0	14.5			4.000	10.5		27	219,005	13		15	8.1			0	83/17				2.8	9.0	Original Hole
2/11/2014	1,915.00	1,907.01	Megadril D invert	1,015.0	50	17.0	4.5	6.5	17.0			4.000	10.5		39	242,335	12		15	8.5			0	84/16				2.7	9.0	Original Hole
2/12/2014	2,055.00	1,996.62	Megadril D invert	1,010.0	79	20.0	5.0	6.5	22.0			4.100	11.0		41	261,080	15		15	9.2			0	84/16				2.6	9.3	Original Hole
2/13/2014	2,152.00	2,013.56	Megadril D invert	1,010.0	78	20.0	5.0	7.0	22.0			4.100	11.0		42	270,784	11		15	9.2			0	85/15				2.6	9.2	Original Hole
2/14/2014	2,152.00	2,013.56	Megadril D invert	1,010.0	78	20.0	5.0	7.0	22.0			4.100	11.0		42	270,784	11		15	9.2			0	85/15				2.6	9.2	Original Hole
2/14/2014	2,152.00	2,013.56	Megadril D invert	1,023.0	78	19.0	5.0	6.5	22.0			3.900	11.5		42	270,784	13		14	9.3			0	84/16				2.7	9.7	Original Hole
2/16/2014	2,192.00	2,014.79	Megadril D invert	985.0	61	13.0	4.0	5.0	12.0			3.900	9.0		32	196,931	9		14	7.2			0	84/16				2.7	7.7	Original Hole

ConocoPhillips Canada

Mud Properties Summary (legal size)

COPRC MIRROR LAKE P-20 65-00 126-45

Fluid / Mud Checks

Date	Depth (mKB)	Depth (TVD) (mKB)	Type	Dens (kg/m³)	Vis (s/L)	PV Calc (Pa•s)	YP Calc (Pa)	Gel (10s) (Pa)	Gel (10m) (Pa)	API Filtrate (mL/30 min)	pH	Pom (mL/mL)	Retort Solids (%)	CaCl (ppm)	Ca (mg/L)	Chlor (mg/L)	K	LCM	Lime (kg/m³)	LGS (%)	Mg (mg/L)	MBT (kg/m³)	n	OW Ratio	Pf (mL/mL)	Pm (mL/mL)	Pot (mg/L)	Sand (%)	Solids, Corr. (%)	Wellbore
2/17/2014	2,500.00	2,017.92	Megadril D invert	1,050.0	73	19.0	5.0	7.3	14.3			4.900	12.0		32	213,540	20		18	9.5			0	83/17				2.8	10.6	Original Hole
2/18/2014	3,070.00	2,025.23	Megadril D invert	1,140.0	68	22.0	4.5	6.0	14.0			3.500	14.0		36	266,597	16		13	7.2			0	86/14				3.2	12.4	Original Hole
2/19/2014	3,142.00	2,025.36	Megadril D invert	1,140.0	70	20.0	5.0	7.5	19.0			3.100	16.0		38	277,984	20		11	11.6			0	86/14				2.9	16.0	Original Hole
2/21/2014	3,155.00			1,135.0	130																								Original Hole

IV. Leak Off Test Charts

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LOT & Fit with Graph

COPRC MIRROR LAKE P-20 65-00 126-45

Spud Date: 1/29/2014 00:00

RR: 2/23/2014 23:59

Leak Off and Formation Integrity Tests

FIT,2/16/2014 12:15

Last Casing String Run	Test Date	Test Type	Leak off?	Formation Tested	P Surf App...	Depth (mKB)	TVD (mKB)
Intermediate, 2,152.00mKB	2/16/2014	FIT		Lower Canol	5,025		

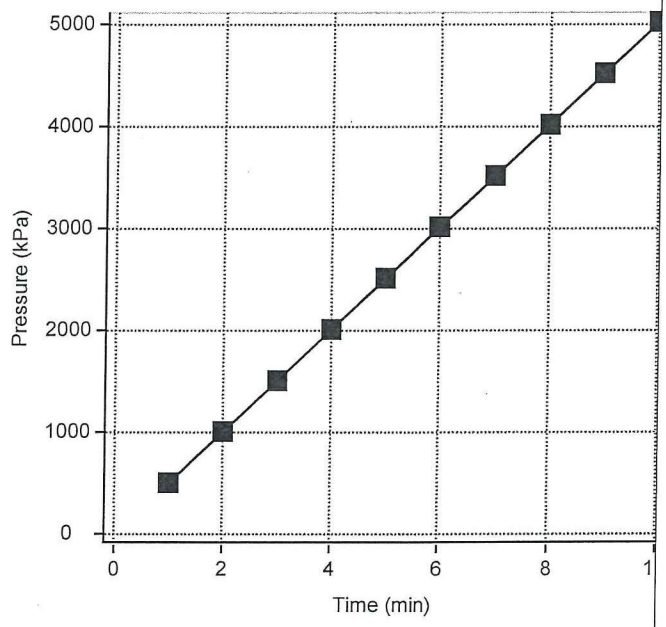
Fluid Density (kg/m³)	Fluid Type	LO Eq Fluid Den (k...	Leak Off Pressure (kPa)	Volume Pumped (m³)
1,020.0	OBM			0.07

Comment

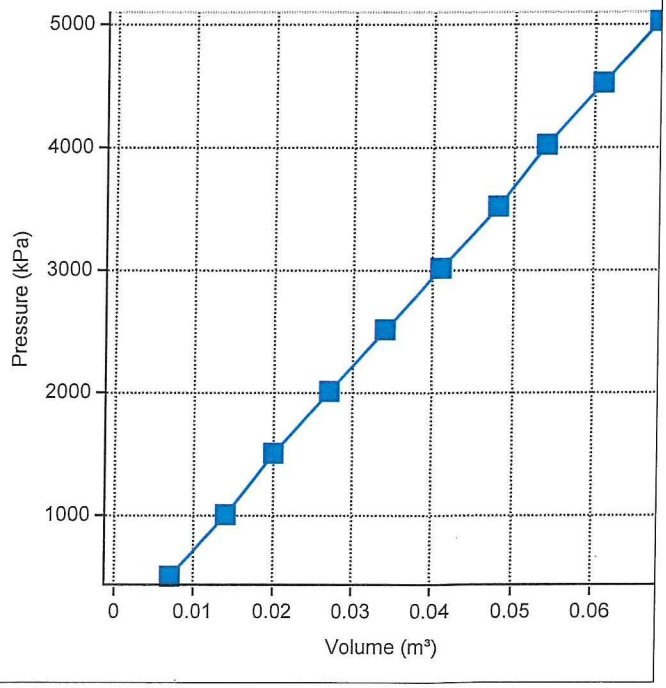
LOT and FIT Test Data

Time (min)	P (kPa)	Vol (m³)	Note
1.00	503	0.01	
2.00	1,005	0.01	
3.00	1,507	0.02	
4.00	2,010	0.03	
5.00	2,513	0.03	
6.00	3,015	0.04	
7.00	3,518	0.05	
8.00	4,020	0.05	
9.00	4,523	0.06	
10.00	5,025	0.07	

Pressure vs. Time Graph



Pressure vs. Volume Graph



V. Geological Strip log

Provided under separate cover

VI. Mud Gas log

Provided under separate cover

VII. Daily Activity and Cost Summary Report

ConocoPhillips Canada

Daily Activity and Cost Summary
Mirror Lake P-20 65-00 126-45

UWI	Surface Legal Location	District	Field Name	License No.
D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Job Category	Primary Job Type	Secondary Job Type
DRILLING	DRILLING ORIGINAL	

Actual Start Date	End Date	AFE / RFE / Maint.#	Total Job AFE Amount (Cost)
1/24/2014	2/23/2014	10351812	7,122,600.00

Summary

Contractor	Rig Name/No	Rig Type
Beaver Drilling Ltd.	2	DRILLING-DOUBLE

Report No.	Start Date	End Date	Start Depth (mKB)	End Depth (mKB)	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
1	1/24/2014	1/25/2014	0.00	0.00	265,023.03	265,023.03	No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out) Nipple down BOP, pressure test packoff seal assembly, blow out water and pour 2 pails of diesel, install wellhead, clean mud tanks, tear out rig, laydown torque tube, rig out derrick, laydown derrick, tear out rig for rig move. No pressure on backside.
2	1/25/2014	1/26/2014	0.00	0.00	81,765.03	346,788.06	No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out) Rig out to move off location E-76. Prepare derrick clean well head and cover with plastic, prepare buildings to move, load buildings, sub, matting and rentals and move off location with CANOL trucking
3	1/26/2014	1/27/2014	0.00	0.00	83,065.03	429,853.09	No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out) Move rig onto location P-20 location with CANOL trucking, lay matting, spot sub and buildings, pin derrick and rig up
4	1/27/2014	1/28/2014	0.00	0.00	105,791.03	535,644.12	No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out) Safety meeting prior to raise derrick, inspect derrick, raise and pin derrick, spot cuttings bins, pipe and mud trailers, install torque tube and top drive
5	1/28/2014	1/29/2014	18.00	20.00	93,395.03	629,039.15	No incidents or accidents. 5 - HID, 0 - OBS and 0 - ASA (all closed out) Rig in Diverter system, Pre-spud inspection, hazard hunt and safety meeting,
6	1/29/2014	1/30/2014	20.00	263.00	134,832.30	763,871.45	No incidents or accidents. 4 - HID, 2 - OBS and 0 - ASA (all closed out) Spud and drill 311mm surface hole from 0m to 263m with 311mm Mi616 Smith PDC bit with accumulated wireline surveys, rig services, connections and circulation times. Last survey at 300m was 0.2°. Sent pre-spud Beyond Compliance, pre-spud inspection and rig inspection checklists prior to spudding. Spud and drill 311mm surface hole at 00:01hrs on January 29, 2014. Stop pumping at 245m, build volume, vis up mud with gel additions and add LCM, circulate at a reduced rate, displace hole with viscosified mud and LCM, stop pump, viscosify light mud from wellbore with gel additions and add LCM, check muddrop of mud in annulus, pump at reduced rate and check mud volumes, continue with drilling operations.
7	1/30/2014	1/31/2014	263.00	319.00	152,056.22	915,927.67	No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out) Drill 311mm surface hole from 263m to 301m with accumulated wireline surveys, rig services, connections and circulation times. Last survey at 300m was 0.2°. Pull out of the hole, attempt to back ream through tight spot at 110m, lost circulation, build volume, vis up mud with gel additions and add LCM, circulate at a reduced rate, displace hole with viscosified mud and LCM, stop pump, viscosify light mud from wellbore with gel additions and add LCM, backream through tight spots from 98m to 76m. Run in hole to 282m, build volume and vis up to 80+, displace hole to high vis mud, build volume and vis to 80+. Drill 311mm hole from 301m to 319m. Last survey at 357m was 1.3°.

ConocoPhillips Canada

Daily Activity and Cost Summary
Mirror Lake P-20 65-00 126-45

API / UWI	Surface Legal Location	District	Field Name	License No.
200/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Report No.	Start Date	End Date	Start Depth (mKB)	End Depth (mKB)	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
8	1/31/2014	2/1/2014	319.00	450.00	111,501.54	1,027,429.21	No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out) Drill 311mm surface hole from 319m to 450m with accumulated wireline surveys, rig services, connections and circulation times. Last survey at 450m was 2.3°. Lost circulation, build volume, vis up mud with gel additions and add LCM. Pull out of the hole, pick up and run in 31 joints of 4" drill pipe, pump and spot heavy high vis pill at 297m, pull and rack back 2 stands and rig up Schlumberger cementers at 256m. From midnight to 6:00am: Pump 5m3 of water followed by 10m3 of 1740 RFC cement then 0.45m3 of water. Pull and rack back 8 stands, flush any excess cement out of drill pipe and displace to water to drill out cement plug, pull out of the hole, clean out 1 mud tank and fill with water, make up Reed tooth bit, slip and cut drill line.
9	2/1/2014	2/2/2014	450.00	468.00	98,485.03	1,125,914.24	No incidents or accidents. 7 - HID, 1 - OBS and 0 - ASA (all closed out) After spotting a heavy high vis pill at 297m and racking back 2 stands, we rigged up Schlumberger cementers at 256m, pump 5m3 of water followed by 10m3 of 1740 RFC cement then 0.45m3 of water. Pull and rack back 8 stands, flush any excess cement out of drill pipe and displace to water to drill out cement plug, pull out of the hole, clean out 1 mud tank and fill with water, make up Reed tooth bit, slip and cut drill line, run in the hole, drill cement plug, displace to surface mud, drill 311mm surface hole from 450m to 468m with accumulated wireline surveys, rig services, connections and circulation times.
10	2/2/2014	2/3/2014	468.00	602.00	112,757.28	1,238,671.52	No incidents or accidents. 7 - HID, 2 - OBS and 0 - ASA (all closed out) Drill 311mm surface hole from 468m to 602m (TD) with accumulated wireline surveys, rig services, connections and circulation times. Circulate hole clean, wiper trip and strap out, backream through tight spots, backream through cement, encountered losses while backreaming, build volume and treat clobbered mud while backreaming.
11	2/3/2014	2/4/2014	602.00	602.00	126,605.03	1,365,276.55	No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out) Wiper trip and strap out, backream through tight spots, backream through cement, encountered losses while backreaming, build volume and treat clobbered mud while backreaming, work tight hole at 134m, conduct mechanical backoff leaving 88m (7x 6-1/2" and 2x 9" drill collars and tooth bit) worth of fish in the hole and retreiving 46m of 6-1/2" drill collars. Make up screw in sub, bumper sub and jars. Run in hole, screw into fish and jar down, break free, run in the hole to 295m to get circulation back, circulate hole clean, circulate and backream through tight spots to 76m. Midnight to 6:00am= Pull out of the hole and laydown 9" drill collars. Make up tooth bit, 6-1/2" drill collars and jars and run in the hole.
12	2/4/2014	2/5/2014	602.00	602.00	253,295.03	1,618,571.58	No incidents or accidents. 7 - HID, 0 - OBS and 0 - ASA (all closed out) Circulate and backream through tight spots to 76m, pull out of the hole and laydown 9" drill collars. Make up tooth bit, 6-1/2" drill collars and jars and run in the hole, ream in from 271m to 345m, circulate and attempt to viscosify water, pull out to 251m due to major losses and tight hole. Rotate slowly, build volume, viscosify mud and add LCM, circulate until mud comes around, viscosify mud in the mud tanks and add LCM. Run in the hole and ream through tight spots. Circulate and condition mud at 602m (TD). Pull out of the hole to lay down 12x 6-1/2" drill collars and run 244.5mm surface casing. NEB and WSCC inspectors conducted an inspection at Beaver #2, inspection was satisfactory.

ConocoPhillips Canada

Daily Activity and Cost Summary
Mirror Lake P-20 65-00 126-45

UWI	Surface Legal Location	District	Field Name	License No.
200/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Report No.	Start Date	End Date	Start Depth (mKB)	End Depth (mKB)	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
13	2/5/2014	2/6/2014	602.00	602.00	357,746.50	1,976,318.08	No incidents or accidents. 8 - HID, 2 - OBS and 0 - ASA (all closed out) Pull out of the hole, lay down 12x 6-1/2" drill collars, rig up power tongs, run 244.5mm surface casing, tag bottom, circulate hole clean and condition mud, rig up cementers and cement 244.5mm surface casing, plug down at 13:57hrs on February 5, 2014 with 10m3 of good cement returns, nipple down diverter, dig out cellar, cut casing,
14	2/6/2014	2/7/2014	602.00	602.00	106,166.13	2,082,484.21	No incidents or accidents. 7 - HID, 1 - OBS and 0 - ASA (all closed out) Cut casing, weld on casing bowl, clean mud tanks, nipple up BOP, rig up booey and flare lines, nipple up flow nipple and rig up catch can, rig up HCR and kill lines, pressure test BOP components and manifold shack, conduct an accumulator function test, install wear bushing.
15	2/7/2014	2/8/2014	602.00	1,047.00	217,238.53	2,299,722.74	No incidents or accidents. 11 - HID, 0 - OBS and 0 - ASA (all closed out) Complete rig and pre-drill out inspection. Fill mud tanks with invert. Pick and make up directional BHA, run in the hole, tag cement, displace to invert mud, conduct BOP drill and high angle rescue safety meetings, drill out cement float and shoe. Drill 222mm intermediate directional hole from 602m to 609m, circulate bottoms up, perform FIT to a gradient of 18.1kPA/m (surface applied pressure: 4991kPA for 10 minutes). Drill 222mm intermediate directional hole from 609m to 1047m with accumulated MWD surveys, rig services, connections and circulation times. Last survey at 1121m, Inc: 1.59°, Azm: 29.26°.
16	2/8/2014	2/9/2014	1,047.00	1,522.00	257,034.63	2,556,757.37	No incidents or accidents. 9 - HID, 1 - OBS and 0 - ASA (all closed out) Drill 222mm intermediate directional hole from 1047m to 1522m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-8,000kDaN, RPM - 65-80 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000 - 10,000ft/lbs, Rotate: 456m - 96% / Slide: 19m - 4%, ROP: 23.2m/hr. Last survey at 1577mMD, inclination= 0.7°, azimuth= 120.3°, TVD - 1577m.
17	2/9/2014	2/10/2014	1,522.00	1,855.00	125,765.76	2,682,523.13	No incidents or accidents. 9 - HID, 1 - OBS and 0 - ASA (all closed out) Drill 222mm intermediate directional hole from 1522m to 1855m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-8,000kDaN, RPM - 65-80 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000 - 10,000ft/lbs, Rotate: 246m - 74% / Slide: 87m - 26%, ROP: 19.59m/hr. Last survey at 1862.5mMD, inclination= 20.0°, azimuth= 286.20°, TVD - 1853.76m. We are 0.56m above and 24.7m right of the line - 1.5° behind in angle - 0.86° behind in azimuth - 24.77m center to center - BURR: 7.4°/30m. KOP: 1731mMD.
18	2/10/2014	2/11/2014	1,855.00	1,921.00	433,279.02	3,115,802.15	No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out) Drill 222mm intermediate directional hole from 1855m to 1921m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-8,000kDaN, RPM - 65-80 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000 - 10,000ft/lbs, Rotate: 5m - 8% / Slide: 61m - 92%, ROP: 12m/hr. Last survey at 1901mMD, inclination= 27°, azimuth= 282.34°, TVD - 1895m. We are 0.5m below and 24.4m right of the line - 6° behind in angle - 3° ahead in azimuth - 24.43m center to center - BURR: 7.75°/30m. Pull out to 1710m (vertical section) and replace module in mud pump #1, run in the hole, drill and attempt to build angle, pull out of the hole, dial up mud motor to a 1.93° bend and make up a 222mm Smith 4-3-7 insert bit, attempt to pull the wear bushing due to the fact we couldn't get BHA past wear bushing.

ConocoPhillips Canada

Daily Activity and Cost Summary
Mirror Lake P-20 65-00 126-45

API / UWI	Surface Legal Location	District	Field Name	License No.
200/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Report No.	Start Date	End Date	Start Depth (mKB)	End Depth (mKB)	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
19	2/11/2014	2/12/2014	1,921.00	1,993.00	152,618.32	3,268,420.47	No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out) Run in the hole, drill 222mm intermediate directional hole from 1921m to 1993m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 15-18,000kDaN, RPM - 40-50 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000-10,000ft/lbs, Rotate: 10m - 13% / Slide: 62m - 87%, ROP: 7.0m/hr. Last survey at 1986.50mMD, inclination= 48.39°, azimuth= 279.96°, TVD - 1961.87m. We are 0.34m below and 21m right of the line - 0.11° behind in angle - 0.0° ahead in azimuth - 21m center to center - BURR: 8.77°/30m to new target of 2015.25mTVD.
20	2/12/2014	2/13/2014	1,993.00	2,104.00	155,243.11	3,423,663.58	No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out) Drill 222mm intermediate directional hole from 1993m to 2104m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 15-18,000kDaN, RPM - 40-50 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000-10,000ft/lbs, Rotate: 19.0m - 17% / Slide: 92.0m - 83%, ROP: 5.92m/hr. Last survey at 2110mMD, inclination= 81.80°, azimuth= 277.5°, TVD - 2010.91m. We are 2.0m above and 7.5m right of the line of 2017mTVD - 0.0° behind in angle - 8.0° left in azimuth - 7.5m center to center - BURR: 5.2°/30m to target TVD of 2014mTVD. ConocoPhillips Reps toured the rig and NEB Environmental conducted environmental inspection, results were satisfactory.
21	2/13/2014	2/14/2014	2,104.00	2,152.00	116,225.84	3,539,889.42	No incidents or accidents. 6 - HID, 1 - OBS and 0 - ASA (all closed out) Drill 222mm intermediate directional hole from 2104m to 2152m (TD) wit' accumulated MWD surveys, rig services, connections and circulation times. WOB: 15-18,000kDaN, RPM - 40-50 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000-10,000ft/lbs, Rotate: 38m - 79% / Slide: 10m - 21%, ROP: 6.4m/hr. Last survey at 2131mMD, inclination= 85.9°, azimuth= 277.9°, TVD - 2013.06m. Projection at bit: Intermediate TD- 2152mMD, inclination: 89°, azimuth: 277.9°, TVD: 2014mTVD. Circulate 2 bottoms up and work drill string, wiper trip to 1699m, slip and cut drill line, run in the hole, circulate hole clean, pull out of the hole and lay down directional tools.
22	2/14/2014	2/15/2014	2,152.00	2,152.00	494,764.92	4,034,654.34	No incidents or accidents. 7 - HID, 1 - OBS and 0 - ASA (all closed out) Lay down directional tools, attempt to pull wear bushing, rig up loggers, run open hole logs: AIT-TLD-HGNS-GR-BHC-TLD2-EMS-EMA-ECRD to point of refusal (2065.75mMD Inc: 71° at 05:10hrs), pull wear bushing, rig up power tongs and laydown truck, run 177.8mm intermediate casing.
23	2/15/2014	2/16/2014	2,152.00	2,152.00	118,131.01	4,152,785.35	No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out) Run 177.8mm intermediate casing, tag bottom, circulate bottoms up, lay down tag joint, make up and land mandrel hanger and landing joint, circulate, rig up cementers, cement 177.8mm intermediate casing (plug down at 19:08hrs on February 15/.14 - Full pre-flush returns: 8m3 of CW8 and 8m3 of MudPushII Spacer, cement at surface by calculated volume results), floats not holding after pressure testing casing to 18,500kPA for 10 minutes, shut in until cement hardens, rig out cementers, lay down landing joint, set Stream-Flo packoff seal assembly. Midnight to 6:00am: Pressure test Stream-Flo packoff seal assembly, set wear bushing, make up directional BHA, run in the hole.

ConocoPhillips Canada

Daily Activity and Cost Summary
Mirror Lake P-20 65-00 126-45

UWI	Surface Legal Location	District	Field Name	License No.
/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Report No.	Start Date	End Date	Start Depth (mKB)	End Depth (mKB)	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
24	2/16/2014	2/17/2014	2,152.00	2,354.00	434,836.45	4,587,621.80	No incidents or accidents. 7 - HID, 1 - OBS and 0 - ASA (all closed out) Set and pressure test Stream-Flo packoff seal assembly, make up directional BHA, run in the hole, drill out cement, float and shoe, drill 156mm hole from 2152m to 2157m, circulate bottoms up, perform formation integrity test to a gradient of 12.5kPA/m (surface applied pressure: 5025kPA for 10 minutes), drill 156mm lateral hole from 2157m to 2354m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-10,000kDaN, RPM - 35-80 (Motor RPM - 152), Differential pressure: 2200-3000kPa, Pump rate: 1.1 m3/min. Torque: 7-10,000ft/lbs, Rotate: 177m - 88% / Slide: 25m - 12%, ROP: 25.25m/hr. Last survey at 2437.50mMD, inclination= 89.6°, azimuth= 285.9°, TVD - 2017.5m. We are 0.52m below and 9.14m left of the line.
25	2/17/2014	2/18/2014	2,354.00	2,837.00	123,592.84	4,711,214.64	No incidents or accidents. 7 - HID, 0 - OBS and 0 - ASA (all closed out) Drill 156mm lateral hole from 2354m to 2837m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-10,000kDaN, RPM - 60-85 (Motor RPM - 152), Differential pressure: 2200-3000kPa, Pump rate: 0.9-1.0 m3/min. Torque: 7-10,000ft/lbs, Rotate: 433m - 89.6% / Slide: 50m - 10.4%, ROP: 29.78m/hr. Last survey at 2951mMD, inclination= 89.40°, azimuth= 285.8°, TVD - 2024.24m. We are 2.78m below and 0.51m left of the line.
26	2/18/2014	2/19/2014	2,837.00	3,142.00	125,005.66	4,836,220.30	No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out) Drill 156mm lateral hole from 2837m to 3142m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-10,000kDaN, RPM - 60-85 (Motor RPM - 152), Differential pressure: 2200-3000kPa, Pump rate: 0.9-1.0 m3/min. Torque: 7-10,000ft/lbs, Rotate: 300m - 98.4% / Slide: 5.0m - 1.6%, ROP: 31.28m/hr. Last survey at 3103mMD, inclination= 89.9°, azimuth= 283.7°, TVD - 2024.92m. We are 2.13m below and 0.51m left of the line. Pull out of the hole due to mud motor failure.
27	2/19/2014	2/20/2014	3,142.00	3,152.00	109,050.85	4,945,271.15	No incidents or accidents. 5 - HID, 0 - OBS and 0 - ASA (all closed out) Pull out of the hole due to mud motor failure, lay down directional tools, make up bit, run in the hole, wash in from 2152m to 3142m, drill 156mm lateral hole to 3152mMD (TD), circulate 2 bottoms up. Projected survey at bit: 3152mMD (TD), inclination= 89.9°, azimuth= 283.7°, TVD - 2025m.
28	2/20/2014	2/21/2014	3,152.00	3,152.00	158,174.35	5,103,445.50	No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out) Circulate 2 bottoms up, pull out of the hole, rig up laydown truck, laydown drill pipe, rig up power tongs and laydown truck, run 114.3mm production liner and Volant Hydroforms with liner top packer followed by drill pipe and heavy weight drill pipe, strap in and drift drill pipe and heavy weight drill pipe.
29	2/21/2014	2/22/2014	3,152.00	3,152.00	86,237.67	5,189,683.17	No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out) Run 114.3mm production liner with drill pipe and heavy weight drill pipe, strap in and drift drill pipe and heavy weight drill pipe, tag bottom at 3152mMD, circulate bottoms up and clean hole, rig up cementers, cement liner at 3148.7mMD up to liner top, drop dart and displace with fresh water, bump plug 3,500kPA over final circulating pressure, bleed off, check floats, pressure up to 28,000kPA and set liner with liner top packer at 1727.49mMD, circulate out pre-flush and 2m3 of excess cement out, displace hole with fresh water, rig out cementers, flowcheck, rig up laydown truck, laydown drill pipe and heavy weight drill pipe, run in the rest of the drill pipe in the derrick, laydown drill pipe, clean up catch can and flow-t, rig out flow-t and flowline.

ConocoPhillips Canada

Daily Activity and Cost Summary
Mirror Lake P-20 65-00 126-45

API / UWI	Surface Legal Location	District	Field Name	License No.
200/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Report No.	Start Date	End Date	Start Depth (mKB)	End Depth (mKB)	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
30	2/22/2014	2/23/2014	3,152.00	3,152.00	648,596.54	5,838,279.71	No incidents or accidents. 5 - HID, 0 - OBS and 0 - ASA (all closed out) Clean up catch can and flow-t, rig out flow-t and flowline, rig up Schlumberger lubricator, rig up Schlumberger tools, run USIT log #1, run USIT log #2 (pressure pass), rig out Schlumberger loggers and lubricator, rig up power tongs and laydown truck, run 114.3mm tie-back liner, space out, land mandrel seal assembly and tie onto top of liner top packer in compression (19,000dan), pressure test liner hanger to 35,000kPA for 15 minutes (held OK), pressure test 114.3mm x 177.8mm annulus to 15,000kPA for 10 minutes using Schlumberger cementers (held OK), nipple down BOP.
31	2/23/2014	2/24/2014	3,152.00	3,152.00	326,061.20	6,164,340.91	No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out) Nipple down BOP, nipple up and pressure test wellhead, clean and organize rig to rack, move miscellaneous loads, rig out rig floor, laydown top drive and torque tube, rig out derrick, laydown derrick. Rig release at 23:59hrs on February 23rd, 2014.
32	2/24/2014	2/25/2014	3,152.00	3,152.00	102,682.00	6,267,022.91	No incidents or accidents. 4 - HID, 0 - OBS and 0 - ASA (all closed out) Laydown derrick, clean and organize rig to rack, move miscellaneous loads south and to rack site, tear out rig to rack, spots rig mats at rack site, haul some rig loads to rack site. Wait until morning to rack the rig and rental equipment and truck some misc equipment south.
33	2/25/2014	2/26/2014	3,152.00	3,152.00	102,682.00	6,369,704.91	No incidents or accidents. 4 - HID, 0 - OBS and 0 - ASA (all closed out) Wait until morning, hold safety meeting prior to rack rig and equipment, lower A-legs, split the derrick, rack the rig buildings with derrick and substructure and rental equipment. Truck cuttings to disposal. Truck som misc equipment south. Wait until morning to finish racking the rig at the r site, truck cuttings to disposal, unloading mud products at rack site, cover sawdust bins and mud products, locking and spotting buildings at rack site.
34	2/26/2014	2/27/2014	3,152.00	3,152.00	102,682.00	6,472,386.91	No incidents or accidents. Wait until morning, finish rack the rig at the rack site, truck cuttings to disposal, unloading mud products at rack site, cover sawdust bins and mud products, locking and spotting buildings at rack site. Wait until morning to finish trucking cuttings to disposal, cover sawdust bins and rack last mix off bin, lock buildings at rack site, fly home for breakup.
35	2/27/2014	2/27/2014	3,152.00	3,152.00	1,494,440.55	7,966,827.46	No incidents or accidents. Wait until morning, finish trucking cuttings to disposal, cover sawdust bins and rack last mix off bin, lock buildings at rack site, fly home for breakup.

VIII. Daily Drilling Reports

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 1/24/2014
Report #: 1
Depth Progress: m
Depth End: 0.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	1.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
265,023.03	265,023.03	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		45.0	530.00	530.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Rain	-12	NE 15 kms

Ops and Depth @ Morning Report
Finish tearing out rig prior to moving to P-20 location.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out)

Nipple down BOP, pressure test packoff seal assembly, blow out water and pour 2 pails of diesel, install wellhead, clean mud tanks, tear out rig, laydown torque tube, rig out derrick, laydown derrick, tear out rig for rig move. No pressure on backside.

24hr Forecast
Move rig buildings, mud tanks, rentals and miscellaneous loads to P-20 location. Shut down until morning to move wellsite shacks, substructure and derrick.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00	07:45	7.75	MIRU	MOVE	DMOB	P		0.00	0.00	Nipple down BOP, pick up and rack in sub, prepare upper casing bowl and install upper well head, tear out rig to move, change heads and liners in mud pump, to 6".
07:45	08:00	0.25	MIRU	MOVE	DMOB	P		0.00	0.00	Crew change and safety meeting, with rig crews, rig manager and Conoco reps
08:00	10:00	2.00	MIRU	MOVE	DMOB	P		0.00	0.00	Finish install well head, tear out rig to move from location, lay down torque tube, prepare to lay down derrick
10:00	10:15	0.25	MIRU	MOVE	DMOB	P		0.00	0.00	Safety meeting with rig moving truckers, prior to moving tanks and tubs off location: E-76 65-10 126-45
10:15	19:00	8.75	MIRU	MOVE	DMOB	P		0.00	0.00	Rig out to move, truck pipe tubs, mud trailers, 400 bl tanks off location, Prepare and inspect derrick prior to laying down, lay down derrick, take off man rider
19:00	19:15	0.25	MIRU	MOVE	DMOB	P		0.00	0.00	Crew change and safety meeting, with rig crews, rig manager and Conoco reps
19:15	00:00	4.75	MIRU	MOVE	DMOB	P		0.00	0.00	Rig out to move off location, prepare derrick, take down prefabs, clean well head and cover with plastic

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
834.00	834.00

...y Incidents

Date	Com	Category

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 1/24/2014
Report #: 1
Depth Progress: m
Depth End: 0.00mKB
Rig Release Date: 2/23/2014

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

mations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 1/25/2014
Report #: 2
Depth Progress: m
Depth End: 0.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	2.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
81,765.03	346,788.06	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		45.0	530.00	1,060.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-14	Calm

Ops and Depth @ Morning Report
Wait on day light, to moving to P-20 location.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out)

Rig out to move off location E-76. Prepare derrick clean well head and cover with plastic, prepare buildings to move, load buildings, sub, matting and rentals and move off location with CANOL trucking

24hr Forecast
Move rig buildings, mud tanks, rentals and miscellaneous loads to P-20 location. Shut down until morning to move wellsite shacks, substructure and derrick.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
0	07:00	7.00	MIRU	MOVE	MOB	P		0.00	0.00	Tear out rig to move off location, prepare derrick, clean and cover well head, fold up dog house wings and walk ways on buildings
07:00	07:15	0.25	MIRU	MOVE	MOB	P		0.00	0.00	Crew change safety meeting with rig crews, rig manager and Conoco reps
07:15	09:30	2.25	MIRU	MOVE	MOB	P		0.00	0.00	Wait on CANOL trucks
09:30	09:45	0.25	MIRU	MOVE	SFTY	P		0.00	0.00	Pre-move safety meeting with rig crew, rig manager, Conoco safety and SimOps, well site supervisor and CANOL truckers
09:45	16:00	6.25	MIRU	MOVE	MOB	P		0.00	0.00	Load out rig buildings and rentals, lift derrick off sub, load sub and move off location E-76
16:00	19:00	3.00	MIRU	MOVE	MOB	P		0.00	0.00	Lift matting, move off E-76
19:00	00:00	5.00	MIRU	MOVE	MOB	P		0.00	0.00	Boiler watch w/ 2 men

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
835.00	835.00

Safety Incidents

Date	Com	Category

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 1/25/2014
Report #: 2
Depth Progress: m
Depth End: 0.00mKB
Rig Release Date: 2/23/2014

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

mations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 1/26/2014
Report #: 3
Depth Progress: m
Depth End: 0.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	3.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
83,065.03	429,853.09	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		44.0	518.00	1,578.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-18	SE 10 kms

Ops and Depth @ Morning Report
Wait on day light, to finish moving and set up on P-20 65-00 126-45 location.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out)

Move rig onto location P-20 location with CANOL trucking, lay matting, spot sub and buildings, pin derrick and rig up

24hr Forecast
Spot rentals, Dress and inspect derrick, raise derrick, rig to spud

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	08:00	8.00	MIRU	MOVE	MOB	P		0.00	0.00	Boiler watch w/2 men
08:00	09:00	1.00	MIRU	MOVE	MOB	P		0.00	0.00	Wait on canol trucks
09:00	09:15	0.25	MIRU	MOVE	SFTY	P		0.00	0.00	Safety meeting with rig crews, rig manager, SimOps, safety hands and Conoco reps
09:15	16:00	6.75	MIRU	MOVE	RURD	P		0.00	0.00	Spot matting, sub, inspect and pin derrick, spot buildings and cat-walk
16:00	19:00	3.00	MIRU	MOVE	RURD	P		0.00	0.00	Spot rig & buildings
19:00	00:00	5.00	MIRU	MOVE	MOB	P		0.00	0.00	Boiler watch and rig up steam lines

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
836.00	836.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 1/26/2014
Report #: 3
Depth Progress: m
Depth End: 0.00mKB
Rig Release Date: 2/23/2014

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,11[illegible]
KOP (5deg/30m)	1,731.00	1,730.40	1,7[illegible]
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 1/27/2014
Report #: 4
Depth Progress: m
Depth End: 0.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	4.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
105,791.03	535,644.12	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		51.0	592.00	2,170.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-20	SE 10 kms

Ops and Depth @ Morning Report
Install Diverter system and pre-mix spud mud

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out)
Safety meeting prior to raise derrick, inspect derrick, raise and pin derrick, spot cuttings bins, pipe and mud trailers, install torque tube and top drive

24hr Forecast
Install diverter system, Pick up 9" collars, install 311mm bit, spud and drill surface hole

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	MIRU	RIGMNT	SVRG	P		0.00	0.00	Rig service
00:15	07:00	6.75	MIRU	MOVE	MOB	P		0.00	0.00	Boiler watch, rig in hoses and cords
0	07:15	0.25	MIRU	MOVE	SFTY	P		0.00	0.00	Crew change and safety meeting with crews, rig manager and Conoco reps
07:15	08:00	0.75	MIRU	MOVE	RURD	P		0.00	0.00	Rig up and dress derrick prior to raise
08:00	08:45	0.75	MIRU	MOVE	SFTY	P		0.00	0.00	Safety inspection of derrick before raising RY,BB,DS,ER,SM
08:45	09:00	0.25	MIRU	MOVE	SFTY	P		0.00	0.00	Prejob safety meeting on raising derrick
09:00	09:15	0.25	MIRU	MOVE	RURD	P		0.00	0.00	Raise derrick & pin same
09:15	16:00	6.75	MIRU	MOVE	RURD	P		0.00	0.00	Spot 400 barrel tanks & rental mud trailers and casing
16:00	16:15	0.25	MIRU	RIGMNT	SVRG	P		0.00	0.00	Rig service, grease moving parts, check oil in floor motor and HPU
16:15	00:00	7.75	MIRU	MOVE	RURD	P		0.00	0.00	Rig up torque tube and Top drive

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
837.00	837.00

Safety Incidents

Date	Com	Category

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 1/27/2014
Report #: 4
Depth Progress: m
Depth End: 0.00mKB
Rig Release Date: 2/23/2014

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

mations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 1/28/2014
Report #: 5
Depth Progress: 2.00m
Depth End: 20.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	5.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
93,395.03	629,039.15	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		51.0	592.00	2,762.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-25	SE 10 kms

Ops and Depth @ Morning Report
Rotary Drill 311mm surface hole to 58m. Last Survey at 56m was 0.6 deg.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 5 - HID, 0 - OBS and 0 - ASA (all closed out)

Rig in Diverter system, Pre-spud inspection, hazard hunt and safety meeting,

24hr Forecast
Pick up 9" collars, install 311mm bit, spud and rotary drill 311mm surface hole.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	MIRU	RIGMNT	SVRG	P		0.00	0.00	Rig service function test rig smart function test crown saver
5	08:00	7.75	MIRU	MOVE	RURD	P		0.00	0.00	Cut conductor and prepare diverter system weld on flange and nipple up diverter system, fill mud tanks hook up flair lines.
08:00	08:15	0.25	MIRU	RIGMNT	SVRG	P		0.00	0.00	Rig service function test rig smart function test crown saver
08:15	16:00	7.75	MIRU	MOVE	RURD	P		0.00	0.00	Weld and nipple up diverter system, hook up flare lines
16:00	18:00	2.00	MIRU	MOVE	RURD	P		0.00	0.00	Weld and nipple up diverter system, hook up air lines to diverter valves and function test
18:00	18:15	0.25	MIRU	RIGMNT	SVRG	P		0.00	0.00	Rig service, function tested rig smart anti-collision system, funtion tested crown saver, checked oil and greased all moving parts
18:15	18:45	0.50	MIRU	MOVE	RURD	P		0.00	0.00	Pick up and prepare 311mm Mi616 Smith PDC bit
18:45	19:00	0.25	MIRU	MOVE	SFTY	P		0.00	0.00	Crew handover meeting with rig crews, rig manger and Conoco rep. present
19:00	21:30	2.50	SURFAC	DRILL	PULD	P		0.00	0.00	Make up 311mm Mi616 Smith PDC bit, 9inch drill collar and bit sub, Finish flair stack
21:30	23:00	1.50	SURFAC	DRILL	TRIP	P		0.00	0.00	Ran 311mm Mi616 Smith PDC bit in, tagged ice in conductor, make 9" collar conection with drill sub, drill out ice in conductor barrel, ran in and tagged conductor cement
23:00	23:15	0.25	SURFAC	DRILL	SFTY	P		0.00	0.00	Pre-spud safety inspection with rig crew
23:15	23:30	0.25	SURFAC	DRILL	SFTY	P		0.00	0.00	Diverter drill with crews review task and positions
23:30	00:00	0.50	SURFAC	DRILL	DRLG	P		20.00	20.00	Drill out cement in bottom of conductor

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
23:15						
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 1/28/2014
Report #: 5
Depth Progress: 2.00m
Depth End: 20.00mKB
Rig Release Date: 2/23/2014

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
838.00	838.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 1

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
1	311.0mm, mi616, JD3509	0.35	1-1-NO-G-X--WT-HP	1,283	14.9

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
14.3/14.3/14.3/14.3/14.3/14.3/14.3/14.3	450.51	311.0	44,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
18.00	450.00	14.9	432.00	432.00	29.00	29.00

Comment: Rotary drill 311mm slick

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
4" H.W	65.0	101.0	34	317.07	450.51
X/O 4" H-90	62.0	162.0	1	0.80	133.44
6" D.C	60.0	160.0	12	111.84	132.64
Bell sub	69.0	232.0	1	0.66	20.80
9" D.C	71.0	233.0	2	18.50	20.14
Bit sub	70.0	235.0	1	0.94	1.64
PDC 311mm bit	67.0	311.0	1	0.35	0.70

Drilling Parameter: 18.00 - 20.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
2.00	0.25	8.0	2.600	3,000	120	1,200	25,000	25,000	25,000	25,000	

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
		0	33.8	0.0		0.0	

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
0.08			0.0	0.0	78.0	79.8

Error: Unable to calculate annular pressure drop because pressure drop data is missing from AV calc

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

trifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 1/29/2014
Report #: 6
Depth Progress: 243.00m
Depth End: 263.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	6.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
134,832.30	763,871.45	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		51.0	592.00	3,354.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-27	NW 10 kms

Ops and Depth @ Morning Report
Vis up mud with gel additions and add LCM.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 4 - HID, 2 - OBS and 0 - ASA (all closed out)

Spud and drill 311mm surface hole from 0m to 263m with 311mm Mi616 Smith PDC bit with accumulated wireline surveys, rig services, connections and circulation times. Last survey at 300m was 0.2°. Sent pre-spud Beyond Compliance, pre-spud inspection and rig inspection checklists prior to spudding. Spud and drill 311mm surface hole at 00:01hrs on January 29, 2014. Stop pumping at 245m, build volume, vis up mud with gel additions and add LCM, circulate at a reduced rate, displace hole with viscosified mud and LCM, stop pump, viscosify light mud from wellbore with gel additions and add LCM, check muddrop of mud in annulus, pump at reduced rate and check mud volumes, continue with drilling operations.

24hr Forecast
Vis up mud with gel additions and add LCM. Run in the hole, drill 311mm surface hole with accumulated wireline surveys, rig services, connections and circulation times. Wiper trip at 590m+/- (strap out). Drill to surface TD.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	01:30	1.50	SURFAC	DRILL	DRLG	P		20.00	29.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 20m to 29m
01:30	01:45	0.25	SURFAC	RIGMNT	SVRG	P		29.00	29.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
01:45	07:45	6.00	SURFAC	DRILL	DRLG	P		29.00	76.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 29m to 76m
07:45	08:00	0.25	SURFAC	DRILL	SFTY	P		76.00	76.00	Crew handover meeting with both crews, tool push and conoco rep present.
08:00	09:00	1.00	SURFAC	DRILL	DRLG	P		76.00	94.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 76m to 94m
09:00	10:00	1.00	SURFAC	DRILL	CIRC	P		94.00	94.00	Float stuck on mud tank, lost suction and build volume
10:00	11:00	1.00	SURFAC	DRILL	DRLG	P		94.00	104.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 94m to 104m
11:00	11:15	0.25	SURFAC	RIGMNT	SVRG	P		104.00	104.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
11:15	11:30	0.25	SURFAC	DRILL	SFTY	P		104.00	104.00	Rotating head diverter drill with crew
11:30	17:15	5.75	SURFAC	DRILL	DRLG	P		104.00	207.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 104m to 207m
17:15	17:30	0.25	SURFAC	RIGMNT	SVRG	P		207.00	207.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
17:30	18:45	1.25	SURFAC	DRILL	DRLG	P		207.00	245.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 207m to 245m
18:45	19:00	0.25	SURFAC	DRILL	SFTY	P		245.00	245.00	Crew change safety meeting Conoco Reps. present
19:00	23:00	4.00	SURFAC	DRILL	CIRC	T	Lost Circulation	245.00	245.00	Circulate and condition mud additions of gel to 80 viscosity and L.C.M . Build volume with pumps off add L.C.M mud viscosity to 80

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 1/29/2014
Report #: 6
Depth Progress: 243.00m
Depth End: 263.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
23:00	00:00	1.00	SURFAC	DRILL	DRLG	P		245.00	263.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 245m to 263m

Fluid/Mud Chks: Mud Engineer: Ed Thompson

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
15:00	184.00	1,060.0	46	9.0	13.0	4.5

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
3.7			1,500	120		

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
	1,074.0	0.1	3.8	25		

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
13.0			5,741.27

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
		5,741.27

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
839.00	839.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 1

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
1	311.0mm, mi616, JD3509	0.35	1-1-NO-G-X--WT-HP	1,283	14.9

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
14.3/14.3/14.3/14.3/14.3/14.3/14.3/14.3	450.51	311.0	44,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
18.00	450.00	14.9	432.00	432.00	29.00	[illegible]

Comment: Rotary drill 311mm slick

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
4" H.W	65.0	101.0	34	317.07	450.51
X/O 4" H-90	62.0	162.0	1	0.80	133.44
6" D.C	60.0	160.0	12	111.84	132.64
Bell sub	69.0	232.0	1	0.66	20.80
9" D.C	71.0	233.0	2	18.50	20.14
Bit sub	70.0	235.0	1	0.94	1.64
PDC 311mm bit	67.0	311.0	1	0.35	0.70

Drilling Parameter: 188.00 - 263.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
245.00	16.25	21.4	2.200	4,000	85	5,900	43,000	42,000	44,000	43,000	

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
17.8	0.00023	8	28.6	485.7	23.9	1,060.0	1,069.3

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
0.83			0.0	0.0	32.4	67.5

Error:

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 1/29/2014
Report #: 6
Depth Progress: 243.00m
Depth End: 263.00mKB
Rig Release Date: 2/23/2014

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
CELLOFLAKE	2.0	66.200	11.34	SX
FED SEAL	7.0	19.890	18.14	SX
Gel	149.0	7.200	40.0	SX
Kelzan	11.0	360.450	25.0	SX
dust	130.0	2.980	7.3	SX
AP STICKS	1.0	15.390	0.5	STICK
Soda Ash	2.0	14.550	22.68	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
1/29/2014	28.00	0.50	0.00	28.00	0.12	0.12	0.00	0.03	0.54
1/29/2014	56.00	0.60	0.00	56.00	0.39	0.39	0.00	0.10	0.11
1/29/2014	56.00	0.60	0.00	56.00	0.39	0.39	0.00	0.10	0.11
1/29/2014	84.98	0.40	0.00	84.98	0.64	0.64	0.00	0.17	0.21
1/29/2014	131.00	0.30	0.00	131.00	0.92	0.92	0.00	0.24	0.07
1/29/2014	151.00	0.30	0.00	151.00	1.03	1.03	0.00	0.27	0.00
1/29/2014	188.00	0.20	0.00	188.00	1.19	1.19	0.00	0.31	0.08

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 1/30/2014
Report #: 7
Depth Progress: 56.00m
Depth End: 319.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	7.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
152,056.22	915,927.67	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		48.0	508.00	3,862.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-8	NW 5 kms

Ops and Depth @ Morning Report
Drill 311mm surface hole to 412m. Last survey at 357m was 1.3°.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out)

Drill 311mm surface hole from 263m to 301m with accumulated wireline surveys, rig services, connections and circulation times. Last survey at 300m was 0.2°. Pull out of the hole, attempt to back ream through tight spot at 110m, lost circulation, build volume, vis up mud with gel additions and add LCM, circulate at a reduced rate, displace hole with viscosified mud and LCM, stop pump, viscosify light mud from wellbore with gel additions and add LCM, backream through tight spots from 98m to 76m. Run in hole to 282m, build volume and vis up to 80+, displace hole to high vis mud, build volume and vis to 80+. Drill 311mm hole from 301m to 319m. Last survey at 357m was 1.3°.

24hr Forecast
Drill 311mm surface hole to 590m+/- with accumulated wireline surveys, rig services, connections and circulation times. Wiper trip, strap out, drill 311mm surface hole to 600m+/-, circulate hole clean, pull out of the hole, laydown 9" drill collars, rig up power tongs, run 244.5mm surface casing.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

e Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	SURFAC	RIGMNT	SVRG	P		263.00	263.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
00:15	01:45	1.50	SURFAC	DRILL	DRLG	P		263.00	301.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 263m to 301m
01:45	02:15	0.50	SURFAC	DRILL	CIRC	P		301.00	301.00	Circulate bottoms up, take bottom hole survey prepair to trip out of hole
02:15	04:30	2.25	SURFAC	DRILL	TRIP	P		301.00	301.00	Trip out of hole to 105m, pulled tight
04:30	07:45	3.25	SURFAC	DRILL	CIRC	T	Lost Circulation	301.00	301.00	Build volume and get a viscosity of 80+ and L.C.M additives
07:45	08:00	0.25	SURFAC	DRILL	SFTY	P		301.00	301.00	Crew handover meeting with both crews, tool push and conoco rep present.
08:00	13:00	5.00	SURFAC	DRILL	CIRC	T	Lost Circulation	301.00	301.00	Build volume, mixed gel and LCM to a viscosity of 100+
13:00	14:30	1.50	SURFAC	DRILL	TRIP	P		301.00	301.00	Trip out, back reamed tight at 97m to 76m
14:30	14:45	0.25	SURFAC	RIGMNT	SVRG	P		301.00	301.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
14:45	16:30	1.75	SURFAC	DRILL	TRIP	P		301.00	301.00	Trip into the hole slowly
16:30	16:45	0.25	SURFAC	RIGMNT	SVRG	P		301.00	301.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
	18:45	2.00	SURFAC	DRILL	CIRC	T	Lost Circulation	301.00	301.00	Build volume, mixed gel and LCM to a viscosity of 100+
18:45	19:00	0.25	SURFAC	DRILL	SFTY	P		301.00	301.00	Crew handover meeting with both crews, tool push and conoco rep present.

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 1/30/2014
Report #: 7
Depth Progress: 56.00m
Depth End: 319.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
19:00	20:45	1.75	SURFAC	DRILL	CIRC	T	Lost Circulation	301.00	301.00	Build volume, mixed gel and LCM to a viscosity of 100+
20:45	21:00	0.25	SURFAC	DRILL	CIRC	T	Lost Circulation	301.00	301.00	Circulate 100+ viscosity mud, saw returns after pumping 13m3
21:00	22:30	1.50	SURFAC	DRILL	CIRC	T	Lost Circulation	301.00	301.00	Build volume back to 50m3, mix gel to bring mud up to 100+ viscosity
22:30	00:00	1.50	SURFAC	DRILL	DRLG	P		301.00	319.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 301m to 319m

Fluid/Mud Chks: Mud Engineer: Ed Thompson

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
16:00	301.00	1,050.0	65	8.5	23.0	7.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
2.9			800	120		

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
	1,066.0	0.1	3.1	15		

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
14.0			6,511.19

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
		12,252.46

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
840.00	840.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 1

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
1	311.0mm, mi616, JD3509	0.35	1-1-NO-G-X--WT-HP	1,283	14.9

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
14.3/14.3/14.3/14.3/14.3/14.3/14.3/14.3	450.51	311.0	44,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
18.00	450.00	14.9	432.00	432.00	29.00	29.00

Comment
Rotary drill 311mm slick

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
4" H.W	65.0	101.0	34	317.07	450.51
X/O 4" H-90	62.0	162.0	1	0.80	133.44
6" D.C	60.0	160.0	12	111.84	132.64
Bell sub	69.0	232.0	1	0.66	20.80
9" D.C	71.0	233.0	2	18.50	20.14
Bit sub	70.0	235.0	1	0.94	1.64
PDC 311mm bit	67.0	311.0	1	0.35	0.70

Drilling Parameter: 301.00 - 319.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
301.00	19.25	12.0	2.200	7,000	69	9,000	43,000	43,000	43,000	43,000	

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
17.6	0.00023	5	28.6	481.1	43.8	1,050.0	1,064.0

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
1.01			0.0	0.0	32.4	67.5

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 1/30/2014
Report #: 7
Depth Progress: 56.00m
Depth End: 319.00mKB
Rig Release Date: 2/23/2014

mp Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

trifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Caustic	1.0	24.650	50.0	SX
CELLOFLAKE	22.0	66.200	11.34	SX
FED SEAL	21.0	19.890	18.14	SX
Gel	445.0	7.200	40.0	SX
Kelzan	3.0	360.450	25.0	SX
Sawdust	100.0	2.980	7.3	SX
Soda Ash	2.0	14.550	22.68	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
1/30/2014	281.00	0.20	0.00	281.00	1.52	1.52	0.00	0.39	0.00
1/30/2014	300.00	0.20	0.00	300.00	1.58	1.58	0.00	0.41	0.00

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 1/31/2014
Report #: 8
Depth Progress: 131.00m
Depth End: 450.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	8.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
111,501.54	1,027,429.21	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		48.0	508.00	4,370.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-14	NW 5 kms

Ops and Depth @ Morning Report
Slip and cut drill line.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out)

Drill 311mm surface hole from 319m to 450m with accumulated wireline surveys, rig services, connections and circulation times. Last survey at 450m was 2.3°. Lost circulation, build volume, vis up mud with gel additions and add LCM. Pull out of the hole, pick up and run in 31 joints of 4" drill pipe, pump and spot heavy high vis pill at 297m, pull and rack back 2 stands and rig up Schlumberger cementers at 256m.

From midnight to 6:00am: Pump 5m3 of water followed by 10m3 of 1740 RFC cement then 0.45m3 of water. Pull and rack back 8 stands, flush any excess cement out of drill pipe and displace to water to drill out cement plug, pull out of the hole, clean out 1 mud tank and fill with water, make up Reed tooth bit, slip and cut drill line.

24hr Forecast
Finish slip and cut, run in the hole, drill cement plug, displace to surface mud, drill 311mm surface hole to 590m+/- with accumulated wireline surveys, rig services, connections and circulation times. Wiper trip, strap out, drill 311mm surface hole to 602m (TD).

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Casing String
Conductor, 20.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	01:30	1.50	SURFAC	DRILL	DRLG	P		319.00	356.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 319m to 356m
01:30	01:45	0.25	SURFAC	RIGMNT	SVRG	P		356.00	356.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
01:45	03:45	2.00	SURFAC	DRILL	DRLG	P		356.00	394.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 356m to 394m
03:45	04:45	1.00	SURFAC	DRILL	CIRC	T	Lost Circulation	394.00	394.00	Build volume back up to 50m3 with a viscosity of 120 and L.C.M
04:45	07:45	3.00	SURFAC	DRILL	DRLG	P		394.00	422.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 394m to 422m
07:45	08:00	0.25	SURFAC	DRILL	SFTY	P		422.00	422.00	Crew handover meeting with both crews, tool push and conoco rep present.
08:00	10:45	2.75	SURFAC	DRILL	CIRC	T	Lost Circulation	422.00	422.00	Build volume back up to 50m3 with a viscosity of 100+ and L.C.M
10:45	11:00	0.25	SURFAC	RIGMNT	SVRG	P		422.00	422.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
11:00	14:15	3.25	SURFAC	DRILL	DRLG	P		422.00	450.00	Drill 311mm hole with Mi616 Smith PDC bit drill from 422m to 450m
14:15	16:00	1.75	SURFAC	DRILL	CIRC	T	Lost Circulation	450.00	450.00	Build volume back up to 50m3 with a viscosity of 100+ and L.C.M
16:00	16:15	0.25	SURFAC	RIGMNT	SVRG	P		450.00	450.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 1/31/2014
Report #: 8
Depth Progress: 131.00m
Depth End: 450.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
16:15	18:45	2.50	SURFAC	DRILL	TRIP	T	Lost Circulation	450.00	450.00	Trip out of the hole to run plugs
18:45	19:00	0.25	SURFAC	DRILL	SFTY	P		450.00	450.00	Crew handover meeting with both crews, tool push and conoco rep present.
19:00	21:00	2.00	SURFAC	DRILL	TRIP	T	Lost Circulation	450.00	450.00	Rack back stand of drill collars break bit and rack back 9inch
21:00	23:00	2.00	SURFAC	DRILL	PULD	T	Lost Circulation	450.00	450.00	Pick up 27 drill pipe and 4 H.W
23:00	23:30	0.50	SURFAC	DRILL	CIRC	T	Lost Circulation	450.00	450.00	Circulate 4m3 high viscosity high weight slug Chase with 3m3 of mud
23:30	00:00	0.50	SURFAC	DRILL	SFTY	T	Lost Circulation	450.00	450.00	Safety meeting with schlumberger on cementing plugs

Fluid/Mud Chks: Mud Engineer: Ed Thompson

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
16:00	450.00	1,080.0	107	9.0		
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
			5,213.64

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
		17,4

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
841.00	841.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 1

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
1	311.0mm, mi616, JD3509	0.35	1-1-NO-G-X--WT-HP	1,283	14.9

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
14.3/14.3/14.3/14.3/14.3/14.3/14.3/14.3	450.51	311.0	44,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
18.00	450.00	14.9	432.00	432.00	29.00	29.00

Comment: Rotary drill 311mm slick

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
4" H.W	65.0	101.0	34	317.07	450.51
X/O 4" H-90	62.0	162.0	1	0.80	133.44
6" D.C	60.0	160.0	12	111.84	132.64
Bell sub	69.0	232.0	1	0.66	20.80
9" D.C	71.0	233.0	2	18.50	20.14
Bit sub	70.0	235.0	1	0.94	1.64
PDC 311mm bit	67.0	311.0	1	0.35	0.70

Drilling Parameter: 422.00 - 450.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
432.00	29.00	8.6	2.200	5,500	85	12,000	44,000	44,000	44,000		

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
17.6	0.00023	4	28.6	481.1	54.8	1,050.0	1,062.4

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
1.45			0.0	0.0	32.4	67.5

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Caustic	1.0	24.650	50.0	SX
CELLOFLAKE	8.0	66.200	11.34	SX
FED SEAL	9.0	19.890	18.14	SX
Fedzan	6.0	360.450	25.0	sx
Gel	307.0	7.200	40.0	SX
Sawdust	36.0	2.980	7.3	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
1/31/2014	328.00	0.90	0.00	327.99	1.85	1.85	0.00	0.48	0.75
1/31/2014	355.00	1.30	0.00	354.99	2.37	2.37	0.00	0.61	0.44
1/31/2014	357.00	1.30	0.00	356.99	2.41	2.41	0.00	0.62	0.00
1/31/2014	388.00	1.60	0.00	387.98	3.20	3.20	0.00	0.82	0.29
1/31/2014	412.00	2.00	0.00	411.97	3.95	3.95	0.00	1.02	0.50
1/31/2014	450.00	2.30	0.00	449.94	5.38	5.38	0.00	1.38	0.24

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/1/2014
Report #: 9
Depth Progress: 18.00m
Depth End: 468.00mKB
Rig Release Date: 2/23/2014

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	9.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
98,485.03	1,125,914.24	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		48.0	508.00	4,878.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-17	NW

Ops and Depth @ Morning Report
Drill 311mm surface hole to 520m. Last survey at 486m was 1.3°.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 7 - HID, 1 - OBS and 0 - ASA (all closed out)

After spotting a heavy high vis pill at 297m and racking back 2 stands, we rigged up Schlumberger cementers at 256m, pump 5m3 of water followed by 10m3 of 1740 RFC cement then 0.45m3 of water. Pull and rack back 8 stands, flush any excess cement out of drill pipe and displace to water to drill out cement plug, pull out of the hole, clean out 1 mud tank and fill with water, make up Reed tooth bit, slip and cut drill line, run in the hole, drill cement plug, displace to surface mud, drill 311mm surface hole from 450m to 468m with accumulated wireline surveys, rig services, connections and circulation times.

24hr Forecast
Drill 311mm surface hole to 590m+/- with accumulated wireline surveys, rig services, connections and circulation times. Wiper trip, strap out, drill 311mm surface hole to 602m (TD), circulate hole clean, pull out of the hole, laydown 6-1/2" and 9" drill collars, rig up power tongs, run 244.5mm surface casing.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	02:00	2.00	SURFAC	CEMENT	PLUG	T	Lost Circulation	450.00	450.00	Rig up Schlumberger cementers at 256m, pump 5m3 of water followed by 10m3 of 1740 RFC cement then 0.45m3 of water.
02:00	02:30	0.50	SURFAC	DRILL	TRIP	T	Lost Circulation	450.00	450.00	Pull out 8 stands of drill pipe.
02:30	02:45	0.25	SURFAC	CEMENT	PLUG	T	Lost Circulation	450.00	450.00	Flush out pipe with 5m3 of fresh water. Pull out of the hole.
02:45	03:30	0.75	SURFAC	RIGMNT	SLPC	P		450.00	450.00	Slip and cut 25m of drilling line.
03:30	03:45	0.25	SURFAC	CEMENT	WOC	T	Lost Circulation	450.00	450.00	Wait on cement
03:45	04:00	0.25	SURFAC	RIGMNT	SVRG	P		450.00	450.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
04:00	07:45	3.75	SURFAC	CEMENT	WOC	T	Lost Circulation	450.00	450.00	Wait on cement make up B.H.A.
07:45	08:00	0.25	SURFAC	DRILL	SFTY	P		450.00	450.00	Crew handover meeting with both crews, tool push and conoco rep present.
08:00	08:30	0.50	SURFAC	DRILL	TRIP	T	Lost Circulation	450.00	450.00	Trip in to the hole to 95m
08:30	08:45	0.25	SURFAC	RIGMNT	SVRG	P		450.00	450.00	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
08:45	15:00	6.25	SURFAC	CEMENT	DRLG	T	Lost Circulation	450.00	450.00	Wash to cement and drill out cement plug, tag cement 161m, drilled out cement @258m

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/1/2014
Report #: 9
Depth Progress: 18.00m
Depth End: 468.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
15:00	16:00	1.00	SURFAC	DRILL	CIRC	T	Lost Circulation	450.00	450.00	Displace to surface mud
16:00	18:45	2.75	SURFAC	DRILL	CIRC	T	Lost Circulation	450.00	450.00	Displace to surface mud and clean suction tank
18:45	19:00	0.25	SURFAC	DRILL	SFTY	P		450.00	450.00	Crew handover meeting with both crews, tool push and conoco rep present.
19:00	20:15	1.25	SURFAC	DRILL	CIRC	T	Lost Circulation	450.00	450.00	Treat out calcium in mud system
20:15	20:30	0.25	SURFAC	DRILL	TRIP	T	Lost Circulation	450.00	450.00	Trip in the hole till 350m
20:30	20:45	0.25	SURFAC	DRILL	CIRC	T	Lost Circulation	450.00	450.00	Circulate bottoms up
20:45	21:15	0.50	SURFAC	DRILL	TRIP	T	Lost Circulation	450.00	450.00	Trip in the hole till 450m
21:15	21:45	0.50	SURFAC	DRILL	CIRC	T	Lost Circulation	450.00	450.00	Circulate bottoms up
21:45	22:00	0.25	SURFAC	RIGMNT	SVRG	P		450.00	450.00	Rig service change out hose on top drive grease all moving parts function test rig smart anti collision system
22:00	00:00	2.00	SURFAC	DRILL	DRLG	P		450.00	468.00	Drill 311mm hole from 450m to 468m

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
842.00	842.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 2

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
2	311.0mm, m4685, b159531	0.35	-------	982	7.2

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
19.1/19.1/19.1/12.7	607.22	311.0	46,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
450.00	602.00	7.2	152.00	152.00	21.00	21.00

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands			6	114.15	607.22
4" H.W	65.0	101.0	40	372.73	493.07
X/O 4" H-90	62.0	162.0	1	0.80	1.
6" D.C	60.0	160.0	7	65.22	119.54
6 1/4 X/O	58.0	159.0	1	0.46	54.32
6 1/4 jars	59.0	159.0	1	4.45	53.86
6 1/4 x/o	58.0	160.0	1	0.49	49.41

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/1/2014
Report #: 9
Depth Progress: 18.00m
Depth End: 468.00mKB
Rig Release Date: 2/23/2014

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
6" D.C	60.0	160.0	5	46.62	48.92
Bell sub	69.0	232.0	1	0.66	2.30
Bit sub	70.0	235.0	1	0.94	1.64
311mm BIT	72.0	311.0	1	0.35	0.70

Drilling Parameter: 450.00 - 468.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
18.00	2.00	9.0	2.300	9,000	120	12,000	44,000	44,000	44,000	44,000	13,000.0

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error
A drill string component contains a null value in OD

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/2/2014
Report #: 10
Depth Progress: 134.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	10.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
112,757.28	1,238,671.52	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		48.0	508.00	5,386.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-24	NW

Ops and Depth @ Morning Report
Work tight hole at 134m.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 7 - HID, 2 - OBS and 0 - ASA (all closed out)

Drill 311mm surface hole from 468m to 602m (TD) with accumulated wireline surveys, rig services, connections and circulation times. Circulate hole clean, wiper trip and strap out, backream through tight spots, backream through cement, encountered losses while backreaming, build volume and treat clobbered mud while backreaming.

24hr Forecast
Pull out of the hole, run in the hole, circulate hole clean and condition mud for casing run, pull out of the hole, laydown 6-1/2" and 9" drill collars, rig up power tongs, run 244.5mm surface casing, tag bottom, circulate hole clean and condition mud, rig up cementers and cement 244.5mm surface casing.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	02:45	2.75	SURFAC	DRILL	DRLG	P		468.00	487.00	Drill 311mm surface hole with Read m4685 rotary 100 from 468m to 487m
02:45	03:00	0.25	SURFAC	RIGMNT	SVRG	P		487.00	487.00	Rig service function test rig smart anti collision system function test crown saver grease all moving parts check fluid levels in floor motor and HPU
03:00	07:45	4.75	SURFAC	DRILL	DRLG	P		487.00	543.00	Drill 311mm surface hole with Read m4685 rotary 100 from 487m to 543m
07:45	08:00	0.25	SURFAC	DRILL	SFTY	P		543.00	543.00	Crew handover meeting with both crews, tool push and conoco rep present.
08:00	13:00	5.00	SURFAC	DRILL	DRLG	P		543.00	562.00	Drill 311mm surface hole with Read m4685 rotary 100 from 543m to 562m
13:00	13:15	0.25	SURFAC	RIGMNT	SVRG	P		562.00	562.00	Rig service function test rig smart anti collision system function test crown saver grease all moving parts check fluid levels in floor motor and HPU
13:15	16:00	2.75	SURFAC	DRILL	DRLG	P		562.00	581.00	Drill 311mm surface hole with Read m4685 rotary 100 from 562m to 581m
16:00	18:45	2.75	SURFAC	DRILL	DRLG	P		581.00	600.00	Drill 311mm surface hole with Read m4685 rotary 100 from 581m to 600m
18:45	19:00	0.25	SURFAC	DRILL	SFTY	P		600.00	600.00	Crew handover meeting with both crews, tool push and conoco rep present.
19:00	20:00	1.00	SURFAC	DRILL	DRLG	P		600.00	602.00	Drill 311mm surface hole from 600m to 602m lay out 1 d.p
20:00	20:15	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service function test rig smart anti collision system function test crown saver grease all moving parts check fluid levels in floor motor and HPU
20:15	20:45	0.50	SURFAC	DRILL	CIRC	P		602.00	602.00	Circulate 2 bottoms up prepair to trip to out of hole to 133m
20:45	00:00	3.25	SURFAC	DRILL	TRIP	P		602.00	602.00	Trip out of hole till 224m Ream tight spots from 514m ,435m ,429m

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/2/2014
Report #: 10
Depth Progress: 134.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Fluid/Mud Chks: Mud Engineer: Ed Thompson

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
11:00	550.00	1,100.0	53	10.5	9.0	10.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
			6.3	40		

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
			1,802.25

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
		19,268.35

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
843.00	843.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 2

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
2	311.0mm, m4685, b159531	0.35	-------	982	7.2

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
19.1/19.1/19.1/12.7	607.22	311.0	46,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
450.00	602.00	7.2	152.00	152.00	21.00	21.00

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands			6	114.15	607.22
4" H.W	65.0	101.0	40	372.73	48
X/O 4" H-90	62.0	162.0	1	0.80	120.34
6" D.C	60.0	160.0	7	65.22	119.54
6 1/4 X/O	58.0	159.0	1	0.46	54.32
6 1/4 jars	59.0	159.0	1	4.45	53.86
6 1/4 x/o	58.0	160.0	1	0.49	49.41
6" D.C	60.0	160.0	5	46.62	48.92
Bell sub	69.0	232.0	1	0.66	2.30
Bit sub	70.0	235.0	1	0.94	1.64
311mm BIT	72.0	311.0	1	0.35	0.70

Drilling Parameter: 581.00 - 602.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
152.00	21.00	5.6	2.300	11,000	120	13,000	46,000	45,000	47,000	44,000	13,000.0

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error
A drill string component contains a null value in OD

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/2/2014
Report #: 10
Depth Progress: 134.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Fedzan	5.0	360.450	25.0	sx

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/2/2014	467.00	0.40	0.00	466.93	5.78	5.78	0.00	1.49	3.35
2/2/2014	487.00	1.30	0.00	486.93	6.08	6.08	0.00	1.56	1.35
2/2/2014	514.00	1.50	0.00	513.92	6.74	6.74	0.00	1.73	0.22
2/2/2014	544.00	1.90	0.00	543.91	7.63	7.63	0.00	1.96	0.40
2/2/2014	600.00	1.40	0.00	599.89	9.24	9.24	0.00	2.38	0.27

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/3/2014
Report #: 11
Depth Progress: 0.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	11.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
126,605.03	1,365,276.55	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		48.0	508.00	5,894.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Snowing	-18	Calm

Ops and Depth @ Morning Report
Run in the hole at 214m.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out)

Wiper trip and strap out, backream through tight spots, backream through cement, encountered losses while backreaming, build volume and treat clobbered mud while backreaming, work tight hole at 134m, conduct mechanical backoff leaving 88m (7x 6-1/2" and 2x 9" drill collars and tooth bit) worth of fish in the hole and retreiving 46m of 6-1/2" drill collars. Make up screw in sub, bumper sub and jars. Run in hole, screw into fish and jar down, break free, run in the hole to 295m to get circulation back, circulate hole clean, circulate and backream through tight spots to 76m.
Midnight to 6:00am= Pull out of the hole and laydown 9" drill collars. Make up tooth bit, 6-1/2" drill collars and jars and run in the hole.

24hr Forecast
Finish running in the hole, circulate hole clean and condition mud for casing run, pull out of the hole, laydown 6-1/2" drill collars, rig up power tongs, run 244.5mm surface casing, tag bottom, circulate hole clean and condition mud, rig up cementers and cement 244.5mm surface casing.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	01:45	1.75	SURFAC	DRILL	TRIP	P		602.00	602.00	Trip out of hole Back ream fom 245m to 189m
01:45	03:00	1.25	SURFAC	DRILL	CIRC	P		602.00	602.00	Build volume due to losses mud clobbered up water back and treat
03:00	07:45	4.75	SURFAC	DRILL	REAM	P		602.00	602.00	Back ream from 189m to 161m work tight pipe @ 151m
07:45	08:00	0.25	SURFAC	DRILL	SFTY	P		602.00	602.00	Crew handover meeting with both crews, tool push and conoco rep present.
08:00	08:15	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service fuction test rig smart anti-collision system, fuction test crown saver, grease all moving parts and check oil levels in the floor motor, pumps and HPU
08:15	13:30	5.25	SURFAC	DRILL	REAM	P		602.00	602.00	Work tight hole 133m
13:30	14:45	1.25	SURFAC	FISH	FISH	T	Hole Conditions	602.00	602.00	Mechanically back off and rack 1 std of HWDP and 2.5 stds of DCS
14:45	15:00	0.25	SURFAC	FISH	SFTY	P		602.00	602.00	Crew handover meeting with both crews, tool push and conoco rep present.
15:00	16:00	1.00	SURFAC	FISH	FISH	T	Stuck Pipe	602.00	602.00	Handle fishing tools
16:00	16:15	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service function test crown saver
16:15	16:30	0.25	SURFAC	FISH	SFTY	P		602.00	602.00	Safety meeting
16:30	17:15	0.75	SURFAC	FISH	FISH	T	Stuck Pipe	602.00	602.00	Handle fishing tools with schlumberger
17:15	17:45	0.50	SURFAC	FISH	TRIP	T	Stuck Pipe	602.00	602.00	Run in hole with fishing tools
17:45	18:15	0.50	SURFAC	FISH	FISH	T	Stuck Pipe	602.00	602.00	Screw into fish with schlumberger fishing tools
18:15	19:00	0.75	SURFAC	FISH	FISH	T	Stuck Pipe	602.00	602.00	Bump fish down 1.3m to free point, with schlumberger bumper sub
19:00	19:30	0.50	SURFAC	FISH	TRIP	T	Stuck Pipe	602.00	602.00	Run in 8 stands of HWDP to 295m
19:30	22:00	2.50	SURFAC	FISH	CIRC	T	Stuck Pipe	602.00	602.00	Break circulation and work pipe to clean up hole with water, at 295 m

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/3/2014
Report #: 11
Depth Progress: 0.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
22:00	23:45	1.75	SURFAC	FISH	REAM	T	Stuck Pipe	602.00	602.00	Back ream out of hole from 295m to 135m
23:45	00:00	0.25	SURFAC	FISH	SFTY	P		602.00	602.00	Crew handover meeting with both crews, tool push and conoco rep present.

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
08:00	602.00	1,010.0	30	11.0		

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
		19,268.35

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
844.00	844.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr...

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

np Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
in House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/4/2014
Report #: 12
Depth Progress: 0.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	12.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
253,295.03	1,618,571.58	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		48.0	508.00	6,402.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-25	S 10 kms

Ops and Depth @ Morning Report
Run in 244.5mm surface casing.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 7 - HID, 0 - OBS and 0 - ASA (all closed out)

Circulate and backream through tight spots to 76m, pull out of the hole and laydown 9" drill collars. Make up tooth bit, 6-1/2" drill collars and jars and run in the hole, ream in from 271m to 345m, circulate and attempt to viscosify water, pull out to 251m due to major losses and tight hole. Rotate slowly, build volume, viscosify mud and add LCM, circulate until mud comes around, viscosify mud in the mud tanks and add LCM. Run in the hole and ream through tight spots. Circulate and condition mud at 602m (TD). Pull out of the hole to lay down 12x 6-1/2" drill collars and run 244.5mm surface casing.

NEB and WSCC inspectors conducted an inspection at Beaver #2, inspection was satisfactory.

24hr Forecast
Run 244.5mm surface casing, tag bottom, circulate hole clean and condition mud, rig up cementers and cement 244.5mm surface casing, nipple down diverter, dig out cellar, cut casing, weld on casing bowl, nipple BOP.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Conductor, 20.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	03:30	3.50	SURFAC	DRILL	REAM	P		602.00	602.00	Back ream out of the hole and build volume
03:30	04:15	0.75	SURFAC	DRILL	PULD	P		602.00	602.00	Lay down 9" DCS
04:15	04:30	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service function test rig smart anti-collision system, function test crown saver, grease all moving parts, and check oil levels in floor motor, pump and HPU
04:30	04:45	0.25	SURFAC	WHDBOP	BOPE	P		602.00	602.00	Rotating diverter drill, function test motor kills
04:45	07:45	3.00	SURFAC	DRILL	TRIP	P		602.00	602.00	Make up bit to 6-1/2" drill collar, trip into the hole
07:45	08:00	0.25	SURFAC	DRILL	SFTY	P		602.00	602.00	Crew handover meeting, Conoco reps. and tool push present
08:00	08:15	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service function test rig smart anti-collision system, function test crown saver, grease all moving parts, and check oil levels in floor motor, pump and HPU
08:15	08:30	0.25	SURFAC	DRILL	SFTY	P		602.00	602.00	Held diverter drill with day crew
08:30	00:00	-8.50	SURFAC	DRILL	TRIP	P		602.00	602.00	Pull out of hole from 345 m to 251 m
00:00	11:15	11.25	SURFAC	DRILL	CIRC	P		602.00	602.00	Build volume and visosity up to 70+
11:15	11:45	0.50	SURFAC	DRILL	CIRC	P		602.00	602.00	Displace hole to mud and l.c.m due to loss circulation at 251 m
11:45	15:15	3.50	SURFAC	DRILL	CIRC	P		602.00	602.00	Build volume and viscosity up to 70+
15:15	16:00	0.75	SURFAC	DRILL	TRIP	P		602.00	602.00	Trip in the hole from 251m 520 m
16:00	16:45	0.75	SURFAC	DRILL	TRIP	P		602.00	602.00	Run in hole from 520 m to 585 m
16:45	17:00	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service function test rig smart anti-collision system, function test crown saver, grease all moving parts, and check oil levels in floor motor, pump and HPU
17:00	17:45	0.75	SURFAC	DRILL	REAM	P		602.00	602.00	Ream and clean to bottom from 585 m to 602 m
17:45	22:30	4.75	SURFAC	DRILL	CIRC	P		602.00	602.00	Circulate and condition hole at 602 m build volume and get viscosity to 80+
22:30	00:00	1.50	SURFAC	DRILL	TRIP	P		602.00	602.00	Pull out of hole to 254m, to lay down 6-1/2" drill collars and run 244.5mm surface casing

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/4/2014
Report #: 12
Depth Progress: 0.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
21:45	602.00	1,085.0	78	9.0	27.0	11.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
			2.7	23		

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
		19,268.35

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
845.00	845.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

ntrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/5/2014
Report #: 13
Depth Progress: 0.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	13.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
357,746.50	1,976,318.08	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		48.0	508.00	6,910.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-8	N 10 kms

Ops and Depth @ Morning Report
Weld on casing bowl

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 8 - HID, 2 - OBS and 0 - ASA (all closed out)

Pull out of the hole, lay down 12x 6-1/2" drill collars, rig up power tongs, run 244.5mm surface casing, tag bottom, circulate hole clean and condition mud, rig up cementers and cement 244.5mm surface casing, plug down at 13:57hrs on February 5, 2014 with 10m3 of good cement returns, nipple down diverter, dig out cellar, cut casing,

24hr Forecast
Nipple up BOP, pressure test BOP components and manifold shack, conduct an accumulator function test, install wear bushing, pick and make up directional tools, run in the hole, hold BOP and high angle rescue drills with rig crews, drill out cement, float and shoe, drill 5m of open hole, conduct a formation integrity test, drill 222mm intermediate hole.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Surface, 602.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:45	0.75	SURFAC	DRILL	TRIP	P		602.00	602.00	Trip out of hole from 254m till 119m
00:45	02:30	1.75	SURFAC	DRILL	PULD	P		602.00	602.00	Lay down 12 x 6-1/2" drill collars
02:30	03:00	0.50	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service function test rig smart anti-collision system, function test crown saver, grease all moving parts, check oil in floor motor, pumps and HPU. Clean floor and prepare to rig up power tongs
03:00	04:15	1.25	SURFAC	CASING	RNCS	P		602.00	602.00	Rig up Hallmark power tongs
04:15	04:30	0.25	SURFAC	CASING	SFTY	P		602.00	602.00	Safety meeting with Hallmark power tong hands
04:30	07:45	3.25	SURFAC	CASING	RNCS	P		602.00	602.00	Make up 1-244.5mm float shoe, 1-joint of 244.5mm, 53.57kg/m, J-55, LTC surface casing and 1-244.5mm float collar and then run 46-joints of 244.5mm, 53.57kg/m, J-55, LTC surface from 602m to 5.20m.
07:45	08:00	0.25	SURFAC	CASING	SFTY	P		602.00	602.00	Crew handover meeting Conoco reps. and toolpush present
08:00	08:15	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service f.t crown saver
08:15	09:45	1.50	SURFAC	CASING	RNCS	P		602.00	602.00	Run 12 x centralizers and 1 x cement basket from 602m to surface, fill every 10 joints. Total length of 244.5mm surface casing: 602.94m. Landed at 602m, tagged bottom at 602m, float at 587.97m. Circulate hole clean (2 bottoms up+).
09:45	10:15	0.50	SURFAC	CASING	CIRC	P		602.00	602.00	Wash 12m to bottom
10:15	11:00	0.75	SURFAC	CASING	CIRC	P		602.00	602.00	Circ casing
11:00	11:15	0.25	SURFAC	CEMENT	SFTY	P		602.00	602.00	Safety meeting
11:15	14:00	2.75	SURFAC	CEMENT	CMNT	P		602.00	602.00	Rig up Schlumberger cementers, pump 5.0m3 of 1000kg/m3 of fresh water, stop pressure test line to 21,000kPA (held OK), bleed off pressure, then 5.0m3 of 1300kg/m3 MUDPUSH II pre-flush spacer.
14:00	15:15	1.25	SURFAC	CEMENT	CMNT	P		602.00	602.00	Then pump 40 tonnes/37m3 (100% excess) of RFC 1740 cement with 0.2% Anti Foam + 1.0% CaCl2 + 1.1% Low Temp Fluid Loss + 0.6% Dispersant from 602m to 5.2m. Drop plug and displace 23.8m3 of fresh water.

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/5/2014
Report #: 13
Depth Progress: 0.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
15:15	15:45	0.50	SURFAC	CEMENT	CMNT	P		602.00	602.00	Bump plug 3,500kPA over final circulating pressure of 6,500kPA at 13:57hrs on February 5th, 2014. Bleed pressure and check floats (holding OK). Pressure test casing to 11,500kPA for 10 minutes (holding OK). Bleed pressure, flush diverter and rig out cementers. Good cement returns: 10.0m3
15:45	16:00	0.25	SURFAC	CEMENT	WOC	P		602.00	602.00	Wait on cement & clean mud tanks
16:00	18:00	2.00	SURFAC	CEMENT	WOC	P		602.00	602.00	Wait on cement & clean tanks
18:00	18:15	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service function test crown saver
18:15	00:00	5.75	SURFAC	WHDBOP	NUND	P		602.00	602.00	Nipple down diverter,cut casing and clean tanks

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
11:15	602.00	1,080.0	58	9.0	27.0	7.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
			2.4	27		

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
			1,532.90

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
		20,801.25

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
846.00	846.00

Safety Incidents

Date	Com	Categor

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk,
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Gel	186.0	7.200	40.0	SX
Sawdust	65.0	2.980	7.3	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/6/2014
Report #: 14
Depth Progress: 0.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	14.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
106,166.13	2,082,484.21	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		49.0	520.00	7,430.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Snowing	-15	SE 10 kms

Ops and Depth @ Morning Report
Drill out float, Cement and Shoe.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 7 - HID, 1 - OBS and 0 - ASA (all closed out)
Cut casing, weld on casing bowl, clean mud tanks, nipple up BOP, rig up booey and flare lines, nipple up flow nipple and rig up catch can, rig up HCR and kill lines, pressure test BOP components and manifold shack, conduct an accumulator function test, install wear bushing.

24hr Forecast
Drill out float, cement and shoe. Drill 222mm intermediate directional hole with accumulated MWD surveys, rig services, connections and circulation times.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Surface, 602.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	01:00	1.00	SURFAC	WHDBOP	NUND	P		602.00	602.00	Nipple down diverter system, clean tanks change pumps over to 5 inch liners
01:00	04:45	3.75	SURFAC	WHDBOP	NUND	P		602.00	602.00	Dig cellar down 1.5m
04:45	07:45	3.00	SURFAC	WHDBOP	NUND	P		602.00	602.00	Cut conductor and prep casing, weld on casing bowl
07:45	08:00	0.25	SURFAC	WHDBOP	SFTY	P		602.00	602.00	Crew handover meeting, Conoco reps. and toolpush present
08:00	08:15	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service, check BOP slings and shackles
08:15	11:00	2.75	SURFAC	WHDBOP	NUND	P		602.00	602.00	Weld on casing bowl and change #1 pump to 5 inch liners,fill mud tanks with invert
11:00	15:00	4.00	SURFAC	WHDBOP	NUND	P		602.00	602.00	Nipple up upper bowl mandril hanger and BOP's
15:00	16:00	1.00	SURFAC	WHDBOP	BOPE	P		602.00	602.00	Pressure test all manifold valves and chokes, low of 1400kpa and a high of 21,000kpa, with peregrine pressure testing ltd .
16:00	16:15	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service, check crown saver and brake linkage
16:15	23:30	7.25	SURFAC	WHDBOP	BOPE	P		602.00	602.00	Pressure test with Peregrine, BOP stack, HCR valves, kill line, inside BOP, stabbing valve, pipe rams blind rams at a low 1,400kpa, high 21,000kpa., Annular low 1,400kpa., high 17,000kpa. All ok. HCR, pipe rams and annular,starting pressure 20,000kpa, final pressure 9,700kpa., recharge pump time 3min. 36sec.
23:30	00:00	0.50	SURFAC	WHDBOP	NUND	P		602.00	602.00	Pick up and install wear bushing, clean prepare floor to pick up directional tools.

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill				

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
847.00	847.00

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/6/2014
Report #: 14
Depth Progress: 0.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	
2/16/2014 16:00	2,209.00	1.045	15,600	

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Gel	10.0	7.200	40.0	SX
Sawdust	45.0	2.980	7.3	SX

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Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/6/2014
Report #: 14
Depth Progress: 0.00m
Depth End: 602.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

vey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/7/2014
Report #: 15
Depth Progress: 445.00m
Depth End: 1,047.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	15.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
217,238.53	2,299,722.74	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		62.0	608.00	8,038.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
195	85	24	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-21	NW 10 kms

Ops and Depth @ Morning Report
Drill 222mm intermediate hole at 1180m. Last survey at 1121m, Inc: 1.59°, Azm: 29.26°.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 11 - HID, 0 - OBS and 0 - ASA (all closed out)

Complete rig and pre-drill out inspection. Fill mud tanks with invert. Pick and make up directional BHA, run in the hole, tag cement, displace to invert mud, conduct BOP drill and high angle rescue safety meetings, drill out cement float and shoe. Drill 222mm intermediate directional hole from 602m to 609m, circulate bottoms up, perform FIT to a gradient of 18.1kPA/m (surface applied pressure: 4991kPA for 10 minutes). Drill 222mm intermediate directional hole from 609m to 1047m with accumulated MWD surveys, rig services, connections and circulation times. Last survey at 1121m, Inc: 1.59°, Azm: 29.26°.

24hr Forecast
Drill 222mm intermediate directional hole with accumulated MWD surveys, rig services, connections and circulation times.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Surface, 602.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	SURFAC	RIGMNT	SVRG	P		602.00	602.00	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
00:15	00:30	0.25	SURFAC	DRILL	SFTY	P		602.00	602.00	Safety meeting with pathfinder directional services
00:30	03:45	3.25	SURFAC	DRILL	PULD	P		602.00	602.00	Pick up, make up directional tools
03:45	06:00	2.25	SURFAC	DRILL	TRIP	P		602.00	602.00	Trip in the hole with 222mm, 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend
06:00	06:15	0.25	SURFAC	DRILL	SFTY	P		602.00	602.00	B.O.P drill held well secure in 90 sec crew in positions function test motor kills
06:15	06:30	0.25	SURFAC	DRILL	SFTY	P		602.00	602.00	Pre drill out safety meeting inspection done and corrections made
06:30	07:30	1.00	SURFAC	CEMENT	DRLG	P		602.00	602.00	Drill out float and shoe float tagged @ 587m, drill out cement shoe tagged @ 601m
07:30	07:45	0.25	SURFAC	DRILL	DRLG	P		602.00	609.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend from 602m to 609m
07:45	08:00	0.25	SURFAC	DRILL	SFTY	P		609.00	609.00	Crew handover meeting, Conoco reps. and toolpush present
08:00	08:30	0.50	SURFAC	DRILL	FIT	P		609.00	609.00	Formation integrity test with Peregrine pressure tester
08:30	08:45	0.25	INTRM1	DRILL	SFTY	P		609.00	609.00	BOP drill well secure in 70 secs
08:45	09:00	0.25	INTRM1	RIGMNT	SVRG	P		609.00	609.00	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
09:00	15:30	6.50	INTRM1	DRILL	DRLG	P		609.00	818.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 602m to 818m
15:30	16:00	0.50	INTRM1	DRILL	SRVY	P		818.00	818.00	Acclumlated time for directional surveys
	17:00	1.00	INTRM1	DRILL	DRLG	P		818.00	856.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 818m to 856m
17:00	17:15	0.25	INTRM1	RIGMNT	SVRG	P		856.00	856.00	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/7/2014
Report #: 15
Depth Progress: 445.00m
Depth End: 1,047.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
17:15	23:30	6.25	INTRM1	DRILL	DRLG	P		856.00	1,047.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 856m to 1047m
23:30	00:00	0.50	INTRM1	DRILL	SRVY	P		1,047.00	1,047.00	Accumulated directional surveys

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
14:00	780.00	995.0	62		15.0	3.5

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
8.8		80/20	161,771	31	12	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
490.0	1,042.0	2.6	8.8	28		6.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	9.00	2.00	14,627.25

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
9.00	2.00	35,634.60

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	0	2/7/2014	5	2/12/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
848.00	848.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 3

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
3	222.0mm, u513, 17071	0.20	-------	677	21.2

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
11.1/11.1/11.1/11.1/11.1/11.1/11.1	1,921.00	173.0	7[illegible]

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
602.00	1,921.00	21.2	1,319.00	1,319.00	62.25	62.25

Comment
Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend. NM float sub, NM Pony monel, NM gap sub, 1 x MWD flex NM monel, 2 x NM flex monels, 3 joints HWDP, 1 x Jars, 37 joints HWDP

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands	68.0	101.0	79	1,501.64	1,921.00
4" H.W	65.0	101.0	37	344.46	419.36
Jars	69.0	161.0	1	5.13	74.90
4" H.W	65.0	101.0	3	28.27	69.77
6.75" X/O	59.0	168.0	1	0.80	41.50
6.75" NM Flex Mon	70.0	171.0	1	8.28	40.70
6.75" Flex Monel	70.0	171.0	1	9.20	32.42
6.75" Gap Sub	88.0	162.0	1	0.54	23.22
4.5"H90 FLEX MONEL	70.0	171.0	1	9.35	22.68
NM pony monel	70.0	171.0	1	2.97	13.33
N.M SUB	72.0	173.0	1	0.54	10.36
MUD MOTOR	64.0	169.0	1	9.62	9.82

Drilling Parameter: 818.00 - 1,047.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
445.00	13.75	31.6	1.800	6,000	60	15,000	47,000	46,000	48,000	47,000	9,100.0

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
32.8	0.00085	7	44.3	1,094.9	153.5	995.0	1,010.0

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
3.69	12.98	19.29	55.7	55.7	26.5	118.4

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
CALCIUM CHLORIDE	1.0	43.920	40.0	SX
INVERT	11.0	1,063.330	1.0	M3
Lime	48.0	7.170	20.0	SX
OPTISEAL	5.0	96.200	25.0	SX
Versacoat HF	1.0	883.570	55.0	BBL
VERSAMUL	1.0	940.470	22.68	BBL
Versatrol	5.0	47.500	50.0	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/7/2014	608.40	1.60	7.20	608.28	9.46	9.46	0.01	2.42	0.98
2/7/2014	645.63	0.60	311.20	645.51	10.10	10.10	-0.07	2.66	1.09
2/7/2014	683.60	9.00	318.00	683.31	12.64	12.44	-2.21	5.34	6.64
2/7/2014	721.66	0.90	317.90	721.20	15.52	14.88	-4.40	8.09	6.38
2/7/2014	759.75	0.90	254.40	759.28	15.80	15.02	-4.89	8.59	0.75
2/7/2014	797.80	0.70	282.20	797.33	15.94	14.99	-5.41	9.08	0.34
2/7/2014	835.87	0.40	326.90	835.40	16.19	15.15	-5.71	9.42	0.40
2/7/2014	873.90	0.40	355.60	873.43	16.45	15.40	-5.79	9.56	0.16
2/7/2014	912.00	0.80	20.40	911.52	16.78	15.78	-5.71	9.58	0.37
2/7/2014	988.00	0.70	19.50	987.52	17.55	16.71	-5.37	9.49	0.04

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slave River	207.00	207.00	197.35
Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/8/2014
Report #: 16
Depth Progress: 475.00m
Depth End: 1,522.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	16.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
257,034.63	2,556,757.37	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		67.0	644.00	8,682.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
100	75		0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-30	NW 20 kms

Ops and Depth @ Morning Report
Drill 222mm intermediate hole at 1612m. Last survey at 1577m, Inc: 0.7°, Azm: 120.3°.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 9 - HID, 1 - OBS and 0 - ASA (all closed out)

Drill 222mm intermediate directional hole from 1047m to 1522m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-8,000kDaN, RPM - 65-80 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000 - 10,000ft/lbs, Rotate: 456m - 96% / Slide: 19m - 4%, ROP: 23.2m/hr. Last survey at 1577mMD, inclination= 0.7°, azimuth= 120.3°, TVD - 1577m.

24hr Forecast
Drill 222mm intermediate directional hole with accumulated MWD surveys, rig services, connections and circulation times.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Surface, 602.00mKB

Time Log

Start	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
0	01:15	1.25	INTRM1	DRILL	DRLG	P		1,047.00	1,085.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1047m to1085 m
01:15	01:30	0.25	INTRM1	RIGMNT	SVRG	P		1,085.00	1,085.00	Rig service function test rig smart anti-collision system, function test, function test pipe rams 8 sec C/O crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
01:30	07:15	5.75	INTRM1	DRILL	DRLG	P		1,085.00	1,208.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1085m to 1208m
07:15	07:45	0.50	INTRM1	DRILL	SRVY	P		1,208.00	1,208.00	Accumulated directional surveys
07:45	08:00	0.25	INTRM1	DRILL	SFTY	P		1,208.00	1,208.00	Crew handover meeting, Conoco reps. and toolpush present
08:00	08:15	0.25	INTRM1	RIGMNT	SVRG	P		1,208.00	1,208.00	Rig service function test rig smart anti-collision system, function test, function test hydril 14 sec C/O crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
08:15	15:30	7.25	INTRM1	DRILL	DRLG	P		1,208.00	1,389.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1208m to 1389 m
15:30	16:00	0.50	INTRM1	DRILL	SRVY	P		1,389.00	1,389.00	Acclumlated time for directional surveys
16:00	16:45	0.75	INTRM1	DRILL	DRLG	P		1,389.00	1,408.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1389m to 1408 m
16:45	17:00	0.25	INTRM1	RIGMNT	SVRG	P		1,408.00	1,408.00	Rig service function test rig smart anti-collision system, function test, function test hydril 14 sec C/O crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:00	20:15	3.25	INTRM1	DRILL	DRLG	P		1,408.00	1,484.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1408m to 1484 m
20:15	21:15	1.00	INTRM1	RIGMNT	RGRP	T	Rig	1,484.00	1,484.00	Change out cap gasket on # 2 pump change out seal retainer on pump #1
21:15	23:30	2.25	INTRM1	DRILL	DRLG	P		1,484.00	1,522.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1484m to 1522m

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/8/2014
Report #: 16
Depth Progress: 475.00m
Depth End: 1,522.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
23:30	00:00	0.50	INTRM1	DRILL	SRVY	P		1,522.00	1,522.00	Accumulated directional surveys

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
14:30	1,377.00	965.0	50		8.0	2.5

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
7.4		84/16	179,998	29	12	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
510.0	993.0	2.6	7.4	37		7.5

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	14.00	3.00	21,241.70

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
23.00	5.00	56,876.30

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	1	2/7/2014	4	2/12/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
849.00	849.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 3

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
3	222.0mm, u513, 17071	0.20	------	677	21.2

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
11.1/11.1/11.1/11.1/11.1/11.1/11.1	1,921.00	173.0	70,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
602.00	1,921.00	21.2	1,319.00	1,319.00	62.25	62.25

Comment
Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend. NM float sub, NM Pol monel, NM gap sub, 1 x MWD flex NM monel, 2 x NM flex monels, 3 joints HWDP, 1 x Jars, 37 joints HWDP

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands	68.0	101.0	79	1,501.64	1,921.00
4" H.W	65.0	101.0	37	344.46	419.36
Jars	69.0	161.0	1	5.13	74.90
4" H.W	65.0	101.0	3	28.27	69.77
6.75" X/O	59.0	168.0	1	0.80	41.50
6.75" NM Flex Mon	70.0	171.0	1	8.28	40.70
6.75" Flex Monel	70.0	171.0	1	9.20	32.42
6.75" Gap Sub	88.0	162.0	1	0.54	23.22
4.5"H90 FLEX MONEL	70.0	171.0	1	9.35	22.68
NM pony monel	70.0	171.0	1	2.97	13.33
N.M SUB	72.0	173.0	1	0.54	10.36
MUD MOTOR	64.0	169.0	1	9.62	9.82

Drilling Parameter: 1,389.00 - 1,522.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
920.00	34.25	21.3	1.700	7,000	65	16,200	60,000	59,000	61,000	60,000	9,600.0

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
26.8	0.00069	6	41.8	947.2	154.7	965.0	975.4

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
5.41	27.56	19.29	52.6	52.6	25.0	111.8

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/8/2014
Report #: 16
Depth Progress: 475.00m
Depth End: 1,522.00mKB
Rig Release Date: 2/23/2014

ıp Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

ı / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
CALCIUM CHLORIDE	32.0	43.920	40.0	SX
INVERT	17.0	1,063.330	1.0	M3
Lime	45.0	7.170	20.0	SX
OPTISEAL	10.0	96.200	25.0	SX
Versatrol	10.0	47.500	50.0	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/8/2014	1,045.00	1.50	14.84	1,044.51	18.47	17.76	-5.06	9.46	0.42
2/8/2014	1,083.00	1.28	27.45	1,082.50	19.21	18.62	-4.74	9.37	0.30
2/8/2014	1,121.00	1.59	29.26	1,120.48	19.92	19.46	-4.28	9.15	0.25
2/8/2014	1,197.00	0.90	31.80	1,196.47	21.17	20.88	-3.45	8.71	0.27
2/8/2014	1,235.00	0.70	28.10	1,234.46	21.58	21.34	-3.19	8.57	0.16
2/8/2014	1,273.00	1.10	150.40	1,272.46	21.43	21.23	-2.90	8.26	1.25
2/8/2014	1,311.00	1.00	101.40	1,310.45	20.98	20.85	-2.39	7.68	0.69
2/8/2014	1,349.50	1.20	349.90	1,348.95	21.28	21.18	-2.13	7.51	1.42
2/8/2014	1,387.50	1.40	15.40	1,386.94	22.11	22.02	-2.08	7.68	0.48
2/8/2014	1,425.50	0.40	0.10	1,424.94	22.68	22.60	-1.96	7.71	0.80
2/8/2014	1,463.50	0.62	1.66	1,462.93	23.02	22.93	-1.95	7.79	0.17
2/8/2014	1,501.50	0.88	5.67	1,500.93	23.51	23.43	-1.92	7.88	0.21

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
ʳial	1,140.00	1,139.48	1,118.35
(5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/9/2014
Report #: 17
Depth Progress: 333.00m
Depth End: 1,855.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	17.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
125,765.76	2,682,523.13	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		52.0	582.00	9,264.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
105	70		0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-25	NW 25 kms

Ops and Depth @ Morning Report
Drill 222mm intermediate directional hole at 1902m.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 9 - HID, 1 - OBS and 0 - ASA (all closed out)

Drill 222mm intermediate directional hole from 1522m to 1855m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-8,000kDaN, RPM - 65-80 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000 - 10,000ft/lbs, Rotate: 246m - 74% / Slide: 87m - 26%, ROP: 19.59m/hr. Last survey at 1862.5mMD, inclination= 20.0°, azimuth= 286.20°, TVD - 1853.76m. We are 0.56m above and 24.7m right of the line - 1.5° behind in angle - 0.86° behind in azimuth - 24.77m center to center - BURR: 7.4°/30m. KOP: 1731mMD.

24hr Forecast
Drill 222mm intermediate directional hole with accumulated MWD surveys, rig services, connections and circulation times.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Surface, 602.00mKB

Time Log

t e	End Time	Dur (hr)	Phase	Op Code	Activity Code	Tim e P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	01:15	1.25	INTRM1	DRILL	DRLG	P		1,522.00	1,541.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1522m to 1541m
01:15	02:00	0.75	INTRM1	DRILL	CIRC	P		1,541.00	1,541.00	Work tight spot @1537m to 1541m
02:00	03:00	1.00	INTRM1	DRILL	DRLG	P		1,541.00	1,560.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1541m to 1560m
03:00	03:15	0.25	INTRM1	RIGMNT	SVRG	P		1,560.00	1,560.00	Rig service function test rig smart anti-collision system, function test, function test hydril 14 sec C/O crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
03:15	07:15	4.00	INTRM1	DRILL	DRLG	P		1,560.00	1,646.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1560m to1646m
07:15	07:45	0.50	INTRM1	DRILL	SRVY	P		1,646.00	1,646.00	Accumulated directional surveys
07:45	08:00	0.25	INTRM1	DRILL	SFTY	P		1,646.00	1,646.00	Crew handover meeting, Conoco reps. and toolpush present
08:00	08:15	0.25	INTRM1	RIGMNT	SVRG	P		1,646.00	1,646.00	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
08:15	15:15	7.00	INTRM1	DRILL	DRLG	P		1,646.00	1,777.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1646m to 1777 m
15:15	16:00	0.75	INTRM1	DRILL	SRVY	P		1,777.00	1,777.00	Acclumlated time for surveys
16:00	16:45	0.75	INTRM1	DRILL	DRLG	P		1,777.00	1,788.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1777m to 1788 m
16:45	17:00	0.25	INTRM1	RIGMNT	SVRG	P		1,788.00	1,788.00	Rig service function test rig smart anti-collision system, function test hydril 14 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:00	19:00	2.00	INTRM1	DRILL	DRLG	P		1,788.00	1,808.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1788m to 1808m

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/9/2014
Report #: 17
Depth Progress: 333.00m
Depth End: 1,855.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
19:00	19:15	0.25	INTRM1	DRILL	SFTY	P		1,808.00	1,808.00	Crew handover meeting, Conoco reps. and toolpush present
19:15	23:30	4.25	INTRM1	DRILL	DRLG	P		1,808.00	1,855.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1808m to 1855m
23:30	00:00	0.50	INTRM1	DRILL	SRVY	P		1,855.00	1,855.00	Accumulated Directional surveys

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
13:15	1,756.00	1,020.0	50		16.0	4.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
8.1		83/17	219,005	27	15	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
590.0	1,065.0	2.8	9.0	46		6.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	10.00	2.00	19,398.91

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
33.00	7.00	76,275.21

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	2	2/7/2014	3	2/12/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
850.00	850.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 3

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
3	222.0mm, u513, 17071	0.20	------	677	21.2

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
11.1/11.1/11.1/11.1/11.1/11.1/11.1	1,921.00	173.0	70,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
602.00	1,921.00	21.2	1,319.00	1,319.00	62.25	62.25

Comment
Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend. NM float sub, NM Pony monel, NM gap sub, 1 x MWD flex NM monel, 2 x NM flex monels, 3 joints HWDP, 1 x Jars, 37 joints HWDP

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands	68.0	101.0	79	1,501.64	1,921.00
4" H.W	65.0	101.0	37	344.46	419.36
Jars	69.0	161.0	1	5.13	74.90
4" H.W	65.0	101.0	3	28.27	69.77
6.75" X/O	59.0	168.0	1	0.80	41.50
6.75" NM Flex Mon	70.0	171.0	1	8.28	40.70
6.75" Flex Monel	70.0	171.0	1	9.20	32.42
6.75" Gap Sub	88.0	162.0	1	0.54	23.22
4.5"H90 FLEX MONEL	70.0	171.0	1	9.35	22.68
NM pony monel	70.0	171.0	1	2.97	13.33
N.M SUB	72.0	173.0	1	0.54	10.36
MUD MOTOR	64.0	169.0	1	9.62	9.82

Drilling Parameter: 1,777.00 - 1,855.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
1,253.00	54.50	11.1	1.700	8,000	65	16,500	69,000	67,000	71,000	69,000	10,100.0

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
28.4	0.00073	6	41.8	1,001.2	350.9	1,020.0	1,039.3

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
6.62	37.78	19.29	52.6	52.6	25.0	111.8

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Barite	71.0	17.040	40.0	SX
CALCIUM CHLORIDE	20.0	43.920	40.0	SX
Clean Up	1.0	75.330	18.93	PAIL
INVERT	12.0	1,063.330	1.0	M3
Lime	25.0	7.170	20.0	SX
OPTISEAL	5.0	96.200	25.0	SX
Truvis	18.0	149.670	25.0	SX
Versacoat HF	1.0	883.570	55.0	BBL
Versatrol	5.0	47.500	50.0	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/9/2014	1,539.50	0.90	135.50	1,538.93	23.57	23.51	-1.68	7.67	1.27
2/9/2014	1,577.50	0.70	120.30	1,576.92	23.21	23.18	-1.27	7.19	0.23
2/9/2014	1,654.00	1.00	54.80	1,653.42	23.33	23.33	-0.32	6.31	0.37
2/9/2014	1,692.00	1.20	31.40	1,691.41	23.86	23.86	0.16	5.99	0.38
2/9/2014	1,711.00	1.80	359.80	1,710.40	24.33	24.33	0.26	6.01	1.58
2/9/2014	1,720.00	1.90	10.60	1,719.40	24.62	24.61	0.29	6.06	1.21
2/9/2014	1,730.00	1.60	353.80	1,729.40	24.92	24.92	0.30	6.12	1.77
2/9/2014	1,739.00	2.30	320.90	1,738.39	25.18	25.18	0.18	6.31	4.31
2/9/2014	1,749.00	3.71	313.14	1,748.38	25.56	25.56	-0.19	6.76	4.39
2/9/2014	1,758.00	5.10	309.20	1,757.35	26.02	26.01	-0.71	7.38	4.74
2/9/2014	1,767.50	6.10	306.60	1,766.80	26.62	26.58	-1.44	8.23	3.26
2/9/2014	1,786.00	8.48	304.86	1,785.15	28.14	27.94	-3.35	10.43	3.88
2/9/2014	1,796.50	9.90	302.26	1,795.52	29.26	28.87	-4.75	12.02	4.23
2/9/2014	1,805.50	10.78	296.84	1,804.37	30.29	29.66	-6.15	13.58	4.37
2/9/2014	1,815.00	11.62	293.18	1,813.69	31.43	30.44	-7.83	15.40	3.47

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/9/2014
Report #: 17
Depth Progress: 333.00m
Depth End: 1,855.00mKB
Rig Release Date: 2/23/2014

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/9/2014	1,824.50	12.90	289.66	1,822.97	32.65	31.17	-9.70	17.40	4.68

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/10/2014
Report #: 18
Depth Progress: 66.00m
Depth End: 1,921.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	18.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
433,279.02	3,115,802.15	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		56.0	610.00	9,874.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
105	70	24	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-26	SW 10kms

Ops and Depth @ Morning Report
Run in the hole to 589m, slip and cut drill line.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out)

Drill 222mm intermediate directional hole from 1855m to 1921m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-8,000kDaN, RPM - 65-80 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000 - 10,000ft/lbs, Rotate: 5m - 8% / Slide: 61m - 92%, ROP: 12m/hr. Last survey at 1901mMD, inclination= 27°, azimuth= 282.34°, TVD - 1895m. We are 0.5m below and 24.4m right of the line - 6° behind in angle - 3° ahead in azimuth - 24.43m center to center - BURR: 7.75°/30m. Pull out to 1710m (vertical section) and replace module in mud pump #1, run in the hole, drill and attempt to build angle, pull out of the hole, dial up mud motor to a 1.93° bend and make up a 222mm Smith 4-3-7 insert bit, attempt to pull the wear bushing due to the fact we couldn't get BHA past wear bushing.

24hr Forecast
Run in the hole, drill 222mm intermediate directional hole with accumulated MWD surveys, rig services, connections and circulation times.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Surface, 602.00mKB

Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	01:00	1.00	INTRM1	DRILL	DRLG	P		1,855.00	1,864.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1855m to1864 m
01:00	01:15	0.25	INTRM1	RIGMNT	SVRG	P		1,864.00	1,864.00	Rig service function test rig smart anti-collision system, function test H.C.R 3sec O/C crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU Change oil on floor motor
01:15	05:30	4.25	INTRM1	DRILL	DRLG	P		1,864.00	1,902.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1864m to 1902m
05:30	07:00	1.50	INTRM1	RIGMNT	RGRP	T	Rig	1,902.00	1,902.00	work on pump # 1 cap gasket
07:00	07:15	0.25	INTRM1	DRILL	SFTY	P		1,902.00	1,902.00	Weekly safety meeting with conoco rep present
07:15	07:30	0.25	INTRM1	DRILL	SRVY	P		1,902.00	1,902.00	Accumulated directional surveys
07:30	08:00	0.50	INTRM1	DRILL	SFTY	P		1,902.00	1,902.00	Crew handover meeting, Conoco reps. and toolpush present
08:00	08:15	0.25	INTRM1	RIGMNT	SVRG	P		1,902.00	1,902.00	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
08:15	08:45	0.50	INTRM1	DRILL	TRIP	P		1,902.00	1,902.00	Pull out 10 stds of drill pipe off bottom
08:45	12:15	3.50	INTRM1	RIGMNT	RGRP	T	Rig	1,902.00	1,902.00	Change out middle module in pump # 1
12:15	12:45	0.50	INTRM1	DRILL	TRIP	P		1,902.00	1,902.00	Trip in hole, 10 stands to bottom
12:45	14:30	1.75	INTRM1	DRILL	DRLG	P		1,902.00	1,921.00	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1902m to 1921m
14:30	15:00	0.50	INTRM1	DRILL	CIRC	P		1,921.00	1,921.00	Circulate bottoms up, prior to tripping out of hole
15:00	15:15	0.25	INTRM1	DRILL	SRVY	P		1,921.00	1,921.00	Acclumulated time for dir surveys
	15:30	0.25	INTRM1	DRILL	SFTY	P		1,921.00	1,921.00	Crew handover meeting, Conoco reps. and toolpush present
15:30	16:30	1.00	INTRM1	DRILL	TRIP	P		1,921.00	1,921.00	Trip out of hole to dial up mud motor, from 1.53deg. to 1.93deg. flow check at 1919m flow check at 1902 m

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/10/2014
Report #: 18
Depth Progress: 66.00m
Depth End: 1,921.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
16:30	16:45	0.25	INTRM1	RIGMNT	SVRG	P		1,921.00	1,921.00	Rig service function test rig smart anti-collision system, function test hrdrill 13 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
16:45	21:15	4.50	INTRM1	DRILL	TRIP	P		1,921.00	1,921.00	Trip out of hole with flow checks at 1825m/1098m/390m out of hole, funtion test blind rams 4sec open/close
21:15	21:30	0.25	INTRM1	DRILL	SFTY	P		1,921.00	1,921.00	Safety meeting with pathinder driectional services
21:30	23:30	2.00	INTRM1	DRILL	PULD	P		1,921.00	1,921.00	Install a 222mm Smith, 4-3-7 insert tri-cone bit, set angle of the mud motor to 1.93deg., clean and prepare to trip in the hole
23:30	23:45	0.25	INTRM1	DRILL	PULD	T	Wellhead/Tree	1,921.00	1,921.00	Attempt to pull the wear bushing due to the fact we couldn't get BHA past wear bushing.
23:45	00:00	0.25	INTRM1	DRILL	SFTY	P		1,921.00	1,921.00	Crew handover meeting, Conoco reps. and toolpush present

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
12:45	1,902.00	1,020.0	50		16.0	4.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
8.1		83/17	219,005	27	15	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
590.0	1,065.0	2.8	9.0	46		6.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	5.00	0.00	8,992.17

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
38.00	7.00	85,267.38

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	3	2/7/2014	2	2/12/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
851.00	851.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 3

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
3	222.0mm, u513, 17071	0.20	------	677	21.2

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
11.1/11.1/11.1/11.1/11.1/11.1/11.1	1,921.00	173.0	70,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
602.00	1,921.00	21.2	1,319.00	1,319.00	62.25	62.25

Comment
Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend. NM float sub, NM Pony monel, NM gap sub, 1 x MWD flex NM monel, 2 x NM flex monels, 3 joints HWDP, 1 x Jars, 37 joints HWDP

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands	68.0	101.0	79	1,501.64	1,921.00
4" H.W	65.0	101.0	37	344.46	419.36
Jars	69.0	161.0	1	5.13	74.90
4" H.W	65.0	101.0	3	28.27	69.77
6.75" X/O	59.0	168.0	1	0.80	41.50
6.75" NM Flex Mon	70.0	171.0	1	8.28	40.70
6.75" Flex Monel	70.0	171.0	1	9.20	32.42
6.75" Gap Sub	88.0	162.0	1	0.54	23.22
4.5"H90 FLEX MONEL	70.0	171.0	1	9.35	22.68
NM pony monel	70.0	171.0	1	2.97	13.33
N.M SUB	72.0	173.0	1	0.54	10.36
MUD MOTOR	64.0	169.0	1	9.62	9.82

Drilling Parameter: 1,902.00 - 1,921.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
1,319.00	62.25	10.9	1.700	7,000	65	17,100	70,000	68,000	71,000	70,000	10,100.0

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/10/2014
Report #: 18
Depth Progress: 66.00m
Depth End: 1,921.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
28.4	0.00073	6	41.8	1,001.2	363.1	1,020.0	1,039.4

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
6.86	39.81	19.29	52.6	52.6	25.0	111.8

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Barite	37.0	17.040	40.0	SX
CALCIUM CHLORIDE	9.0	43.920	40.0	SX
INVERT	5.0	1,063.330	1.0	M3
OPTISEAL	5.0	96.200	25.0	SX
Truvis	7.0	149.670	25.0	SX
Versacoat HF	1.0	883.570	55.0	BBL
Versatrol	5.0	47.500	50.0	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/10/2014	1,834.00	14.58	285.16	1,832.20	33.98	31.84	-11.86	19.65	6.28
2/10/2014	1,843.50	16.22	285.66	1,841.36	35.51	32.51	-14.29	22.18	5.20
2/10/2014	1,853.00	18.12	286.88	1,850.44	37.38	33.30	-16.98	24.98	6.11
2/10/2014	1,862.50	20.00	286.20	1,859.42	39.58	34.18	-19.95	28.08	5.98
[illegible]2014	1,873.00	21.61	284.46	1,869.23	42.32	35.17	-23.55	31.81	4.93
[illegible]/2014	1,881.50	23.70	283.00	1,877.08	44.79	35.94	-26.73	35.08	7.64
2/10/2014	1,891.50	25.50	284.70	1,886.17	48.08	36.94	-30.77	39.24	5.80
2/10/2014	1,901.00	27.00	282.34	1,894.69	51.51	37.92	-34.86	43.44	5.77

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/11/2014
Report #: 19
Depth Progress: 72.00m
Depth End: 1,993.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	19.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
152,618.32	3,268,420.47	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		54.0	598.00	10,472.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
840	460	19	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-36	Calm

Ops and Depth @ Morning Report
Drill 222mm intermediate directional hole at 2016m.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out)

Run in the hole, drill 222mm intermediate directional hole from 1921m to 1993m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 15-18,000kDaN, RPM - 40-50 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000-10,000ft/lbs, Rotate: 10m - 13% / Slide: 62m - 87%, ROP: 7.0m/hr. Last survey at 1986.50mMD, inclination= 48.39°, azimuth= 279.96°, TVD - 1961.87m. We are 0.34m below and 21m right of the line - 0.11° behind in angle - 0.0° ahead in azimuth - 21m center to center - BURR: 8.77°/30m to new target of 2015.25mTVD.

24hr Forecast
Drill 222mm intermediate directional hole to intermediate TD (ICP) with accumulated MWD surveys, rig services, connections and circulation times.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Surface, 602.00mKB

Time Log

Start	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	INTRM1	RIGMNT	SVRG	P		1,921.00	1,921.00	Rig service function test blind ram's 3 sec to close and crown saver
00:15	03:30	3.25	INTRM1	DRILL	TRIP	T	Wellhead/Tree	1,921.00	1,921.00	Attempt to pull wear bushing wwith bushing puller and a stand of HWDP, was able to get bit and mud motor with a 1.93deg bend, through wear bushing
03:30	03:45	0.25	INTRM1	DRILL	SFTY	P		1,921.00	1,921.00	Safety meeting with Pathfinder directional hands and Extreem MWD hand prior to handle directional tools
03:45	04:30	0.75	INTRM1	DRILL	PULD	P		1,921.00	1,921.00	Scribe and handle directional tools, check MWD
04:30	06:00	1.50	INTRM1	DRILL	TRIP	P		1,921.00	1,921.00	Trip in hole with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend
06:00	06:45	0.75	INTRM1	RIGMNT	SLPC	P		1,921.00	1,921.00	Hang blocks and top drive, slip and cut 21 m drilling line
06:45	07:45	1.00	INTRM1	DRILL	TRIP	P		1,921.00	1,921.00	Trip in hole with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend
07:45	08:00	0.25	INTRM1	DRILL	SFTY	P		1,921.00	1,921.00	Crew handover meeting, Conoco reps. and toolpush present
08:00	08:15	0.25	INTRM1	RIGMNT	SVRG	P		1,921.00	1,921.00	Rig service function test rig smart anti-collision system, function test pipe rams 5 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
08:15	10:45	2.50	INTRM1	DRILL	TRIP	P		1,921.00	1,921.00	Trip in the hole fill pipe, flow check at 647m,1495m
10:45	11:00	0.25	INTRM1	DRILL	CIRC	P		1,921.00	1,921.00	Wash to bottom from 1912m to 1921m
11:00	15:00	4.00	INTRM1	DRILL	DRLG	P		1,921.00	1,948.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1921m to 1948m
15:00	15:30	0.50	INTRM1	DRILL	CIRC	P		1,948.00	1,948.00	Work tight hole at 1941m
15:30	16:00	0.50	INTRM1	DRILL	SRVY	P		1,948.00	1,948.00	Accumulated directional surveys
16:00	17:30	1.50	INTRM1	DRILL	DRLG	P		1,948.00	1,959.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1948m to 1959m
17:30	17:45	0.25	INTRM1	RIGMNT	SVRG	P		1,959.00	1,959.00	Rig service function test rig smart anti-collision system, function test Hydrill 13sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/11/2014
Report #: 19
Depth Progress: 72.00m
Depth End: 1,993.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
17:45	19:00	1.25	INTRM1	DRILL	DRLG	P		1,959.00	1,967.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1959m to 1967 m
19:00	19:15	0.25	INTRM1	DRILL	SFTY	P		1,967.00	1,967.00	Crew handover meeting, Conoco reps. and toolpush present
19:15	19:30	0.25	INTRM1	DRILL	SFTY	P		1,967.00	1,967.00	Held BOP drill with rig crew, Conoco rep. crew in position for well shut in 50sec
19:30	20:00	0.50	INTRM1	RIGMNT	RGRP	T	Rig	1,967.00	1,967.00	Change dies in grabber box on top drive
20:00	23:30	3.50	INTRM1	DRILL	DRLG	P		1,967.00	1,993.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1967m to 1993m
23:30	00:00	0.50	INTRM1	DRILL	SRVY	P		1,993.00	1,993.00	Acclumlated time for dir surveys

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
14:00	1,915.00	1,015.0	50		17.0	4.5

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
8.5		84/16	242,335	39	15	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
600.0	1,058.0	2.7	9.0	42		5.5

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	8.00	1.00	11,386.47

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
46.00	8.00	96,653.85

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	0	2/11/2014	5	2/16/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
852.00	8

Safety Incidents

Date	Com	Category

Drill String: BHA # 4

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
4	222.0mm, FHi18B, RA3595	0.20	2-3-WT-G-1-1-NO-TD	942	6.2

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
20.0/20.0/20.0	2,152.00	173.0	73,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
1,921.00	2,152.00	6.2	231.00	231.00	37.50	37.50

Comment

Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend. NM float sub, NM Pony monel, NM gap sub, 1 x MWD flex NM monel, 2 x NM flex monels, 3 joints HWDP, 1 x Jars, 37 joints HWDP

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Singles	68.0	101.0	1	1.80	2,152.00
Drill pipe - Stands	68.0	101.0	91	1,730.84	2,150.20
4" H.W	65.0	101.0	37	344.46	419.36
Jars	69.0	161.0	1	5.13	74.90
4" H.W	65.0	101.0	3	28.27	69.77
6.75" X/O	59.0	168.0	1	0.80	41.50
6.75" NM Flex Mon	70.0	171.0	1	8.28	40.70
6.75" Flex Monel	70.0	171.0	1	9.20	32.42
6.75" Gap Sub	88.0	162.0	1	0.54	23.22
4.5"H90 FLEX MONEL	70.0	171.0	1	9.35	22.68
NM pony monel	70.0	171.0	1	2.97	13.33
N.M SUB	72.0	173.0	1	0.54	10.36
MUD MOTOR	64.0	169.0	1	9.62	9.82

Drilling Parameter: 1,948.00 - 1,993.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill To
72.00	10.25	7.2	1.700	16,000	10	16,000	71,000	67,000	75,000	71,000	7,900.0

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/11/2014
Report #: 19
Depth Progress: 72.00m
Depth End: 1,993.00mKB
Rig Release Date: 2/23/2014

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
14.6	0.00038	3	30.1	514.6	404.0	1,015.0	1,036.0

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
7.12	42.02	19.29	52.6	52.6	25.0	111.8

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
CALCIUM CHLORIDE	25.0	43.920	40.0	SX
INVERT	9.0	1,063.330	1.0	M3
OPTISEAL	5.0	96.200	25.0	SX
Versatrol	5.0	47.500	50.0	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/11/2014	1,910.50	28.80	283.40	1,903.08	55.23	38.91	-39.19	47.89	5.90
2/11/2014	1,920.00	30.90	281.10	1,911.32	59.26	39.91	-43.81	52.61	7.55
2/11/2014	1,929.50	34.60	284.40	1,919.31	63.78	41.05	-48.82	57.74	12.97
2/11/2014	1,939.00	37.70	282.90	1,926.98	68.85	42.37	-54.26	63.34	10.18
2/11/2014	1,948.50	40.30	282.34	1,934.36	74.29	43.68	-60.10	69.32	8.29
2/11/2014	1,958.00	42.51	282.34	1,941.49	80.09	45.02	-66.24	75.59	6.98
2/11/2014	1,967.50	44.32	279.87	1,948.39	86.13	46.27	-72.64	82.11	7.84

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/12/2014
Report #: 20
Depth Progress: 111.00m
Depth End: 2,104.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
100/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	20.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
155,243.11	3,423,663.58	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		55.0	596.00	11,068.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
1,120	540		0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-30	Calm

Ops and Depth @ Morning Report
Drill 222mm intermediate directional hole at 2140m.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out)

Drill 222mm intermediate directional hole from 1993m to 2104m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 15-18,000kDaN, RPM - 40-50 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000-10,000ft/lbs, Rotate: 19.0m - 17% / Slide: 92.0m - 83%, ROP: 5.92m/hr. Last survey at 2110mMD, inclination= 81.80°, azimuth= 277.5°, TVD - 2010.91m. We are 2.0m above and 7.5m right of the line of 2017mTVD - 0.0° behind in angle - 8.0° left in azimuth - 7.5m center to center - BURR: 5.2°/30m to target TVD of 2014mTVD.

ConocoPhillips Reps toured the rig and NEB Environmental conducted environmental inspection, results were satisfactory.

24hr Forecast
Drill 222mm intermediate directional hole to intermediate TD (ICP) with accumulated MWD surveys, rig services, connections and circulation times. Circulate 2 bottoms up, wiper trip to 1700m+/-, slip and cut drill line, run in the hole, circulate hole clean, pull out of the hole, rig up loggers and run open hole logs.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Surface, 602.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:45	0.75	INTRM1	DRILL	DRLG	P		1,993.00	1,998.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1993m to 1998m
00:45	01:00	0.25	INTRM1	RIGMNT	SVRG	P		1,998.00	1,998.00	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close crown saver,grease all moving parts,
01:00	01:30	0.50	INTRM1	EVALFM	ELOG	P		1,998.00	1,998.00	Relog 11 m of gamma
01:30	05:45	4.25	INTRM1	DRILL	DRLG	P		1,998.00	2,016.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1998m to 2016 m
05:45	06:00	0.25	INTRM1	RIGMNT	RGRP	T	Rig	2,016.00	2,016.00	Changed out batterys on low angle sencor, on top drive bails
06:00	07:15	1.25	INTRM1	DRILL	DRLG	P		2,016.00	2,026.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2016 m to 2026m
07:15	07:45	0.50	INTRM1	DRILL	SRVY	P		2,026.00	2,026.00	Acclumlated time for dir surveys
07:45	08:00	0.25	INTRM1	DRILL	SFTY	P		2,026.00	2,026.00	Crew handover meeting, Conoco reps. and toolpush present, daily rig walk around inspection R/T
08:00	09:15	1.25	INTRM1	DRILL	DRLG	P		2,026.00	2,036.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2026m to 2036m
09:15	09:30	0.25	INTRM1	RIGMNT	SVRG	P		2,036.00	2,036.00	Rig service function test rig smart anti-collision system, function test Hydrill 13sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
09:30	10:15	0.75	INTRM1	RIGMNT	SVRG	P		2,036.00	2,036.00	Clean suction screen on mud pump, change shaker screen
10:15	15:30	5.25	INTRM1	DRILL	DRLG	P		2,036.00	2,069.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2036m to 2069m
15:30	16:00	0.50	INTRM1	DRILL	SRVY	P		2,069.00	2,069.00	Accumilated directional surveys

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/12/2014
Report #: 20
Depth Progress: 111.00m
Depth End: 2,104.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
16:00	17:00	1.00	INTRM1	DRILL	DRLG	P		2,069.00	2,074.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2069m to 2074m
17:00	17:15	0.25	INTRM1	RIGMNT	SVRG	P		2,074.00	2,074.00	Rig service function test rig smart anti-collision system, function test HCR 2sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:15	19:00	1.75	INTRM1	DRILL	DRLG	P		2,074.00	2,081.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2074m to 2081m
19:00	19:15	0.25	INTRM1	DRILL	SFTY	P		2,081.00	2,081.00	Crew handover meeting, Conoco reps. and toolpush present, daily rig walk around inspection D/O
19:15	23:30	4.25	INTRM1	DRILL	DRLG	P		2,081.00	2,104.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2081m to 2104 m
23:30	00:00	0.50	INTRM1	DRILL	SRVY	P		2,104.00	2,104.00	Acclumlated time for dir surveys

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
10:00	2,055.00	1,010.0	79		20.0	5.0
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
9.2		84/16	261,080	41	15	
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**
700.0	1,060.0	2.6	9.3	52		5.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	4.00	0.00	5,688.71

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
50.00	8.00	102,342.56

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	1	2/11/2014	4	2/16/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
853.00	853.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 4

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
4	222.0mm, FHi18B, RA3595	0.20	2-3-WT-G-1-1-NO-TD	942	6.2

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
20.0/20.0/20.0	2,152.00	173.0	73,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
1,921.00	2,152.00	6.2	231.00	231.00	37.50	37.50

Comment
Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend. NM float sub, NM Pony monel, NM gap sub, 1 x MWD flex NM monel, 2 x NM flex monels, 3 joints HWDP, 1 x Jars, 37 joints HWDP

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Singles	68.0	101.0	1	1.80	2,152.00
Drill pipe - Stands	68.0	101.0	91	1,730.84	2,150.20
4" H.W	65.0	101.0	37	344.46	419.36
Jars	69.0	161.0	1	5.13	74.90
4" H.W	65.0	101.0	3	28.27	69.77
6.75" X/O	59.0	168.0	1	0.80	41.50
6.75" NM Flex Mon	70.0	171.0	1	8.28	40.70
6.75" Flex Monel	70.0	171.0	1	9.20	32.42
6.75" Gap Sub	88.0	162.0	1	0.54	23.22
4.5"H90 FLEX MONEL	70.0	171.0	1	9.35	22.68
NM pony monel	70.0	171.0	1	2.97	1
N.M SUB	72.0	173.0	1	0.54	1
MUD MOTOR	64.0	169.0	1	9.62	9.82

Drilling Parameter: 2,069.00 - 2,104.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
183.00	30.00	5.0	1.700	16,000	40	15,600	71,000	65,000	76,000	71,000	7,950.0

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
14.5	0.00037	3	30.1	512.1	527.7	1,010.0	1,036.8

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
7.53	45.42	19.29	52.6	52.6	25.0	111.8

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Cal Carb SuperCal	10.0	5.280	25.0	SX
INVERT	4.0	1,063.330	1.0	M3
OPTISEAL	2.0	96.200	25.0	SX
Truvis	7.0	149.670	25.0	SX
Versatrol	3.0	47.500	50.0	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/12/2014	1,977.00	46.31	280.45	1,955.07	92.41	47.47	-79.29	88.84	6.42
2/12/2014	1,986.50	48.39	279.96	1,961.51	98.98	48.70	-86.17	95.80	6.67
2/12/2014	1,996.00	50.69	277.67	1,967.67	105.77	49.81	-93.31	102.99	9.11
2/12/2014	2,015.00	57.30	277.60	1,978.83	120.28	51.85	-108.53	118.22	10.44
2/12/2014	2,024.50	60.60	278.50	1,983.73	128.07	52.99	-116.59	126.30	10.70
2/12/2014	2,034.00	64.20	278.50	1,988.13	136.18	54.23	-124.92	134.67	11.37
2/12/2014	2,043.50	66.00	277.50	1,992.13	144.50	55.43	-133.45	143.22	6.37
2/12/2014	2,053.00	67.70	277.00	1,995.87	152.95	56.53	-142.11	151.88	5.56
2/12/2014	2,062.50	70.22	276.74	1,999.28	161.53	57.59	-150.92	160.66	7.99
2/12/2014	2,072.00	72.78	276.88	2,002.29	170.28	58.66	-159.86	169.57	8.10
2/12/2014	2,081.50	75.30	278.37	2,004.91	179.21	59.88	-168.91	178.63	9.15

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/13/2014
Report #: 21
Depth Progress: 48.00m
Depth End: 2,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	21.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
116,225.84	3,539,889.42	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		51.0	582.00	11,650.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
880	475	20	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-32	SE 10 kms

Ops and Depth @ Morning Report
Run open hole logs. Point of refusal 2065.75m. Inc: 71° at 05:10hrs

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 6 - HID, 1 - OBS and 0 - ASA (all closed out)

Drill 222mm intermediate directional hole from 2104m to 2152m (TD) with accumulated MWD surveys, rig services, connections and circulation times. WOB: 15-18,000kDaN, RPM - 40-50 (Motor RPM - 131), Differential pressure: 100-3500kPa, Pump rate: 1.6-1.8 m3/min. Torque: 9,000-10,000ft/lbs, Rotate: 38m - 79% / Slide: 10m - 21%, ROP: 6.4m/hr. Last survey at 2131mMD, inclination= 85.9°, azimuth= 277.9°, TVD - 2013.06m. Projection at bit: Intermediate TD- 2152mMD, inclination: 89°, azimuth: 277.9°, TVD: 2014mTVD. Circulate 2 bottoms up and work drill string, wiper trip to 1699m, slip and cut drill line, run in the hole, circulate hole clean, pull out of the hole and lay down directional tools.

24hr Forecast
Finish running open hole logs, pull wear bushing, rig up power tongs and laydown truck, run 177.8mm intermediate casing, tag bottom, circulate bottoms up, lay down tag joint, make up and land mandrel hanger and landing joint, circulate, rig up cementers, cement 177.8mm intermediate casing.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Surface, 602.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	01:15	1.25	INTRM1	DRILL	DRLG	P		2,104.00	2,112.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2104m to 2112 m
01:15	01:30	0.25	INTRM1	RIGMNT	SVRG	P		2,112.00	2,112.00	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
01:30	06:45	5.25	INTRM1	DRILL	DRLG	P		2,112.00	2,146.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8lobe, 5 stage (0.077rev/L), set at 1.93deg. with 0.81m from bit to bend, from 2112m to 2146m
06:45	07:15	0.50	INTRM1	RIGMNT	RGRP	T	Rig	2,146.00	2,146.00	Replace rubber on bottom of shaker
07:15	07:45	0.50	INTRM1	DRILL	SRVY	P		2,146.00	2,146.00	Acclumlated time for dir surveys
07:45	08:00	0.25	INTRM1	DRILL	SFTY	P		2,146.00	2,146.00	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T.
08:00	08:30	0.50	INTRM1	DRILL	DRLG	P		2,146.00	2,150.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2146m to 2150m
08:30	08:45	0.25	INTRM1	RIGMNT	SVRG	P		2,150.00	2,150.00	Rig service function test rig smart anti-collision system, function test hydrill 13 sec to close, crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
08:45	09:15	0.50	INTRM1	DRILL	DRLG	P		2,150.00	2,152.00	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2150m to 2152m
09:15	10:45	1.50	INTRM1	DRILL	CIRC	P		2,152.00	2,152.00	Circulate hole clean prior to wiper trip
10:45	12:30	1.75	INTRM1	DRILL	WPRT	P		2,152.00	2,152.00	Wiper trip up to 1699m flow checck at 2140m, 2063m, 1699m
[illegible]	13:30	1.00	INTRM1	RIGMNT	SLPC	P		2,152.00	2,152.00	Slip and cut drill line. Cut 54.4m at 2139 MJ
[illegible]	14:45	1.25	INTRM1	DRILL	WPRT	P		2,152.00	2,152.00	Wiper trip in the hole to 2152mMD, bottom
14:45	16:15	1.50	INTRM1	DRILL	CIRC	P		2,152.00	2,152.00	Circulate hole clean and condition mud

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/13/2014
Report #: 21
Depth Progress: 48.00m
Depth End: 2,152.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
16:15	16:30	0.25	INTRM1	RIGMNT	SVRG	P		2,152.00	2,152.00	Rig service function test rig smart anti-collision system, function test HCR 3 sec to open, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
16:30	18:45	2.25	INTRM1	DRILL	TRIP	P		2,152.00	2,152.00	Trip out of the hole, flow checks at 2139m, 2071m, 1615m
18:45	20:00	1.25	INTRM1	DRILL	SFTY	P		2,152.00	2,152.00	Crew handover meeting, safety meeting with night crew, tripping out of hole, Conoco reps. and toolpush present, daily walk around, rig inspection D/O.
20:00	23:15	3.25	INTRM1	DRILL	TRIP	P		2,152.00	2,152.00	Trip out of the hole to open hole log,
23:15	23:30	0.25	INTRM1	DRILL	SFTY	P		2,152.00	2,152.00	safety meeting on handle dir tools & lay down tools
23:30	00:00	0.50	INTRM1	DRILL	PULD	P		2,152.00	2,152.00	handle directional tools & lay down tools

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
06:00	2,152.00	1,010.0	78		20.0	5.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
9.2		85/15	270,784	42	15	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
650.0	1,060.0	2.6	9.2	54		4.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	6.00	1.00	8,636.11

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
56.00	9.00	110,978.67

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	2	2/11/2014	3	2/16/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
854.00	854.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 4

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
4	222.0mm, FHi18B, RA3595	0.20	2-3-WT-G-1-1-NO-TD	942	6.2

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
20.0/20.0/20.0	2,152.00	173.0	73,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
1,921.00	2,152.00	6.2	231.00	231.00	37.50	37.50

Comment
Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend. NM float sub, NM Pony monel, NM gap sub, 1 x MWD flex NM monel, 2 x NM flex monels, 3 joints HWDP, 1 x Jars, 37 joints HWDP

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Singles	68.0	101.0	1	1.80	2,152.00
Drill pipe - Stands	68.0	101.0	91	1,730.84	2,150.20
4" H.W	65.0	101.0	37	344.46	419.36
Jars	69.0	161.0	1	5.13	74.90
4" H.W	65.0	101.0	3	28.27	69.77
6.75" X/O	59.0	168.0	1	0.80	41.50
6.75" NM Flex Mon	70.0	171.0	1	8.28	40.70
6.75" Flex Monel	70.0	171.0	1	9.20	32.42
6.75" Gap Sub	88.0	162.0	1	0.54	23.22
4.5"H90 FLEX MONEL	70.0	171.0	1	9.35	22.68
NM pony monel	70.0	171.0	1	2.97	13.33
N.M SUB	72.0	173.0	1	0.54	10.36
MUD MOTOR	64.0	169.0	1	9.62	9.82

Drilling Parameter: 2,146.00 - 2,152.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
231.00	37.50	6.0	1.700	20,000	40	17,200	73,000	65,000	81,000	73,000	8,

raulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
14.5	0.00037	3	30.1	512.1	492.4	1,010.0	1,034.9

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
7.70	46.90	19.29	52.6	52.6	25.0	111.8

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Barite	70.0	17.040	40.0	SX
INVERT	7.0	1,063.330	1.0	M3

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/13/2014	2,091.00	77.91	276.74	2,007.11	188.26	61.09	-178.07	187.80	9.64
2/13/2014	2,100.50	79.72	277.98	2,008.95	197.40	62.28	-187.32	197.04	6.89
2/13/2014	2,110.00	81.80	277.50	2,010.47	206.62	63.55	-196.61	206.34	6.74
2/13/2014	2,119.50	84.20	277.36	2,011.63	215.90	64.77	-205.96	215.69	7.59
2/13/2014	2,131.00	85.90	277.90	2,012.62	227.20	66.29	-217.31	227.05	4.65
2/13/2014	2,152.00	89.00	277.90	2,013.56	247.93	69.17	-238.09	247.87	4.43

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
r River	207.00	207.00	197.35
Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/14/2014
Report #: 22
Depth Progress: 0.00m
Depth End: 2,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	22.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
494,764.92	4,034,654.34	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		56.0	638.00	12,288.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
	20	20	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-32	NW 10 kms

Ops and Depth @ Morning Report
Run 177.8mm intermediate casing.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 7 - HID, 1 - OBS and 0 - ASA (all closed out)

Lay down directional tools, attempt to pull wear bushing, rig up loggers, run open hole logs: AIT-TLD-HGNS-GR-BHC-TLD2-EMS-EMA-ECRD to point of refusal (2065.75mMD Inc: 71° at 05:10hrs), pull wear bushing, rig up power tongs and laydown truck, run 177.8mm intermediate casing.

24hr Forecast
Run 177.8mm intermediate casing, tag bottom, circulate bottoms up, lay down tag joint, make up and land mandrel hanger and landing joint, circulate, rig up cementers, cement 177.8mm intermediate casing, rig out cementers, lay down landing joint, set Stream-Flo packoff seal assembly and pressure test, make up BHA, run in the hole, drill out cement, float and shoe, conduct formation integrity test, drill 156mm lateral hole with accumulated MWD surveys, rig services, connections and circulation times.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Intermediate, 2,152.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:30	0.50	INTRM1	DRILL	PULD	P		2,152.00	2,152.00	Handle directional tools & lay down tools
00:30	01:15	0.75	INTRM1	DRILL	RURD	T	Wellhead/Tree	2,152.00	2,152.00	Attempt to pull out damaged wear bushing.
01:15	01:30	0.25	INTRM1	RIGMNT	SVRG	P		2,152.00	2,152.00	Rig service function test rig smart anti-collision system, function test blind ram's 3 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
01:30	01:45	0.25	INTRM1	EVALFM	SFTY	P		2,152.00	2,152.00	Safety meeting with Schlumberger prior to open hole log
01:45	07:45	6.00	INTRM1	EVALFM	ELOG	P		2,152.00	2,152.00	Wireline open hole logs, AIT-TLD-HGNS-GR-BHC-TLD2-EMS-EMA-ECRD tools, to point of refusal at 2065.75mMD, Inc: 71deg, with Schlumberger
07:45	08:00	0.25	INTRM1	EVALFM	SFTY	P		2,152.00	2,152.00	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T.
08:00	11:30	3.50	INTRM1	EVALFM	ELOG	P		2,152.00	2,152.00	Wireline logs with Schlumberger.
11:30	11:45	0.25	INTRM1	EVALFM	SFTY	P		2,152.00	2,152.00	Safety meeting prior to rigging out loggers.
11:45	13:00	1.25	INTRM1	EVALFM	PULD	P		2,152.00	2,152.00	Rig out Schlumberger loggers.
13:00	13:15	0.25	INTRM1	RIGMNT	SVRG	P		2,152.00	2,152.00	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor and HPU
13:15	16:00	2.75	INTRM1	DRILL	RURD	T	Wellhead/Tree	2,152.00	2,152.00	Mill and attempt to retreive damaged wear bushing/modify wear bushing puller
16:00	16:15	0.25	INTRM1	RIGMNT	SVRG	P		2,152.00	2,152.00	Rig service function test rig smart anti-collision system, function test HCR 3 sec to open, function test crown saver,grease all moving parts, check oil levels in floor motor and HPU
16:15	18:45	2.50	INTRM1	DRILL	RURD	T	Wellhead/Tree	2,152.00	2,152.00	Mill and attempt to retreive damaged wear bushing/modify wear bushing puller
18:45	19:00	0.25	INTRM1	DRILL	SFTY	P		2,152.00	2,152.00	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T.daily walk around rig inspection D/O.
19:00	19:30	0.50	INTRM1	DRILL	RURD	T	Wellhead/Tree	2,152.00	2,152.00	Retreive wear bushing

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/14/2014
Report #: 22
Depth Progress: 0.00m
Depth End: 2,152.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
19:30	20:45	1.25	INTRM1	CASING	SFTY	P		2,152.00	2,152.00	Safety meeting, with Hallmark power tongs and Miko lay down truck, prior to rigging up
20:45	22:00	1.25	INTRM1	CASING	RNCS	P		2,152.00	2,152.00	Rig up Hallmark power tongs and Miko lay down truck, rig in hole fill line
22:00	22:30	0.50	INTRM1	CASING	SFTY	P		2,152.00	2,152.00	Safety meeting prior to running 177.8mm intermediate casing.
22:30	00:00	1.50	INTRM1	CASING	RNCS	P		2,152.00	2,152.00	Make up float shoe, 1x joint of 177.8mm intermediate casing, float collar. Test floats, run in 177.8mm intermediate casing. with Hallmark power tongs

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
10:00	2,152.00	1,010.0	78		20.0	5.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
9.2		85/15	270,784	42	15	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
650.0	1,060.0	2.6	9.2	54		4.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	6.00	1.00	

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
62.00	10.00	110,978.67

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	3	2/11/2014	2	2/16/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
855.00	855.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/14/2014
Report #: 22
Depth Progress: 0.00m
Depth End: 2,152.00mKB
Rig Release Date: 2/23/2014

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/15/2014
Report #: 23
Depth Progress: 0.00m
Depth End: 2,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	23.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
118,131.01	4,152,785.35	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		61.0	686.00	12,974.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
	20	20	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-32	SW 5 kms

Ops and Depth @ Morning Report
Run in the hole at 729m.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 8 - HID, 0 - OBS and 0 - ASA (all closed out)

Run 177.8mm intermediate casing, tag bottom, circulate bottoms up, lay down tag joint, make up and land mandrel hanger and landing joint, circulate, rig up cementers, cement 177.8mm intermediate casing (plug down at 19:08hrs on February 15/.14 - Full pre-flush returns: 8m3 of CW8 and 8m3 of MudPushII Spacer, cement at surface by calculated volume results), floats not holding after pressure testing casing to 18,500kPA for 10 minutes, shut in until cement hardens, rig out cementers, lay down landing joint, set Stream-Flo packoff seal assembly.

Midnight to 6:00am: Pressure test Stream-Flo packoff seal assembly, set wear bushing, make up directional BHA, run in the hole.

24hr Forecast
Run in the hole, drill out cement, float and shoe, conduct formation integrity test, drill 156mm lateral hole with accumulated MWD surveys, rig services, connections and circulation times.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Intermediate, 2,152.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	INTRM1	RIGMNT	SVRG	P		2,152.00	2,152.00	Rig service function test rig smart anti-collision system, function test hydril 14 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
00:15	04:00	3.75	INTRM1	CASING	RNCS	P		2,152.00	2,152.00	Run 177.8mm intermediate Casing, 1- 177.8mm float shoe, 1-joint of 177.8mm, 38.69kg/m, P-110, LTC casing, 1-177.8mm float collar, 160-joints of 177.8mm, 38.69kg/m, P-110, LTC intermediate casing, from 2152mMD to 5.20m.
04:00	07:45	3.75	INTRM1	CASING	RNCS	P		2,152.00	2,152.00	Run 35 Volant Hydroform centralizers from 2152mMD to 1698m, run 10-Weatherford Micro Seal Packers, from 1818mMD to 1698mMD, RUN 41 Topco bow spring centralizers to surface
07:45	08:00	0.25	INTRM1	CASING	SFTY	P		2,152.00	2,152.00	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T.daily walk around rig inspection D/O.
08:00	08:15	0.25	INTRM1	RIGMNT	SVRG	P		2,152.00	2,152.00	Rig service function test rig smart anti-collision system, function test HCR 2 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
08:15	09:15	1.00	INTRM1	CASING	RNCS	P		2,152.00	2,152.00	Fill every 20 joints and break circulation every 700m. Tag bottom at 2152mMD. Total length of 177.8mm intermediate casing: 2151.70m, float collar at 2136.75mMD
09:15	10:30	1.25	INTRM1	CASING	CIRC	P		2,152.00	2,152.00	Circulate 2 bottoms up, hole clean. Rig out laydown truck and power tongs
10:30	11:00	0.50	INTRM1	CASING	RNCS	P		2,152.00	2,152.00	Lay down joint of casing install mandrell hanger and land
11:00	16:00	5.00	INTRM1	CEMENT	CIRC	T	Waiting	2,152.00	2,152.00	Wait on Schlumberger cementers. Circulate casing on bottom
	16:15	0.25	INTRM1	CEMENT	SFTY	P		2,152.00	2,152.00	Safety meetimg with Schlumberger cementers, prior to cement 177.8mm intermediate casing. Reviewed jsa.#105 rig to and cement casing

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/15/2014
Report #: 23
Depth Progress: 0.00m
Depth End: 2,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
16:15	19:30	3.25	INTRM1	CEMENT	CMNT	P		2,152.00	2,152.00	Rig up Schlumberger cementers to cement 177.8mm intermediate casing, pump 8m3 of 1000kg/m3 CW8 pre-flush, stop and pressure test line to 21;000kPA (held OK), bleed off pressure, then pump 8m3 of 1200kg/m3 MUDPUSH II pre-flush spacer and then pump 19 tonnes/26.2m3 (35% excess) of HiLITE 1400 Lead cement with 0.2% Anti Foam + 0.6% Fluid Loss + 0.6% Low Temp Dispersant + 60L/tonne Gas Control Agent + 0.3% Antisettling from 1500m to 5.20m then pump 16 tonnes/12.3m3 (35% excess) of 1900kg/m3 Conventional Class G Tail Cement with 0.6% Fluid Loss + 0.5% Dispersant + 0.2% Anti Foam + 0.2% Retarder + 72L/tonne Gas Control Agent from 2152m to 1500m. Drop plug and displace 42.6m3 of invert. Bump plug 3,500kpa over final circulating pressure of 9,500kpa at 19:08hrs on February 15th 2014, bleed pressure and check floats (holding OK). Pressure test casing to 18,500kpa for 10 minutes (holding OK). Bleed pressure, check floats (floats not holding), shut in until cement set up, then rig out cementers. Full pre-flush returns: 8m3 of CW8 and 8m3 of MudPushII Spacer, cement at surface by calculated volume results.
19:30	19:45	0.25	INTRM1	RIGMNT	SVRG	P		2,152.00	2,152.00	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
19:45	22:15	2.50	INTRM1	CEMENT	WOC	P		2,152.00	2,152.00	Wait on cement with valves on cementing head closed
22:15	23:30	1.25	INTRM1	CEMENT	WOC	P		2,152.00	2,152.00	Opened valves on cementing head, drained head, vac truck sucked out cementing head and landing joint, drain BOP stack, removed cementing head, turned landing joint out of mandrel hanger, lay down landing joint
23:30	00:00	0.50	INTRM1	CEMENT	WOC	P		2,152.00	2,152.00	Pick up 1 joint of 4" drill pipe, installed Pack-off Seal Assembly running tool, pick up Pack-off Seal Assembly, run in and set

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
10:00	2,152.00	1,023.0	78		19.0	5.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
9.3		84/16	270,784	42	14	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
640.0	1,060.0	2.7	9.7	24		4.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	2.00	0.00	2,126.66

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
64.00	10.00	113,105.33

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	4	2/11/2014	1	2/16/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
856.00	856.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/15/2014
Report #: 23
Depth Progress: 0.00m
Depth End: 2,152.00mKB
Rig Release Date: 2/23/2014

...ling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
.../2014	2/20/2014	127.0		
.../2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
INVERT	2.0	1,063.330	1.0	M3

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
...(5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/16/2014
Report #: 24
Depth Progress: 202.00m
Depth End: 2,354.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	24.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
434,836.45	4,587,621.80	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		59.0	664.00	13,638.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
2,450	1,030	18	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-34	NW 10 kms

Ops and Depth @ Morning Report
Drill 156mm lateral directional hole at 2475m.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 7 - HID, 1 - OBS and 0 - ASA (all closed out)

Set and pressure test Stream-Flo packoff seal assembly, make up directional BHA, run in the hole, drill out cement, float and shoe, drill 156mm hole from 2152m to 2157m, circulate bottoms up, perform formation integrity test to a gradient of 12.5kPA/m (surface applied pressure: 5025kPA for 10 minutes), drill 156mm lateral hole from 2157m to 2354m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-10,000kDaN, RPM - 35-80 (Motor RPM - 152), Differential pressure: 2200-3000kPa, Pump rate: 1.1 m3/min. Torque: 7-10,000ft/lbs, Rotate: 177m - 88% / Slide: 25m - 12%, ROP: 25.25m/hr. Last survey at 2437.50mMD, inclination= 89.6°, azimuth= 285.9°, TVD - 2017.5m. We are 0.52m below and 9.14m left of the line.

24hr Forecast
Drill 156mm lateral directional hole with accumulated MWD surveys, rig services, connections and circulation times.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Intermediate, 2,152.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	INTRM1	RIGMNT	SVRG	P		2,152.00	2,152.00	Rig service function test rig smart anti-collision system, function test blind ram's 3 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
00:15	01:15	1.00	INTRM1	WHDBOP	PRTS	P		2,152.00	2,152.00	Tighten bolt on Packoff Seal Assembly, pressure test Packoff Seal Assembly, held OK. Unscrew from packoff, make up running tool for and install wear bushing
01:15	01:30	0.25	INTRM1	DRILL	SFTY	P		2,152.00	2,152.00	Safety meeting prior to pick up directional tools
01:30	03:30	2.00	INTRM1	DRILL	PULD	P		2,152.00	2,152.00	Pick up and make up, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, MWD and LWD tools, 2-joints of HWDP, Jars, 1-joint of HWDP
03:30	07:45	4.25	INTRM1	DRILL	TRIP	P		2,152.00	2,152.00	Trip in hole with, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, MWD and LWD tools, 2-joints of HWDP, Jars, 1-joint of HWDP
07:45	08:00	0.25	INTRM1	DRILL	SFTY	P		2,152.00	2,152.00	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T.daily walk around rig inspection D/O.
08:00	08:15	0.25	INTRM1	RIGMNT	SVRG	P		2,152.00	2,152.00	Rig service function test rig smart anti-collision system, function test pipe rams 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
08:15	09:00	0.75	INTRM1	DRILL	TRIP	P		2,152.00	2,152.00	Trip in the hole to 1996m, fill pipe and test MWD tool
09:00	09:15	0.25	INTRM1	DRILL	SFTY	P		2,152.00	2,152.00	BOP drill crew in position well secure in 90 sec
09:15	10:15	1.00	INTRM1	DRILL	CIRC	P		2,152.00	2,152.00	Wash to bottom from 1996m Tag cement at 2133m
10:15	11:15	1.00	INTRM1	CEMENT	DRLG	P		2,152.00	2,152.00	Drill cement float and shoe, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2132m to 2152m
11:15	11:45	0.50	INTRM1	DRILL	DRLG	P		2,152.00	2,157.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2152m to 2157m
11:45	12:15	0.50	INTRM1	DRILL	CIRC	P		2,157.00	2,157.00	Circulate bottoms up, prior to formation integrity test

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/16/2014
Report #: 24
Depth Progress: 202.00m
Depth End: 2,354.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
12:15	12:30	0.25	INTRM1	DRILL	FIT	P		2,157.00	2,157.00	Conduct formation integrity test, hold pressure for 10 min. AT 4860kpa. Held OK.
12:30	14:00	1.50	PROD1	DRILL	DRLG	P		2,157.00	2,174.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2157m to 2174m
14:00	14:15	0.25	PROD1	RIGMNT	SVRG	P		2,174.00	2,174.00	Clean suction screen for mud pumps
14:15	15:45	1.50	PROD1	DRILL	DRLG	P		2,174.00	2,210.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2174m to 2210m
15:45	16:00	0.25	PROD1	DRILL	SRVY	P		2,210.00	2,210.00	Accumilated directional serveys
16:00	16:15	0.25	PROD1	RIGMNT	SVRG	P		2,210.00	2,210.00	Rig service function test rig smart anti-collision system, function test hydrill 13 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
16:15	19:00	2.75	PROD1	DRILL	DRLG	P		2,210.00	2,267.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2210m to 2267 m
19:00	19:15	0.25	PROD1	DRILL	SFTY	P		2,267.00	2,267.00	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection
19:15	23:15	4.00	PROD1	DRILL	DRLG	P		2,267.00	2,354.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2267m to 2354 m
23:15	00:00	0.75	PROD1	DRILL	SRVY	P		2,354.00	2,354.00	Acclumlated time for dir surveys

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
14:30	2,192.00	985.0	61		13.0	4.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
7.2		84/16	196,931	32	14	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
490.0	1,123.0	2.7	7.7	33		4.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	4.00	0.00	6,782.26

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
68.00	10.00	119,887.59

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	0	2/16/2014	5	2/21/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
857.00	857.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 5

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
5	156.0mm, MS1613UBPXX, JH8401	0.19	------	581	23.7

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
11.1/11.1/11.1/11.1/11.1/11.1	3,142.00	131.0	68,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
2,152.00	3,152.00	23.7	1,000.00	1,000.00	42.25	42.25

Comment
Smith 156mm MSi613 PDC bit, Pathfinder 7/8 lobe, 3.8 stage, set at 1.36 deg. rotate at 0.135/L, 1.66m from bit to bend, (rpm at 0.135/L) mud motor, MWD and LWD tools 2 JOINTS HWDP, Jars, 1 joint of HWDP.

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands	68.0	101.0	80	1,521.47	3,142.00
4" H.W	65.0	101.0	36	335.34	1,620.53
4 " D.P	70.0	101.0	126	1,198.30	1,285.19
4" H.W	65.0	101.0	1	9.12	86.89
Jar	59.0	131.0	1	5.07	77.77
4" H.W	65.0	101.0	3	28.27	72.70
X/O	58.0	128.0	1	0.82	44.43
Slick monel	67.0	119.0	1	9.50	43.61
x/o	56.0	120.0	1	0.87	34.11

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/16/2014
Report #: 24
Depth Progress: 202.00m
Depth End: 2,354.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
4.75 LWD ABS	70.0	131.0	1	4.79	33.24
4.75 LWD SAWR	70.0	130.0	1	6.18	28.45
Landing Sub	63.0	119.0	1	0.58	22.27
Slick monel	67.0	119.0	1	9.47	21.69
NM Pony Monel	57.0	119.0	1	3.10	12.22
Mud motor	54.0	123.0	1	8.93	9.12

Drilling Parameter: 2,210.00 - 2,354.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
202.00	10.25	21.3	1.000	10,000	80	15,600	67,000	62,000	72,000	67,000	10,600.0

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
7.6	0.00040	3	28.7	455.3	910.0	985.0	1,031.0

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
8.67	2.04	25.67	83.7	83.7	14.7	177.5

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Barite	56.0	17.040	40.0	SX
CALCIUM CHLORIDE	4.0	43.920	40.0	SX
[illegible]RT	4.0	1,063.330	1.0	M3
[illegible]	49.0	7.170	20.0	SX
Truvis	7.0	149.670	25.0	SX

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/16/2014	2,171.00	88.00	279.90	2,014.06	266.78	72.11	-256.85	266.76	3.53

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/16/2014
Report #: 24
Depth Progress: 202.00m
Depth End: 2,354.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/16/2014	2,190.00	88.00	280.50	2,014.72	285.69	75.47	-275.54	285.68	0.95
2/16/2014	2,209.00	88.50	281.10	2,015.30	304.62	79.03	-294.19	304.62	1.23
2/16/2014	2,228.00	89.20	281.20	2,015.68	323.58	82.70	-312.83	323.58	1.12
2/16/2014	2,247.00	89.30	281.50	2,015.93	342.54	86.44	-331.46	342.54	0.50
2/16/2014	2,266.00	88.20	276.50	2,016.34	361.45	89.41	-350.21	361.43	8.08
2/16/2014	2,285.00	89.30	281.00	2,016.76	380.35	92.30	-368.98	380.31	7.31
2/16/2014	2,304.00	89.80	281.90	2,016.91	399.33	96.07	-387.60	399.27	1.63
2/16/2014	2,323.00	90.00	281.90	2,016.94	418.32	99.99	-406.20	418.25	0.32

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/17/2014
Report #: 25
Depth Progress: 483.00m
Depth End: 2,837.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	25.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
123,592.84	4,711,214.64	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		55.0	642.00	14,280.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
5,000	1,370		0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Snowing	-28	NW 10 kms

Ops and Depth @ Morning Report
Drill 156mm lateral directional hole at 2980m.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 7 - HID, 0 - OBS and 0 - ASA (all closed out)

Drill 156mm lateral hole from 2354m to 2837m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-10,000kDaN, RPM - 60-85 (Motor RPM - 152), Differential pressure: 2200-3000kPa, Pump rate: 0.9-1.0 m3/min. Torque: 7-10,000ft/lbs, Rotate: 433m - 89.6% / Slide: 50m - 10.4%, ROP: 29.78m/hr. Last survey at 2951mMD, inclination= 89.40°, azimuth= 285.8°, TVD - 2024.24m. We are 2.78m below and 0.51m left of the line.

24hr Forecast
Drill 156mm lateral directional hole to TD with accumulated MWD surveys, rig services, connections and circulation times. Circulate hole clean (2 bottoms up), wiper trip to 2152mMD (casing shoe), wash in to bottom, circulate hole clean (3+ bottoms up), pull out of the hole to run 114.3mm liner, laydown 1000m+ of drill pipe.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Intermediate, 2,152.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:30	0.50	PROD1	DRILL	DRLG	P		2,354.00	2,362.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2354m to 2362 m
00:30	00:45	0.25	PROD1	RIGMNT	SVRG	P		2,362.00	2,362.00	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
00:45	01:00	0.25	PROD1	DRILL	SFTY	P		2,362.00	2,362.00	Held b.o.p drill with crew well secure in 85 sec
01:00	07:00	6.00	PROD1	DRILL	DRLG	P		2,362.00	2,514.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2362 m to 2514 m
07:00	07:45	0.75	PROD1	DRILL	SRVY	P		2,514.00	2,514.00	Acclumlated time for dir surveys
07:45	08:00	0.25	PROD1	DRILL	SFTY	P		2,514.00	2,514.00	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T.daily walk around rig inspection D/O.
08:00	08:15	0.25	PROD1	RIGMNT	SVRG	P		2,514.00	2,514.00	Rig service function test rig smart anti-collision system,function test crown saver, function test hydill 13 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
08:15	15:15	7.00	PROD1	DRILL	DRLG	P		2,514.00	2,686.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2514m to 2686m
15:15	16:00	0.75	PROD1	DRILL	SRVY	P		2,686.00	2,686.00	Acclumlated time for directonal surveys
16:00	17:15	1.25	PROD1	DRILL	DRLG	P		2,686.00	2,704.00	Drill 156mm hole, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2686m to 2704m
17:15	17:30	0.25	PROD1	RIGMNT	SVRG	P		2,704.00	2,704.00	Rig service function test rig smart anti-collision system, function test crown saver, function test HCR 3 sec to open, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:30	17:45	0.25	PROD1	DRILL	SFTY	P		2,704.00	2,704.00	Held BOP drill with crew, well secure in 90 sec
17:45	19:00	1.25	PROD1	DRILL	DRLG	P		2,704.00	2,723.00	Drill 156mm hole, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2704m to 2723 m
19:00	19:15	0.25	PROD1	DRILL	SFTY	P		2,723.00	2,723.00	Crew handover meeting, Conoco reps. and toolpush

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/17/2014
Report #: 25
Depth Progress: 483.00m
Depth End: 2,837.00mKB
Rig Release Date: 2/23/2014

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
19:15	20:15	1.00	PROD1	DRILL	DRLG	P		2,723.00	2,761.00	Drill 156mm hole, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2723m to 2761 m
20:15	20:45	0.50	PROD1	RIGMNT	RGRP	T	Rig	2,761.00	2,761.00	Changed out seat & valve in pump # 2 flywheel side
20:45	23:15	2.50	PROD1	DRILL	DRLG	P		2,761.00	2,837.00	Drill 156mm hole, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L) 1.36deg bend 1.66m bit to bend mud motor from 2761m to 2837m
23:15	00:00	0.75	PROD1	DRILL	SRVY	P		2,837.00	2,837.00	Accumulated time for directional surveys

Fluid/Mud Chks: Mud Engineer: Corey Clark

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
06:30	2,500.00	1,050.0	73		19.0	5.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
9.5		83/17	213,540	32	18	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
580.0	1,247.0	2.8	10.6	44		4.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	8.00	1.00	16,302.49

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
76.00	11.00	136,190.08

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	0	2/17/2014	5	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
858.00	858.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 5

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/h...
5	156.0mm, MS1613UBPXX, JH8401	0.19	------	581	23.7

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
11.1/11.1/11.1/11.1/11.1/11.1	3,142.00	131.0	68,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
2,152.00	3,152.00	23.7	1,000.00	1,000.00	42.25	42.25

Comment
Smith 156mm MSi613 PDC bit, Pathfinder 7/8 lobe, 3.8 stage, set at 1.36 deg. rotate at 0.135/L, 1.66m from bit to bend, (rpm at 0.135/L) mud motor, MWD and LWD tools 2 JOINTS HWDP, Jars, 1 joint of HWDP.

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands	68.0	101.0	80	1,521.47	3,142.00
4" H.W	65.0	101.0	36	335.34	1,620.53
4 " D.P	70.0	101.0	126	1,198.30	1,285.19
4" H.W	65.0	101.0	1	9.12	86.89
Jar	59.0	131.0	1	5.07	77.77
4" H.W	65.0	101.0	3	28.27	72.70
X/O	58.0	128.0	1	0.82	44.43
Slick monel	67.0	119.0	1	9.50	43.61
x/o	56.0	120.0	1	0.87	34.11
4.75 LWD ABS	70.0	131.0	1	4.79	33.24
4.75 LWD SAWR	70.0	130.0	1	6.18	28.45
Landing Sub	63.0	119.0	1	0.58	22.27
Slick monel	67.0	119.0	1	9.47	21.69
NM Pony Monel	57.0	119.0	1	3.10	12.22
Mud motor	54.0	123.0	1	8.93	9.12

Drilling Parameter: 2,686.00 - 2,837.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
685.00	29.75	25.2	1.000	9,000	80	16,800	68,000	73,000	63,000	68,000	11,

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/17/2014
Report #: 25
Depth Progress: 483.00m
Depth End: 2,837.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
8.1	0.00042	3	28.7	485.4	1,101.8	1,050.0	1,105.5

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
10.42	7.40	25.67	83.7	83.7	14.7	177.5

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Barite	125.0	17.040	40.0	SX
CALCIUM CHLORIDE	36.0	43.920	40.0	SX
INVERT	9.0	1,063.330	1.0	M3
Truvis	8.0	149.670	25.0	SX
Versacoat HF	1.0	883.570	55.0	BBL
VERSAMUL	1.0	940.470	22.68	BBL

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/17/2014	2,342.50	90.40	283.80	2,016.87	437.82	104.33	-425.21	437.73	2.99
2/17/2014	2,342.50	90.40	283.80	2,016.87	437.82	104.33	-425.21	437.73	2.99
2/17/2014	2,361.50	90.70	284.40	2,016.69	456.82	108.96	-443.63	456.73	1.06
2/17/2014	2,380.50	90.60	283.40	2,016.48	475.82	113.52	-462.08	475.73	1.59
2/17/2014	2,399.50	89.40	283.60	2,016.48	494.81	117.96	-480.55	494.72	1.92
2/17/2014	2,418.50	89.88	284.94	2,016.59	513.81	122.64	-498.96	513.72	2.25
2/17/2014	2,437.50	89.60	285.90	2,016.68	532.81	127.69	-517.28	532.72	1.58
2/17/2014	2,514.00	87.80	286.80	2,018.42	609.22	149.22	-590.66	609.17	0.79
2/17/2014	2,552.00	88.10	287.00	2,019.78	647.15	160.26	-627.00	647.12	0.28
2/17/2014	2,571.00	88.30	287.10	2,020.37	666.12	165.83	-645.15	666.10	0.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/17/2014
Report #: 25
Depth Progress: 483.00m
Depth End: 2,837.00mKB
Rig Release Date: 2/23/2014

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/17/2014	2,589.50	89.10	285.40	2,020.79	684.61	171.00	-662.91	684.59	3.05
2/17/2014	2,609.00	89.70	285.60	2,021.00	704.11	176.21	-681.70	704.09	0.97
2/17/2014	2,628.00	89.80	287.00	2,021.08	723.10	181.54	-699.93	723.08	2.22
2/17/2014	2,703.50	89.60	286.70	2,021.47	798.54	203.43	-772.19	798.54	0.14
2/17/2014	2,722.50	89.00	287.30	2,021.71	817.52	208.98	-790.36	817.52	1.34
2/17/2014	2,741.50	88.90	284.90	2,022.06	836.51	214.25	-808.61	836.51	3.79
2/17/2014	2,760.50	89.10	285.60	2,022.39	855.51	219.25	-826.94	855.51	1.15
2/17/2014	2,779.50	89.30	286.40	2,022.65	874.50	224.49	-845.20	874.50	1.30
2/17/2014	2,798.50	89.40	286.30	2,022.87	893.50	229.83	-863.43	893.50	0.22

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/18/2014
Report #: 26
Depth Progress: 305.00m
Depth End: 3,142.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	26.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
125,005.66	4,836,220.30	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		55.0	642.00	14,922.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
5,200	4,500	27	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-33	N 15 kms

Ops and Depth @ Morning Report
Make up slick BHA and run in the hole.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out)

Drill 156mm lateral hole from 2837m to 3142m with accumulated MWD surveys, rig services, connections and circulation times. WOB: 6-10,000kDaN, RPM - 60-85 (Motor RPM - 152), Differential pressure: 2200-3000kPa, Pump rate: 0.9-1.0 m3/min. Torque: 7-10,000ft/lbs, Rotate: 300m - 98.4% / Slide: 5.0m - 1.6%, ROP: 31.28m/hr. Last survey at 3103mMD, inclination= 89.9°, azimuth= 283.7°, TVD - 2024.92m. We are 2.13m below and 0.51m left of the line. Pull out of the hole due to mud motor failure.

24hr Forecast
Run in the hole, wash in from 2152m to 3142m, drill 156mm lateral hole to 3152mMD, circulate 3+ bottoms up, pull out to 2152m, rig up laydown truck, laydown 1000m of drill pipe, pull out of the hole, rig up power tongs.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Intermediate, 2,152.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	PROD1	RIGMNT	SVRG	P		2,837.00	2,837.00	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
00:15	07:00	6.75	PROD1	DRILL	DRLG	P		2,837.00	3,015.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2837m to 3015m
07:00	07:45	0.75	PROD1	DRILL	SRVY	P		3,015.00	3,015.00	Acclumlated time for surveys
07:45	08:00	0.25	PROD1	DRILL	SFTY	P		3,015.00	3,015.00	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T.daily walk around rig inspection D/O.
08:00	08:30	0.50	PROD1	DRILL	DRLG	P		3,015.00	3,028.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 3015m to 3028m
08:30	08:45	0.25	PROD1	RIGMNT	SVRG	P		3,028.00	3,028.00	Rig service function test rig smart anti-collision system, function test Hydrill 25 sec to close and open , function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
08:45	13:30	4.75	PROD1	DRILL	DRLG	P		3,028.00	3,142.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 3028m to 3142m
13:30	16:00	2.50	PROD1	DRILL	TRIP	P		3,142.00	3,142.00	Trip out of the hole due to mud motor failure, flow checks at 3125m, 3008m
16:00	16:15	0.25	PROD1	DRILL	TRIP	P		3,142.00	3,142.00	Trip out of the hole, flow check at 2606m
16:15	16:45	0.50	PROD1	RIGMNT	RGRP	T	Rig	3,142.00	3,142.00	Change slip dies
16:45	17:45	1.00	PROD1	DRILL	TRIP	P		3,142.00	3,142.00	Trip out of the hole, flow checks at 2316m
17:45	18:00	0.25	PROD1	RIGMNT	SVRG	P		3,142.00	3,142.00	Rig service function test rig smart anti-collision system, function test HCR 3 sec to open and close , function test crown saver,grease all moving parts, check oil levels in floor motor and HPU
18:00	18:45	0.75	PROD1	DRILL	TRIP	P		3,142.00	3,142.00	Trip out of the hole, to lay down directional tools
18:45	19:00	0.25	PROD1	DRILL	SFTY	P		3,142.00	3,142.00	Crew handover meeting, Conoco reps. and toolpush present
19:00	00:00	5.00	PROD1	DRILL	TRIP	P		3,142.00	3,142.00	Trip out of the hole, flow checks at 1437m

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/18/2014
Report #: 26
Depth Progress: 305.00m
Depth End: 3,142.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Fluid/Mud Chks: Mud Engineer: Ed Thompson

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
10:30	3,070.00	1,140.0	68		22.0	4.5

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
7.2		86/14	266,597	36	13	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
615.0	1,372.0	3.2	12.4	39		4.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	6.00	1.00	7,443.31

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
82.00	12.00	143,633.39

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	1	2/17/2014	4	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
859.00	859.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 5

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
5	156.0mm, MS1613UBPXX, JH8401	0.19	-------	581	23.7

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
11.1/11.1/11.1/11.1/11.1/11.1	3,142.00	131.0	68,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
2,152.00	3,152.00	23.7	1,000.00	1,000.00	42.25	42.25

Comment
Smith 156mm MSi613 PDC bit, Pathfinder 7/8 lobe, 3.8 stage, set at 1.36 deg. rotate at 0.135/L, 1.66m from bit to bend, (rpm at 0.135/L) mud motor, MWD and LWD tools 2 JOINTS HWDP, Jars, 1 joint of HWDP.

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands	68.0	101.0	80	1,521.47	3,1
4" H.W	65.0	101.0	36	335.34	1,6
4 " D.P	70.0	101.0	126	1,198.30	1,285.19
4" H.W	65.0	101.0	1	9.12	86.89
Jar	59.0	131.0	1	5.07	77.77
4" H.W	65.0	101.0	3	28.27	72.70
X/O	58.0	128.0	1	0.82	44.43
Slick monel	67.0	119.0	1	9.50	43.61
x/o	56.0	120.0	1	0.87	34.11
4.75 LWD ABS	70.0	131.0	1	4.79	33.24
4.75 LWD SAWR	70.0	130.0	1	6.18	28.45
Landing Sub	63.0	119.0	1	0.58	22.27
Slick monel	67.0	119.0	1	9.47	21.69
NM Pony Monel	57.0	119.0	1	3.10	12.22
Mud motor	54.0	123.0	1	8.93	9.12

Drilling Parameter: 3,015.00 - 3,142.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
990.00	41.75	24.2	1.000	10,000	80	17,100	66,000	72,000	60,000	66,000	11,100.0

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)
8.8	0.00046	3	28.7	527.0	1,374.1	1,140.0	1,209.2

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...
11.53	10.79	25.67	83.7	83.7	14.7	177.5

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/18/2014
Report #: 26
Depth Progress: 305.00m
Depth End: 3,142.00mKB
Rig Release Date: 2/23/2014

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
INVERT	7.0	1,063.330	1.0	M3

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/18/2014	2,818.00	89.70	286.60	2,023.02	912.99	235.36	-882.13	912.99	0.65
2/18/2014	2,818.00	89.70	286.60	2,023.02	912.99	235.36	-882.13	912.99	0.65
2/18/2014	2,837.00	89.90	286.60	2,023.09	931.98	240.78	-900.34	931.98	0.32
2/18/2014	2,856.00	89.90	284.70	2,023.12	950.98	245.91	-918.64	950.98	3.00
2/18/2014	2,875.00	88.80	283.80	2,023.34	969.98	250.58	-937.05	969.98	2.24
2/18/2014	2,894.00	89.00	285.50	2,023.70	988.97	255.39	-955.43	988.97	2.70
2/18/2014	2,913.00	89.10	286.00	2,024.02	1,007.97	260.55	-973.71	1,007.97	0.81
2/18/2014	2,932.00	89.10	285.60	2,024.31	1,026.96	265.72	-991.99	1,026.96	0.63
2/18/2014	2,951.00	89.40	285.80	2,024.56	1,045.96	270.86	-1,010.28	1,045.96	0.57
2/18/2014	3,008.00	89.70	284.50	2,025.01	1,102.96	285.76	-1,065.30	1,102.96	0.70
2/18/2014	3,027.00	89.90	285.10	2,025.08	1,121.96	290.61	-1,083.67	1,121.95	1.00
2/18/2014	3,046.00	89.70	284.30	2,025.14	1,140.96	295.43	-1,102.04	1,140.95	1.30
2/18/2014	3,065.00	89.80	283.80	2,025.23	1,159.95	300.04	-1,120.48	1,159.95	0.81
2/18/2014	3,065.00	89.90	284.90	2,025.23	1,159.95	300.04	-1,120.48	1,159.95	0.81
2/18/2014	3,103.00	89.90	283.70	2,025.29	1,197.95	309.43	-1,157.30	1,197.95	0.95

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
(7deg/30m)	1,817.00	1,815.65	1,816.00
er Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/19/2014
Report #: 27
Depth Progress: 10.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	27.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
109,050.85	4,945,271.15	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		53.0	618.00	15,540.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
2,580	1,060	19	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Cloudy	-38	NW 10 kms

Ops and Depth @ Morning Report
Laydown drill pipe at 1282m.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 5 - HID, 0 - OBS and 0 - ASA (all closed out)

Pull out of the hole due to mud motor failure, lay down directional tools, make up bit, run in the hole, wash in from 2152m to 3142m, drill 156mm lateral hole to 3152mMD (TD), circulate 2 bottoms up. Projected survey at bit: 3152mMD (TD), inclination= 89.9°, azimuth= 283.7°, TVD - 2025m.

24hr Forecast
Laydown drill pipe, rig up power tongs and laydown truck, run 114.3mm production liner and Volant Hydroforms with liner top packer followed by drill pipe and heavy weight drill pipe, strap in and drift drill pipe and heavy weight drill pipe, tag bottom, circulate bottoms up and clean hole.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Intermediate, 2,152.00mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	02:15	2.25	PROD1	DRILL	TRIP	P		3,142.00	3,142.00	Pull out of hole for piled-up mud motor flow checks at 519 m and out of hole
02:15	02:30	0.25	PROD1	RIGMNT	SVRG	P		3,142.00	3,142.00	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
02:30	02:45	0.25	PROD1	DRILL	SFTY	P		3,142.00	3,142.00	Safety meeting with directional hands
02:45	05:30	2.75	PROD1	DRILL	PULD	P		3,142.00	3,142.00	Handle directional tools and lay down tools
05:30	06:00	0.50	PROD1	RIGMNT	SVRG	P		3,142.00	3,142.00	Clean up rig floor and prepare to run in hole
06:00	07:45	1.75	PROD1	DRILL	PULD	P		3,142.00	3,142.00	Make up, 156mm Smith MSi613 PDC bit with float sub and float, run in hole
07:45	08:00	0.25	PROD1	DRILL	SFTY	P		3,142.00	3,142.00	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection R/T
08:00	09:30	1.50	PROD1	DRILL	TRIP	P		3,142.00	3,142.00	Trip into the hole to 1022m.
09:30	09:45	0.25	PROD1	RIGMNT	SVRG	P		3,142.00	3,142.00	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
09:45	10:30	0.75	PROD1	RIGMNT	SLPC	P		3,142.00	3,142.00	Slip and cut 30m of drill line 10884mj
10:30	12:30	2.00	PROD1	DRILL	TRIP	P		3,142.00	3,142.00	Trip in the hole from 1022m to 1595m fill pipe and flow check at 1595m
12:30	13:00	0.50	PROD1	RIGMNT	RGRP	T	Rig	3,142.00	3,142.00	Repair grabber box dies, on top drive
13:00	14:15	1.25	PROD1	DRILL	TRIP	P		3,142.00	3,142.00	Trip in the hole from 1595m to 2138m
14:15	16:00	1.75	PROD1	DRILL	REAM	P		3,142.00	3,142.00	Wash and ream from 2152m to 2320m
16:00	16:15	0.25	PROD1	RIGMNT	SVRG	P		3,142.00	3,142.00	Rig service function test rig smart anti-collision system, function test crown saver function test pipe rams 8 seconds close open,grease all moving parts, check oil levels in floor motor, pumps and HPU
16:15	18:45	2.50	PROD1	DRILL	REAM	P		3,142.00	3,142.00	Wash and ream from 2320m to 2604m
18:45	19:00	0.25	PROD1	DRILL	SFTY	P		3,142.00	3,142.00	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection D/O
19:00	22:45	3.75	PROD1	DRILL	REAM	P		3,142.00	3,142.00	Wash and ream from 2604m to 3142m
22:45	23:15	0.50	PROD1	DRILL	DRLG	P		3,142.00	3,152.00	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, from 3142m to 3152m
23:15	00:00	0.75	PROD1	DRILL	CIRC	P		3,152.00	3,152.00	Circulate condition hole at 3152m

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/19/2014
Report #: 27
Depth Progress: 10.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Fluid/Mud Chks: Mud Engineer: Ed Thompson

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
17:00	3,142.00	1,140.0	70		20.0	5.0

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
11.6		86/14	277,984	38	11	

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...
671.0	1,345.0	2.9	16.0	19		4.0

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
	2.00	0.00	4,969.00

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
84.00	12.00	148,602.39

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	2	2/17/2014	3	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
860.00	860.00

Safety Incidents

Date	Com	Category

Drill String: BHA # 6

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)
5 RR	156.0mm, MS1613UBPXX, JH8401	0.19	1-1-NO-G-1-1-NO-TD	581	20.0

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)
11.1/11.1/11.1/11.1/11.1/11.1	3,155.92	152.0	66,000

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)
2,152.00	3,152.00	23.7	1,000.00	1,000.00	42.25	42.25

Comment: Smith 156mm MSi613 PDC bit, HWDP slick

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)
Drill pipe - Stands			83	1,578.72	3,155.92
4" H.W	65.0	101.0	30	279.16	1,5
4 " D.P	70.0	101.0	126	1,198.30	1,29
4" H.W	65.0	101.0	1	9.12	99.74
Jar	59.0	131.0	1	5.07	90.62
4" H.W	65.0	101.0	9	84.45	85.55
152mm BIT SUB	60.0	152.0	1	0.91	1.10

Drilling Parameter: 3,142.00 - 3,152.00 mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq
10.00	0.50	20.0	1.000	8,000	80	12,600	66,000	59,000	71,000	66,000	12,300.0

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error: A drill string component contains a null value in OD

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/19/2014
Report #: 27
Depth Progress: 10.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
Barite	42.0	17.040	40.0	SX
INVERT	4.0	1,063.330	1.0	M3

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Basic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/20/2014
Report #: 28
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	28.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
158,174.35	5,103,445.50	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		52.0	582.00	16,122.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)
		290	0

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-41	Calm

Ops and Depth @ Morning Report
Cement 114.3mm production liner.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 9 - HID, 0 - OBS and 0 - ASA (all closed out)

Circulate 2 bottoms up, pull out of the hole, rig up laydown truck, laydown drill pipe, rig up power tongs and laydown truck, run 114.3mm production liner and Volant Hydroforms with liner top packer followed by drill pipe and heavy weight drill pipe, strap in and drift drill pipe and heavy weight drill pipe.

24hr Forecast
Cement liner to liner top, displace with fresh water, bump plug, set liner with liner top packer, circulate excess cement out and displace hole with fresh water, rig up laydown truck, laydown drill pipe and heavy weight drill pipe, run in the rest of the drill pipe in the derrick, laydown drill pipe, rig up USIT loggers, run USIT log, rig up to run pressure pass USIT log.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Production, 3,148.70mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	01:00	1.00	PROD1	DRILL	CIRC	P		3,152.00	3,152.00	Circulate condition hole at 3152m. prior to trip out to run 114.3mm casing liner
01:00	01:15	0.25	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Rig service function test rig smart anti-collision system, function test crown saver function test Hdril 23 seconds close open,grease all moving parts, check oil levels in floor motor, pumps and HPU
01:15	05:30	4.25	PROD1	DRILL	TRIP	P		3,152.00	3,152.00	Pull out of hole, with flow checks 3152m to 1307m, to run 114.3mm production liner
05:30	05:45	0.25	PROD1	DRILL	SFTY	P		3,152.00	3,152.00	Safety meeting with Trottier Pipe Handlers, lay down machine
05:45	07:45	2.00	PROD1	DRILL	TRIP	P		3,152.00	3,152.00	Rig up lay down machine and lay down drill pipe from 1307m to 995m
07:45	08:00	0.25	PROD1	DRILL	SFTY	P		3,152.00	3,152.00	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection R/T
08:00	09:00	1.00	PROD1	DRILL	PULD	P		3,152.00	3,152.00	Lay down drill pipe from 995m to 99m
09:00	10:00	1.00	PROD1	DRILL	TRIP	P		3,152.00	3,152.00	Trip out of the hole rack 5 stands of HW and breakdown BHA
10:00	10:30	0.50	PROD1	DRILL	TRIP	P		3,152.00	3,152.00	Install bushing puller on drill pipe and pull wear bushing
10:30	10:45	0.25	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Rig service function test rig smart anti-collision system, function test crown saver, function test blind rams 8 sec to close and open,grease all moving parts, check oil levels in floor motor, pumps and HPU
10:45	11:45	1.00	PROD1	CASING	RNCS	P		3,152.00	3,152.00	Rig up power tongs to run 114.3mm production casing liner
11:45	12:00	0.25	PROD1	CASING	SFTY	P		3,152.00	3,152.00	Safety meeting with hallmark power tongs and trottier pipe handlers
12:00	15:15	3.25	PROD1	CASING	RNCS	P		3,152.00	3,152.00	Run 114.3mm, 17.26kg/m, P-110, LTC production casing liner, to 716m
15:15	15:30	0.25	PROD1	CASING	CIRC	P		3,152.00	3,152.00	Fill casing and break circulation at 716m
15:30	16:00	0.50	PROD1	CASING	RNCS	P		3,152.00	3,152.00	Run 114.3mm, 17.26kg/m, P-110, LTC production casing liner, from 716m to 1016m
16:00	16:30	0.50	PROD1	CASING	RNCS	P		3,152.00	3,152.00	Run 4 1/2 liner from 716m to 1016m
16:30	16:45	0.25	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Rig service function test rig smart anti-collision system, function test crown saver, function test H.C.R 3 sec to open and close,grease all moving parts, check oil levels in floor motor, pumps and HPU

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/20/2014
Report #: 28
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
16:45	18:30	1.75	PROD1	CASING	RNCS	P		3,152.00	3,152.00	Run 1727.49m of 114.3mm, 17.26kg/m, P-110, LTC production casing liner
18:30	19:00	0.50	PROD1	CASING	CIRC	P		3,152.00	3,152.00	Run 1 stand of 4" drill pipe, break circulation
19:00	19:15	0.25	PROD1	CASING	SFTY	P		3,152.00	3,152.00	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection D/O
19:15	20:00	0.75	PROD1	CASING	RNCS	P		3,152.00	3,152.00	Rig out Hallmark power tongs and Trottier lay down truck
20:00	22:45	2.75	PROD1	CASING	TRIP	P		3,152.00	3,152.00	Run in hole slow with drill pipe and HWDP on 114.3mm, 17.26kg/m, P-110, LTC production casing liner, packer hanger
22:45	23:00	0.25	PROD1	RIGMNT	RGRP	T	Rig	3,152.00	3,152.00	Replace hydraulic hose on top drive
23:00	00:00	1.00	PROD1	CASING	CIRC	P		3,152.00	3,152.00	Top fill and break circulation at 12m above 177.8mm casing shoe, 2140m

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	3	2/17/2014	2	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
861.00	8

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	
2/16/2014 16:00	2,209.00	1.045	15,600	

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)
2/20/2014	3,153.00	89.90	283.90	2,025.38	1,247.94	321.36	-1,205.85	1,247.94	0.12

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/21/2014
Report #: 29
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	29.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
86,237.67	5,189,683.17	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		59.0	637.00	16,759.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-41	SW 10 kms

Ops and Depth @ Morning Report	Wellbore
Run USIT log #1.	Original Hole

Last 24hr Summary

No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out)

Run 114.3mm production liner with drill pipe and heavy weight drill pipe, strap in and drift drill pipe and heavy weight drill pipe, tag bottom at 3152mMD, circulate bottoms up and clean hole, rig up cementers, cement liner at 3148.7mMD up to liner top, drop dart and displace with fresh water, bump plug 3,500kPA over final circulating pressure, bleed off, check floats, pressure up to 28,000kPA and set liner with liner top packer at 1727.49mMD, circulate out pre-flush and 2m3 of excess cement out, displace hole with fresh water, rig out cementers, flowcheck, rig up laydown truck, laydown drill pipe and heavy weight drill pipe, run in the rest of the drill pipe in the derrick, laydown drill pipe, clean up catch can and flow-t, rig out flow-t and flowline.

24hr Forecast

Run USIT log #1, run USIT log #2 (pressure pass), rig out Schlumberger loggers and lubricator, rig up power tongs and laydown truck, run 114.3mm tie-back liner, space out, land mandrel seal assembly and tie onto top of liner top packer in compression, remove landing joint, pressure test 114.3mm x 177.8mm annulus to 15,000kPA using Schlumberger cementers, nipple down BOP.

Daily Contacts

Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String

uction, 3,148.70mKB

e Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Rig service function test rig smart anti-collision system, function test crown saver function test pipe rams 8 seconds close open,grease all moving parts, check oil levels in floor motor, pumps and HPU
00:15	03:30	3.25	PROD1	CASING	TRIP	P		3,152.00	3,152.00	Run in hole slow with drill pipe and HWDP on 114.3mm, 17.26kg/m, P-110, LTC production casing liner, packer hanger
03:30	06:00	2.50	PROD1	CASING	CIRC	P		3,152.00	3,152.00	Fill hole break circulation, circulate and clean hole
06:00	06:15	0.25	PROD1	CEMENT	SFTY	P		3,152.00	3,152.00	Safety meeting on cementing with Schlumberger prior to cementing 114.3mm production liner
06:15	07:45	1.50	PROD1	CEMENT	CMNT	P		3,152.00	3,152.00	Rig up Schlumberger cementers to cement 114.3mm production liner, pump 8m3 of 1000kg/m3 CW8 pre-flush, stop and pressure test lines to 35,000kpa (held OK), bleed off pressure, pump 5m3 of 1200kg/m3 MUDPUSH II pre-flush spacer
07:45	08:00	0.25	PROD1	CEMENT	SFTY	P		3,152.00	3,152.00	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection R/T
08:00	10:15	2.25	PROD1	CEMENT	CMNT	P		3,152.00	3,152.00	Pump 20 tonne/14.7m3 (20% excess) of 1900kg/m3 Conventional Class "G" Tail Cement with 0.6% Fluid Loss + 0.5% Dispersant + 0.2% Retarder + 72L/tonne Gas Control Agent, from 3148.70mMD to 1727.49mMD. Drop dart and displace 19.8m3 of fresh water. Bump plug 3,500kpa over final circulating pressure of 19,200kPA at 9:05hrs on February 21st 2014, bleed pressure and check floats (holding OK). pressure up to 28,000kPA and set liner with liner top packer at 1727.49mMD, circulate out pre-flush and 2m3 of excess cement out, displace hole with fresh water, rig out cementers, flow check
[illegible]	10:45	0.50	PROD1	DRILL	PULD	P		3,152.00	3,152.00	Safety meeting with trottier pipe handlers, rig up Laydown truck
10:45	11:00	0.25	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Rig service function test rig smart anti-collision system, function test crown saver function test Hydill 23 seconds close open,grease all moving parts, check oil levels in floor motor, pumps and HPU

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/21/2014
Report #: 29
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
11:00	16:00	5.00	PROD1	DRILL	PULD	P		3,152.00	3,152.00	Rig up lay down truck, lay down drill pipe and heavy weight drill pipe, run in the rest of drill pipe in the derrick, lay down drill pipe
16:00	16:15	0.25	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Rig service function test rig smart anti collision function test blind rams 8 second close open check fluids on floor motor and HPU
16:15	17:00	0.75	PROD1	DRILL	RNCS	P		3,152.00	3,152.00	Rig out Lay down truck to run USIT log and pressure USIT log
17:00	19:00	2.00	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Pull rotary table wash and clean invert out of table and bushings
19:00	19:15	0.25	PROD1	DRILL	SFTY	P		3,152.00	3,152.00	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection D/O
19:15	21:30	2.25	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Clean up floor, clean out invert from bird baths
21:30	00:00	2.50	PROD1	WHDBOP	NUND	P		3,152.00	3,152.00	Tear out and clean flow line, flow nipple , rig out and clean catch can, clean ring seal seat and bolt holes in top of BOP for installing pressure stripper head for Pressure USIT log

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
05:30	3,155.00	1,135.0	130			
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)
			4,253.32

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)
84.00	12.00	152,8[illegible]1

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	4	2/17/2014	1	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
862.00	862.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/21/2014
Report #: 29
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

np Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

d / Mud Additive Amounts

Des	Consumed	Cost	Size	Units
INVERT	4.0	1,063.330	1.0	M3

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/22/2014
Report #: 30
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	30.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
648,596.54	5,838,279.71	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		55.0	599.00	17,358.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-32	W 10 kms

Ops and Depth @ Morning Report
Finish nippling up and pressure testing wellhead.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 5 - HID, 0 - OBS and 0 - ASA (all closed out)

Clean up catch can and flow-t, rig out flow-t and flowline, rig up Schlumberger lubricator, rig up Schlumberger tools, run USIT log #1, run USIT log #2 (pressure pass), rig out Schlumberger loggers and lubricator, rig up power tongs and laydown truck, run 114.3mm tie-back liner, space out, land mandrel seal assembly and tie onto top of liner top packer in compression (19,000dan), pressure test liner hanger to 35,000kPA for 15 minutes (held OK), pressure test 114.3mm x 177.8mm annulus to 15,000kPA for 10 minutes using Schlumberger cementers (held OK), nipple down BOP.

24hr Forecast
Finish nippling up and pressure testing wellhead, clean and organize rig to rack, move miscellaneous loads, rig out rig floor, laydown top drive and torque tube.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Production, 3,148.70mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	00:15	0.25	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Rig service function test rig smart anti-collision system, function test crown saver, function test blind rams 8 sec to close and open,grease all moving parts, check oil levels in floor motor, pumps and HPU
00:15	02:30	2.25	PROD1	WHDBOP	NUND	P		3,152.00	3,152.00	install flange for Pressure USIT log
02:30	02:45	0.25	PROD1	WHDBOP	SFTY	P		3,152.00	3,152.00	Safety meeting on pressure logging with schlumberger
02:45	05:00	2.25	PROD1	EVALWB	ELOG	P		3,152.00	3,152.00	Rig up pressure USIT log
05:00	07:45	2.75	PROD1	EVALWB	ELOG	P		3,152.00	3,152.00	Wire line log with Schlumberger
07:45	08:00	0.25	PROD1	EVALWB	SFTY	P		3,152.00	3,152.00	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection R/T
08:00	11:15	3.25	PROD1	EVALWB	ELOG	P		3,152.00	3,152.00	Run USIT log #2 pressure pass
11:15	12:45	1.50	PROD1	EVALWB	ELOG	P		3,152.00	3,152.00	Rig out loggers and pressure pass head
12:45	13:00	0.25	PROD1	RIGMNT	SVRG	P		3,152.00	3,152.00	Rig service function test rig smart anti-collision system, function test crown saver, function test HCR 3 sec to open and close,grease all moving parts, check oil levels in floor motor, pumps and HPU
13:00	14:00	1.00	PROD1	CASING	RNCS	P		3,152.00	3,152.00	Rig up power tongs and lay down truck
14:00	14:15	0.25	PROD1	CASING	SFTY	P		3,152.00	3,152.00	Safety meeting with hallmark power tongs and trottier pipe handlers
14:15	19:00	4.75	PROD1	CASING	RNCS	P		3,152.00	3,152.00	Run 114.3mm, 17.26kg, p-110 casing tie back liner, space out
19:00	19:15	0.25	PROD1	CASING	SFTY	P		3,152.00	3,152.00	Crew handover meeting, Conoco reps and toolpush present, daily walk around, rig inspection D/O
19:15	21:30	2.25	PROD1	CASING	RNCS	P		3,152.00	3,152.00	Make up tie-back hanger and landing joint, land mandrel seal assembly and tie into top of liner top packer
21:30	21:45	0.25	PROD1	CASING	SFTY	P		3,152.00	3,152.00	Safety meeting with Schlumberger, on pressure testing pack-off seal assembly
21:45	22:15	0.50	PROD1	CASING	PRTS	P		3,152.00	3,152.00	Pressure test liner hanger seals to 35,000kPA for 15 minutes and 114.3mm x 177.8mm annulus to 15,000kPA for 10 minutes using Schlumberger cementers (held OK).
22:15	22:45	0.50	PROD1	CASING	SFTY	P		3,152.00	3,152.00	Safety meeting on rig out laydown truck and power tongs
22:45	23:30	0.75	PROD1	CASING	RURD	P		3,152.00	3,152.00	Rig out Trottier laydown truck and Hallmark power tongs
23:30	23:45	0.25	PROD1	WHDBOP	SFTY	P		3,152.00	3,152.00	Safety meeting on nipple down BOP's
23:45	00:00	0.25	DEMOB	WHDBOP	NUND	P		3,152.00	3,152.00	Nipple down BOP's

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig: Beaver Drilling Ltd. 2

Report Date: 2/22/2014
Report #: 30
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	5	2/17/2014	0	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
863.00	863.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note

trifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/23/2014
Report #: 31
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig: Beaver Drilling Ltd. 2

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	31.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
326,061.20	6,164,340.91	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		50.0	550.00	17,908.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-27	W 10 kms

Ops and Depth @ Morning Report
Tear out to rack rig.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 6 - HID, 0 - OBS and 0 - ASA (all closed out)
Nipple down BOP, nipple up and pressure test wellhead, clean and organize rig to rack, move miscellaneous loads, rig out rig floor, laydown top drive and torque tube, rig out derrick, laydown derrick.
Rig release at 23:59hrs on February 23rd, 2014.

24hr Forecast
Clean and organize rig to rack, move miscellaneous loads south and to rack site, tear out rig to rack.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Production, 3,148.70mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00	00:15	0.25	DEMOB	RIGMNT	SVRG	P		3,152.00	3,152.00	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
00:15	03:00	2.75	DEMOB	WHDBOP	NUND	P		3,152.00	3,152.00	Nipple Down BOP's & rack back in sub
03:00	03:15	0.25	DEMOB	WHDBOP	SFTY	P		3,152.00	3,152.00	Safety meeting on Installing Well head with Stream-Flo
03:15	06:30	3.25	DEMOB	WHDBOP	SEQP	P		3,152.00	3,152.00	Install Well Head and pressure test seal assembly
06:30	07:45	1.25	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Tear out flare lines, flare stack, pick up all planks and boards
07:45	08:00	0.25	DEMOB	MOVE	SFTY	P		3,152.00	3,152.00	Crew handover meeting, Conoco reps and toolpush present, daily walk around, rig inspection R/T
08:00	08:15	0.25	DEMOB	RIGMNT	SVRG	P		3,152.00	3,152.00	RIG SERVICE
08:15	09:30	1.25	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Tear out pumps, all lines to pumps, prep pipe tubs and rentals, move off location to rack site
09:30	16:00	6.50	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Rig out top drive, torque tube and prepare derrick to lay down
16:00	16:15	0.25	DEMOB	RIGMNT	SVRG	P		3,152.00	3,152.00	RIG SERVICE
16:15	17:15	1.00	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Continue to rig out top drive, HPU, torque tube and prepare derrick to lay down
17:15	18:45	1.50	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Tear out steam and water lines, tear out boilers and prepare small boiler to send to Nisku for inspection. Winterize rig to move to rack site
18:45	19:00	0.25	DEMOB	MOVE	SFTY	P		3,152.00	3,152.00	Crew hand over meeting
19:00	21:45	2.75	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Tear out and prepare to lay down derrick
21:45	22:15	0.50	DEMOB	MOVE	SFTY	P		3,152.00	3,152.00	Safety meeting, complete safety inspection of derrick prior to lay down, RY CD BB ER
22:15	00:00	1.75	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Continue to tear out rig to move to rack site

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)
Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45
Rig: Beaver Drilling Ltd. 2

Report Date: 2/23/2014
Report #: 31
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	6	2/17/2014	-1	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
864.00	864.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: 1, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
1	NATIONAL	8-P-80	140.0	2[illegible]

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/16/2014 16:00	2,209.00	0.608	5,153	78
2/16/2014 16:00	2,209.00	1.045	15,600	134

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/15/2014	2/15/2014	127.0		
2/16/2014	2/16/2014	127.0		

Mud Pump: 2, NATIONAL, 8-P-80

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)
2	NATIONAL	8-P-80	140.0	216.0

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)
2/19/2014 23:45	3,152.00	0.975	12,600	125
2/20/2014 00:00	3,143.00	0.647	6,414	83

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)
2/20/2014	2/20/2014	127.0		
2/21/2014	2/21/2014	127.0		

Shaker Screens

Des	Start Date	End Date	Scr Sz X	Scr Sz Y	Note
1	2/23/2014				4
1	2/23/2014		100		2
1	2/23/2014		80		1

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
2	BOS Solutions	5500	

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,040.0	0.400	1,710.0	0.200

Centrifuge/Cyclone: HGS Centrifuge, BOS Solutions, 5500

Number	Make	Model	Diameter (mm)
1	BOS Solutions	5500	

ıtrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)
2/21/2014 00:00	3.00	2100	1,100.0	0.400	1,790.0	0.200

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/24/2014
Report #: 32
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig:

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	32.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
102,682.00	6,267,022.91	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		50.0	550.00	18,458.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-28	NW

Ops and Depth @ Morning Report
Wait until morning to rack the rig and rental equipment and truck some misc equipment south.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 4 - HID, 0 - OBS and 0 - ASA (all closed out)

Laydown derrick, clean and organize rig to rack, move miscellaneous loads south and to rack site, tear out rig to rack, spots rig mats at rack site, haul some rig loads to rack site. Wait until morning to rack the rig and rental equipment and truck some misc equipment south.

24hr Forecast
Rack the rig and rental equipment and truck some misc equipment south.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Production, 3,148.70mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
0	21:00	21.00	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Laydown derrick, clean and organize rig to rack, move miscellaneous loads south and to rack site, tear out rig to rack, spots rig mats at rack site, haul some rig loads to rack site.
21:00	00:00	3.00	DEMOB	MOVE	WODL	P		3,152.00	3,152.00	Wait until morning to rack the rig and rental equipment and truck some misc equipment south.

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	7	2/17/2014	-2	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
865.00	865.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

ment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/24/2014
Report #: 32
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig:

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: <des>, <make>, <model>

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)

Centrifuge/Cyclone: <typ>, <make>, <model>

Number	Make	Model	Diameter (mm)

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/25/2014
Report #: 33
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig:

/ UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	33.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
102,682.00	6,369,704.91	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		58.0	672.00	19,130.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-28	NW

Ops and Depth @ Morning Report
Wait until morning to finish racking the rental equipment and truck some misc equipment south.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents. 4 - HID, 0 - OBS and 0 - ASA (all closed out)

Wait until morning, hold safety meeting prior to rack rig and equipment, lower A-legs, split the derrick, rack the rig buildings with derrick and substructure and rental equipment. Truck cuttings to disposal. Truck some misc equipment south. Wait until morning to finish racking the rig at the rack site, truck cuttings to disposal, unloading mud products at rack site, cover sawdust bins and mud products, locking and spotting buildings at rack site.

24hr Forecast
Rack the rig at the rack site, truck cuttings to disposal, unloading mud products at rack site, cover sawdust bins and mud products, lock up buildings at rack site, clean P-20 location.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Production, 3,148.70mKB

Time Log

rt /e	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	07:00	7.00	DEMOB	MOVE	WODL	P		3,152.00	3,152.00	Wait until morning to rack the rig and rental equipment and truck some misc equipment south.
07:00	21:00	14.00	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	hold safety meeting prior to rack rig and equipment, lower A-legs, split the derrick, rack the rig buildings with derrick and substructure and rental equipment. Truck cuttings to disposal. Truck some misc equipment south.
21:00	00:00	3.00	DEMOB	MOVE	WODL	P		3,152.00	3,152.00	Wait until morning to finish racking the rig at the rack site, truck cuttings to disposal, unloading mud products at rack site, cover sawdust bins and mud products, locking and spotting buildings at rack site.

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)

Low Gravity Solids (%)	MBT (kg/m³)	Oil Water Ratio	Chlorides (mg/L)	Calcium (mg/L)	Lime (kg/m³)	Potassium (mg/L)

Electric Stab (V)	ECD - Manual Entry (k...	Sand (%)	Solids, Corr. (%)	T Flowline (°C)	HTHP Pressure (kPa)	HTHP Filtrate (mL/30...

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	8	2/17/2014	-3	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
866.00	866.00

Safety Incidents

Date	Com	Category

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig:

Report Date: 2/25/2014
Report #: 33
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: <des>, <make>, <model>

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)

Centrifuge/Cyclone: <typ>, <make>, <model>

Number	Make	Model	Diameter (mm)

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/26/2014
Report #: 34
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig:

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	34.00

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
102,682.00	6,472,386.91	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		58.0	672.00	19,802.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-28	NW

Ops and Depth @ Morning Report
Wait until morning.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents.

Wait until morning, finish rack the rig at the rack site, truck cuttings to disposal, unloading mud products at rack site, cover sawdust bins and mud products, locking and spotting buildings at rack site. Wait until morning to finish trucking cuttings to disposal, cover sawdust bins and rack last mix off bin, lock buildings at rack site, fly home for breakup.

24hr Forecast
Finish trucking cuttings to disposal, cover sawdust bins and rack last mix off bin, lock buildings at rack site, fly home for breakup.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Production, 3,148.70mKB

Time Log

Start	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	07:00	7.00	DEMOB	MOVE	WODL	P		3,152.00	3,152.00	Wait until morning.
07:00	19:00	12.00	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Finish rack the rig at the rack site, truck cuttings to disposal, unloading mud products at rack site, cover sawdust bins and mud products, locking and spotting buildings at rack site.
19:00	00:00	5.00	DEMOB	MOVE	WODL	P		3,152.00	3,152.00	Wait until morning to finish trucking cuttings to disposal, cover sawdust bins and rack last mix off bin, lock buildings at rack site, fly home for breakup.

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	9	2/17/2014	-4	2/22/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
867.00	867.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/26/2014
Report #: 34
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig:

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: <des>, <make>, <model>

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)

Centrifuge/Cyclone: <typ>, <make>, <model>

Number	Make	Model	Diameter (mm)

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	20.85
Slater River	207.00	207.00	197.35
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Report Date: 2/27/2014
Report #: 35
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Rig:

UWI	Surface Legal Location	MaxWell Job Number	License No.
200/D-020/L094P1699	P-20 65-00 126-45	JOB01@2006	EL 470

Ground Elevation (m)	Original KB/RT Elevation (m)	Casing Flange Elevation (m)	Original Spud Date	Days From Spud (days)
284.15	289.35	283.95	1/29/2014	34.67

Job Category	Primary Job Type	Actual Start Date	End Date	Final Job Status	Final Report?
DRILLING	DRILLING ORIGINAL	1/24/2014 00:00	2/23/2014 23:59	DRILLED	Yes

Daily Cost Total (Cost)	Cumulative Cost (Cost)	Total AFE (Cost)	AFE+Supp Amt (Cost)	AFE / RFE / Maint.#	Estimated Days
1,494,440.55	7,966,827.46	7,122,600.00	7,122,600.00	10351812	

Planned Depth (TMD) (mKB)	Override TVD (mKB)	Head Count	Personnel Total Hours (hr)	Cum Personnel Total Hours (hr)
		58.0	672.00	20,474.00

Avg Connection Gas	Avg Background Gas	Avg Trip Gas	Max H2S (ppm)

Road Condition	Weather	Temperature (°C)	Wind
Ice/Snow	Clear	-17	NW

Ops and Depth @ Morning Report
Break up.

Wellbore
Original Hole

Last 24hr Summary
No incidents or accidents.

Wait until morning, finish trucking cuttings to disposal, cover sawdust bins and rack last mix off bin, lock buildings at rack site, fly home for breakup.

24hr Forecast
Break up.

Daily Contacts
Drilling Superintend, Sheldon Vamplew, 403-999-1302; Drilling Engineer, Mike Greener, 403-771-5039; WS Supervisor, Richard Turgeon, 780-387-1706; WS Supervisor, Dave Opper, 403-863-8205; Rig Manager, Rick Yavis, 780-718-2962; Command Centre, 403-910-0357

Last Casing String
Production, 3,148.70mKB

Time Log

Start Time	End Time	Dur (hr)	Phase	Op Code	Activity Code	Time P-T-X	Trbl Code	Start Depth (mKB)	End Depth (mKB)	Operation
00:00	07:00	7.00	DEMOB	MOVE	WODL	P		3,152.00	3,152.00	Wait until morning.
07:00	16:00	9.00	DEMOB	MOVE	DMOB	P		3,152.00	3,152.00	Finish trucking cuttings to disposal, cover sawdust bins and rack last mix off bin, lock buildings at rack site, fly home for breakup.

Fluid/Mud Chks: Mud Engineer: <Mud Engineer?>

Time	Depth (mKB)	Density (kg/m³)	Funnel Viscosity (s/L)	pH	PV Override (Pa•s)	YP Override (Pa)
Low Gravity Solids (%)	**MBT (kg/m³)**	**Oil Water Ratio**	**Chlorides (mg/L)**	**Calcium (mg/L)**	**Lime (kg/m³)**	**Potassium (mg/L)**
Electric Stab (V)	**ECD - Manual Entry (k...**	**Sand (%)**	**Solids, Corr. (%)**	**T Flowline (°C)**	**HTHP Pressure (kPa)**	**HTHP Filtrate (mL/30...**

API Filtrate (mL/30min)	Mud Lost to Surface (m³)	Mud Lost to Hole (m³)	Daily Mud Field Est (Cost)

Cum Mud Lost to Surface (m³)	Cum Mud Lost to Hole (m³)	Cumulative Mud Cost (Cost)

Last BOP Drill

Type	Days Last Chk (...	Last Date	Days Until Next...	Next Check Date
BOP Drill	9	2/17/2014	-4	2/23/2014

Days Since Lost Time Incident (days)	Days Since Recordable Incident (days)
868.00	868.00

Safety Incidents

Date	Com	Category

Drill String: BHA # <BHA No.?>

Bit Run	Drill Bit	Length (m)	IADC Bit Dull	TFA (incl Noz) (mm²)	BHA ROP (m/hr)

Nozzles (mm)	String Length (m)	OD (mm)	Max Rotating Hook Load (daN)

Depth In (mKB)	Depth Out (mKB)	Avg ROP (m/hr)	Depth This Job (m)	Total Depth Drilled b...	Job Drill Hrs (hr)	Total Drill Hrs (hr)

Comment

Drill String Components

Item Des	ID (mm)	OD (mm)	Jts	Len (m)	Cum Len (m)

Drilling Parameter: <depthstart> - <depthend> mKB

Cum Depth (m)	Cum Drill...	Int ROP (...	Flow Rate...	WOB (daN)	RPM (r...	SPP (kPa)	Drill Str Wt (d...	SO Str Wt (daN)	PU Str Wt (daN)	Off-Btm Str W...	Drill Tq

ConocoPhillips Canada

Daily Drilling
COPRC MIRROR LAKE P-20 65-00 126-45

Rig:

Report Date: 2/27/2014
Report #: 35
Depth Progress: 0.00m
Depth End: 3,152.00mKB
Rig Release Date: 2/23/2014

Hydraulic Calculations

Bit Hydraulic Powe...	HP/Area (kW/mm²)	% P @ bit (%)	Bit Jet Velocity (m/s)	Bit dP (kPa)	P Drop Annular (kPa)	Mud Density (kg/m³)	ECD End (kg/m³)

Drill String Volume (m³)	Bit to Shoe Volume (m³)	Vol Shoe to Top (m³)	Min Casing AV (m/min)	Max Casing AV (m/min)	Min Open Hole AV (m/...	Max Open Hole AV (m/...

Error

Mud Pump: <des>, <make>, <model>

Pump Number	Make	Model	Rod Diameter (mm)	Stroke Length (mm)

Pump Checks

Date	Depth (mKB)	Q Flow (m³/min)	P (kPa)	Strokes (spm)

Pump Operations

Start Date	End Date	Liner Size (mm)	P Max (kPa)	Vol/Stk OR (m³/stk)

Centrifuge/Cyclone: <typ>, <make>, <model>

Number	Make	Model	Diameter (mm)

Centrifuge/Cyclone Checks

Date	Hrs (hr)	RPM (rpm)	Dens OF (kg/m³)	Q OF (L/min)	Dens UF (kg/m³)	Q UF (L/min)

Fluid / Mud Additive Amounts

Des	Consumed	Cost	Size	Units

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	NS (m)	EW (m)	VS (m)	DLS (°/30m)

Formations

Formation Name	Drill Top MD (mKB)	Drill Top (TVD) (mKB)	Prog Top TVD (mKB)
Little Bear	43.00	43.00	[illegible]
Slater River	207.00	207.00	19[illegible]
Arctic Red	954.00	953.52	932.35
Martin House	1,110.00	1,109.49	1,084.35
Imperial	1,140.00	1,139.48	1,118.35
KOP (5deg/30m)	1,731.00	1,730.40	1,730.73
KOP (7deg/30m)	1,817.00	1,815.65	1,816.00
Upper Canol	1,902.70	1,896.20	1,897.35
Lower Canol	1,935.80	1,924.43	1,929.35

IX. Tour sheets – Drilling Rig

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140227_1A | Vendor Software Version: RMS 2013.8.14.27104 | Year: 2014 | Month: 02 | Day: 27

License No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	Rig Release Date Time
10351812	152	29-Jan-2014 00:00	23-Feb-2014 23:59

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager
RICHARD TURGEON	RICK YAVIS

DAILY CHECKS

	OP	RM
	RT	RY
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required		
(4.) Well License & Shell Diagram Posted		
(5.) Flare Lines Staked		
(6.) BOP Drills Performed		
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines		
(1.) Rig Site Health & Safety Meeting (one hr each month)	RY	
(2.) CAODC Rig Safety Inspection Checklist (one/quarter)		
(3.) Hoist Inspection before Raising or Lowering		
(4.) Crown Saver Checked		
(5.) Motor Kills Checked		

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Casing	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1																									8.00	8.00
Tour 2																									8.00	8.00
Tour 3																									8.00	8.00
TOTAL																									24.00	24.00

Daily Costing: Op Fuel

FUEL @ 08:00 HRS

WEATHER: Log 0 | Litres 0 | Time 15:45 | Temp -21 | Surface Conditions CLEAR | Wind Direction N | Wind Strength CALM | Road Condition GOOD

TOUR 1

SIGNATURE OF DRILLER: RICK YAVIS | START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: T | Gauge | TO | ODC | LOC | Pressure Pulse | LOC | Total Rot Hrs | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	8:00	8.00	25	OTHER

Remarks

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down | Torque At Bottom | Fill On Bottom

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

SAFETY

Safety Topic	MEHL	MACP

TOUR 2

SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: T | Gauge | TO | ODC | LOC | Pressure Pulse | LOC | Total Rot Hrs | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

MUD PECORD

Mud Type: Water ☐ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	16:00	8.00	25	WAIT ON PLANE AND TRAVEL HOME

Remarks

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down | Torque At Bottom | Fill On Bottom

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

SAFETY

Safety Topic	MEHL	MACP

TOUR 3

SIGNATURE OF DRILLER: RICK YAVIS | START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: T | Gauge | TO | ODC | LOC | Pressure Pulse | LOC | Total Rot Hrs | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	24:00	8.00	25	OTHER

Remarks

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down | Torque At Bottom | Fill On Bottom

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

SAFETY

Safety Topic	MEHL	MACP

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140226_1A	Vendor Software Version: RMS 2013.8.14.27104	Year: 2014	Month: 02	Day: 26
Licence No: 1211	Well Name: COPRC MIRROR LAKE P-20 65-00 126-45	Surface Location: P-20-65-00-126-45	Prov: NT	Lic Type: CLSS	Unique Well Id:
Operator: Conoco Canada	Contractor: Beaver Drilling Ltd.	Rig No: 2	Well Type:	Re-Entry: ☐
Operator's AFE: 10351812	Contractor's Job No: 152	Spud Date Time: 29-Jan-2014 00:00	
Signature Of Operator's Representative: RICHARD TURGEON	Signature Of Contractor's Rig Manager: RICK YAVIS	Rig Release Date Time: 23-Feb-2014 23:59	

DAILY CHECKS — OP RM (RT / RY)

(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted if Required
(4.) Well Licence & Misc. Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspected BO Pit-Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (once/week/month)
(2.) CAODC Rig Safety Inspection Checklist (once/quarter)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kills Checked

CAODC

NOV

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
Tour 1																							8.00			8.00
Tour 2	8.00																									8.00
Tour 3	4.00																						4.00			8.00
TOTAL	12.00																						12.00			24.00

Kelly Bushing: Up Fuel: FUEL @ 08:00 HRS

WEATHER: Rig 0 | Meter 0 | Time 06:30 | Temp -25 | Current Conditions CLEAR | Wind Direction W | Wind Strength CALM | Road Conditions GOOD

TOUR 1

SIGNATURE OF DRILLER: RICK YAVIS

START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: II | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Run in Bit | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up / Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	8:00	8.00	23B	W/O DAYLIGHT

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 2

SIGNATURE OF DRILLER: MARCUS HALLOWES

START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: II | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Run in Bit | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up / Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	16:00	8.00	1A	TIDY UP RACK SITE

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 3

SIGNATURE OF DRILLER: CURTIS DAY

START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: II | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Run in Bit | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up / Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	20:00	4.00	1A	TIDY UP RACK SITE
20:00	24:00	4.00	23B	W/O DAYLIGHT

Remarks

SAFETY

Safety Topic	MEHL	MACP

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140225_1A	RMS 2013.8.14.27104	2014	02	25

License No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time	
RICHARD TURGEON	RICK YAVIS	23-Feb-2014	23:59

DAILY CHECKS (OP RM: RT / RY)

(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted if Required
(4.) Well Licence & Sour Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines

(1.) Rig Site Health & Safety Meeting (onsite requirement)
(2.) CAODC Rig Safety Inspection Checklist (emphasized)
(3.) Next Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kills Checked

CAODC

NOV

Kelly Bushing | Op Field

FUEL @ 08.00 HRS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Welding On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1																							8.00			8.00
Tour 2	7.75																				0.25					8.00
Tour 3	4.00																						4.00			8.00
TOTAL	11.75																				0.25		12.00			24.00

WEATHER: Rig 0 | Driller 0 | Time 06:00 | Temp -25 | Overnight Conditions CLEAR | Wind Direction W | Wind Strength UP TO 19 KM/H | Road Conditions GOOD

TOUR 1

SIGNATURE OF DRILLER: RICK YAVIS

START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	Size	IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date

CUTTING STRUCTURE: TI | TO | MDC | LDC | BRG | Gauge | ODC | Reason Pulled | Total Rev (k/M)

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands | Drill Pipe Singles | Kelly Down | Total | Weight of DC | Weight of String

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other:

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	@	Strokes/min	@	Depth
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down
Torque At Bottom
Fill On Bottom

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	8:00	8.00	23B	W/O DAYLIGHT

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 2

SIGNATURE OF DRILLER: MARCUS HALLOWES

START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	Size	IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date

CUTTING STRUCTURE: TI | TO | MDC | LDC | BRG | Gauge | ODC | Reason Pulled | Total Rev (k/M)

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands | Drill Pipe Singles | Kelly Down | Total | Weight of DC | Weight of String

MUD RECORD

Mud Type: Water ☐ Oil ☐ Other:

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	@	Strokes/min	@	Depth
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down
Torque At Bottom
Fill On Bottom

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	21D	MEETINGS - PRE-JOB SAFETY
8:15	16:00	7.75	1A	MOVE RIG RACK SITE

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 3

SIGNATURE OF DRILLER: CURTIS DAY

START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	Size	IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date

CUTTING STRUCTURE: TI | TO | MDC | LDC | BRG | Gauge | ODC | Reason Pulled | Total Rev (k/M)

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands | Drill Pipe Singles | Kelly Down | Total | Weight of DC | Weight of String

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other:

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	@	Strokes/min	@	Depth
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down
Torque At Bottom
Fill On Bottom

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	20:00	4.00	1A	MOVE RIG TO RACK SITE
20:00	24:00	4.00	23B	W/O DAYLIGHT

Remarks

SAFETY

Safety Topic	MEHL	MACP

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140224_1B	RMS 2013.8.14.27104	2014	02	24

License No	Well Name	Surface Location	Prov	Loc Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	Rig Release Date Time
10351812	152	29-Jan-2014 00:00	23-Feb-2014 23:59

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager
RICHARD TURGEON	RICK YAVIS

DAILY CHECKS — OP RM

	RT	RY
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) IGS Signs Posted if Required		
(4.) Well Licence & Sub. Diagram Posted	KY	KY
(5.) Flare Lines Staked		
(6.) BOP Drills Performed		
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines		
(1.) Rig Site Health & Safety Meeting (mo/bi-week/month)	RY	
(2.) CAODC Rig Safety Inspection Checklist (semi/bi/month)		
(3.) Muster Inspection before Raising or Lowering		
(4.) Crown Saver Checked		
(5.) Motor Kills Checked		

CAODC

NOV

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
Tour 1							0.25														0.25	7.50				8.00
Tour 2																						8.00				8.00
Tour 3																						4.00	4.00			8.00
TOTAL							0.25														0.25	19.50	4.00			24.00

Kelly Bushing | Up Float

FUEL @ 08 00 HRS

WEATHER

Rig	Barom
90	42
Time	Temp
05:00	-30
Current Conditions	
CLEAR	
Wind Direction	Wind Strength
W	UP TO 18 KMH
Road Conditions	
GOOD	

TOUR 1

SIGNATURE OF DRILLER: CURTIS DAY

START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Run (m/hr)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands

Drill Pipe Singles

Kelly Down

Total

Weight of DC

Weight of String

HOLE CONDITION

Hole Drag Up Down

Torque At Bottom

Fill On Bottom

MUD RECORD

Mud Type Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig Service, grease all moving parts, check oil level in floor motor.
0:15	7:45	7.50	22	Secure derrick, wrap up power cords, tie everything down for rig move, de-ice matting
7:45	8:00	0.25	21	Crew hand over meeting

Remarks

blow boiler 100l

SAFETY

Safety Topic	MEHL	MACP

TOUR 2

SIGNATURE OF DRILLER: MARCUS HALLOWES

START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Run (m/hr)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands

Drill Pipe Singles

Kelly Down

Total

Weight of DC

Weight of String

HOLE CONDITION

Hole Drag Up Down

Torque At Bottom

Fill On Bottom

MUD RECORD

Mud Type Water ☐ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	4.00	11	450
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	16:00	8.00	22	COOL BOILER & CLEAN SAME WINTERIZE RIG LOAD OUT BACK END OF RIG

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 3

SIGNATURE OF DRILLER: RICK YAVIS

START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Run (m/hr)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands

Drill Pipe Singles

Kelly Down

Total

Weight of DC

Weight of String

HOLE CONDITION

Hole Drag Up Down

Torque At Bottom

Fill On Bottom

MUD RECORD

Mud Type Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	0.00	11	0
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	20:00	4.00	22C	LOAD OUT BACK END
20:00	24:00	4.00	23B	W/O DAYLIGHT TO RACK RIG

Remarks

SAFETY

Safety Topic	MEHL	MACP

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140223_1A	RMS 2013.8.14.27104	2014	02	23

License No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time	
RICHARD TURGEON	RICK YAVIS	23-Feb-2014	23:59

DAILY CHECKS — QP RM

(1.) Daily Walk Around Inspection — RT RY
(2.) Detailed Inspection - Weekly (Using Check List) — RT RY
(3.) H2S Signs Posted if Required — RT RY
(4.) Well Licence & Sour Diagram Posted — RT RY
(5.) Flare Lines Staked — RT RY
(6.) BOP Drills Performed — RT RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines — RT RY
(1.) Rig Site Health & Safety Meeting (one/crew/month) — RY
(2.) CAODC Rig Safety Inspection Checklist (one/fig/month) — RY
(3.) Mast Inspection before Raising or Lowering — RY
(4.) Crown Saver Checked — RY
(5.) Motor Kills Checked — RY

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1							0.25							6.00							0.50	1.25				8.00
Tour 2							0.25															7.75				8.00
Tour 3							0.25														0.75	7.00				8.00
TOTAL							0.75							6.00							1.25	16.00				24.00

Kelly Bushing | Up Float

FUEL @ 08 00 HRS

Rig	Boiler
107	107

WEATHER

Time	Temp
05:45	-36

Current Conditions: CLEAR
Wind Direction: N
Wind Strength: CALM
Road Conditions: GOOD

TOUR 1 — SIGNATURE OF DRILLER: CURTIS DAY — START TIME: 0:00 — END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: I | Gauge | TD | ODC | MDC | Reason Pulled | LDC | Total Rotg Hrs | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe — Stands
Drill Pipe — Singles
Kelly Down
Total
Weight of DC
Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequence & Remarks
0:00	0:15	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
0:15	3:00	2.75	14B	Nipple Down BOP's & rack back in sub
3:00	3:15	0.25	21D	Safety meeting on installing Well head with Stream-Flo
3:15	6:30	3.25	14E	Install Well Head and pressure test seal assembly
6:30	7:45	1.25	22	Tear out flare lines; flare stack, pick up all planks and boards
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps and toolpush present, daily walk around, rig inspection R/T

Remarks
boiler blowdown 100l

SAFETY

Safety Topic	MEHL	MACP
Nipple Down		

TOUR 2 — SIGNATURE OF DRILLER: MARCUS HALLOWES — START TIME: 8:00 — END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: I | Gauge | TD | ODC | MDC | Reason Pulled | LDC | Total Rotg Hrs | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe — Stands
Drill Pipe — Singles
Kelly Down
Total
Weight of DC
Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequence & Remarks
8:00	8:15	0.25	7	RIG SERVICE
8:15	9:30	1.25	22	Tear out pumps, all lines to pumps, prep pipe tubs and rentals, move off location to rack site
9:30	16:00	6.50	22B	Rig out top drive, torque tube and prepare derrick to lay down

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 3 — SIGNATURE OF DRILLER: CURTIS DAY — START TIME: 16:00 — END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: I | Gauge | TD | ODC | MDC | Reason Pulled | LDC | Total Rotg Hrs | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe — Stands
Drill Pipe — Singles
Kelly Down
Total
Weight of DC
Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	0.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequence & Remarks
16:00	16:15	0.25	7	RIG SERVICE
16:15	17:15	1.00	22B	Continue to rig out top drive, HPU, torque tube and prepare derrick to lay down
17:15	18:45	1.50	22	Tear out steam and water lines, tear out boilers and prepare small boiler to send to Nisku for inspection. Winterize rig to move to rack site
18:45	19:00	0.25	21	Crew hand over meeting
19:00	21:45	2.75	22	Tear out and prepare to lay down derrick
21:45	22:15	0.50	21F	Safety meeting, complete safety inspection of derrick prior to lay down. RY CD BB ER
22:15	24:00	1.75	22	Continue to tear out rig to move to rack site

Remarks
blow boiler 100l

SAFETY

Safety Topic	MEHL	MACP

FRONT PAGE SUMMARY

Licence No: 1211	Well Name: COPRC MIRROR LAKE P-20 65-00 126-45	Tour Sheet Serial Number: BEAV2_20140222_1A	Vendor Software Version: RMS 2013.8.14.27104	Year: 2014	Month: 02	Day: 22	
Operator: Conoco Canada		Surface Location: P-20-65-00-126-45	Prov: NT	Lic Type: CLSS	Unique Well Id:		
Contractor: Beaver Drilling Ltd.		Rig No: 2	Well Type:	Re-Entry: ☐			
Operator's AFE: 10351812		Contractor's Job No: 152	Spud Date Time: 29-Jan-2014	00:00			
Signature Of Operator's Representative: RICHARD TURGEON		Signature Of Contractor's Rig Manager: RICK YAVIS	Rig Release Date Time:				

DAILY CHECKS — OP RM

	OP	RM
(1.) Daily Walk Around Inspection:	RT	RY
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required	RT	RY
(4.) Well Licence & Slick Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed	RT	RY
(7.) Weekly Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (one/week/month)		RY
(2.) CAODC Rig Safety Inspection Checklist (one/fortnight)		
(3.) Mast Inspection before Raising or Lowering		RY
(4.) Crown Saver Checked		
(5.) Motor Kills Checked		RY

CAODC

NOV

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
Tour 1							0.25				5.00			2.25							0.50					8.00
Tour 2							0.25				4.75	2.75									0.25					8.00
Tour 3												7.00									1.00					8.00
TOTAL							0.50				9.75	9.75		2.25							1.75					24.00

Kelly Running: — Up Hole: —

FUEL @ 08:00 HRS

WEATHER: Rig: 55 | Camp: 120 | Time: 05:45 | Temp: -42 | Current Conditions: CLEAR | Wind Direction: N | Wind Strength: CALM | Road Conditions: GOOD

TOUR: 1 SIGNATURE OF DRILLER: CURTIS DAY START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: B | Gauge | T0 | ODC | MDC | Reason Pulled | LDC | Total Rotating Hrs | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag: Up / Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver, function test blind rams 8 sec to close and open,grease all moving parts, check oil levels in floor motor, pumps and HPU
0:15	2:30	2.25	14A	install flange for Pressure USIT log
2:30	2:45	0.25	21	Safety meeting on pressure logging with schlumberger
2:45	5:00	2.25	11B	Rig up pressure USIT log
5:00	7:45	2.75	11B	Wire line log with Schlumberger
7:45	8:00	0.25	21D	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection R/T

Remarks: blow boilers 200l boiler#2 feul .55

SAFETY

Safety Topic	MEHL	MACP
Logging		

TOUR: 2 SIGNATURE OF DRILLER: MARCUS HALLOWES START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: B | Gauge | T0 | ODC | MDC | Reason Pulled | LDC | Total Rotating Hrs | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag: Up / Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	11:15	3.25	11B	Run USIT log #2 pressure pass
11:15	12:45	1.50	11B	Rig out loggers and pressure pass head
12:45	13:00	0.25	7	Rig service function test rig smart anti-collision system, function test HCR 3 sec to open and close,grease all moving parts, check oil levels in floor motor, pumps and HPU
13:00	14:00	1.00	12A	Rig up power tongs and lay down truck
14:00	14:15	0.25	21D	Safety meeting with hallmark power tongs and trottier pipe handlers
14:15	16:00	1.75	12B	Run 114.3mm, 17.26kg, p-110 casing tie back liner, space out

Remarks: Level one overhead inspection mh
Blew down boilers 50L

SAFETY

Safety Topic	MEHL	MACP
run wire line logs		

TOUR: 3 SIGNATURE OF DRILLER: CURTIS DAY START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: B | Gauge | T0 | ODC | MDC | Reason Pulled | LDC | Total Rotating Hrs | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag: Up / Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	19:00	3.00	12B	Run 114.3mm, 17.26kg, p-110 casing
19:00	19:15	0.25	21D	Crew handover meeting, Conoco reps and toolpush present, daily walk around, rig inspection D/O
19:15	21:30	2.25	12B	Make up tie-back hanger and landing joint, land mandrel seal assembly and tie into top of liner top packer
21:30	21:45	0.25	21D	Safety meeting with Schlumberger, on pressure test 4-1/2" x 7" casing annulas, to 15,000kpa, for 10 min. (held OK)
21:45	22:30	0.75	12E	Pressure test liner hanger seals to 35,000kPA for 15 minutes and 4-1/2" x 7" casing annulas, to 15,000kpa, for 10 min. (held OK) Schlumberger cement pumper
22:30	22:45	0.25	21D	Safety meeting on rig out laydown truck and power tongs
22:45	23:45	1.00	12A	Rig out Trottier laydown truck and Hallmark power tongs
23:45	24:00	0.25	21D	Safety meeting on nipple down BOP's

Remarks: blow boilers 200l

SAFETY

Safety Topic	MEHL	MACP

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140221_1A	RMS 2013.8.14.27104	2014	02	21

DAILY CHECKS — OP RM

(1.) Daily Walk Around Inspection — RT RY
(2.) Detailed Inspection - Weekly (Using Check List) — RT RY
(3.) H2S Signs Posted if Required — RT RY
(4.) Well Licence & Slick Diagram Posted — RT RY
(5.) Flare Lines Slated — RT RY
(6.) BOP Drills Performed — RT RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines — RT RY
(1.) Rig Site Health & Safety Meeting (one/crew/month) — RY
(2.) CAODC Rig Safety Inspection Checklist (one/month) — RY
(3.) Mast Inspection before Raising or Lowering — RY
(4.) Crown Saver Checked — RY
(5.) Motor Kills Checked — RY

License No	Well Name	Surface Location	Prov	Loc Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	Rig Release Date Time
10351812	152	29-Jan-2014 00:00	

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager
RICHARD TURGEON	RICK YAVIS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Welding On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1					2.50	3.25	0.25					1.50									0.50					8.00
Tour 2						5.50	0.25					2.25														8.00
Tour 3							4.50					0.75		2.50							0.25					8.00
TOTAL					2.50	8.75	5.00					4.50		2.50							0.75					24.00

FUEL @ 08.00 HRS

Rig	Units
87	125

WEATHER

Time	Temp
06:30	-40

Current Condition	Wind Direction	Wind Strength
CLEAR	N	CALM

Road Condition: GOOD

TOUR 1 — SIGNATURE OF DRILLER: CURTIS DAY — START TIME: 0:00 — END TIME: 8:00

BITS

Bit Number	Size	IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date

CUTTING STRUCTURE: In / To / MDC / LOC / BRG; Gauge / ODC / Pulled Bit / Total Pumped

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe — Stands; Drill Pipe — Singles; Kelly Down; Total; Weight of DC; Weight of String

HOLE CONDITION: Hole Drag Up / Down; Torque At Bottom; Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	02:30	03:30
Density	1135	1135
Funnel Viscosity	130	130
Fluid Loss		
pH		
Location Of Sample	suction tank	suction tank
Depth	3155.00	3155.00
PVT	37	37

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	75	3900	2.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	@ Strokes/min	@ Strokes/min	Depth
		@	@	
		@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density
Centrifuge #1	3.00	1140	1100	1790
Centrifuge #2	3.00	1140	1040	1710

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver function test pipe rams 8 seconds close open,grease all moving parts, check oil levels in floor motor, pumps and HPU
0:15	3:30	3.25	6A	Run in hole slow with drill pipe and HWDP on 114.3mm, 17.26kg/m, P-110, LTC production casing liner, packer hanger
3:30	6:00	2.50	5	Fill hole break circulation, circulate and clean hole
6:00	6:15	0.25	21	Safety meeting on cementing with Schlumberger prior to cementing 114.3mm production liner
6:15	7:45	1.50	12	Rig up Schlumberger cementers to cement 114.3mm production liner, pump 6m3 of 1000kg/m3 CW8 pre-flush, stop and pressure test lines to 35,000kpa (held OK), bleed off pressure, pump 5m3 of 1200kg/m3 MUDPUSH II pre-flush spacer
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection R/T

Remarks: blow boilers 200l fuel for boiler #2 .80cm

SAFETY

Safety Topic	MEHL	MACP
Rig to Cement Casing		2854

TOUR 2 — SIGNATURE OF DRILLER: MARCUS HALLOWES — START TIME: 8:00 — END TIME: 16:00

BITS

Bit Number	Size	IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date

CUTTING STRUCTURE: In / To / MDC / LOC / BRG; Gauge / ODC / Pulled Bit / Total Pumped

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe — Stands; Drill Pipe — Singles; Kelly Down; Total; Weight of DC; Weight of String

HOLE CONDITION: Hole Drag Up / Down; Torque At Bottom; Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☐ Other

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		
PVT		

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	@ Strokes/min	@ Strokes/min	Depth
		@	@	
		@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	10:15	2.25	12	Pump 20 tonne/14.7m3 (20% excess) of 1900kg/m3 Conventional Class "G" Taail Cement with 0.6% Fluid Loss + 0.5% Dispersant + 0.2% Retarder + 72L/tonne Gas Control Agent, from 3148.70mMD to 1727.49mMD. Drop dart and displace 19.8m3 of fresh water. Bump plug 3,500kpa over final circulating pressure of 19,200kpa at 09:05 Hrs. February 21 2014. Bleed off pressure (floats held OK), pressure up to 28,000kpa and set liner top packer at 1727.49mMD, circulate out pre-flush and 2m3 of excess cement, displace hole with fresh water. Rig out cementers, flow check
10:15	10:45	0.50	6F	Safety meeting with trottier pipe handlers, rig up Laydown truck
10:45	11:00	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver function test Hydill 23 seconds close open,grease all moving parts, check oil levels in floor motor, pumps and HPU
11:00	16:00	5.00	6F	Rig up lay down truck, lay down drill pipe and heavy weight drill pipe, run in the rest of drill pipe in the derrick, lay down drill pipe

Remarks: Level 1 overheaad inspection MH
Blow down boilers 2 times 100l

SAFETY

Safety Topic	MEHL	MACP
Lay down pipe with lay down machine		

TOUR 3 — SIGNATURE OF DRILLER: CURTIS DAY — START TIME: 16:00 — END TIME: 24:00

BITS

Bit Number	Size	IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date

CUTTING STRUCTURE: In / To / MDC / LOC / BRG; Gauge / ODC / Pulled Bit / Total Pumped

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe — Stands; Drill Pipe — Singles; Kelly Down; Total; Weight of DC; Weight of String

HOLE CONDITION: Hole Drag Up / Down; Torque At Bottom; Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		
PVT		

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	@ Strokes/min	@ Strokes/min	Depth
		@	@	
		@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:15	0.25	7	Rig service function test rig smart anti collision function test blind rams 8 second close open check fluids on floor motor and HPU
16:15	17:00	0.75	12A	Rig out Lay down truck to run USIT log and pressure USIT log
17:00	19:00	2.00	7A	Pull rotary table wash and clean invert out of table and bushings
19:00	19:15	0.25	21	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection D/O
19:15	21:30	2.25	7A	Clean up floor, clean out invert from bird baths
21:30	24:00	2.50	14B	Tear out and clean flow line, flow nipple , rig out and clean catch can, clean ring seal seat and bolt holes in top of BOP for installing pressure stripper head for Pressure USIT log

Remarks

SAFETY

Safety Topic	MEHL	MACP

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140220_1A | Vendor Software Version: RMS 2013.8.14.27104 | Year: 2014 | Month: 02 | Day: 20

License No: 1211 | Well Name: COPRC MIRROR LAKE P-20 65-00 126-45 | Surface Location: P-20-65-00-126-45 | Prov: NT | Lic Type: CLSS | Unique Well Id:

Operator: Conoco Canada | Contractor: Beaver Drilling Ltd. | Rig No: 2 | Well Type: | Re-Entry: ☐

Operator's AFE: 10351812 | Contractor's Job No: 152 | Spud Date Time: 29-Jan-2014 00:00

Signature Of Operator's Representative: RICHARD TURGEON | Signature Of Contractor's Rig Manager: RICK YAVIS | Rig Release Date Time:

DAILY CHECKS — OP RM (RT / RY)

(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted if Required
(4.) Well Licence & Spd. Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (prior to spud/monthly)
(2.) CAODC Rig Safety Inspection Checklist (semi-Nightwork)
(3.) Hoist Inspection before Raising or Lowering
(4.) Crown Saver Checklist
(5.) Hoist Kills Checked

Kelly Bushing: | Dip Hose:

FUEL @ 08:00 HRS: Log 115 | Bbls 175

WEATHER: Time 05:00 | Temp -36 | Cloud Conditions OVERCAST | Wind Direction N | Wind Strength CALM | Road Conditions GOOD

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Casing	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1					1.00	6.25	0.25														0.50					8.00
Tour 2					0.25	2.00	0.25					4.75									0.25				0.50	8.00
Tour 3					1.50	2.75	0.25	0.25				3.00									0.25					8.00
TOTAL					2.75	11.00	0.75	0.25				7.75									1.00				0.50	24.00

TOUR 1

SIGNATURE OF DRILLER: CURTIS DAY | START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	5 RR
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11,1 11,1 11,1 11,1 11,1 11,1
Depth Out (m)	3152.00
Depth In (m)	3142.00
Total Drilled (m)	10.00
Hrs Run Today	
Cumulative Hrs Run	42.25
Entry Date	

CUTTING STRUCTURE: TI | TO | MDC | LOC | BRG | Gauge | ODC | Reason Pulled | Total Rotating Hrs | 0.24

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	60	0.19
1	152mm BIT SUB	152	60	0.91
9	4" H.W	101	65	84.45
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
126	4 " D.P	101	70	
30	4" H.W	101	65	

83 Drill Pipe Stands 1576.72
0 Drill Pipe Singles 0.00

Kelly Down -3.92
Total 3152.00
Weight of DC
Weight of String 66.00

HOLE CONDITION: Hole Drag Up 5 Down 7 | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other:

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	125	12800	1.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
2	6414	@	83	@	3143.08
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequence & Remarks
0:00	1:00	1.00	5D	Circulate condition hole at 3152m. prior to trip out to run 114.3mm casing liner
1:00	1:15	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver function test Hdril 23 seconds close open,grease all moving parts, check oil levels in floor motor, pumps and HPU
1:15	5:30	4.25	6B	Pull out of hole, with flow checks 3152m to 1307m, to run 114.3mm production liner
5:30	5:45	0.25	21D	Safety meeting with Trottier Pipe Handlers, lay down machine
5:45	7:45	2.00	6B	Rig up lay down machine and lay down drill pipe from 1307m to 995m
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection R/T

Remarks
blow down boilers 200 l fuel boiler#2 .82 flow checks @ 3136 m 3030 m 2284 m 1307m

SAFETY

Safety Topic	MEHL	MACP
Picking up laydown equipment and lay down drill pipe		2654

TOUR 2

SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: TI | TO | MDC | LOC | BRG | Gauge | ODC | Reason Pulled | Total Rotating Hrs |

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands
Drill Pipe Singles
Kelly Down
Total
Weight of DC
Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☐ Other:

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequence & Remarks
8:00	9:00	1.00	6F	Lay down drill pipe from 995m to 99m
9:00	10:00	1.00	6B	Trip out of the hole rack 5 stands of HW and breakdown BHA
10:00	10:30	0.50	25	Install bushing puller on drill pipe and pull wear bushing
10:30	10:45	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver, function test blind rams 8 sec to close and open,grease all moving parts, check oil levels in floor motor, pumps and HPU
10:45	11:45	1.00	12A	Rig up power tongs to run 114.3mm production casing liner
11:45	12:00	0.25	21D	Safety meeting with hallmark power tongs and trottier pipe handlers
12:00	15:15	3.25	12B	Run 114.3mm, 17.26kg/m, P-110, LTC production casing liner, to 716m
15:15	15:30	0.25	5	Fill casing and break circulation at 716m
15:30	16:00	0.50	12B	Run 114.3mm, 17.26kg/m, P-110, LTC production casing liner, from 716m to 1016m

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L
Trip sheet record calc 10.54m3 meas 11.48m3 Diff .94m3

SAFETY

Safety Topic	MEHL	MACP
Lay down drill pipe with lay down machine		2654

TOUR 3

SIGNATURE OF DRILLER: CURTIS DAY | START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: TI | TO | MDC | LOC | BRG | Gauge | ODC | Reason Pulled | Total Rotating Hrs |

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands
Drill Pipe Singles
Kelly Down
Total
Weight of DC
Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other:

Time	16:30
Density	1140
Funnel Viscosity	130
Fluid Loss	
pH	
Location Of Sample	suction tank
Depth	3155.00
PVT	135

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	85	2700	1.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequence & Remarks
16:00	16:30	0.50	12B	Run 4 1/2 liner from 716m to 1016m
16:30	16:45	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver, function test H.C.R 3 sec to open and close,grease all moving parts, check oil levels in floor motor, pumps and HPU
16:45	18:30	1.75	12B	Run 1727.49m of 114.3mm, 17.26kg/m, P-110, LTC production casing liner
18:30	19:00	0.50	5	Run 1 stand of 4" drill pipe, break circulation
19:00	19:15	0.25	21D	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection D/O
19:15	20:00	0.75	12A	Rig out Hallmark power tongs and Trottier lay down truck
20:00	22:45	2.75	6A	Run in hole slow with drill pipe and HWDP on 114.3mm, 17.26kg/m, P-110, LTC production casing liner, packer hanger
22:45	23:00	0.25	8B	Replace hydraulic hose on top drive
23:00	24:00	1.00	5	Top fill and break circulation at 12m above 177.8mm casing shoe, 2140m

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
		2654

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140219_1A	RMS 2013.8.14.27104	2014	02	19

License No	Well Name	Surface Location	Prov	Loc Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS — OP RM

(1.) Daily Walk Around Inspection — RT RY
(2.) Detailed Inspection - Weekly (Rising Check List) — RT RY
(3.) H2S Style Posted/If Required — RT RY
(4.) Well Licence & Stick Diagram Posted — RT RY
(5.) Flare Lines Staked — RT RY
(6.) BOP Drills Performed — RT RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines — RT RY
(1.) Rig Site Health & Safety Meeting (one time/month) — RY
(2.) CAODC Rig Safety Inspection Checklist (one time/month) — RY
(3.) Mast Inspection before Raising or Lowering — RY
(4.) Crown Saver Checked — RY
(5.) Motor Kills Checked — RY

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Ripple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Wash	25 Other	TOTAL
HOURS Tour 1						4.00	0.75													2.75	0.50					8.00
Tour 2			1.75			4.75	0.25	0.50	0.75																	8.00
Tour 3		0.50	6.25		0.75		0.25														0.25					8.00
TOTAL		0.50	8.00		0.75	8.75	1.25	0.50	0.75											2.75	0.75					24.00

FUEL @ 08:00 HRS

Rig	Boiler
155	180

WEATHER

Time	Temp
05:00	-32

Current Conditions: OVERCAST
Wind Direction: N
Wind Strength: UP TO 19 KM/H
Road Conditions: GOOD

Daily Incident | Up Time

TOUR 1

SIGNATURE OF DRILLER: CURTIS DAY

START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	5 RR
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	3142.00
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	41.75
Entry Date	

CUTTING STRUCTURE

TI		Gage	
TO		ODC	
MDC		Reason Pulled	
LDC		Total Run (m/hr)	
BRG			

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	60	0.19
1	152mm BIT SUB	152	60	0.91
8	4" H.W	101	65	75.67
1	Jar	131	59	5.07
2	4" H.W	101	65	18.80
126	4 " D.P	101	70	3783.18
30	4" H.W	101	65	278.14
80	Drill Pipe	Stands		1521.65
0	Drill Pipe	Singles		0.00

Kelly Down	0.00
Total	3098.85
Weight of DC	
Weight of String	

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag	Up	% Down	
Torque At Bottom			
Fill On Bottom			

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other ☐

Time	00:30	03:30
Density	1140	1140
Funnel Viscosity	72	72
Fluid Loss		
pH		
Location Of Sample	suction tank	suction tank
Depth	3140.00	3140.00
PVT	41	41

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	2:15	2.25	6B	Pull out of hole for piled-up mud motor flow checks at 519m and out of hole
2:15	2:30	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
2:30	2:45	0.25	21	Safety meeting with directional hands
2:45	5:30	2.75	20D	Handle directional tools and lay down tools
5:30	6:00	0.50	7A	Clean up rig floor and prepare to run in hole
6:00	7:45	1.75	6A	Make up, 156mm Smith MSi613 PDC bit with float sub and float, run in hole
7:45	8:00	0.25	21D	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection R/T

Remarks
blow boiers 200l, fuel for #2 boiler is .82cm
reviewed beaver drilling incident report #5-14

SAFETY

Safety Topic	MEHL	MACP
handel directional tools & lay down tools		2654

TOUR 2

SIGNATURE OF DRILLER: MARCUS HALLOWES

START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	5 RR
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	3142.00
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	41.75
Entry Date	

CUTTING STRUCTURE

TI		Gage	
TO		ODC	
MDC		Reason Pulled	
LDC		Total Run (m/hr)	
BRG			

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	58	0.19
1	152mm BIT SUB	152	60	0.91
9	4" H.W	101	65	84.45
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
126	4 " D.P	101	70	3783.18
30	4" H.W	101	65	278.14
80	Drill Pipe	Stands		1521.65
0	Drill Pipe	Singles		0.00

Kelly Down	0.00
Total	3098.85
Weight of DC	
Weight of String	

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag	Up	% Down	
Torque At Bottom			
Fill On Bottom			

MUD PECORD

Mud Type: Water ☐ Oil ☐ Other ☐

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		
PVT		

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	130	10000	2.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	9:30	1.50	6A	Trip into the hole to 1022m
9:30	9:45	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
9:45	10:30	0.75	9A	Slip and cut 30m of drill line 10884m
10:30	12:30	2.00	6A	Trip in the hole from 1022m to 1595m fill pipe and flow check at 1595m
12:30	13:00	0.50	8B	Repair grabber box dies, on top drive
13:00	14:15	1.25	6A	Trip in the hole from 1595m to 2138m
14:15	16:00	1.75	3A	Wash and ream from 2152m to 2320m

Remarks
Level one overhead inspection MH
Blow down boilers 2 times 100L

SAFETY

Safety Topic	MEHL	MACP
Run in hole with top drive		2654

TOUR 3

SIGNATURE OF DRILLER: CURTIS DAY

START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	5 RR
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	3152.00
Depth In (m)	3142.00
Total Drilled (m)	10.00
Hrs Run Today	0.50
Cumulative Hrs Run	0.50
Entry Date	

CUTTING STRUCTURE

TI		Gage	
TO		ODC	
MDC		Reason Pulled	
LDC		Total Run (m/hr)	20.00
BRG			

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	60	0.19
1	152mm BIT SUB	152	60	0.91
9	4" H.W	101	65	84.45
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
126	4 " D.P	101	70	3783.18
30	4" H.W	101	65	278.14
83	Drill Pipe	Stands		1578.72
0	Drill Pipe	Singles		0.00

Kelly Down	-3.92
Total	3152.00
Weight of DC	
Weight of String	66.00

METRES DRILLED

From	To	D-R-C	RPM	WOB
3142.00	3152.00	DRILL	80	8

HOLE CONDITION

Hole Drag	Up 5	Down 7	
Torque At Bottom	12300		
Fill On Bottom			

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other ☐

Time	19:30	22:30
Density	1140	1140
Funnel Viscosity	75	75
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	3140.00	3140.00
PVT	41	41

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	125	12600	1.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Barite	42	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:15	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver function test pipe rams 8 seconds close open,grease all moving parts, check oil levels in floor motor, pumps and HPU
16:15	18:45	2.50	3A	Wash and ream from 2320m to 2604m
18:45	19:00	0.25	21D	Crew handover meeting, Conoco reps and tool push present, daily walk around rig inspection D/O
19:00	22:45	3.75	3A	Wash and ream from 2604m to 3142m
22:45	23:15	0.50	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, from 3142m to 3152m
23:15	24:00	0.75	5D	Circulate condition hole at 3152m

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
tripping in hole with top drive		2654

FRONT PAGE SUMMARY

License No	Well Name		Tour Sheet Serial Number	Vendor Software Version		Year	Month	Day
1211	COPRC MIRROR LAKE P-20 65-00 126-45		BEAV2_20140216_1A	RMS 2013.8.14.27104		2014	02	18
Operator		Surface Location	P-20-65-00-126-45	From	Lsd Type	Unique Well Id		
Conoco Canada				NT	CLSS			
Operator's AFE	Contractor			Rig No	Well Type		Re-Entry	
10351812	Beaver Drilling Ltd.			2			☐	
Signature Of Operator's Representative	Contractor's Job No		Spud Date Time					
RICHARD TURGEON	152		29-Jan-2014 00:00					
	Signature Of Contractor's Rig Manager		Rig Release Date Time					
	RICK YAVIS							

DAILY CHECKS (OP / RM)

(1.) Daily Walk Around Inspection — RT / RY
(2.) Detailed Inspection - Weekly (Using Check List) — RT / RY
(3.) H2S Signs Posted if Required — RT / RY
(4.) Well Licence & Site Diagram Posted — RT / RY
(5.) Flare Lines Staked — WT / RY
(6.) BOP Drills Performed — RT / RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines — RT / RY
(1.) Rig Site Health & Safety Meeting (emp/contractor) — RY
(2.) CAODC Rig Safety Inspection Checklist (emp/contractor) — RY
(3.) Mast Inspection before Raising or Lowering — RY
(4.) Crown Saver Checked — RY
(5.) Motor Kills Checked — RY

CAODC

NOV

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
HOURS	Rig Up	Drill Actual	Reaming	Coring	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drlg Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other	TOTAL
Tour 1		6.75					0.25			0.75											0.25					8.00
Tour 2		5.25				2.50	0.25																			8.00
Tour 3						7.00	0.25	0.50													0.25					8.00
TOTAL		12.00				9.50	0.75	0.50		0.75											0.50					24.00

Daily Mudding: Up Hole

FUEL @ 08 00 HRS

WEATHER

Rig	Meter
150	182
Time	Temp
05:00	-32
Current Conditions	
PARTLY CLOUDY	
Wind Direction	Wind Strength
N	UP TO 19 KMH
Road Condition	
GOOD	

TOUR 1 — SIGNATURE OF DRILLER: CURTIS DAY — START TIME: 0:00 — END TIME: 8:00

BITS

Bit Number	5
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	2152.00
Total Drilled (m)	863.00
Hrs Run Today	6.75
Cumulative Hrs Run	36.50
Entry Date	

CUTTING STRUCTURE

In		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Rot Hrs (h)	23.64
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
2637.00	3015.00	DRILL	80	9

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	63	0.19
1	Mud motor	123	63	8.93
1	NM Pony Monel	119	57	3.10
1	Slick monel	119	67	8.47
1	Landing Sub	119	63	0.58
1	4.75 LWD SAWR	130	70	6.18
1	4.75 LWD ABS	131	70	4.78
1	x/o	120	56	0.87
1	Slick monel	119	67	8.50
1	X/O	128	58	0.82
3	4" H.W	101	65	28.27
1	Jar	131	59	5.07
14	4" H.W	101	65	9.12
73	Drill Pipe	Stands		1388.61
1	Drill Pipe	Singles		9.48

Kelly Down	-3.00
Total	3015.62
Weight of DC	
Weight of String	66.00

HOLE CONDITION

Hole Drag	Up	5	Down	5
Torque At Bottom		11100		
Fill On Bottom				

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time	01:15	03:45
Density	1110	1110
Funnel Viscosity	65	65
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2866.00	2918.00
PVT	49	47

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	120	16800	7.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
2	7503	@	80	@	2637.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
00:30	2818.00	89.70	286.6	DIRECTIONAL
01:00	2837.00	89.90	286.6	DIRECTIONAL
02:15	2856.00	89.90	284.7	DIRECTIONAL
03:00	2875.00	88.80	283.8	DIRECTIONAL
03:45	2894.00	89.00	285.5	DIRECTIONAL
04:15	2913.00	89.10	286	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
0:15	7:00	6.75	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2837m to 3015m
7:00	7:45	0.75	10	Accumulated time for surveys
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T.daily walk around rig inspection D/O.

Remarks
blow down boilers 200 litters. feul for #2 boiler is .98

SAFETY

Safety Topic	MEHL	MACP
washing & cleaning rig		3247

TOUR 2 — SIGNATURE OF DRILLER: MARCUS HALLOWES — START TIME: 8:00 — END TIME: 16:00

BITS

Bit Number	5
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	2152.00
Total Drilled (m)	990.00
Hrs Run Today	5.25
Cumulative Hrs Run	41.75
Entry Date	

CUTTING STRUCTURE

In		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Rot Hrs (h)	23.71
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
3015.00	3142.00	DRILL	80	10

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	63	0.19
1	Mud motor	123	63	8.93
1	NM Pony Monel	119	57	3.10
1	Slick monel	119	67	8.47
1	Landing Sub	119	63	0.58
1	4.75 LWD SAWR	130	70	6.18
1	4.75 LWD ABS	131	70	4.78
1	x/o	120	56	0.87
1	Slick monel	119	67	8.50
1	X/O	128	58	0.82
3	4" H.W	101	65	28.27
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
80	Drill Pipe	Stands		1521.65
0	Drill Pipe	Singles		0.00

Kelly Down	0.00
Total	3142.18
Weight of DC	
Weight of String	66.00

HOLE CONDITION

Hole Drag	Up	6	Down	6
Torque At Bottom		11100		
Fill On Bottom				

MUD PECORD

Mud Type: Water ☐ Oil ☐ Other

Time	08:45	11:00
Density	1140	1140
Funnel Viscosity	68	69
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	3028.00	3061.00
PVT	49	48

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	117	17100	5.25

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
2	7869	@	82	@	3077.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
09:00	3008.00	89.70	284.5	DIRECTIONAL
09:45	3027.00	89.90	285.1	DIRECTIONAL
10:30	3046.00	89.70	284.3	DIRECTIONAL
11:00	3065.00	89.80	283.8	DIRECTIONAL
12:00	3065.00	89.90	284.9	DIRECTIONAL
12:45	3103.00	89.90	283.7	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:30	0.50	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 3015m to 3028m
8:30	8:45	0.25	7	Rig service function test rig smart anti-collision system, function test Hydrill 25 sec to close and open , function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
8:45	13:30	4.75	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 3028m to 3142m
13:30	16:00	2.50	6B	Trip out of the hole, flow checks at 3125m, 3008m

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L

SAFETY

Safety Topic	MEHL	MACP
Changing graber box dies		2654

TOUR 3 — SIGNATURE OF DRILLER: CURTIS DAY — START TIME: 16:00 — END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

In		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Rot Hrs (h)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe — Stands
Drill Pipe — Singles

Kelly Down
Total
Weight of DC
Weight of String

HOLE CONDITION

Hole Drag — Up — Down
Torque At Bottom
Fill On Bottom

MUD PECOPD

Mud Type: Water ☐ Oil ☑ Other

Time	19:45	21:45
Density	1140	1140
Funnel Viscosity	70	70
Fluid Loss		
pH		
Location Of Sample	suction tank	suction tank
Depth	3098.00	3098.00
PVT	40	38

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:15	0.25	6B	Trip out of the hole, flow check at 2606m
16:15	16:45	0.50	8	Change slip dies
16:45	17:45	1.00	6B	Trip out of the hole, flow checks at 2316m
17:45	18:00	0.25	7	Rig service function test rig smart anti-collision system, function test HCR 3 sec to open and close , function test crown saver,grease all moving parts, check oil levels in floor motor and HPU
18:00	18:45	0.75	6B	Trip out of the hole, to lay down directional tools
18:45	19:00	0.25	21D	Crew handover meeting, Conoco reps, and toolpush present
19:00	24:00	5.00	6B	Trip out of the hole, flow checks at 1437m

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
		2654

FRONT PAGE SUMMARY

Tour Sheet Serial Number	BEAV2_20140217_1A	Vendor Software Version	RMS 2013.8.14.27104	Year	2014	Month	02	Day	17

License No	Well Name	Surface Location	Prov	Lsd Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS

	OP	RM
(1.) Daily Walk Around Inspection	RY	RY
(2.) Detailed Inspection - Weekly (Using Check List)	RY	RY
(3.) H2S Signs Posted If Required		
(4.) Well Licence & Slick Diagram Posted	RY	RY
(5.) Flare Lines Staked	RY	RY
(6.) BOP Drills Performed	RY	RY
(7.) Visually Inspected BO Pre-Flare Lines & Degasser Lines	RY	
(1.) Rig Site Health & Safety Meeting (once/month)	RY	
(2.) CAODC Rig Safety Inspection Checklist (once/month)		
(3.) Alert Inspection before Raising or Lowering	RY	
(4.) Crown Saver Checked	RY	
(5.) Motor Kills Checked	RY	

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
	Rig Up	Drill Actual	Reaming	Coring	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drlg Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other	TOTAL
HOURS Tour 1		6.50					0.25			0.75											0.50					8.00
Tour 2		7.00					0.25													0.75						8.00
Tour 3		6.00					0.25	0.50		0.75											0.50					8.00
TOTAL		19.50					0.75	0.50		1.50										0.75	1.00					24.00

FUEL @ 08:00 HRS

Drg	Boiler
145	185

WEATHER

Time	Temp
04:15	-36
Current Conditions	
OVERCAST	
Wind Direction	Wind Strength
N	UP TO 19 KM/H
Road Condition	
GOOD	

TOUR 1 SIGNATURE OF DRILLER BRIAN BERGSETH START TIME 0:00 END TIME 8:00

BITS

Bit Number	5
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	2152.00
Total Drilled (m)	362.00
Hrs Run Today	6.50
Cumulative Hrs Run	16.75
Entry Date	

CUTTING STRUCTURE

I1		Gauge	
T0		ODC	
MDC		Pressure Pulse	
LOC		Total Pressure Pulse	21.61
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
2354.00	2514.00	DRILL	80	8

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	63	0.19
1	Mud motor	123	63	8.93
1	NM Pony Monel	119	57	3.10
1	Slick monel	119	67	9.47
1	Landing Sub	119	63	0.58
1	4.75 LWD SAWR	130	70	6.18
1	4.75 LWD ABS	131	70	4.79
1	x/o	120	56	0.87
1	Slick monel	119	67	9.50
1	X/O	128	58	0.82
3	4" H.W	101	65	28.27
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
47	Drill Pipe	Stands		894.18
0	Drill Pipe	Singles		0.00

Kelly Down	0.00
Total	2514.71
Weight of DC	
Weight of String	67.00

HOLE CONDITION

Hole Drag	Up	5	Down	5
Torque At Bottom		11600		
Fill On Bottom				

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time	02:30	04:30
Density	1030	1025
Funnel Viscosity	68	68
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2419.00	2436.00
PVT	45	44

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	134	16600	7.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
2	6181	@	82	@	2354.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
01:00	2342.50	90.40	283.8	DIRECTIONAL
01:45	2361.50	90.70	284.4	DIRECTIONAL
02:45	2380.50	90.60	283.4	DIRECTIONAL
03:45	2399.50	89.40	283.6	DIRECTIONAL
05:00	2418.50	89.88	284.94	DIRECTIONAL
05:15	2437.50	89.60	285.9	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Truvis	8	sx
Calcium Chloride	6	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:30	0.50	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2354m to 2362 m
0:30	0:45	0.25	7	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
0:45	1:00	0.25	21A	Held b.o.p drill with crew well secure in 85 sec
1:00	7:00	6.00	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2362 m to 2514 m
7:00	7:45	0.75	10	Accumulated time for dir surveys
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T,daily walk around rig inspection D/O.

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
b.o.p drill		4827

TOUR 2 SIGNATURE OF DRILLER BRADY YAVIS START TIME 8:00 END TIME 16:00

BITS

Bit Number	5
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	2152.00
Total Drilled (m)	533.00
Hrs Run Today	7.00
Cumulative Hrs Run	23.75
Entry Date	

CUTTING STRUCTURE

I1		Gauge	
T0		ODC	
MDC		Pressure Pulse	
LOC		Total Pressure Pulse	22.44
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
2514.00	2686.00	DRILL	80	9

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	58	0.19
1	Mud motor	123	57	8.93
1	NM Pony Monel	119	57	3.10
1	Slick monel	119	67	9.47
1	Landing Sub	119	63	0.58
1	4.75 LWD SAWR	130	70	6.18
1	4.75 LWD ABS	131	70	4.79
1	x/o	120	56	0.87
1	Slick monel	119	67	9.50
1	X/O	128	58	0.82
3	4" H.W	101	65	28.27
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
56	Drill Pipe	Stands		1065.24
0	Drill Pipe	Singles		0.00

Kelly Down	0.00
Total	2685.77
Weight of DC	
Weight of String	68.00

HOLE CONDITION

Hole Drag	Up	5	Down	5
Torque At Bottom		11700		
Fill On Bottom				

MUD PECORD

Mud Type: Water ☐ Oil ☐ Other

Time	08:15	13:45
Density	1050	1060
Funnel Viscosity	68	69
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2502.00	2628.00
PVT	42	47

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	120	16200	7.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
2	6677	@	83	@	2514.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
09:45	2514.00	87.80	286.8	DIRECTIONAL
11:15	2552.00	88.10	287	DIRECTIONAL
12:15	2571.00	88.30	287.1	DIRECTIONAL
13:00	2589.50	89.10	285.4	DIRECTIONAL
14:15	2609.00	89.70	285.6	DIRECTIONAL
14:45	2628.00	89.80	287	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Versamul	1	bri
Calcium Chloride	30	sxs
Barite	125	sxs

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service function test rig smart anti-collision system,function test crown saver, function test hydill 13 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
8:15	15:15	7.00	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2514m to 2686m
15:15	16:00	0.75	20A	Acclumlated time for directonal surveys

Remarks
Level one overhead inspection BY
blow down boilers 2 times 100L

SAFETY

Safety Topic	MEHL	MACP
Prepare casing		3639

TOUR 3 SIGNATURE OF DRILLER CURTIS DAY START TIME 16:00 END TIME 24:00

BITS

Bit Number	5
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	2152.00
Total Drilled (m)	685.00
Hrs Run Today	6.00
Cumulative Hrs Run	29.75
Entry Date	

CUTTING STRUCTURE

I1		Gauge	
T0		ODC	
MDC		Pressure Pulse	
LOC		Total Pressure Pulse	23.03
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
2686.00	2837.00	DRILL	80	9

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	63	0.19
1	Mud motor	123	63	8.93
1	NM Pony Monel	119	57	3.10
1	Slick monel	119	67	9.47
1	Landing Sub	119	63	0.58
1	4.75 LWD SAWR	130	70	6.18
1	4.75 LWD ABS	131	70	4.79
1	x/o	120	56	0.87
1	Slick monel	119	67	9.50
1	X/O	128	58	0.82
3	4" H.W	101	65	28.27
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
64	Drill Pipe	Stands		1217.38
0	Drill Pipe	Singles		0.00

Kelly Down	0.00
Total	2837.91
Weight of DC	
Weight of String	68.00

HOLE CONDITION

Hole Drag	Up	5000	Down	5000
Torque At Bottom		11500		
Fill On Bottom				

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time	21:00	22:45
Density	1110	1110
Funnel Viscosity	68	68
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2762.00	2818.00
PVT	43	50

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	120	16600	7.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
2	6733	@	78	@	2784.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
19:00	2703.50	89.60	286.7	DIRECTIONAL
19:30	2722.50	89.00	287.3	DIRECTIONAL
21:00	2741.50	88.90	284.9	DIRECTIONAL
22:00	2760.50	89.10	285.6	DIRECTIONAL
22:45	2779.50	89.30	286.4	DIRECTIONAL
23:30	2798.50	89.40	286.3	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Versacoat HF	1	bbl

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	17:15	1.25	2	Drill 156mm hole, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2686m to 2704m
17:15	17:30	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver, function test HCR 3 sec to open, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:30	17:45	0.25	21A	Held BOP drill with crew, well secure in 90 sec
17:45	19:00	1.25	2	Drill 156mm hole, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2704m to 2723 m
19:00	19:15	0.25	21	Crew handover meeting, Conoco reps. and toolpush
19:15	20:15	1.00	2	Drill 156mm hole, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2723m to 2761 m
20:15	20:45	0.50	8C	Changed out seat & valve in pump # 2 flywheel side
20:45	23:15	2.50	2	Drill 156mm hole, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend 1.66m bit to bend mud motor from 2761m to 2837m
23:15	24:00	0.75	10	Accumulated time for directional surveys

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
B.O.P drill		3247

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140216_1A | Vendor Software Version: RMS 2013.8.14.27104 | Year: 2014 | Month: 02 | Day: 16

Licence No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS — OP RM

	RT	RV
(1.) Daily Walk Around Inspection		
(2.) Derailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required		
(4.) Well Licence & Slick Diagram Posted	RT	RV
(5.) Flare Lines Staked	RT	RV
(6.) BOP Drills Performed	RT	RV
(7.) Visually Inspected BOP Re-Flare Lines & Degasser Lines	RT	RV
(8.) Rig Site Health & Safety Meeting (environment)		RV
(9.) CADDC Rig Safety Inspection Checklist (environment)		
(10.) Next Inspection before Raising or Lowering		
(11.) Crown Saver Checked		RV
(12.) Motor Kills Checked		

Daily Summary | Op Fluid

FUEL @ 08:00 HRS

Rig: 160 | Prev: 182 | Time: 05:30 | Temp: -36 | Comments: PARTLY CLOUDY | Wind Direction: W | Wind Strength: UP TO 19 KM/H | Hazard Comment: GOOD

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
Tour 1						6.25	0.25														0.50				1.00	8.00
Tour 2		4.50			1.50	0.75	0.50								0.25					0.25	0.25					8.00
Tour 3		6.75					0.25			0.75											0.25					8.00
TOTAL		11.25			1.50	7.00	1.00			0.75					0.25					0.25	1.00				1.00	24.00

WEATHER

Visibility: GOOD | Ice Fog: | Ice Crystals: | Blowing Snow: | Blowing Sand: | Thunderstorm: | Rain: | Snow: | Freezing Rain: | Hail: | Drizzle: | Fog: | Haze: | Smoke: | Dust: | Mist: | Clear: | Partly Cloudy: | Overcast: | Sky Obscured:

TOUR 1

SIGNATURE OF DRILLER: BRIAN BERGSETH | START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	5
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	2152.00
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	0.00
Entry Date	

CUTTING STRUCTURE: I | Gage | TO | ODC | MDC | Reason Pulled | LDC | Tooth Pulled | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	63	0.19
1	Mud motor	123	63	8.93
1	NM Pony Monel	119	57	3.10
1	Slick monel	119	67	5.47
1	Landing Sub	119	63	0.58
1	4.75 LWD SAWR	130	70	6.18
1	4.75 LWD ABS	131	70	4.79
1	x/o	120	56	0.67
1	Slick monel	119	67	9.50
1	X/O	128	58	0.82
3	4" H.W	101	65	28.27
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
28	Drill Pipe	Stands		592.54
0	Drill Pipe	Singles		0.00

Kelly Down: 0.00 | Total: 2153.07 | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		
PVT		

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig service function test rig smart anti-collision system, function test blind ram's 3 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
0:15	1:15	1.00	25	Tighten bolt on Packoff Seal Assembly, pressure test Packoff Seal Assembly, held OK. Unscrew from packoff, make up running tool for and install wear bushing
1:15	1:30	0.25	21D	Safety meeting prior to pick up directional tools
1:30	3:30	2.00	6C	Pick up and make up, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, MWD and LWD tools, 2-joints of HWDP, Jars, 1-joint of HWDP
3:30	7:45	4.25	6A	Trip in hole with Pick up and make up, Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, MWD and LWD tools, 2-joints of HWDP, Jars, 1-joint of HWDP
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T,daily walk around rig inspection D/O.

Remarks
blow down boilers 200 l boiler # 2 fuel 1.12

SAFETY

Safety Topic	MEHL	MACP
pick up & make up dir tools & trip in hole		

TOUR 2

SIGNATURE OF DRILLER: DEVAN SCHLITTER | START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	5
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	2152.00
Total Drilled (m)	58.00
Hrs Run Today	3.50
Cumulative Hrs Run	3.50
Entry Date	

CUTTING STRUCTURE: I | Gage | TO | ODC | MDC | Reason Pulled | LDC | Tooth Pulled: 16.57 | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
2152.00	2210.00	DRILL	80	10

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	63	0.19
1	Mud motor	123	63	8.93
1	NM Pony Monel	119	57	3.10
1	Slick monel	119	67	9.47
1	Landing Sub	119	63	0.58
1	4.75 LWD SAWR	130	70	6.18
1	4.75 LWD ABS	131	70	4.79
1	x/o	120	56	0.67
1	Slick monel	119	67	9.50
1	X/O	128	58	0.82
3	4" H.W	101	65	28.27
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
31	Drill Pipe	Stands		589.61
0	Drill Pipe	Singles		0.00

Kelly Down: 0.00 | Total: 2210.14 | Weight of DC | Weight of String: 61500.00

HOLE CONDITION: Hole Drag Up: 5000 Down: 6000 | Torque At Bottom: 8600 | Fill On Bottom

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time	11:30	16:00
Density	970	980
Funnel Viscosity	60	64
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2154.00	2200.00
PVT	51	51

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	SINGLE	127	120	12000	5.50

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	1661	@	43	@	2171.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Truvis	3	sks
Lime	40	sks

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service function test rig smart anti-collision system, function test pipe rams 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
8:15	9:00	0.75	6A	Trip in the hole to 1996m, fill pipe and test MWD tool
9:00	9:15	0.25	21A	BOP drill crew in position well secure in 90 sec
9:15	10:15	1.00	5	Wash to bottom from 1996m Tag cement at 2133m
10:15	11:15	1.00	2C	Drill cemet float and shoe, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2132m to 2152m
11:15	11:45	0.50	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2152m to 2157m
11:45	12:15	0.50	5	Circulate bottoms up, prior to formation integrity test
12:15	12:30	0.25	15A	Conduct formation integrity test, hold pressure for 10 min, AT 4860kpa. Held OK.
12:30	14:00	1.50	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2157m to 2174m
14:00	14:15	0.25	7A	Clean suction screen, on mud pumps
14:15	15:45	1.50	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2174m to 2210m

Remarks
Level 1 inspection on tongs and overhead equipment D.S
Blew down boilers 2 times each 100L

SAFETY

Safety Topic	MEHL	MACP
Run in hole with top drive		5815

TOUR 3

SIGNATURE OF DRILLER: BRIAN BERGSETH | START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	5
Size	156
IADC Code	
Manufacturer	Smith
Type	MS1613UBPXX
Serial No	JH8401
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	2152.00
Total Drilled (m)	202.00
Hrs Run Today	6.75
Cumulative Hrs Run	10.25
Entry Date	

CUTTING STRUCTURE: I | Gage | TO | ODC | MDC | Reason Pulled | LDC | Tooth Pulled: 19.71 | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
2210.00	2354.00	DRILL	80	10

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	Bit	156	63	0.19
1	Mud motor	123	63	8.93
1	NM Pony Monel	119	57	3.10
1	Slick monel	119	67	9.47
1	Landing Sub	119	63	0.58
1	4.75 LWD SAWR	130	70	6.18
1	4.75 LWD ABS	131	70	4.79
1	x/o	120	56	0.67
1	Slick monel	119	67	9.50
1	X/O	128	58	0.82
3	4" H.W	101	65	28.27
1	Jar	131	59	5.07
1	4" H.W	101	65	9.12
39	Drill Pipe	Stands		741.93
0	Drill Pipe	Singles		0.00

Kelly Down: -8.46 | Total: 2354.00 | Weight of DC | Weight of String: 67.00

HOLE CONDITION: Hole Drag Up: 5000 Down: 6000 | Torque At Bottom: 10600 | Fill On Bottom

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time	20:30	22:45
Density	1010	1010
Funnel Viscosity	63	64
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2290.00	2329.00
PVT	49	48

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	127	134	15600	7.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	5153	@	78	@	2329.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
16:30	2190.00	88.00	280.5	DIRECTIONAL
17:30	2209.00	88.50	281.1	DIRECTIONAL
18:15	2228.00	89.20	281.2	DIRECTIONAL
19:15	2247.00	89.30	281.5	DIRECTIONAL
20:15	2266.00	88.20	276.5	DIRECTIONAL
21:15	2285.00	89.30	281	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Barite	56	sx
Lime	9	sx
Truvis	4	sx
Calcium Chloride	4	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:15	0.25	7	Rig service function test rig smart anti-collision system, function test hydrill 13 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
16:15	19:00	2.75	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2210m to 2267 m
19:00	19:15	0.25	21	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection
19:15	23:15	4.00	2	Drill 156mm hole, with Smith 156mm MSi613 PDC bit, Weatherford 7/8 Lobe, 3.8 Stage (rpm at 0.135/L), 1.36deg bend, 1.66m bit to bend mud motor, from 2267m to 2354m
23:15	24:00	0.75	10	accumulated time for dir surveys

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
		5815

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140215_1A	RMS 2013.8.14.27104	2014	02	15

License No	Well Name	Surface Location	Footage	Lsd	Loc Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS		

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	Rig Release Date Time
10351612	152	29-Jan-2014 00:00	

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager
RICHARD TURGEON	RICK YAVIS

DAILY CHECKS (OP / RM)

(1.) Daily Walk Around Inspection — RT RY
(2.) Detailed Inspection - Weekly (Using Check List) — RT RY
(3.) H2S Signs Posted If Required — RT RY
(4.) Well License & Sick Diagram Posted — RT RY
(5.) Flare Lines Staked — RT RY
(6.) BOP Drills Performed — RT RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines — RT RY
(1.) Rig Site Health & Safety Meeting (one/month) — RY
(2.) CADDC Rig Safety Inspection Checklist (one/month) — RY
(3.) Lines Inspected before Raising or Lowering — RY
(4.) Crown Saver Checked — RY
(5.) Motor Kills Checked — RY

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1							0.25					7.50									0.25					8.00
Tour 2					6.00		0.25					1.50									0.25					8.00
Tour 3							0.25					3.25	2.50												2.00	8.00
TOTAL					6.00		0.75					12.25	2.50								0.50				2.00	24.00

FUEL @ 08.00 HRS

Rig	Meter
150	180
Time	Temp
05:45	-36

WEATHER

Survey Conducted In	Wind Direction	Wind Strength
CLEAR	N	UP TO 19 KM/H
Road Condition		
GOOD		

Kelly Bushing | Op Fluid

TOUR 1

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	Size	IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date

CUTTING STRUCTURE

In		Gauge	
To		ODC	
MDC		Reason Pulled	
LDC		Total Rev Hours	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands
Drill Pipe: Singles
Kelly Down
Total
Weight of DC
Weight of String

HOLE CONDITION

Hole Drag: Up / Down
Torque At Bottom
Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	SINGLE	127	100	700	1.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig service function test rig smart anti-collision system, function test hydril 14 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
0:15	4:00	3.75	12B	Run 177.8mm intermediate Casing, 1- 177.8mm float shoe, 1-joint of 177.8mm, 38.69kg/m, P-110, LTC casing, 1-177.8mm float collar, 160-joints of 177.8mm, 38.69kg/m, P-110, LTC intermediate casing, from 2152mMD to 5.20m,
4:00	7:45	3.75	12B	Run 35 Volant Hydroform centralizers from 2152mMD to 1698m, run 10-Weatherford Micro Seal Packers, from 1818mMD to 1698mMD, RUN 41 Topco bow spring centralizers to surface
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T,daily walk around rig inspection D/O.

Remarks
blow down boilers 200 l fuel for boiler # 2 1.17

SAFETY

Safety Topic	MEHL	MACP
run casing		4991

TOUR 2

SIGNATURE OF DRILLER: DEVAN SCHLITTER

START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	Size	IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date

CUTTING STRUCTURE

In		Gauge	
To		ODC	
MDC		Reason Pulled	
LDC		Total Rev Hours	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands
Drill Pipe: Singles
Kelly Down
Total
Weight of DC
Weight of String

HOLE CONDITION

Hole Drag: Up / Down
Torque At Bottom
Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	SINGLE	127	115	1700	1.50
2	SINGLE	127	5	1700	2.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service function test rig smart anti-collision system, function test HCR 2 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
8:15	9:15	1.00	12B	Fill every 20 joints and break circulation every 700m. Tag bottom at 2152mMD. Total length of 177.8mm intermediate casing: 2151.70m, float collar at 2136.75mMD
9:15	10:30	1.25	5	Circulate 2 bottoms up, hole clean
10:30	11:00	0.50	12B	Lay down joint of casing install mandrell hanger and land
11:00	15:45	4.75	5	Circulate casing on bottom, rig out laydown truck and power tongs
15:45	16:00	0.25	21	Safety meeting with Schlumberger cementers, prior to cement 177.8mm intermediate casing. Reviewed jsa.#105 rig to and cement casing

Remarks
Level 1 inspection on tongs and overhead equipment D.S
Blew down boilers 2 times 100L
7" SLX 150 ton side door casing elavator certification serial # HTHE-38, inspection H-23735, work order 100113

SAFETY

Safety Topic	MEHL	MACP
Rig to and cement casing		4991

TOUR 3

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	Size	IADC Code	Manufacturer	Type	Serial No	Jets	Depth Out (m)	Depth In (m)	Total Drilled (m)	Hrs Run Today	Cumulative Hrs Run	Entry Date

CUTTING STRUCTURE

In		Gauge	
To		ODC	
MDC		Reason Pulled	
LDC		Total Rev Hours	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands
Drill Pipe: Singles
Kelly Down
Total
Weight of DC
Weight of String

HOLE CONDITION

Hole Drag: Up / Down
Torque At Bottom
Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	18:30
Density	1025
Funnel Viscosity	78
Fluid Loss	
pH	
Location Of Sample	shaker
Depth	2159.00
PVT	40

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	19:15	3.25	12	Rig in Schlumberger cementers to cement 177.8mm intermediate casing, pump 8m3 of 1000kg/m3 CW8 pre-flush, stop and pressure test lines to 21,000kPA (held OK), bleed off pressure, pump 8m3 of 1200kg/m3 MUDPUSH II pre-flush spacer, pump 19 tonne/26.2m3 (35% excess) HiLITE 1400 lead cement with 0.2%Anti Foam + 0.6% Fluid Loss + 0.6% Low Temp Dispersant + 60L/tonne Gas Control Agent + 0.3% Antisettling, from 1500m to 5.20m. pump 16 tonne/12.3m3 (35% excess), 1900kg/m3 Conventional Class G Tail Cement with 0.6% Fluid Loss + 0.5% Dispersant + 0.2% Anti Foam + 0.2% Retarder +72L/tonne Gas Control Agent, from 2152m to 1500m. Drop plug and displace 42.6m3 of Invert. Bump plug, 3,500kpa over final circulating pressure of 8,500kpa. At 19:05 Hrs, February 15 2014. Bleed off pressure, Pressure test casing to 18,500kpa for 10 min. Bleed off pressure, floats did not hold. Closed valves on cementing head
19:15	19:30	0.25	7	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
19:30	22:00	2.50	13	Wait on cement with valves on cementing head closed
22:00	23:15	1.25	25	Opened valves on cementing head, drained head, vac truck sucked out cementing head and landing joint, drain BOP stack, removed cementing head, turned landing joint out of mandrel hanger, lay down landing joint
23:15	24:00	0.75	25	Pick up 1 joint of 4" drill pipe, installed Pack-off Seal Assembly running tool, pick up Pack-off Seal Assembly, run in and set

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140214_1A	RMS 2013.8.14.27104	2014	02	14

Licence No	Well Name	Surface Location	Prov	Loc Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		

Operator's AFE	Contractor's Job No	Spud Date Time
10351812	152	29-Jan-2014 00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS — OP RM

	OP	RM
(1.) Daily Walk Around Inspection	RT	RV
(2.) Detailed Inspection - Weekly (Using Check List)	RT	RV
(3.) H2S Signs Posted If Required		
(4.) Well Licence & Sick Diagram Posted	RT	RV
(5.) Flare Lines Staked	RT	RV
(6.) BOP Drills Performed		
(7.) Visually Inspected BO Pit-Flare Lines & Degasser Lines	RT	RV
(1.) Rig Site Health & Safety Meeting (ers/mo/hr/min)		RV
(2.) CAODC Rig Safety Inspection Checklist (ers/hr/min)		
(3.) Hoist Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RV
(5.) Motor Kills Checked		

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
	Rig Up	Drill Actual	Reaming	Coring	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drlg Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Wiring On	Rig Maint	Other	TOTAL
HOURS Tour 1							0.25				6.00									0.50	0.50				0.75	8.00
Tour 2							0.25				4.75										0.25				2.75	8.00
Tour 3							0.25					2.75									2.00				3.00	8.00
TOTAL							0.75				10.75	2.75								0.50	2.75				6.50	24.00

Daily Drilling | Up Fuel

FUEL @ 08:00 HRS

Rig	Up
145	182

WEATHER: Time 05:45 | Temp -35 | General Conditions: CLEAR | Wind Direction: N | Wind Strength: UP TO 19 KM/H | Road Conditions: GOOD

TOUR 1

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: In | Grade | TO | ODC | MDC | Reason Pulled | LOC | Total Run (hrs) | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:30	0.50	20D	Handle directional tools & lay down tools
0:30	1:15	0.75	25	attempt to pull out wear bushing
1:15	1:30	0.25	7	Rig service function test rig smart anti-collision system, function test blind ram's 3 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
1:30	1:45	0.25	21	Safety meeting with Schlumberger prior to open hole log
1:45	7:45	6.00	11	Wireline open hole logs, AIT-TLD-HGNS-GR-BHC-TLD2-EMS-EMA-ECRD tools, to point of refusal at 2065.75mMD. Inc: 71deg. with Schlumberger
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T.

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
logging		

TOUR 2

SIGNATURE OF DRILLER: DEVAN SCHLITTER

START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: In | Grade | TO | ODC | MDC | Reason Pulled | LOC | Total Run (hrs) | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	11:30	3.50	11A	Wireline logs with Schlumberger.
11:30	11:45	0.25	21	Safety meeting prior to rigging out loggers.
11:45	13:00	1.25	11	Rig out Schlumberger loggers.
13:00	13:15	0.25	7	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close, function test crown saver,grease all moving parts, check oil levels in floor motor and HPU
13:15	16:00	2.75	25	Mill and attempt to retreive damaged wear bushing/modify wear bushing puller

Remarks
Level 1 inspection on tongs and overhead equipment D.S
Blew down boilers 2 times 100L

SAFETY

Safety Topic	MEHL	MACP
		4991

TOUR 3

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: In | Grade | TO | ODC | MDC | Reason Pulled | LOC | Total Run (hrs) | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:15	0.25	7	Rig service function test rig smart anti-collision system, function test HCR 3 sec to open, function test crown saver,grease all moving parts, check oil levels in floor motor and HPU
16:15	16:45	2.50	25	Mill and attempt to retreive damaged wear bushing/modify wear bushing puller
16:45	19:00	0.25	21D	Crew handover meeting, Conoco reps. and toolpush present, daily walk around rig inspection R/T,daily walk around rig inspection D/O.
19:00	19:30	0.50	25	Retreive wear bushing
19:30	20:45	1.25	21	Safety meeting, with Hallmark power tongs and Mike lay down truck, prior to rigging up
20:45	22:00	1.25	12A	Rig up Hallmark power tongs and Mike lay down truck, rig in hole fill line
22:00	22:30	0.50	21	Safety meeting prior to running 177.8mm intermediate casing.
22:30	24:00	1.50	12A	Make up float shoe, 1x joint of 177.8mm intermediate casing, float collar. Test floats, run in 177.8mm intermediate casing, with Hallmark power tongs

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
rig up laydown truck run casing		4991

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140213_1A	RMS 2013.8.14.27104	2014	02	13

License No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time	
RICHARD TURGEON	RICK YAVIS		

DAILY CHECKS — OP RM

	OP	RM
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required	RT	RY
(4.) Well Licence & Sfok Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed	RT	RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (once/week/month)		RY
(2.) CAODC Rig Safety Inspection Checklist (one/fortnight)		
(3.) Next Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Casing	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 DrillStem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1		6.50					0.25	0.50		0.50											0.25					8.00
Tour 2		1.00			2.75	3.00	0.25		1.00																	8.00
Tour 3					0.25	6.50	0.25													0.50	0.50					8.00
TOTAL		7.50			3.00	9.50	0.75	0.50	1.00	0.50										0.50	0.75					24.00

FUEL @ 09:00 HRS

WEATHER		
Rig	147	Base 195
Time	05:00	Temp -36
Current Conditions	CLEAR	
Wind Direction	N	Wind Strength UP TO 19 KM/H
Road Conditions	GOOD	

TOUR 1 — SIGNATURE OF DRILLER: BRIAN BERGSETH — START TIME 0:00 — END TIME 8:00

BITS

Bit Number	4
Size	222
IADC Code	
Manufacturer	Smith
Type	FHi18B
Serial No	RA3595
Jets	20 20 20
Depth Out (m)	
Depth In (m)	1921.00
Total Drilled (m)	
Hrs Run Today	6.50
Cumulative Hrs Run	30.25
Entry Date	11-Feb-2014

CUTTING STRUCTURE

I		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Run (m hrs)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
2104.00	2146.00	DRILL	40	17

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
91	Drill Pipe	Stands		1730.84
0	Drill Pipe	Singles		0.00

Kelly Down	-4.00
Total	2146.20
Weight of DC	
Weight of String	71.00

HOLE CONDITION

Hole Drag	Up	8	Down	8
Torque At Bottom		8000		
Fill On Bottom				

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other ☐

Time	02:00	04:30
Density	1005	1000
Funnel Viscosity	76	78
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2131.00	2116.00
PVT	45	44

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	103	16800	7.00
2	PARALLEL	127	103	16800	7.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	3111	@	80	@	2111.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
01:45	2091.00	77.91	276.74	DIRECTIONAL
03:15	2100.50	79.72	277.98	DIRECTIONAL
04:45	2110.00	81.80	277.5	DIRECTIONAL
06:15	2119.50	84.20	277.36	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	1:15	1.25	2	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2104m to 2112 m
1:15	1:30	0.25	7	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
1:30	6:45	5.25	2	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8lobe, 5 stage (0.077rev/L), set at 1.93deg. with 0.81m from bit to bend, from 2112m to 2146m
6:45	7:15	0.50	8G	Replace rubber on bottom of shaker
7:15	7:45	0.50	10	Acclumlated time for dir surveys
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps, and toolpush present, daily walk around rig inspection RIT.

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
mouse hole conections with top drive		4991

TOUR 2 — SIGNATURE OF DRILLER: DEVAN SCHLITTER — START TIME 8:00 — END TIME 16:00

BITS

Bit Number	4
Size	222
IADC Code	
Manufacturer	Smith
Type	FHi18B
Serial No	RA3595
Jets	20 20 20
Depth Out (m)	2152.00
Depth In (m)	1921.00
Total Drilled (m)	231.00
Hrs Run Today	1.00
Cumulative Hrs Run	31.25
Entry Date	11-Feb-2014

CUTTING STRUCTURE

I		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Run (m hrs)	7.39
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
2146.00	2152.00	DRILL	40	20

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
91	Drill Pipe	Stands		1730.84
1	Drill Pipe	Singles		9.49

Kelly Down	-7.69
Total	2152.00
Weight of DC	
Weight of String	73.00

HOLE CONDITION

Hole Drag	Up	8	Down	8
Torque At Bottom		8400		
Fill On Bottom				

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other ☐

Time	10:45	15:00
Density	1005	1006
Funnel Viscosity	78	79
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2150.00	2150.00
PVT	46	46

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	103	17200	5.50
2	PARALLEL	127	103	17200	5.50

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	2672	@	76	@	2149.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Barite	70	SXS

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:30	0.50	2	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2146m to 2150m
8:30	8:45	0.25	7	Rig service function test rig smart anti-collision system, function test hydrill 13 sec to close, crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
8:45	9:15	0.50	2	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2150m to 2152m
9:15	10:45	1.50	5	Circulate hole clean prior to wiper trip
10:45	12:30	1.75	6M	Wiper trip up to 1699m flow checck at 2140m, 2063m, 1699m
12:30	13:30	1.00	9A	Slip and cut drill line. Cut 54.4m at 2139 MJ
13:30	14:45	1.25	6M	Wiper trip in the hole to 2152mMD, bottom
14:45	16:00	1.25	5	Circulate hole clean and condition mud

Remarks
Level 1 inspection on tongs and overhead equipment D.S
Blew down boilers 2 times 100L
Wiper trip Calc 1.39m3 meas 1.48m3 Diff +0.09

SAFETY

Safety Topic	MEHL	MACP
Pull out of the hole with top drive		4991

TOUR 3 — SIGNATURE OF DRILLER: BRIAN BERGSETH — START TIME 16:00 — END TIME 24:00

BITS

Bit Number	4
Size	222
IADC Code	
Manufacturer	Smith
Type	FHi18B
Serial No	RA3595
Jets	20 20 20
Depth Out (m)	2152.00
Depth In (m)	1921.00
Total Drilled (m)	231.00
Hrs Run Today	
Cumulative Hrs Run	31.25
Entry Date	11-Feb-2014

CUTTING STRUCTURE

I	2	Gauge	1
TO	3	ODC	NO
MDC	WT	Reason Pulled	TD
LOC	G	Total Run (m hrs)	7.39
BRG	1		

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
91	Drill Pipe	Stands		1730.84
1	Drill Pipe	Singles		9.49

Kelly Down	-7.69
Total	2152.00
Weight of DC	
Weight of String	73.00

HOLE CONDITION

Hole Drag	Up		Down	8
Torque At Bottom				
Fill On Bottom				

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other ☐

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		
PVT		

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	103	17200	0.50
2	PARALLEL	127	103	17200	0.50

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	4385	@	88	@	2141.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	0

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
15:00	16:15	0.25	5	Circulate hole clean and condition mud
16:15	16:30	0.25	7	Rig service function test rig smart anti-collision system, function test HCR 3 sec to open, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
16:30	19:45	3.25	6B	Trip out of the hole,
19:45	20:00	0.25	21D	Crew handover meeting, safety meeting with night crew, tripping out of hole, Conoco reps, and toolpush present, daily walk around, rig inspection D/O.
20:00	23:15	3.25	6B	Trip out of the hole to run open hole log,
23:15	23:30	0.25	21	safety meeting on handle dir tools & lay down tools
23:30	24:00	0.50	20D	handle directional tools & lay down tools

Remarks
blow down boilers 200l flow checks @ 2139 m 2071m 1615 m1040m 587 m & out of hole
mud on trip cacl 8.22 m3 meas 9.22 m3 diff + 1.00 m3

SAFETY

Safety Topic	MEHL	MACP
trip out of hole with top drive j.s.a # 259		4991

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140212_1B	Vendor Software Version: RMS 2013.8.14.27104	Year: 2014	Month: 02	Day: 12
License No: 1211	Well Name: COPRC MIRROR LAKE P-20 65-00 126-45	Surface Location: P-20-65-00-126-45	Prov: NT	Lic Type: CLSS	Unique Well Id:
Operator: Conoco Canada	Contractor: Beaver Drilling Ltd.	Rig No: 2	Well Type:	Re-Entry: ☐
Operator's AFE: 10351812	Contractor's Job No: 152	Spud Date Time: 29-Jan-2014 00:00		
Signature Of Operator's Representative: RICHARD TURGEON	Signature Of Contractor's Rig Manager: RICK YAVIS	Rig Release Date Time:		

DAILY CHECKS — DP / RM

	DP	RM
(1.) Daily Walk Around Inspection	RT	RY
(2.) Detailed Inspection - Weekly (Using Check List)	RT	RY
(3.) H2S Signs Posted if Required	RT	
(4.) Well Location & Slot Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed	RT	RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (one/crew/month)		RY
(2.) CAODC Rig Safety Inspection Checklist (one/tightwrth)		RY
(3.) Mast Inspection before Raising or Lowering		RY
(4.) Crown Saver Checked		
(5.) Motor Kills Checked		

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drill Stem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Other Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
Tour 1		6.25					0.25	0.25		0.50	0.50										0.25					8.00
Tour 2		6.50					1.00													0.50						8.00
Tour 3		7.00					0.25			0.50											0.25					8.00
TOTAL		19.75					1.50	0.25		1.00	0.50									0.50	0.50					24.00

Kelly Bushing: | Drill Floor:

FUEL @ 08:00 HRS

	Rig	Crew
	180	190

WEATHER

Time	Temp
04:30	-36

Current Conditions: CLEAR

Wind Direction	Wind Strength
N	UP TO 19 KM/H

Road Conditions: GOOD

TOUR 1

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	4
Size	222
IADC Code	
Manufacturer	Smith
Type	FHi18B
Serial No	RA3595
Jets	20 20 20
Depth Out (m)	
Depth In (m)	1921.00
Total Drilled (m)	105.00
Hrs Run Today	6.25
Cumulative Hrs Run	10.25
Entry Date	11-Feb-2014

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Run (m hr)	10.24
BRG			

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
84	Drill Pipe	Stands		1597.67
1	Drill Pipe	Singles		9.54

Kelly Down: 0.00
Total: 2026.57
Weight of DC:
Weight of String: 71.00

METRES DRILLED

From	To	D-R-C	RPM	WOB
1993.00	2026.00	DRILL	40	16

HOLE CONDITION

Hole Drag: Up 6 Down 6
Torque At Bottom: 7550
Fill On Bottom:

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other:

Time	01:00	04:00
Density	1010	1010
Funnel Viscosity	73	73
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1980.00	1198.00
PVT	44	44

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	103	16400	6.00
2	PARALLEL	127	103	16400	6.00

Remarks:

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	2748	@	83	@	1597.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
02:00	1977.00	46.31	280.45	DIRECTIONAL
04:00	1986.50	48.39	279.96	DIRECTIONAL
05:45	1996.00	50.69	277.67	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density
Centrifuge #1	1.50	1010	1000	1820

MUD MATERIALS ADDED

Product	Amount	Type
Truvis	7	SX

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:45	0.75	2	Drill 222mm hole, with Smith FHi18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1993m to 1998m
0:45	1:00	0.25	7	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close crown saver,grease all moving parts.
1:00	1:30	0.50	11A	Relog 11 m of gamma
1:30	5:45	4.25	2	Drill 222mm hole, with Smith FHi18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1998m to 2016 m
5:45	6:00	0.25	8B	Changed out batterys on low angle sencor. on top drive bails
6:00	7:15	1.25	2	Drill 222mm hole, with Smith FHi18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2016m to 2026m
7:15	7:45	0.50	10	Accumulated time for dir surveys
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps. and toolpush present, daily rig walk around rig inspection R/T

Remarks:
BLOW DOWN BOILERS 200 L

SAFETY

Safety Topic	MEHL	MACP
beaver's 10 golden rules of drilling safety		4932

TOUR 2

SIGNATURE OF DRILLER: DEVAN SCHLITTER

START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	4
Size	222
IADC Code	
Manufacturer	Smith
Type	FHi18B
Serial No	RA3595
Jets	20 20 20
Depth Out (m)	
Depth In (m)	1921.00
Total Drilled (m)	148.00
Hrs Run Today	6.50
Cumulative Hrs Run	16.75
Entry Date	11-Feb-2014

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Run (m hr)	8.84
BRG			

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	8.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	8.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
87	Drill Pipe	Stands		1654.73
0	Drill Pipe	Singles		0.00

Kelly Down: -5.00
Total: 2069.09
Weight of DC:
Weight of String: 71000.00

METRES DRILLED

From	To	D-R-C	RPM	WOB
2026.00	2069.00	DRILL	40	16

HOLE CONDITION

Hole Drag: Up 8 Down 8
Torque At Bottom: 8750
Fill On Bottom:

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other:

Time	08:00	12:30
Density	1010	1010
Funnel Viscosity	76	79
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2027.00	2048.00
PVT	43	42

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	103	15500	7.00
2	PARALLEL	127	103	15500	7.00

Remarks:

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	3367	@	80	@	2034.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
09:15	2015.00	57.30	277.6	DIRECTIONAL
11:30	2024.50	60.60	278.5	DIRECTIONAL
13:15	2034.00	64.20	278.5	DIRECTIONAL
15:15	2043.50	66.00	277.5	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
OptiSeal III	2	SXS
Versatrol	3	SXS
Cal-Carb	10	SXS

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	9:15	1.25	2	Drill 222mm hole, with Smith FHi18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2026m to 2036m
9:15	9:30	0.25	7	Rig service function test rig smart anti-collision system, function test Hydrill 13sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
9:30	10:15	0.75	7A	Clean suction screen on mud pump, change shaker screen
10:15	15:30	5.25	2	Drill 222mm hole, with Smith FHi18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2036m to 2069m
15:30	16:00	0.50	20A	Accumilated directional surveys

Remarks:
Level 1 inspection on tongs and overhead equipment D.S
Blew down boilers 2 times 100L

SAFETY

Safety Topic	MEHL	MACP
Pick up DP with tugger and place in mouse hole		4932

TOUR 3

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	4
Size	222
IADC Code	
Manufacturer	Smith
Type	FHi18B
Serial No	RA3595
Jets	20 20 20
Depth Out (m)	
Depth In (m)	1921.00
Total Drilled (m)	183.00
Hrs Run Today	7.00
Cumulative Hrs Run	23.75
Entry Date	11-Feb-2014

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Run (m hr)	7.71
BRG			

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	8.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
89	Drill Pipe	Stands		1692.77
0	Drill Pipe	Singles		0.00

Kelly Down: -8.13
Total: 2104.00
Weight of DC:
Weight of String: 71.00

METRES DRILLED

From	To	D-R-C	RPM	WOB
2069.00	2104.00	DRILL	40	16

HOLE CONDITION

Hole Drag: Up 8 Down 8
Torque At Bottom: 7950
Fill On Bottom:

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other:

Time	18:30	21:30
Density	1005	1000
Funnel Viscosity	78	76
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	2080.00	2093.00
PVT	48	47

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	103	15600	7.00
2	PARALLEL	127	103	15600	7.00

Remarks:

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	4978	@	97	@	2072.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
17:00	2053.00	67.70	277	DIRECTIONAL
19:30	2062.50	70.22	276.74	DIRECTIONAL
21:45	2072.00	72.78	276.88	DIRECTIONAL
23:45	2081.50	75.30	278.37	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	17:00	1.00	2	Drill 222mm hole, with Smith FHi18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2069m to 2074m
17:00	17:15	0.25	7	Rig service function test rig smart anti-collision system, function test HCR 2sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:15	19:00	1.75	2	Drill 222mm hole, with Smith FHi18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2074m to 2081m
19:00	19:15	0.25	21	Crew handover meeting, Conoco reps. and toolpush present, daily rig walk around rig inspection D/O
19:15	23:30	4.25	2	Drill 222mm hole, with Smith FHi18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 2081m to 2104 m
23:30	24:00	0.50	10	Accumilated time for dir surveys

Remarks:
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
		4932

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140211_1A	RMS 2013.8.14.27104	2014	02	11

License No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	N=Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time	
RICHARD TURGEON	RICK YAVIS		

DAILY CHECKS — DP RM

	DP	RM
(1.) Daily Walk Around Inspection	RT	RY
(2.) Detailed Inspection - Weekly (Using Check List)	RT	RY
(3.) H2S Signs Posted/If Required	RT	RY
(4.) Well Licence & Stick Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed	RT	RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (environment)		RY
(2.) CAODC Rig Safety Inspection Checklist (one/quarter)		
(3.) Mast Inspection before Raising or Lowering		RY
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1						2.50	0.25		0.75											0.75	0.50				3.25	8.00
Tour 2		4.00			0.75	2.50	0.25													0.50						8.00
Tour 3		6.25					0.25	0.50		0.50											0.50					8.00
TOTAL		10.25			0.75	5.00	0.75	0.50	0.75	0.50										1.25	1.00				3.25	24.00

FUEL @ 08:00 HRS

Kelly Spinning	Op Fuel

Rig	Diesel
120	120

WEATHER

Time	Temp
05:00	-32

Weather Conditions	
CLEAR	

Wind Direction	Wind Strength
N	CALM

Road Condition
GOOD

TOUR 1 — SIGNATURE OF DRILLER: BRIAN BERGSETH — START TIME: 0:00 — END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Pressure Pulse	
LOC		Total Pwr (HP)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.60
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
79	Drill Pipe	Stands		1502.53
0	Drill Pipe	Singles		0.00

Kelly Down	0.00
Total	1921.89
Weight of DC	
Weight of String	

HOLE CONDITION

Hole Drag	Up	Down	
Torque At Bottom			
Fill On Bottom			

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		
PVT		

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	105	16000	8.00
2	PARALLEL	127	105	16000	8.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig service function test blind ram's 3 sec to close and crown saver
0:15	3:30	3.25	25	Attempt to pull wear bushing wwith bushing puller and a stand of HWDP, was able to get bit and mud motor with a 1.93deg bend, through wear bushing
3:30	3:45	0.25	21	Safety meeting with Pathfinder directional hands and Extreem MWD hand prior to handle directional tools
3:45	4:30	0.75	20D	Scribe and handle directional tools, check MWD
4:30	6:00	1.50	6A	Trip in hole with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend
6:00	6:45	0.75	9A	Hang blocks and top drive, slip and cut 21 m drilling line
6:45	7:45	1.00	6A	Trip in hole with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend
7:45	8:00	0.25	21	Crew handover meeting, Conoco reps. and toolpush present

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
rin in hole with top drive		4860

TOUR 2 — SIGNATURE OF DRILLER: DEVAN SCHLITTER — START TIME: 8:00 — END TIME: 16:00

BITS

Bit Number	4
Size	222
IADC Code	
Manufacturer	Smith
Type	FHI18B
Serial No	RA3595
Jets	20 20 20
Depth Out (m)	
Depth In (m)	1921.00
Total Drilled (m)	27.00
Hrs Run Today	4.00
Cumulative Hrs Run	4.00
Entry Date	11-Feb-2014

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Pressure Pulse	
LOC		Total Pwr (HP)	6.75
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
1921.00	1948.00	DRILL	10	16

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.60
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
81	Drill Pipe	Stands		1540.59
0	Drill Pipe	Singles		0.00

Kelly Down	-11.95
Total	1948.00
Weight of DC	
Weight of String	71000.00

HOLE CONDITION

Hole Drag	Up 8	Down	8
Torque At Bottom			7900
Fill On Bottom			

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time	11:00	14:15
Density	1010	1015
Funnel Viscosity	70	70
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1940.00	1953.00
PVT	48	47

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	105	16000	5.00
2	PARALLEL	127	105	16000	5.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	4000	@	92	@	1920.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
12:00	1910.50	28.80	283.4	DIRECTIONAL
13:30	1920.00	30.90	281.1	DIRECTIONAL
15:15	1929.50	34.60	284.4	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Calcium Chloride	25	sxs

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service function test rig smart anti-collision system, function test pipe rams 5 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
8:15	10:45	2.50	6A	Trip in the hole fill pipe, flow check at 647m,1495m
10:45	11:00	0.25	5	Wash to bottom from 1912m to 1921m
11:00	15:00	4.00	2	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1921m to 1948m
15:00	15:30	0.50	5	Work tight hole at 1941m
15:30	16:00	0.50	20A	Accumulated directional surveys

Remarks
Level one inspection on tongs and overhead euipment DS
Blow down boilers 2times 100L

SAFETY

Safety Topic	MEHL	MACP
RIH with a top drive		4873

TOUR 3 — SIGNATURE OF DRILLER: BRIAN BERGSETH — START TIME: 16:00 — END TIME: 24:00

BITS

Bit Number	4
Size	222
IADC Code	
Manufacturer	Smith
Type	FHI18B
Serial No	RA3595
Jets	20 20 20
Depth Out (m)	
Depth In (m)	1921.00
Total Drilled (m)	72.00
Hrs Run Today	
Cumulative Hrs Run	4.00
Entry Date	11-Feb-2014

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Pressure Pulse	
LOC		Total Pwr (HP)	18.00
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
1948.00	1993.00	DRILL	40	15

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.60
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
83	Drill Pipe	Stands		1578.64
0	Drill Pipe	Singles		0.00

Kelly Down	-5.00
Total	1993.00
Weight of DC	
Weight of String	71.00

HOLE CONDITION

Hole Drag	Up 4	Down	4
Torque At Bottom			7800
Fill On Bottom			

MUD PECORD

Mud Type: Water ☐ Oil ☑ Other

Time	19:00	21:30
Density	1010	1010
Funnel Viscosity	70	70
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1978.00	1978.00
PVT	44.8	44.3

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	105	16000	6.00
2	PARALLEL	127	105	16000	6.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	4007	@	94	@	1959.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
17:30	1939.00	37.70	282.9	DIRECTIONAL
19:15	1948.50	40.30	282.34	DIRECTIONAL
21:15	1958.00	42.51	282.34	DIRECTIONAL
23:15	1967.50	44.32	279.87	DIRECTIONAL

SOLIDS CONTPOL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
OptiSeal III	5	sx
Versatrol	5	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	17:30	1.50	2	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1948m to 1959m
17:30	17:45	0.25	7	Rig service function test rig smart anti-collision system, function test Hydrill 13sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:45	19:00	1.25	2	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1959m to 1967 m
19:00	19:15	0.25	21D	Crew handover meeting, Conoco reps. and toolpush present
19:15	19:30	0.25	21A	Held BOP drill with rig crew, Conoco rep
19:30	20:00	0.50	8B	Change dies in grabber box on top drive
20:00	23:30	3.50	2	Drill 222mm hole, with Smith FHI18B tricone bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.93 deg. with 0.81m from bit to bend, from 1967m to 1993m
23:30	24:00	0.50	10	Acclumlated time for dir surveys

Remarks
blow down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
b.o.p drill		4873

FRONT PAGE SUMMARY

License No: 1211	Well Name: COPRC MIRROR LAKE P-20 65-00 126-45	Tour Sheet Serial Number: BEAV2_20140210_1A	Vendor Software Version: RMS 2013.8.14.27104	Year: 2014	Month: 02	Day: 10	
Operator: Conoco Canada		Surface Location: P-20-65-00-126-45	From: NT	Lsd Type: CLSS	Unique Well Id:		
Operator's AFE: 10351812	Contractor: Beaver Drilling Ltd.	Contractor's Job No: 152	Rig No: 2	Well Type:	Re-Entry: ☐	Spud Date Time: 29-Jan-2014 00:00	
Signature Of Operator's Representative: RICHARD TURGEON	Signature Of Contractor's Rig Manager: RICK YAVIS		Rig Release Date Time:				

DAILY CHECKS

	OP	RM
(1.) Daily Walk Around Inspection	RT	RY
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted (If Required		
(4.) Well Licence & Shift Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed	RT	RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (one/month)		RY
(2.) CAODC Rig Safety Inspection Checklist (one/quarterly)		
(3.) Mast Inspection before Raising or Lowering		RY
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		RY

CAODC / NOV

Daily Mudding: Dp Pond

FUEL @ 08:00 HRS: Rig 158 | Solar 188

WEATHER: Drive 05:00 | Temp -27 | Comp Conditions: OVERCAST | Wind Direction: NE | Wind Strength: UP TO 19 KM/H | Road Conditions: GOOD

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
Tour 1		5.25					0.25	1.50												0.25	0.75					8.00
Tour 2		1.75			0.50	1.50	0.25	3.50		0.25											0.25					8.00
Tour 3						5.00	0.25													2.00	0.75					8.00
TOTAL		7.00			0.50	6.50	0.75	5.00		0.25										2.25	1.75					24.00

TOUR 1

SIGNATURE OF DRILLER: MARCUS HALLOWES

START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	1329.00
Hrs Run Today	6.00
Cumulative Hrs Run	60.50
Entry Date	06-Feb-2014

CUTTING STRUCTURE: Inner / Outer / TD / ODC / MDC / Reason Pulled / LOC / Total Run (m) 21,97 / BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
1655.00	1902.00	DRILL	65	8

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	8.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
79	Drill Pipe	Stands		1502.53
1	Drill Pipe	Singles		9.52

Kelly Down: 0.00 | Total: 1931.41 | Weight of DC | Weight of String: 69000.00

HOLE CONDITION: Hole Drag Up 2000 Down 2000 | Torque At Bottom: 10100 | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	01:15	04:15
Density	1005	1005
Funnel Viscosity	65	65
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1855.00	1892.00
PVT	45	43

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	105	17200	8.00
2	PARALLEL	127	105	17200	8.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
00:00	1834.00	14.58	285.16	DIRECTIONAL
01:15	1843.50	16.22	285.66	DIRECTIONAL
02:30	1853.00	18.12	286.88	DIRECTIONAL
03:45	1862.50	20.00	286.2	DIRECTIONAL
04:45	1873.00	21.61	284.46	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Calcium Chloride	9	sx
OptiSeal III	5	sx
Truvis	7	sx
Versamul	1	bbl
Versatrol	5	bbl

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	1:00	1.00	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1855m to1864 m
1:00	1:15	0.25	7	Rig service function test rig smart anti-collision system, function test H.C.R 3sec O/C crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU Change oil on floor motor
1:15	5:30	4.25	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1864m to 1902m
5:30	7:00	1.50	8C	work on pump # 1 cap gasket
7:00	7:15	0.25	21	Weekly safety meeting with conoco rep present
7:15	7:30	0.25	20A	Accumulated directional surveys
7:30	8:00	0.50	21D	Crew handover meeting, Conoco reps. and toolpush present

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 100L

SAFETY

Safety Topic	MEHL	MACP
Driving home on long change	78	4932

TOUR 2

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	1921.00
Depth In (m)	602.00
Total Drilled (m)	1319.00
Hrs Run Today	1.75
Cumulative Hrs Run	62.25
Entry Date	06-Feb-2014

CUTTING STRUCTURE: Inner / Outer / TD / ODC / MDC / Reason Pulled / LOC / Total Run (m) 21,19 / BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
1902.00	1921.00	DRILL	65	7

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	8.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
79	Drill Pipe	Stands		1502.53
0	Drill Pipe	Singles		0.00

Kelly Down: 0.00 | Total: 1921.89 | Weight of DC | Weight of String: 70.00

HOLE CONDITION: Hole Drag Up 1000 Down 2000 | Torque At Bottom: 10100 | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	08:00	13:30
Density	1005	1005
Funnel Viscosity	68	68
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1846.00	1905.00
PVT	51	50

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	105	17100	4.00
2	PARALLEL	127	105	17100	4.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
13:00	1881.50	23.70	283	DIRECTIONAL
13:45	1891.50	25.50	284.7	DIRECTIONAL
14:45	1901.00	27.00	282.34	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
8:15	8:45	0.50	6B	Pull out 10 stds of drill pipe off bottom
8:45	12:15	3.50	8C	Change out middle module in pump # 1
12:15	12:45	0.50	6A	Trip in hole, 10 stands to bottom
12:45	14:30	1.75	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1902m to 1921m
14:30	15:00	0.50	5D	Circulate bottoms up, prior to tripping out of hole
15:00	15:15	0.25	10	Accumulated time for dir surveys
15:15	15:30	0.25	21	Crew handover meeting, Conoco reps. and toolpush present
15:30	16:00	0.50	6B	Trip out of hole to dial up mud motor, from 1.53deg. to 1.93deg. flow check at 1919m flow check at 1902 m

Remarks
Level one overhead inspection
Blow down boilers 2 times @ 100L

SAFETY

Safety Topic	MEHL	MACP
		4932

TOUR 3

SIGNATURE OF DRILLER: DEVAN SCHLITTER

START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	4
Size	222
IADC Code	
Manufacturer	Smith
Type	FHi18B
Serial No	RA3595
Jets	20 20 20
Depth Out (m)	
Depth In (m)	1921.00
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	0.00
Entry Date	

CUTTING STRUCTURE: Inner 1 / Outer 0 / TD 5 / ODC CT / MDC BT / Reason Pulled BHA / LOC G / Total Run (m) 21,19 / BRG X

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	8.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
79	Drill Pipe	Stands		1502.53
0	Drill Pipe	Singles		0.00

Kelly Down: 0.00 | Total: 1921.89 | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	22:30	
Density	1005	
Funnel Viscosity	70	
Fluid Loss		
pH		
Location Of Sample	shaker tank	
Depth	0.00	
PVT	41	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Barite	37	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:30	0.50	6B	Trip out of hole F/C@1825m
16:30	16:45	0.25	7	Rig service function test rig smart anti-collision system, function test hrdrill 13 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
16:45	21:15	4.50	6B	Trip out of hole with flow checks at 1825m/1096m/390m out of hole, funtion test blind rams 4sec open/close
21:15	21:30	0.25	21D	Safety meeting with pathinder directional services
21:30	23:30	2.00	20D	Install a 222mm Smith, 4-3-7 insert tri-cone bit, set angle of the mud motor to 1.93deg., clean and prepare to trip in the hole
23:30	23:45	0.25	21A	BOP drill crew in position well secure in 90 sec check motor kills
23:45	24:00	0.25	21D	Crew handover meeting, Conoco reps. and toolpush present

Remarks
Level 1 inspection on tongs and overhead equipment D.S
Blew down boilers 2 times 100L
Trip Calc 6.64m3 Meas 8.12m3 Diff+ 1.48m3

SAFETY

Safety Topic	MEHL	MACP
Tripping out of hole		4932

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140209_1A | Vendor Software Version: RMS 2013.8.14.27104 | Year: 2014 | Month: 02 | Day: 09

License No: 1211 | Well Name: COPRC MIRROR LAKE P-20 65-00 126-45 | Surface Location: P-20-65-00-126-45 | Prov: NT | Loc Type: CLSS | Unique Well Id:

Operator: Conoco Canada | Contractor: Beaver Drilling Ltd. | Rig No: 2 | Wit Type: | Re-Entry: ☐

Operator's AFE: 10351812 | Contractor's Job No: 152 | Spud Date Time: 29-Jan-2014 00:00

Signature Of Operator's Representative: RICHARD TURGEON | Signature Of Contractor's Rig Manager: RICK YAVIS | Rig Release Date Time:

DAILY CHECKS (OP / RM)
(1.) Daily Walk Around Inspection - RT RY
(2.) Detailed Inspection - Weekly (Using Check List) RT RY
(3.) H2S Signs Posted if Required RT RY
(4.) Well Licence & Stab Diagram Posted RT RY
(5.) Flare Lines Staked RT RY
(6.) BOP Drills Performed RT RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines RT RY
(1.) Rig Site Health & Safety Meeting (minutes/month) RY
(2.) CADDC Rig Safety Inspection Checklist (once/month) RY
(3.) Mast Inspection before Raising or Lowering RY
(4.) Crown Saver Checked RY
(5.) Motor Kills Checked RY

Daily Summary | Op Print

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Welding On	24 Rig Watch	25 Other	TOTAL
Tour 1		6.25					0.25													0.50	0.25				0.75	8.00
Tour 2		7.00					0.25			0.75																8.00
Tour 3		7.00					0.25													0.50	0.25					8.00
TOTAL		20.25					0.75			0.75										1.00	0.50				0.75	24.00

FUEL @ 08:00 HRS: Rig 135 | Last 180 | Time 06:00 | Temp -30 | Current Conditions OVERCAST | Wind Direction N | Wind Strength UP TO 19 KMH | Road Condition GOOD

TOUR: 1 | SIGNATURE OF DRILLER: MARCUS HALLOWES | ST-PT TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 / 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	1043.00
Hrs Run Today	6.25
Cumulative Hrs Run	40.50
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I | O | Gauge | TO | DC | MDC | Reason Pulled | LOC | Total Run in (m) 25.75 | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
1522.00	1646.00	DRILL	60	8

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"HSO FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.45
64	Drill Pipe	Stands		1217.32
1	Drill Pipe	Singles		9.52

Kelly Down 0.00 | Total 1646.20 | Weight of DC | Weight of String 63000.00

HOLE CONDITION: Hole Drag Up 1000 Down 2000 | Torque At Bottom | Fill On Bottom 9600.00

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	01:00	03:45
Density	1000	1005
Funnel Viscosity	58	60
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1524.00	1579.00
PVT	48	45

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	107	16200	8.00
2	PARALLEL	127	107	16200	8.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	2651	@	84	@	1300.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
04:00	1539.50	0.90	135.5	DIRECTIONAL
05:30	1577.50	0.70	120.3	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Truvis	15	sx
Versamul	1	bbl
Calcium Chloride	9	sx
Lime	25	sx
Barite	66	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	1:15	1.25	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1522m to 1541m
1:15	2:00	0.75	25	Work tight spot @1537m to 1541m
2:00	3:00	1.00	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1541m to 1560m
3:00	3:15	0.25	7	Rig service function test rig smart anti-collision system, function test, function test hydril 14 sec C/O crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
3:15	7:15	4.00	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1560m to1646m
7:15	7:45	0.50	20A	Accumulated directional surveys
7:45	8:00	0.25	21D	Crew handover meeting, Conoco reps, and toolpush present

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 100L

SAFETY

Safety Topic	MEHL	MACP
Blowing down boiler	4932	

TOUR: 2 | SIGNATURE OF DRILLER: BRIAN BERGSETH | START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 / 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	1175.00
Hrs Run Today	7.00
Cumulative Hrs Run	47.50
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I | O | Gauge | TO | DC | MDC | Reason Pulled | LOC | Total Run in (m) 24.74 | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
1646.00	1777.00	DRILL	65	7

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"HSO FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.45
72	Drill Pipe	Stands		1369.41
0	Drill Pipe	Singles		0.00

Kelly Down -11.77 | Total 1777.00 | Weight of DC | Weight of String 68.00

HOLE CONDITION: Hole Drag Up 1 Down 1 | Torque At Bottom 10100 | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	08:00	13:00
Density	1010	1010
Funnel Viscosity	65	68
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1655.00	1750.00
PVT	40	44

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	105	17000	7.00
2	PARALLEL	127	105	17000	7.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	2783	@	83	@	1655.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
09:15	1654.00	1.00	54.8	DIRECTIONAL
11:00	1692.00	1.20	31.4	DIRECTIONAL
12:30	1711.00	1.80	359.8	DIRECTIONAL
13:30	1720.00	1.90	10.6	DIRECTIONAL
14:15	1730.00	1.60	353.8	DIRECTIONAL
14:45	1739.00	2.30	320.9	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
OptiSeal III	5	sx
Versatrol	5	sx
Barite	6	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service function test rig smart anti-collision system, function test pipe ram's 4 sec crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
8:15	15:15	7.00	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1646m to 1777 m
15:15	16:00	0.75	10	Accumulated time for surveys

Remarks
Level one overhead inspection
Blew down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
spooling tugger & boom lines j.s.a 643	4873	

TOUR: 3 | SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 / 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	1253.00
Hrs Run Today	7.00
Cumulative Hrs Run	54.50
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I | O | Gauge | TO | DC | MDC | Reason Pulled | LOC | Total Run in (m) 22.98 | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
1777.00	1855.00	DRILL	65	8

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"HSO FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.45
75	Drill Pipe	Stands		1426.49
1	Drill Pipe	Singles		9.47

Kelly Down 0.00 | Total 1855.32 | Weight of DC | Weight of String 69000.00

HOLE CONDITION: Hole Drag Up 2000 Down 2000 | Torque At Bottom 10100 | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	19:15	22:00
Density	1005	1005
Funnel Viscosity	63	65
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1826.00	1840.00
PVT	49	47

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	105	16500	8.00
2	PARALLEL	127	105	16500	8.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	2520	@	78	@	1787.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
16:45	1758.00	5.10	309.2	DIRECTIONAL
17:30	1767.50	6.10	306.6	DIRECTIONAL
18:45	1786.00	8.48	304.86	DIRECTIONAL
19:45	1796.50	9.90	302.26	DIRECTIONAL
20:45	1805.50	10.78	296.84	DIRECTIONAL
21:45	1815.00	11.62	293.18	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Truvis	3	sx
Calcium Chloride	11	sx
clean up	1	pl

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:45	0.75	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1777m to 1788 m
16:45	17:00	0.25	7	Rig service function test rig smart anti-collision system, function test hydril 14 sec to close crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:00	19:00	2.00	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1777m to 1808m
19:00	19:15	0.25	21	Crew handover meeting, Conoco reps, and toolpush present
19:15	23:30	4.25	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1808m to 1855m
23:30	24:00	0.50	20A	Accumulated Directional surveys

Remarks
Level one overhead inspection mh
Blew down boilers 2 times@ 50L

SAFETY

Safety Topic	MEHL	MACP
Mixing mud products	4873	

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140208_1A	RMS 2013.8.14.27104	2014	02	08

License No	Well Name	Surface Location	Prov	Loc Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time
10351812	152	29-Jan-2014 00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS — OP RM

	RT	RY
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required	RT	RY
(4.) Well License & Blok Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed	RT	
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (whole rig/crew)		RY
(2.) CAODC Rig Safety Inspection Checklist (once/month)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		

CAODC

NOV

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
	Rig Up	Drill Actual	Reaming	Coring	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drlg Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other	TOTAL
HOURS Tour 1		7.00					0.25													0.50	0.25					8.00
Tour 2		7.25					0.25			0.50																8.00
Tour 3		6.25					0.25	1.00												0.50						8.00
TOTAL		20.50					0.75	1.00		0.50										1.00	0.25					24.00

Daily Drilling — Up Hole

FUEL @ 08:00 HRS

WEATHER	Rig	Bear
	140	140
Time	06:15	Temp -24
Current Conditions	OVERCAST	
Wind Direction	N	Wind Average UP TO 19 KM/H
Road Condition	GOOD	

TOUR 1 — SIGNATURE OF DRILLER: MARCUS HALLOWES — START TIME: 0:00 — END TIME: 8:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	606.00
Hrs Run Today	7.00
Cumulative Hrs Run	20.75
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I / O / Gauge / ODC / Reason Pulled / LOC / Total Run (m hr) 29.20 / BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
1047.00	1208.00	DRILL	60	7

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.45
41	Drill Pipe	Stands		779.78
1	Drill Pipe	Singles		9.51

Kelly Down	0.00
Total	1208.65
Weight of DC	
Weight of String	51000.00

HOLE CONDITION

Hole Drag	Up 1000	Down 1000
Torque At Bottom	9400	
Fill On Bottom		

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	01:15	05:30
Density	985	980
Funnel Viscosity	56	55
Fluid Loss		
pH		
Location Of Sample	SHAKER	shaker
Depth	1085.00	1180.00
PVT	47	51

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	109	16000	8.00
2	PARALLEL	127	109	16000	8.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	1700	@	73	@	1084.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
00:45	1045.10	1.50	14.84	DIRECTIONAL
02:30	1083.10	1.28	27.45	DIRECTIONAL
04:15	1121.00	1.59	29.26	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density
Centrifuge #1	0.00	0	0	0
Centrifuge #2	0.00	0	0	0

MUD MATERIALS ADDED

Product	Amount	Type
Lime	25	SX
Calcium Chloride	20	SX
OptiSeal III	5	SX
Versatrol	5	SX

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	1:15	1.25	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1047m to1085 m
1:15	1:30	0.25	7	Rig service function test rig smart anti-collision system, function test, function test pipe rams 8 sec C/O crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
1:30	7:15	5.75	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1085m to 1208m
7:15	7:45	0.50	20A	Accumulated directional surveys
7:45	8:00	0.25	21D	Crew handover meeting, Conoco reps. and toolpush present

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L

SAFETY

Safety Topic	MEHL	MACP
Connections with top drive	52	5109

TOUR 2 — SIGNATURE OF DRILLER: BRIAN BERGSETH — START TIME: 8:00 — END TIME: 16:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	787.00
Hrs Run Today	7.25
Cumulative Hrs Run	28.00
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I / O / Gauge / ODC / Reason Pulled / LOC / Total Run (m hr) 28.11 / BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
1208.00	1389.00	DRILL	65	7

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.45
51	Drill Pipe	Stands		970.02
0	Drill Pipe	Singles		0.00

Kelly Down	0.00
Total	1389.38
Weight of DC	
Weight of String	58.00

HOLE CONDITION

Hole Drag	Up 1000	Down 1000
Torque At Bottom	9500	
Fill On Bottom		

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	08:00	11:15
Density	975	970
Funnel Viscosity	56	56
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1218.00	1275.00
PVT	48.5	44.5

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	110	16200	7.00
2	PARALLEL	127	110	16200	7.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	1956	@	78	@	1217.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
09:00	1197.00	0.90	31.8	DIRECTIONAL
09:45	1235.00	0.70	28.1	DIRECTIONAL
12:00	1273.00	1.10	150.4	DIRECTIONAL
13:30	1311.00	1.00	101.4	DIRECTIONAL
15:15	1349.50	1.20	349.9	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Lime	20	SX
OptiSeal III	5	SX
Versatrol	5	SX

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service function test rig smart anti-collision system, function test, function test hydril 14 sec C/O crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
8:15	15:30	7.25	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1208m to 1389 m
15:30	16:00	0.50	10	Acclumiated time for directional surveys

Remarks
Level one overhead inspection
Blew down boilers 200 l

SAFETY

Safety Topic	MEHL	MACP
working with steam ,j.a.s #179 & l.r.s		5109

TOUR 3 — SIGNATURE OF DRILLER: MARCUS HALLOWES — START TIME: 16:00 — END TIME: 24:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	920.00
Hrs Run Today	6.25
Cumulative Hrs Run	34.25
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I / O / Gauge / ODC / Reason Pulled / LOC / Total Run (m hr) 26.86 / BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB
1389.00	1522.00	DRILL	65	7

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.28
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.45
58	Drill Pipe	Stands		1103.25
0	Drill Pipe	Singles		0.00

Kelly Down	0.00
Total	1522.61
Weight of DC	
Weight of String	60000.00

HOLE CONDITION

Hole Drag	Up 1000	Down 1000
Torque At Bottom	9600	
Fill On Bottom		

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	19:30	22:00
Density	980	980
Funnel Viscosity	58	58
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	1465.00	1503.00
PVT	43	50

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	107	16200	8.00
2	PARALLEL	127	107	16200	8.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
2	2361	@	80	@	1407.00
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
17:15	1387.50	1.40	15.4	DIRECTIONAL
19:00	1425.50	0.40	0.1	DIRECTIONAL
21:45	1463.50	0.62	1.66	DIRECTIONAL
23:45	1501.00	0.88	5.67	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Calcium Chloride	12	SX

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:45	0.75	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1389m to 1408 m
16:45	17:00	0.25	7	Rig service function test rig smart anti-collision system, function test, function test hydril 14 sec C/O crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:00	20:15	3.25	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1408m to 1484 m
20:15	21:15	1.00	8C	Change out cap gasket on # 2 pump change out seal retainer on pump #1
21:15	23:30	2.25	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 1484m to 1522m
23:30	24:00	0.50	20A	Accumulated directional surveys

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50 L

SAFETY

Safety Topic	MEHL	MACP
Working on casing		5109

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140207_1A | Vendor Software Version: RMS 2013.8.14.27104 | Year: 2014 | Month: 02 | Day: 07

License No: 1211 | Well Name: COPRC MIRROR LAKE P-20 65-00 126-45 | Surface Location: P-20-65-00-126-45 | Prov: NT | Lea Type: CLSS | Unique Well Id:

Operator: Conoco Canada | Contractor: Beaver Drilling Ltd. | Rig No: 2 | Well Type: | Re-Entry: ☐

Operator's AFE: 10351812 | Contractor's Job No: 152 | Spud Date Time: 29-Jan-2014 00:00

Signature Of Operator's Representative: RICHARD TURGEON | Signature Of Contractor's Rig Manager: RICK YAVIS | Rig Release Date Time:

DAILY CHECKS (OP / RM)

- (1.) Daily Walk Around Inspection — RT / RY
- (2.) Detailed Inspection - Weekly (Using Check List) — RT / RY
- (3.) H2S Signs Posted If Required — RT / RY
- (4.) Well Licence & Slick Diagram Posted — RT / RY
- (5.) Flare Lines Staked — RT / RY
- (6.) BOP Drills Performed — RT / RY
- (7.) Visually Inspected BOPs-Flare Lines & Degasser Lines — RT / RY
- (1.) Rig Site Health & Safety Meeting (one/week/month) — RY
- (2.) CADDC Rig Safety Inspection Checklist (one/month) — RY
- (3.) Weekly Inspection before Raising or Lowering — RY
- (4.) Crown Saver Checked — RY
- (5.) Motor Kills Checked — RY

Kelly Bushing: | Dp Head:

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
Tour 1		1.25				2.25	0.25													3.25	1.00					8.00
Tour 2		6.50					0.25			0.50											0.25				0.50	8.00
Tour 3		7.25					0.25													0.50						8.00
TOTAL		15.00				2.25	0.75			0.50										3.75	1.25				0.50	24.00

FUEL @ 08.00 HRS: Drlg 170 | Boiler 170

WEATHER: Time 06:00 | Temp -18 | Current Conditions OVERCAST | Wind Direction NE | Wind Strength CALM | Road Condition GOOD

TOUR 1

SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	0.25
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Run (m/hr) | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.26
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
8	Drill Pipe	Stands		152.19
1	Drill Pipe	Singles		9.51

Kelly Down: 0.00 | Total: 581.06 | Weight of DC | Weight of String

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	SINGLE	127	120	4500	2.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up 1000 Down 1000 | Torque At Bottom: 8200 | Fill On Bottom

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
0:15	0:30	0.25	21D	Safety meeting with pathfinder directional services
0:30	3:45	3.25	20D	Pick up, make up directional tools
3:45	6:00	2.25	6A	Trip in the hole with 222mm, 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend
6:00	6:15	0.25	21A	B.O.P drill held well secure in 90 sec crew in positions function test motor kills
6:15	6:30	0.25	21F	Pre drill out safety meeting inspection done and corrections made
6:30	7:30	1.00	2C	Drill out float and shoe float tagged @ 587m. drill out cement shoe tagged @ 601m
7:30	7:45	0.25	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend from 602m to 609m
7:45	8:00	0.25	21D	Crew handover meeting, Conoco reps, and toolpush present

Remarks
Level one overhead inspection MH
Blow down boilers 100L 2 times

SAFETY

Safety Topic	MEHL	MACP
Pick up directional tools		

TOUR 2

SIGNATURE OF DRILLER: BRIAN BERGSETH | START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	216.00
Hrs Run Today	6.50
Cumulative Hrs Run	6.50
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Run (m/hr) 33.23 | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.26
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
21	Drill Pipe	Stands		399.44
0	Drill Pipe	Singles		0.00

Kelly Down: 0.00 | Total: 818.80 | Weight of DC | Weight of String: 45.00

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	08:30	10:30
Density	990	990
Funnel Viscosity	58	60
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	609.00	648.00
PVT	44	41

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	105	13000	7.00
2	PARALLEL	127	105	13000	7.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	1984	@	85	@	818.00
		@		@	
		@		@	

METRES DRILLED

From	To	D-R-C	RPM	WOB
602.00	818.00	DRILL	70	6

HOLE CONDITION

Hole Drag: Up 1000 Down 1000 | Torque At Bottom: 8800 | Fill On Bottom

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
09:45	608.40	1.60	7.2	DIRECTIONAL
11:30	645.63	0.60	311.2	DIRECTIONAL
12:30	683.60	9.00	318	DIRECTIONAL
13:45	721.66	0.90	317.9	DIRECTIONAL
15:00	759.75	0.90	254.4	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density
Centrifuge #1	2.00	1030	1000	1840
Centrifuge #2	2.00	1030	1000	1820

MUD MATERIALS ADDED

Product	Amount	Type
Lime	48	bags
Versacoat HF	1	BBL
Versamul	1	BBL

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	6.00	11	450
2	6.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:30	0.50	25	Formation integrity test with Peregrine pressure tester
8:30	8:45	0.25	21A	BOP drill well secure in 70 secs
8:45	9:00	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
9:00	15:30	6.50	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 602m to 818m
15:30	16:00	0.50	10	Accumulated time for directional surveys

Remarks
blow down boilers 200 l level 1 inpection on all overhead equipment .

SAFETY

Safety Topic	MEHL	MACP
b.o.p drill		S050

TOUR 3

SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 11.1 11.1 11.1 11.1 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	445.00
Hrs Run Today	7.25
Cumulative Hrs Run	13.75
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Run (m/hr) 32.36 | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	BIT 222 MM	222	60	0.20
1	MUD MOTOR	169	64	9.62
1	N.M SUB	173	72	0.54
1	NM pony monel	171	70	2.97
1	4.5"H90 FLEX MONEL	171	70	9.35
1	6.75" Gap Sub	162	88	0.54
1	6.75" Flex Monel	171	70	9.20
1	6.75" NM Flex Monel	171	70	8.26
1	6.75" X/O	168	59	0.80
3	4" H.W	101	65	28.27
1	Jars	161	69	5.13
37	4" H.W	101	65	344.46
33	Drill Pipe	Stands		627.76
0	Drill Pipe	Singles		0.00

Kelly Down: 0.00 | Total: 1047.12 | Weight of DC | Weight of String: 47000.00

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	16:00	19:30
Density	995	970
Funnel Viscosity	60	55
Fluid Loss		
pH		
Location Of Sample	SHAKER	SHAKER
Depth	856.00	915.00
PVT	47	49

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	127	110	15000	8.00
2	PARALLEL	127	110	15000	8.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
1	963	@	78	@	856.00
		@		@	
		@		@	

METRES DRILLED

From	To	D-R-C	RPM	WOB
818.00	1047.00	DRILL	60	6

HOLE CONDITION

Hole Drag: Up 1000 Down 1000 | Torque At Bottom: 9100 | Fill On Bottom

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
16:15	797.80	0.70	282.2	DIRECTIONAL
17:30	835.87	0.40	326.9	DIRECTIONAL
18:45	873.90	0.40	355.6	DIRECTIONAL
20:30	912.00	0.80	20.4	DIRECTIONAL
23:00	988.00	0.70	19.5	DIRECTIONAL

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density
Centrifuge #1	2.00	995	985	1780

MUD MATERIALS ADDED

Product	Amount	Type
OptiSeal III	5	SX
Versatrol	5	SX
Calcium Chloride	1	SX

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	17:00	1.00	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 818m to 856m
17:00	17:15	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver,grease all moving parts, check oil levels in floor motor, pumps and HPU
17:15	23:30	6.25	2	Drill 222mm hole, with 513 Ulterra PDC bit, Wenzel mud motor, 7/8 lobe, 5 stage (0.077rev/L), set at 1.59 deg. with 0.81m from bit to bend, from 856m to 1047m
23:30	24:00	0.50	20A	Accumulated directional surveys

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50 L

SAFETY

Safety Topic	MEHL	MACP
Catching samples	47000	S050

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140206_1A	Vendor Software Version: RMS 2013.8.14.27104	Year: 2014	Month: 02	Day: 06

License No: 1211 | Well Name: COPRC MIRROR LAKE P-20 65-00 126-45 | Surface Location: P-20-65-00-126-45 | Prov: NT | Unit Type: CLSS | Unique Well Id:

Operator: Conoco Canada | Contractor: Beaver Drilling Ltd. | Rig No: 2 | Well Type: | N=Entry: ☐

Operator's AFE: 10351812 | Contractor's Job No: 152 | Spud Date Time: 29-Jan-2014 00:00

Signature Of Operator's Representative: RICHARD TURGEON | Signature Of Contractor's Rig Manager: RICK YAVIS | Rig Release Date Time:

DAILY CHECKS (RT / RY)

(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted if Required
(4.) Well Licence & Sub. Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines
(1.) Rig Site Health & Safety Meeting (ens./crew/comm)
(2.) CAODC Rig Safety Inspection Checklist (ens./Highsmith)
(3.) Hoist Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Motor Kills Checked

CAODC

NOV

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1														4.00							0.25				3.75	8.00
Tour 2							0.25							6.75	1.00											8.00
Tour 3							0.25								7.25										0.50	8.00
TOTAL							0.50							10.75	8.25						0.25				4.25	24.00

Daily Breaking: | Opr Fuel:

FUEL @ 08:00 HRS: Rig 164 | Camp 193

WEATHER: Time 05:45 | Temp -10 | Cloud Conditions PARTLY CLOUDY | Wind Direction NE | Wind Strength CALM | Road Condition GOOD

TOUR 1 | SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME 0:00 | END TIME 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: I | Grade | TO | ODC | MDC | Pattern Failure | LOC | Total Run (m/hr) | BRG

METRES DRILLED: From | To | D-R-C | RPM | WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	1:00	1.00	14C	Nipple down diverter system, clean tanks change pumps over to 5 inch liners
1:00	4:45	3.75	25	Dig cellar down 1.5m
4:45	7:45	3.00	14A	Cut conductor and prep casing, weld on casing bowl
7:45	8:00	0.25	21D	Crew handover meeting, Conoco reps. and toolpush present

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L

SAFETY

Safety Topic	MEHL	MACP
weld on casing bowl working on pumps		

TOUR 2 | SIGNATURE OF DRILLER: BRIAN BERGSETH | START TIME 8:00 | END TIME 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: I | Grade | TO | ODC | MDC | Pattern Failure | LOC | Total Run (m/hr) | BRG

METRES DRILLED: From | To | D-R-C | RPM | WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service, check BOP slings and shackles
8:15	11:00	2.75	14A	Weld on casing bowl and change #1 pump to 5 inc liners.fill mud tanks with invert
11:00	15:00	4.00	14A	Nipple up upper bowl mandril hanger and BOP's
15:00	16:00	1.00	15A	Pressure test all manifold valves and chokes, low of 1400kpa and a high of 21,000kpa, with peregrine pressure testing ltd .

Remarks
Level 1 inspection on overhead equipment D.S
Blew down boilers 2 times each 100L

SAFETY

Safety Topic	MEHL	MACP
reviewed jsa#111 nipple up bop		

TOUR 3 | SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME 16:00 | END TIME 24:00

BITS

Bit Number	3
Size	222
IADC Code	
Manufacturer	ulterra
Type	u513
Serial No	17071
Jets	11.1 / 11.1 / 11.1 / 11.1 / 11.1 / 11.1
Depth Out (m)	
Depth In (m)	602.00
Total Drilled (m)	
Hrs Run Today	0.00
Cumulative Hrs Run	0.00
Entry Date	06-Feb-2014

CUTTING STRUCTURE: I | Grade | TO | ODC | MDC | Pattern Failure | LOC | Total Run (m/hr) | BRG

METRES DRILLED: From | To | D-R-C | RPM | WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☐ Oil ☑ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:15	0.25	7	Rig service, check crown saver and brake linkage
16:15	23:30	7.25	15A	Pressure test with Peregrine, BOP stack, HCR valves, kill line, inside BOP, stabbing valve, pipe rams blind rams at a low 1,400kpa, high 21,000kpa., Annular low 1,400kpa., high 17,000kpa. All ok. HCR, pipe rams and annular,starting pressure 20,000kpa, final pressure 9,750kpa., recharge pump time 3min. 36sec.
23:30	24:00	0.50	25	Pick up and install wear bushing, clean prepare floor to pick up directional tools

Remarks
Lvel one overhead inspection MH
blow down boilers 100L 2 times

SAFETY

Safety Topic	MEHL	MACP
Pressure test		

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140205_1A	RMS 2013.8.14.27104	2014	02	05

License No	Well Name	Surface Location	Prov	Loc Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time
10351812	152	29-Jan-2014 00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS — OP RM

	OP	RM
(1) Daily Walk Around Inspection	RT	RY
(2) Derrick Inspection - Weekly (Using Check List)		
(3) H2S Signs Posted If Required	RT	RY
(4) Well Licence & Sick Diagram Posted	RT	RY
(5) Flare Lines Staked	RT	RY
(6) BOP Drills Performed	RT	RY
(7) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1) Rig Site Health & Safety Meeting (once each month)		RY
(2) CAODC Rig Safety Inspection Checklist (once/tour/crew)		
(3) Meet Inspector before Raising or Lowering		RY
(4) Crown Saver Checked		
(5) Motor Kills Checked		

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1						2.50	0.50					4.50									0.50					8.00
Tour 2					1.25		0.25					6.00	0.25								0.25					8.00
Tour 3							0.25						2.00	5.75												8.00
TOTAL					1.25	2.50	1.00					10.50	2.25	5.75							0.75					24.00

Kelly Bushing | Op Fuel

FUEL @ 08:00 HRS

WEATHER: Avg 150 | Snow 180 | Time 06:15 | Temp -25 | Current Conditions OVERCAST | Wind Direction NE | Wind Strength UP TO 19 KM/H | Road Condition GOOD

TOUR 1 | SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME 0:00 | END TIME 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: In | Gauge | TD | ODC | MDC | Pressure Pulse | LDC | Total Run (hrs) | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	01:45	03:45
Density	1085	1085
Funnel Viscosity	80	90
Fluid Loss		
pH	9	9
Location Of Sample		
Depth	602.00	602.00
PVT	44	44

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	@	Strokes/min	@	Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Bentonite	144	sx
Sawdust	16	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:45	0.75	6B	Trip out of hole from 254m till 119m
0:45	2:30	1.75	6D	Lay down 12 x 6-1/2" drill collars
2:30	3:00	0.50	7	Rig service function test rig smart anti-collision system, function test crown saver, grease all moving parts, check oil in floor motor, pumps and HPU. Clean floor and prepare to rig up power tongs
3:00	4:15	1.25	12A	Rig up Hallmark power tongs
4:15	4:30	0.25	21D	Safety meeting with Hallmark power tong hands
4:30	7:45	3.25	12B	Make up 1-244.5mm float shoe, 1-joint of 244.5mm, 53.57kg/m, J-55, LTC surface casing and 1-244.5mm float collar and then run 46-joints of 244.5mm, 53.57kg/m, J-55, LTC surface from 602m to 5.20m.
7:45	8:00	0.25	21D	Crew handover meeting Conoco reps. and toolpush present

Remarks
level one overhead inspection MH
blow down boilers 100l 2 times

SAFETY

#	Safety Topic	MEHL	MACP
1	Rig up and run casing		

TOUR 2 | SIGNATURE OF DRILLER: BRIAN BERGSETH | START TIME 8:00 | END TIME 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: In | Gauge | TD | ODC | MDC | Pressure Pulse | LDC | Total Run (hrs) | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	@	Strokes/min	@	Depth
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service f.t crown saver
8:15	9:45	1.50	12B	Run 12 x centralizers and 1 x cement basket from 602m to surface, fill every 10 joints. Total length of 244.5mm surface casing: 602.94m. Landed at 602m, tagged bottom at 602m, float at 587.97m. Circulate hole clean (2 bottoms up+).
9:45	10:15	0.50	5D	Wash 12m to bottom
10:15	11:00	0.75	5D	Circ casing
11:00	11:15	0.25	21	Safety meeting
11:15	14:00	2.75	12	Rig up Schlumberger cementers, pump 5.0m3 of 1000kg/m3 of fresh water, stop pressure test line to 21,000kPA (held OK), bleed off pressure, then 5.0m3 of 1300kg/m3 MUDPUSH II pre-flush spacer.
14:00	15:15	1.25	12	Then pump 40 tonnes/37m3 (100% excess) of RFC 1740 cement with 0.2% Anti Foam + 1.0% CaCl2 + 1.1% Low Temp Fluid Loss + 0.6% Dispersant from 602m to 5.2m, Drop plug and displace 23.8m3 of fresh water.
15:15	15:45	0.50	12	Bump plug 3,500kPA over final circulating pressure of 6,500kPA at 13:57hrs on February 5th, 2014. Bleed pressure and check floats (holding OK). Pressure test casing to 11,500kPA for 10 minutes (holding OK). Bleed pressure, flush diverter and rig out cementers. Good cement returns: 10.0m3
15:45	16:00	0.25	13	Wait on cement & clean mud tanks

Remarks
blow down boilers 200 l

SAFETY

#	Safety Topic	MEHL	MACP
1	cementing casing		

TOUR 3 | SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME 16:00 | END TIME 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: In | Gauge | TD | ODC | MDC | Pressure Pulse | LDC | Total Run (hrs) | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	@	Strokes/min	@	Depth
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	18:00	2.00	13	Wait on cement & clean tanks
18:00	18:15	0.25	7	Rig service function test crown saver
18:15	24:00	5.75	14C	Nipple down diverter,cut casing and clean tanks

Remarks
Level one inspection on overhead mh
Blew down boilers 2 times @ 50L

SAFETY

#	Safety Topic	MEHL	MACP
1	Nipple down diverter system		

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140204_1A	RMS 2013.8.14.27104	2014	02	04

License No	Well Name	Surface Location	From	Loc Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time
10351812	152	28-Jan-2014 00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS — OP / RM

	OP	RM
(1.) Daily Walk Around Inspection	RT	RY
(2.) Detailed Inspection - Weekly (Using Check List)	RT	RY
(3.) H2S Signs Present If Required		
(4.) Well Licence & Sick Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed	RT	RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (one to one/month)		RY
(2.) CADDC Rig Safety Inspection Checklist (1/month/month)		
(3.) Mast Inspection before Raising or Lowering		RY
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		RY

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Wash	25 Other	TOTAL
Tour 1			3.50			3.75	0.25								0.25						0.25					8.00
Tour 2					6.00	1.50	0.25														0.25					8.00
Tour 3			0.75		4.75	2.25	0.25																			8.00
TOTAL			4.25		10.75	7.50	0.75								0.25						0.50					24.00

FUEL @ 08:00 HRS

Rig	Drive
120	180

WEATHER

Time	Temp
06:15	-18

General Conditions	
SNOW	

Wind Direction	Wind Strength
NE	CALM

Road Condition
GOOD

Daily Mudlog — Op Test

TOUR 1

SIGNATURE OF DRILLER: MARCUS HALLOWES — START TIME: 0:00 — END TIME: 8:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 19.05 19.05 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	152.00
Hrs Run Today	
Cumulative Hrs Run	21.00
Entry Date	

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
1	Bell sub	232	69	0.66
5	6" D.C	160	60	46.62
1	6 1/4 x/o	160	58	0.48
1	6 1/4 jars	159	59	4.45
1	6 1/4 X/O	159	58	0.46
7	6" D.C	160	60	65.22
1	X/O 4" H-90	162	62	0.80
40	4" H.W	101	65	372.71
6	Drill Pipe	Stands		114.15
0	Drill Pipe	Singles		0.00

MUD PECORD

Mud Type: Water ☑ Oil ☐ Other:

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	110	3800	3.00
2	PARALLEL	152	110	3800	3.00

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Rotating Hrs	7.24
BRG			

Kelly Down	-4.87
Total	602.00
Weight of DC	
Weight of String	

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag	Up	Down
Torque At Bottom		
Fill On Bottom		

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	3:30	3.50	3	Back ream out of the hole and build volume
3:30	4:15	0.75	6D	Lay down 9" DCS
4:15	4:30	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver, grease all moving parts, and check oil levels in floor motor, pump and HPU
4:30	4:45	0.25	15C	Rotating diverter drill, function test motor kills
4:45	7:45	3.00	6A	Make up bit to 6-1/2" drill collar, trip into the hole
7:45	8:00	0.25	21D	Crew handover meeting, Conoco reps. and tool push present

Remarks
Level one overhead inspection MH
blow down boilers 100l 2 times

SAFETY

Safety Topic	MEHL	MACP
Run in hole with top drive		

TOUR 2

SIGNATURE OF DRILLER: BRIAN BERGSETH — START TIME: 8:00 — END TIME: 16:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 19.05 19.05 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	152.00
Hrs Run Today	
Cumulative Hrs Run	21.00
Entry Date	

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
1	Bell sub	232	69	0.66
5	6" D.C	160	60	46.62
1	6 1/4 x/o	160	58	0.48
1	6 1/4 jars	159	59	4.45
1	6 1/4 X/O	159	58	0.46
7	6" D.C	160	60	65.22
1	X/O 4" H-90	162	62	0.80
40	4" H.W	101	65	372.71
6	Drill Pipe	Stands		114.15
0	Drill Pipe	Singles		0.00

MUD PECORD

Mud Type: Water ☑ Oil ☐ Other:

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	1	0	0.00
2	PARALLEL	152	1	0	0.00

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Rotating Hrs	7.24
BRG			

Kelly Down	0.00
Total	606.87
Weight of DC	
Weight of String	

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag	Up	Down
Torque At Bottom		
Fill On Bottom		

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver, grease all moving parts, and check oil levels in floor motor, pump and HPU
8:15	8:30	0.25	21A	Held diverter drill with day crew
8:30	9:15	0.75	6B	Pull out of hole from 345 m to 251 m
9:15	11:15	2.00	5A	Build volume and viscosity up to 65 / 70
11:15	11:45	0.50	5	Displace hole to mud and l.c.m due to loss circulation at 251 m
11:45	15:15	3.50	5A	Build volume and viscosity up to 70+
15:15	16:00	0.75	6A	Trip in the hole from 251m 520 m

Remarks
level 1 inspection on tongs and overhead equipment D.S
Blew down boilers 2 times 100L

SAFETY

Safety Topic	MEHL	MACP
mixing mud & l.c.m		

TOUR 3

SIGNATURE OF DRILLER: MARCUS HALLOWES — START TIME: 16:00 — END TIME: 24:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 19.05 19.05 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	152.00
Hrs Run Today	
Cumulative Hrs Run	21.00
Entry Date	

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
1	Bell sub	232	69	0.66
5	6" D.C	160	60	46.62
1	6 1/4 x/o	160	58	0.48
1	6 1/4 jars	159	59	4.45
1	6 1/4 X/O	159	58	0.46
7	6" D.C	160	60	65.22
1	X/O 4" H-90	162	62	0.80
40	4" H.W	101	65	372.71
6	Drill Pipe	Stands		114.15
0	Drill Pipe	Singles		0.00

MUD PECORD

Mud Type: Water ☑ Oil ☐ Other:

Time	19:45	21:45
Density	1070	1085
Funnel Viscosity	53	75
Fluid Loss		
pH	9	9
Location Of Sample		
Depth	602.00	602.00
PVT	46	47

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	105	13500	5.00
2	PARALLEL	152	105	13500	5.00

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LOC		Total Rotating Hrs	7.24
BRG			

Kelly Down	0.00
Total	606.87
Weight of DC	
Weight of String	

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag	Up	Down
Torque At Bottom		
Fill On Bottom		

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:45	0.75	6A	Run in hole from 520 m to 585 m
16:45	17:00	0.25	7	Rig service function test rig smart anti-collision system, function test crown saver, grease all moving parts, and check oil levels in floor motor, pump and HPU
17:00	17:45	0.75	3A	Ream and clean to bottom from 585 m to 602 m
17:45	22:30	4.75	5	Circulate and condition hole at 602 m build volume and get viscosity to 80+
22:30	24:00	1.50	6B	Pull out of hole to 254m, to lay down 6-1/2" drill collars and run 244.5mm surface casing

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50 L

SAFETY

Safety Topic	MEHL	MACP
Tripping out of hole		

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140203_1A	RMS 2013.8.14.27104	2014	02	03

License No	Well Name	Surface Location	Prov	Loc Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20 65-00 126-45	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	R=Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS (OP / RM)

	OP	RM
(1.) Daily Walk Around Inspection	RT	RY
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted/If Required		
(4.) Well Licence & Std. Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed		
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (min/tour/month)		RY
(2.) CADDC Rig Safety Inspection Checklist (one/kg/month)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		

CADDC

NOV

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Wiring On	24 Rig Watch	25 Other	TOTAL
Tour 1			4.75		1.25	1.75															0.25					8.00
Tour 2							0.25												2.25		0.25				5.25	8.00
Tour 3			1.75		2.50	1.00	0.25												2.00		0.50					8.00
TOTAL			6.50		3.75	2.75	0.50												4.25		1.00				5.25	24.00

WEATHER

FUEL @ 08.00 HRS

Rig	Bridal
85	60
Time	Temp
05:45	-15
Surface Conditions	
OVERCAST	
Wind Direction	Wind Strength
NE	CALM
Road Condition	
GOOD	

TOUR 1 SIGNATURE OF DRILLER MARCUS HALLOWES START TIME 0:00 END TIME 8:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 19.05 19.05 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	152.00
Hrs Run Today	
Cumulative Hrs Run	21.00
Entry Date	

CUTTING STRUCTURE

I		Gauge	
TO		ODC	
MDC		Pressure Pulse	
LOC		Total Run in Hrs	7.24
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.30
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.44
1	X/O 4" H-90	162	62	0.80
40	4" H.W	101	65	372.73
5	Drill Pipe	Stands		95.12
1	Drill Pipe	Singles		9.50
	Kelly Down			0.00
	Total			610.44
	Weight of DC			
	Weight of String			

HOLE CONDITION

Hole Drag	Up	Down
Torque At Bottom		
Fill On Bottom		

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other:

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	1:45	1.75	6B	Trip out of hole Back ream fom 245m to 189m
1:45	3:00	1.25	5A	Build volume due to losses mud clobbered up water back and treat
3:00	7:45	4.75	3B	Back ream from 189m to 161m work tight pipe @ 151m
7:45	8:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L

SAFETY

#	Safety Topic	MEHL	MACP
1	Working tight pipe		

TOUR 2 SIGNATURE OF DRILLER BRADY YAVIS START TIME 8:00 END TIME 16:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 19.05 19.05 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	152.00
Hrs Run Today	
Cumulative Hrs Run	21.00
Entry Date	

CUTTING STRUCTURE

I		Gauge	
TO		ODC	
MDC		Pressure Pulse	
LOC		Total Run in Hrs	7.24
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.30
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.44
1	X/O 4" H-90	162	62	0.80
40	4" H.W	101	65	372.73
5	Drill Pipe	Stands		95.12
1	Drill Pipe	Singles		9.50
	Kelly Down			-8.44
	Total			602.00
	Weight of DC			
	Weight of String			

HOLE CONDITION

Hole Drag	Up	Down
Torque At Bottom		
Fill On Bottom		

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other:

Time	08:00	11:30
Density	1010	1090
Funnel Viscosity	30	75
Fluid Loss		
pH	11	
Location Of Sample	suction tank	suction
Depth	602.00	602.00
PVT	53	55

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
fed seal	4	sx
Sawdust	14	sx
Fedzan	1	sx
Gel	127	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service fuction test rig smart anti-collision system, fuction test crown saver, grease all moving parts and check oil levels in the floor motor, pumps and HPU
8:15	13:30	5.25	25	Work tight hole 133m
13:30	14:45	1.25	19	Mechanically back off and rack 1 std of HWDP and 2.5 stds of DCS
14:45	15:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.
15:00	16:00	1.00	19B	Handle fishing tools

Remarks
Level one overhead inspection BY
Blew down boilers 2 times @ 50L

SAFETY

#	Safety Topic	MEHL	MACP
1	Blowing down boilers		

TOUR 3 SIGNATURE OF DRILLER BRIAN BERGSETH START TIME 16:00 END TIME 24:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 19.05 19.05 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	152.00
Hrs Run Today	
Cumulative Hrs Run	21.00
Entry Date	

CUTTING STRUCTURE

I		Gauge	
TO		ODC	
MDC		Pressure Pulse	
LOC		Total Run in Hrs	7.24
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.30
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.44
1	X/O 4" H-90	162	62	0.80
40	4" H.W	101	65	372.73
5	Drill Pipe	Stands		95.12
1	Drill Pipe	Singles		9.50
	Kelly Down			-8.44
	Total			602.00
	Weight of DC			
	Weight of String			

HOLE CONDITION

Hole Drag	Up	Down
Torque At Bottom		
Fill On Bottom		

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other:

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	108	8900	3.00
2	PARALLEL	152	108	8900	3.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:15	0.25	7	Rig service function test crown saver
16:15	16:30	0.25	21	Safety meeting
16:30	17:15	0.75	19B	Handle fishing tools with schlumberger
17:15	17:45	0.50	6A	Run in hole with fishing tools
17:45	18:15	0.50	19B	Screw into fish with schlumberger fishing tools
18:15	19:00	0.75	19A	Bump fish down 1.3m to free point, with schlumberger bumper sub
19:00	19:30	0.50	6A	Run in 8 stands of HWDP to 295m
19:30	22:00	2.50	5D	Break circulation and work pipe to clean up hole with water, at 295 m
22:00	23:45	1.75	3B	Back ream out of hole from 295m to 135m
23:45	24:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.

Remarks
blow down boilers 200 l

SAFETY

#	Safety Topic	MEHL	MACP
1	picking up fishing tools & jarring		

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140202_1A | Vendor Software Version: RMS 2013.8.14.27104 | Year: 2014 | Month: 02 | Day: 02

License No: 1211 | Well Name: COPRC MIRROR LAKE P-20 65-00 126-45 | Surface Location: P-20-65-00-126-45 | Prov: NT | Lat/Type: CLSS | Unique Well Id:

Operator: Conoco Canada | Contractor: Beaver Drilling Ltd. | Rig No: 2 | Well Type: | Re-Entry: ☐

Operator's AFE: 10351812 | Contractor's Job No: 152 | Spud Date Time: 29-Jan-2014 00:00

Signature Of Operator's Representative: RICHARD TURGEON | Signature Of Contractor's Rig Manager: RICK YAVIS | Rig Release Date Time:

DAILY CHECKS — OP RM

	RT	RY
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required		
(4.) Well Licence & Slick Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed	RT	RY
(7.) Weekly Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (environment)		RY
(2.) CAODC Rig Safety Inspection Checklist (me/Hgmemth)		
(3.) Hoist Insp.-start before Raising or Lowering		
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		

Code: 1 Rig Up | 2 Drill Actual | 3 Reaming | 4 Coring | 5 Cond Mud & Circ | 6 Trips | 7 Rig Service | 8 Repair Rig | 9 Cut Off Drlg Line | 10 Dev Survey | 11 Wireline Logs | 12 Run Csg & Cement | 13 Wait On Cement | 14 Nipple BOP | 15 Test BOP | 16 Drillstem Test | 17 Plug Back | 18 Squeeze Cement | 19 Fishing | 20 Dir Work | 21 Safety Meeting | 22 Tear Down | 23 Waiting On | 24 Rig Watch | 25 Other | TOTAL

HOURS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	TOTAL
Tour 1		7.50					0.25														0.25					8.00
Tour 2		7.75					0.25																			8.00
Tour 3		3.75			0.50	3.25	0.25														0.25					8.00
TOTAL		19.00			0.50	3.25	0.75														0.50					24.00

Daily Bunkering: Up Fuel: FUEL @ 08.00 HRS

WEATHER: Rig: 150 | Temp: 120 | Time: 06:00 | Temp: -20 | Current Conditions: OVERCAST | Wind Direction: NE | Wind Strength: UP TO 15 KM/H | Road Conditions: GOOD

TOUR 1

SIGNATURE OF DRILLER: MARCUS HALLOWES

START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 19.05 19.05 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	93.00
Hrs Run Today	7.50
Cumulative Hrs Run	9.50
Entry Date	

CUTTING STRUCTURE: TI | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Rot Hrs (hr) 9.78 | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.44
1	X/O 4" H-90	162	62	0.80
40	4" H.W	101	65	372.33
2	Drill Pipe — Stands			38.05
0	Drill Pipe — Singles			0.00
	Kelly Down			0.00
	Total			543.87
	Weight of DC			
	Weight of String			46000.00

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other:

Time	02:30	03:30
Density	1090	1090
Funnel Viscosity	55	65
Fluid Loss		
pH	10.5	10.5
Location Of Sample	shaker	shaker
Depth	487.00	505.00
PVT	46	43

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	105	12500	8.00
2	PARALLEL	152	105	12500	8.00

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
00:15	467.00	0.40	0	WIRELINE
02:30	487.00	1.30	0	WIRELINE
06:30	514.00	1.50	0	WIRELINE

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	2:45	2.75	2	Drill 311mm surface hole with Read m4685 rotary 100 from 468m to 487m
2:45	3:00	0.25	7	Rig service function test rig smart anti collision system function test crown saver grease all moving parts check fluid levels in floor motor and HPU
3:00	7:45	4.75	2	Drill 311mm surface hole with Read m4685 rotary 100 from 487m to 543m
7:45	8:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L

METRES DRILLED

From	To	D-R-C	RPM	WOB
468.00	543.00	DRILL	120	11

HOLE CONDITION

Hole Drag: Up 0 Down 0 | Torque At Bottom | Fill On Bottom

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

SAFETY

No	Safety Topic	MEHL	MACP
	Making connections with top drive		

TOUR 2

SIGNATURE OF DRILLER: BRADY YAVIS

START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 19.05 19.05 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	93.00
Hrs Run Today	7.75
Cumulative Hrs Run	17.25
Entry Date	

CUTTING STRUCTURE: TI | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Rot Hrs (hr) 5.39 | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.44
1	X/O 4" H-90	162	62	0.80
40	4" H.W	101	65	372.33
4	Drill Pipe — Stands			76.10
0	Drill Pipe — Singles			0.00
	Kelly Down			0.00
	Total			581.92
	Weight of DC			
	Weight of String			

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other:

Time	08:00	12:45
Density	1095	1095
Funnel Viscosity	60	60
Fluid Loss		
pH		
Location Of Sample		
Depth	540.00	562.00
PVT	44.4	45

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	105	12800	8.00
2	PARALLEL	152	105	12800	8.00

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
10:00	544.00	1.90	0	WIRELINE

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density
Centrifuge #1	8.00	1095	1070	1600
Centrifuge #2	8.00	1095	1070	1600

MUD MATERIALS ADDED

Product	Amount	Type
Bentonite	14	sx
Fedzan	5	sx

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	13:00	5.00	2	Drill 311mm surface hole with Read m4685 rotary 100 from 543m to 562m
13:00	13:15	0.25	7	Rig service function test rig smart anti collision system function test crown saver grease all moving parts check fluid levels in floor motor and HPU
13:15	16:00	2.75	2	Drill 311mm surface hole with Read m4685 rotary 100 from 562m to 581m

Remarks
Level one overhead inspection BY
blown down boilers 100L 2 times

METRES DRILLED

From	To	D-R-C	RPM	WOB
543.00	581.00	DRILL	120	11

HOLE CONDITION

Hole Drag: Up 0 Down 0 | Torque At Bottom | Fill On Bottom

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

SAFETY

No	Safety Topic	MEHL	MACP
	Working at heights		

TOUR 3

SIGNATURE OF DRILLER: MARCUS HALLOWES

START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 19.05 19.05 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	152.00
Hrs Run Today	3.75
Cumulative Hrs Run	21.00
Entry Date	

CUTTING STRUCTURE: TI | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Rot Hrs (hr) 7.24 | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.44
1	X/O 4" H-90	162	62	0.80
40	4" H.W	101	65	372.33
5	Drill Pipe — Stands			95.12
0	Drill Pipe — Singles			9.50
	Kelly Down			-8.44
	Total			602.00
	Weight of DC			
	Weight of String			

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other:

Time	19:45	
Density	1120	
Funnel Viscosity	70	
Fluid Loss		
pH		
Location Of Sample	shaker	
Depth	610.00	
PVT	45	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	105	13000	
2	PARALLEL	152	105	13000	

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
18:30	600.00	1.40	0	WIRELINE

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	18:45	2.75	2	Drill 311mm surface hole with Read m4685 rotary 100 from 581m to 600m
18:45	19:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.
19:00	20:00	1.00	2	Drill 311mm surface hole with Read m4685 rotary 100 from 600m to 602m lay out 1 d.p
20:00	20:15	0.25	7	Rig service function test rig smart anti collision system function test crown saver grease all moving parts check fluid levels in floor motor and HPU
20:15	20:45	0.50	5	Circulate 2 bottoms up prepair to trip to out of hole to 133m
20:45	24:00	3.25	6B	Trip out of hole till 224m Ream tight spots from 514m ,435m ,429m

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L

METRES DRILLED

From	To	D-R-C	RPM	WOB
581.00	602.00	DRILL	120	11

HOLE CONDITION

Hole Drag: Up 0 Down 0 | Torque At Bottom | Fill On Bottom

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

SAFETY

No	Safety Topic	MEHL	MACP
	Tripping out of hole with top drive		

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140201_1A | Vendor Software Version: RMS 2013.8.14.27104 | Year: 2014 | Month: 02 | Day: 01

License No: 1211 | Well Name: COPRC MIRROR LAKE P-20 | Surface Location: P-20-65-00-126-45 | Prov: NT | Lic Type: CLSS | Unique Well Id:

Operator: Conoco Canada | Contractor: Beaver Drilling Ltd. | Rig No: 2 | Well Type: | Re-Entry: ☐

Operator's AFE: 10351812 | Contractor's Job No: 152 | Spud Date Time: 29-Jan-2014 00:00

Signature Of Operator's Representative: RICHARD TURGEON | Signature Of Contractor's Rig Manager: RICK YAVIS | Rig Release Date Time:

DAILY CHECKS (OP / RM)

	OP	RM
(1.) Daily Walk Around Inspection	RT	RY
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required		
(4.) Well Licence & Slick Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed		
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (monthly minimum)		RY
(2.) CAODC Rig Safety Inspection Checklist (once/quarter)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		

Kelly Bushing: | Op Fuel:

FUEL @ 08.00 HRS

Rig	Better
195	180
Time	Temp
06:30	-9

Current Conditions: OVERCAST | Wind Direction: NE | Wind Strength: UP TO 19 KM/H | Road Condition: GOOD

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Welding On	24 Rig Wash	25 Other	TOTAL
Tour 1						0.50	0.25		0.75			2.25	4.00								0.25					8.00
Tour 2		6.25			1.00	0.50	0.25																			8.00
Tour 3		2.00			4.75	0.75	0.25														0.25					8.00
TOTAL		8.25			5.75	1.75	0.75		0.75			2.25	4.00								0.50					24.00

WEATHER

TOUR 1

SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 / 19.05 / 19.05 / 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	0.00
Entry Date	

CUTTING STRUCTURE

I		Gauge	
TD		ODC	
MDC		Reason Pulled	
LOC		Test Run (hrs)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.58
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.24
1	X/O 4" H-90	162	62	0.80
34	4" H.W	101	65	317.85
0	Drill Pipe	Stands		0.00
0	Drill Pipe	Singles		0.00

Kelly Down: 0.00 | Total: 0.00 | Weight of DC: | Weight of String:

HOLE CONDITION

Hole Drag: Up | Down | Torque At Bottom | Fill On Bottom

MUD PECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	2:00	2.00	12G	Cement 10m3 of cement with schlumberger
2:00	2:30	0.50	6B	Pull out 8 stands of drill pipe
2:30	2:45	0.25	12G	Flush out pipe with 5m3 of fresh water
2:45	3:30	0.75	9A	Slip and cut 25m of drilling line
3:30	3:45	0.25	13	Wait on cement
3:45	4:00	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
4:00	7:45	3.75	13	Wait on cement Make up B.H.A
7:45	8:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L

SAFETY

Safety Topic	MEHL	MACP
Cementing plugs		

TOUR 2

SIGNATURE OF DRILLER: BRADY YAVIS | START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 / 19.05 / 19.05 / 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	0.00
Entry Date	

CUTTING STRUCTURE

I		Gauge	
TD		ODC	
MDC		Reason Pulled	
LOC		Test Run (hrs)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
0	Drill Pipe	Stands		0.00
0	Drill Pipe	Singles		0.00

Kelly Down: 0.00 | Total: | Weight of DC: | Weight of String:

HOLE CONDITION

Hole Drag: Up | Down | Torque At Bottom | Fill On Bottom

MUD PECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	95	600	6.00
2	PARALLEL	152	95	600	6.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:30	0.50	6A	Trip in to the hole to 95m
8:30	8:45	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
8:45	15:00	6.25	2C	Wash to cement and drill out cement plug, tag cement 161m, drilled out cement @258m
15:00	16:00	1.00	5C	Displace to surface mud

Remarks
Level one overhead inspection BY
blow down boilers 100L 2 times

SAFETY

Safety Topic	MEHL	MACP
Run in hole with Top Drive		

TOUR 3

SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	2
Size	311
IADC Code	
Manufacturer	Reed
Type	m4685
Serial No	b159531
Jets	19.05 / 19.05 / 19.05 / 12.7
Depth Out (m)	
Depth In (m)	450.00
Total Drilled (m)	18.00
Hrs Run Today	2.00
Cumulative Hrs Run	2.00
Entry Date	

CUTTING STRUCTURE

I		Gauge	
TD		ODC	
MDC		Reason Pulled	
LOC		Test Run (hrs)	9.00
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
450.00	468.00	DRILL	120	9

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	311mm BIT	311	72	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.24
1	X/O 4" H-90	162	62	0.80
36	4" H.W	101	65	122.25
0	Drill Pipe	Stands		0.00
0	Drill Pipe	Singles		0.00

Kelly Down: 0.00 | Total: 468.29 | Weight of DC: | Weight of String: 43000.00

HOLE CONDITION

Hole Drag: Up 0 | Down 0 | Torque At Bottom | Fill On Bottom

MUD PECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	18:45	2.75	5C	Displace to surface mud and clean suction tank
18:45	19:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.
19:00	20:15	1.25	5	Treat out calcium in mud system
20:15	20:30	0.25	6A	Trip in the hole till 350m
20:30	20:45	0.25	5	Circulate bottoms up
20:45	21:15	0.50	6A	Trip in the hole till 450m
21:15	21:45	0.50	5	Circulate bottoms up
21:45	22:00	0.25	7	Rig service change out hose on top drive grease all moving parts function test rig smart anti collision system
22:00	24:00	2.00	2	Drill 311mm hole from 450m to 468m

Remarks
Level one overhead inspection mh
Blew down boilers 2 time @ 50l

SAFETY

Safety Topic	MEHL	MACP
Tripping with top drive		

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140131_1A	RMS 2013.8.14.27104	2014	01	31

Licence No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS — OP RM

	OP	RM
(1.) Daily Walk Around Inspection	RT	RY
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) 1023 Signs Posted If Required		
(4.) Well Licence & Sick Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed		
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (once/month)		RY
(2.) CAODC Rig Safety Inspection Checklist (once/month)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		

CAODC

NOV

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	TOTAL
	Rig Up	Drill Actual	Reaming	Coring	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drlg Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other	
HOURS Tour 1		6.50			1.00		0.25														0.25					8.00
Tour 2		3.25			4.50		0.25																			8.00
Tour 3					0.50	6.50	0.25					0.25									0.50					8.00
TOTAL		9.75			6.00	6.50	0.75					0.25									0.75					24.00

FUEL @ 08.00 HRS

Rig	Depth
115	70

WEATHER

Time	Temp
05:45	-10

Current Conditions: OVERCAST

Wind Direction	Wind Strength
NE	UP TO 18 KM/H

Visual Condition: GOOD

Fully Set Casing | Up Feet

TOUR 1 | SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	1
Size	311
IADC Code	
Manufacturer	Smith
Type	mi616
Serial No	JD3509
Jets	14.29 14.29 14.29 [illegible] / 14.29 14.29 14.29 [illegible]
Depth Out (m)	
Depth In (m)	18.00
Total Drilled (m)	300.00
Hrs Run Today	6.50
Cumulative Hrs Run	25.75
Entry Date	

CUTTING STRUCTURE

In		Gage	
To		ODC	
MDC		Reason Pulled	
LOC		Total Rotating Hrs	11.65
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
319.00	422.00	DRILL	85	10

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	PDC 311mm bit	311	67	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.41
1	X/O 4" H-90	162	62	0.80
31	4" H.W	101	65	217.97
0	Drill Pipe	Stands		0.00
0	Drill Pipe	Singles		0.00
		Kelly Down		0.00
		Total		422.39
		Weight of DC		
		Weight of String		44000.00

HOLE CONDITION

Hole Drag	Up	0	Down 0
Torque At Bottom			
Fill On Bottom			

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other ☐

Time	01:30	03:15
Density	1035	1035
Funnel Viscosity	80	80
Fluid Loss		
pH	8.5	11
Location Of Sample	shaker	shaker
Depth	330.00	390.00
PVT	44	44

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	100	10000	8.00
2	PARALLEL	152	100	10000	8.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
00:30	328.00	0.90	0	WIRELINE
02:00	355.00	1.30	0	WIRELINE
04:30	388.00	1.60	0	WIRELINE
06:30	412.00	2.00	0	WIRELINE

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Gel	185	SX
Cellophane	8	SX
fed seal	9	SX
Sawdust	26	SX
Caustic	1	SX

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	1:30	1.50	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 319m to 356m
1:30	1:45	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
1:45	3:45	2.00	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 356m to 394m
3:45	4:45	1.00	5E	Build volume back up to 50m3 with a viscosity of 120 and L.C.M
4:45	7:45	3.00	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 394m to 422m
7:45	8:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50l

SAFETY

No	Safety Topic	MEHL	MACP
	Making connections with top drive		

TOUR 2 | SIGNATURE OF DRILLER: BRADY YAVIS | START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	1
Size	311
IADC Code	
Manufacturer	Smith
Type	mi616
Serial No	JD3509
Jets	14.29 14.29 14.29 [illegible] / 14.29 14.29 14.29 [illegible]
Depth Out (m)	450.00
Depth In (m)	18.00
Total Drilled (m)	432.00
Hrs Run Today	3.25
Cumulative Hrs Run	29.00
Entry Date	

CUTTING STRUCTURE

In	1	Gage	0
To	1	ODC	NO
MDC	WT	Reason Pulled	HP
LOC	G	Total Rotating Hrs	14.90
BRG	X		

METRES DRILLED

From	To	D-R-C	RPM	WOB
422.00	450.00	DRILL	85	5.5

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	PDC 311mm bit	311	67	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.41
1	X/O 4" H-90	162	62	0.80
34	4" H.W	101	65	217.97
0	Drill Pipe	Stands		0.00
0	Drill Pipe	Singles		0.00
		Kelly Down		0.00
		Total		450.16
		Weight of DC		
		Weight of String		44000.00

HOLE CONDITION

Hole Drag	Up	0	Down 0
Torque At Bottom			
Fill On Bottom			

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other ☐

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		
PVT		

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	100	12000	4.00
2	PARALLEL	152	100	12000	4.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
14:30	450.00	2.30	0	

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Bentonite	122	SX
Fedzan	6	SX
Sawdust	10	SX

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	10:45	2.75	5A	Build volume back up to 50m3 with a viscosity of 100+ and L.C.M
10:45	11:00	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
11:00	14:15	3.25	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 422m to 450m
14:15	16:00	1.75	5	Build volume back up to 50m3 with a viscosity of 100+ and L.C.M

Remarks
Level one overhead inspection BY
blow down boilers 100L 2 times

SAFETY

No	Safety Topic	MEHL	MACP
	Mixing Mud Products		

TOUR 3 | SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

In		Gage	
To		ODC	
MDC		Reason Pulled	
LOC		Total Rotating Hrs	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length
	Drill Pipe	Stands		
	Drill Pipe	Singles		
		Kelly Down		
		Total		
		Weight of DC		
		Weight of String		

HOLE CONDITION

Hole Drag	Up		Down
Torque At Bottom			
Fill On Bottom			

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other ☐

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		
PVT		

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:15	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
16:15	18:45	2.50	6B	Trip out of the hole to run plugs
18:45	19:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.
19:00	21:00	2.00	6B	Rack back stand of drill collars break bit and rack back 9inch
21:00	23:00	2.00	6E	Pick up 27 drill pipe and 4 H.W
23:00	23:30	0.50	5	Circulate 4m3 high viscosity high weight slug Chase with 3m3 of mud
23:30	23:45	0.25	21	Safety meeting with schlumberger on cementing plugs
23:45	24:00	0.25	12G	Cement 10m3 of cement with schumbger

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L

SAFETY

No	Safety Topic	MEHL	MACP
	Pick up drill pipe with top drive		

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140130_1A	RMS 2013.8.14.27104	2014	01	30

License No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time	
10351812	152	29-Jan-2014	00:00

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
RICHARD TURGEON	RICK YAVIS	

DAILY CHECKS — OP RM

	OP	RM
(1.) Daily Walk Around Inspection	RT	RY
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required		
(4.) Well License & Stick Diagram Posted	RT	RY
(5.) Flare Lines Staked	RT	RY
(6.) BOP Drills Performed	RT	RY
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines	RT	RY
(1.) Rig Site Health & Safety Meeting (once/week/month)		RY
(2.) CADDC Rig Safety Inspection Checklist (wkly/month)		
(3.) Mast Inspection before Raising or Lowering		RY
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		

CADDC

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir. Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1		1.50			3.75	2.25	0.25														0.25					8.00
Tour 2					5.00	2.75	0.25																			8.00
Tour 3		1.50			5.50	0.50	0.25														0.25					8.00
TOTAL		3.00			14.25	5.50	0.75														0.50					24.00

Kelly Bushing | Up Field

FUEL @ 08.00 HRS

Rig	Stock
200	200

WEATHER: Time 06:00 | Temp -26 | Cloud Condition CLEAR | Wind Direction NW | Wind Strength CALM | Road Condition GOOD

TOUR 1 | SIGNATURE OF DRILLER MARCUS HALLOWES | START TIME 0:00 | END TIME 8:00

BITS

Bit Number	1
Size	311
IADC Code	
Manufacturer	Smith
Type	mi616
Serial No	JD3509
Jets	14,29 14,29 14,29 14,29 14,29 14,29
Depth Out (m)	
Depth In (m)	18.00
Total Drilled (m)	283.00
Hrs Run Today	1.50
Cumulative Hrs Run	17.75
Entry Date	

CUTTING STRUCTURE: I | Grade | TD | ODC | MDC | Reason Pulled | LOC | Total Run (m/h) 15.94 | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	PDC 311mm bit	311	67	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.64
1	X/O 4" H-90	162	62	0.80
18	4" H.W	101	65	153.05
0	Drill Pipe — Stands			0.00
0	Drill Pipe — Singles			0.00

Kelly Down 0.00 | Total 301.15 | Weight of DC | Weight of String 44000.00

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	00:30	01:30
Density	1030	1030
Funnel Viscosity	45	95
Fluid Loss		
pH	8	8.5
Location Of Sample	shaker	shaker
Depth	248.00	300.00
PVT		

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	105	10000	3.00
2	PARALLEL	152	105	10000	3.00

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
00:45	281.00	0.20	0	WIRELINE
01:45	300.00	0.20	0	WIRELINE

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Sawdust	74	SX
fed seal	21	SX
Gel	140	SX
Cellophane	17	SX
Fedzan	3	SX
Soda Ash	2	SX
Gel	67	SX

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:45	0.75	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 245m to 263m
0:45	1:00	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
1:00	1:45	0.75	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 263m to 301m
1:45	2:15	0.50	5	Circulate bottoms take bottom hole survey up prepair to trip out of hole
2:15	4:30	2.25	6B	Trip out of hole till 105m pulled tight
4:30	7:45	3.25	5	Build volume and get a viscosity of 80 and L.C.M additives
7:45	8:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.

METRES DRILLED

From	To	D-R-C	RPM	WOB
263.00	301.00	DRILL	85	6

HOLE CONDITION

Hole Drag: Up | Down

Torque At Bottom

Fill On Bottom

REDUCED PUMP SPEED

Pump #	Pressure	@	Strokes/min	@	Depth
		@		@	
		@		@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

Remarks
Level one overhead inspection mh
Blew down boiler 2 times @ 50L

SAFETY

Safety Topic	MEHL	MACP
Tripping out of hole with top drive		

TOUR 2 | SIGNATURE OF DRILLER BRADY YAVIS | START TIME 8:00 | END TIME 16:00

BITS

Bit Number	1
Size	311
IADC Code	
Manufacturer	Smith
Type	mi616
Serial No	JD3509
Jets	14,29 14,29 14,29 14,29 14,29 14,29
Depth Out (m)	
Depth In (m)	18.00
Total Drilled (m)	283.00
Hrs Run Today	
Cumulative Hrs Run	17.75
Entry Date	

CUTTING STRUCTURE: I | Grade | TD | ODC | MDC | Reason Pulled | LOC | Total Run (m/h) 15.94 | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	PDC 311mm bit	311	67	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.64
1	X/O 4" H-90	162	62	0.80
18	4" H.W	101	65	153.05
0	Drill Pipe — Stands			0.00
0	Drill Pipe — Singles			0.00

Kelly Down 0.00 | Total 301.15 | Weight of DC | Weight of String 43000.00

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	08:45	13:30
Density	1035	1035
Funnel Viscosity	95	95
Fluid Loss		
pH		
Location Of Sample	shaker	shaker
Depth	105.00	95.00
PVT	56	53

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	SINGLE	152	100	600	1.00

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Gel	144	SXS

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	13:00	5.00	5	Build volume and get a viscosity of 100
13:00	14:30	1.50	6B	Trip out, back reamed tight at 97m
14:30	14:45	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
14:45	16:00	1.25	6A	Trip into the hole slowly

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down

Torque At Bottom

Fill On Bottom

REDUCED PUMP SPEED

Pump #	Pressure	@	Strokes/min	@	Depth
		@		@	
		@		@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

Remarks
Level one overhead inspection BY
blow down boilers 100L two times

SAFETY

Safety Topic	MEHL	MACP
Back reaming with a top drive		

TOUR 3 | SIGNATURE OF DRILLER MARCUS HALLOWES | START TIME 16:00 | END TIME 24:00

BITS

Bit Number	1
Size	311
IADC Code	
Manufacturer	Smith
Type	mi616
Serial No	JD3509
Jets	14,29 14,29 14,29 14,29 14,29 14,29
Depth Out (m)	
Depth In (m)	18.00
Total Drilled (m)	300.00
Hrs Run Today	1.50
Cumulative Hrs Run	19.25
Entry Date	

CUTTING STRUCTURE: I | Grade | TD | ODC | MDC | Reason Pulled | LOC | Total Run (m/h) 15.68 | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	PDC 311mm bit	311	67	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.64
1	X/O 4" H-90	162	62	0.80
20	4" H.W	101	65	186.71
0	Drill Pipe — Stands			0.00
0	Drill Pipe — Singles			0.00

Kelly Down 0.00 | Total 319.82 | Weight of DC | Weight of String 43000.00

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	19:30	22:30
Density	1035	1035
Funnel Viscosity	70	95
Fluid Loss		
pH		
Location Of Sample	suction 1	shaker
Depth	301.00	301.00
PVT	54.8	51.6

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	105	9000	2.00
2	PARALLEL	152	105	9000	2.00

Remarks

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Gel	86	SX
Caustic	1	SX
Sawdust	10	SX
Cellophane	5	SX

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:30	0.50	6A	Trip into the hole slowly
16:30	16:45	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
16:45	18:45	2.00	5	Build volume and get a viscosity of 100 and L.C.M additives
18:45	19:00	0.25	21D	Crew handover meeting with both crews, tool push and conoco rep present.
19:00	20:48	1.75	5	Build volume and get a viscosity of 100
20:45	21:00	0.25	5	Circulate 110 viscosity mud seen returns after 13m3
21:00	22:30	1.50	5E	Build volume back to 50m3, mix gel to bring mud up to 100+ viscosity
22:30	24:00	1.50	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 301m to 319m

METRES DRILLED

From	To	D-R-C	RPM	WOB
301.00	319.00	DRILL	69	7

HOLE CONDITION

Hole Drag: Up 0 | Down 0

Torque At Bottom

Fill On Bottom

REDUCED PUMP SPEED

Pump #	Pressure	@	Strokes/min	@	Depth
		@		@	
		@		@	

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 100L

SAFETY

Safety Topic	MEHL	MACP
Mixing mud products		

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140129_1A	Vendor Software Version: RMS 2013.8.14.27104	Year: 2014	Month: 01	Day: 29
License No: 1211	Well Name: COPRC MIRROR LAKE P-20	Surface Location: P-20-65-00-126-45	Prov: NT	Lic Type: CLSS	Unique Well Id:
Operator: Conoco Canada	Contractor: Beaver Drilling Ltd.	Rig No: 2	Well Type:	Re-Entry:
Operator's AFE: 10351812	Contractor's Job No: 152	Spud Date Time: 29-Jan-2014 00:00		
Signature Of Operator's Representative: DAVE OPPER	Signature Of Contractor's Rig Manager: RICK YAVIS	Rig Release Date Time:		

DAILY CHECKS — DP / RM

	DP	RM
(1) Daily Walk Around Inspection	DO	RY
(2) Detailed Inspection - Weekly (Using Check List)	DO	RY
(3) H2S Signs Posted If Required		
(4) Well Licence & Slot Diagram Posted	DO	RY
(5) Flare Lines Staked	DO	RY
(6) BOP Drills Performed	DO	RY
(7) Visually Inspected BOPs-Flare Lines & Degasser Lines	DO	RY
(1) Rig Site Hazard & Safety Meeting (and documented)		RY
(2) CAODC Rig Safety Inspection Checklist (and Highlights)		
(3) Mast Inspection before Raising or Lowering		
(4) Crown Saver Checked		RY
(5) Motor Kills Checked		RY

HOURS

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
Tour 1		7.50					0.25														0.25					8.00
Tour 2		6.50			1.00		0.25														0.25					8.00
Tour 3		3.50			4.00		0.25														0.25					8.00
TOTAL		17.50			5.00		0.75														0.75					24.00

Daily Drilling: Up Time:

FUEL @ 08:00 HRS: Rig 120; Camp 70

WEATHER: Time 06:00; Temp -32; Current Conditions: CLEAR; Wind Direction: W; Wind Strength: UP TO 19 KM/H; Road Conditions: GOOD

TOUR 1 — SIGNATURE OF DRILLER: MARCUS HALLOWES

START TIME: 0:00 END TIME: 8:00

BITS

Bit Number	1
Size	311
IADC Code	
Manufacturer	Smith
Type	mi616
Serial No	JD3509
Jets	14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29
Depth Out (m)	
Depth In (m)	18.00
Total Drilled (m)	58.00
Hrs Run Today	6.00
Cumulative Hrs Run	6.25
Entry Date	

CUTTING STRUCTURE: TI; TO; MDC; LOC; BRG; Gauge; ODC; Reason Pulled; Total Run (m/ft): 9.28

METRES DRILLED

From	To	D-R-C	RPM	WOB
20.00	76.00	DRILL	120	4

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	PDC 311mm bit	311	67	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.59
1	Bell sub	232	69	0.66
5	6" D.C	160	60	55.87

0 Drill Pipe Stands 0.00; 0 Drill Pipe Singles 0.00

Kelly Down 0.00; Total 76.38; Weight of DC; Weight of String 28.00

HOLE CONDITION: Hole Drag Up; Down; Torque At Bottom; Fill On Bottom

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		@
PVT		@

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	105	1800	8.00
2	PARALLEL	152	105	1800	2.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
01:45	28.00	0.50	0	
06:15	56.00	0.60	0	

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Sawdust	10	SX

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	1:30	1.50	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 20m to 29m
1:30	1:45	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
1:45	7:45	6.00	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 29m to 76m
7:45	8:00	0.25	21	Crew handover meeting with both crews, tool push and conoco rep present.

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 100L

SAFETY

Safety Topic	MEHL	MACP
Making connections with top drive		

TOUR 2 — SIGNATURE OF DRILLER: BRADY YAVIS

START TIME: 8:00 END TIME: 16:00

BITS

Bit Number	1
Size	311
IADC Code	
Manufacturer	Smith
Type	mi616
Serial No	JD3509
Jets	14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29
Depth Out (m)	
Depth In (m)	18.00
Total Drilled (m)	58.00
Hrs Run Today	6.50
Cumulative Hrs Run	12.75
Entry Date	

CUTTING STRUCTURE: TI; TO; MDC; LOC; BRG; Gauge; ODC; Reason Pulled; Total Run (m/ft): 4.55

METRES DRILLED

From	To	D-R-C	RPM	WOB
76.00	188.00	DRILL	85	4

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	PDC 311mm bit	311	67	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.59
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.47
1	X/O 4" H-90	162	62	0.80
6	4" H.W	101	65	53.66

0 Drill Pipe Stands 0.00; 0 Drill Pipe Singles 0.00

Kelly Down 0.00; Total 188.95; Weight of DC; Weight of String 42000.00

HOLE CONDITION: Hole Drag Up; Down; Torque At Bottom; Fill On Bottom

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	08:30	14:00
Density	1035	1035
Funnel Viscosity	38	46
Fluid Loss		
pH		
Location Of Sample		
Depth	94.00	160.00
PVT	36.4	32

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	120	7500	8.00
2	PARALLEL	152	120	7500	8.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
08:15	84.98	0.40	0	
13:30	131.00	0.30	0	
14:45	151.00	0.30	0	

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Bentonite	115	SX
Fedzan	8	SX
Soap Sticks	1	SX
fed seal	7	SX
Cellophane	2	SX
Sawdust	120	SX

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	9:00	1.00	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 76m to 94m
9:00	10:00	1.00	5A	Float stuck on mud tank, lost suction and build volume
10:00	11:00	1.00	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 94m to 104m
11:00	11:15	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
11:15	11:30	0.25	21A	Rotating head diverter drill with crew
11:30	16:00	4.50	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 104m to 188m

Remarks
Level one overhead inspection BY
Blow down boilers 100l two times

SAFETY

Safety Topic	MEHL	MACP
Rotating Head Diverter Drill		

TOUR 3 — SIGNATURE OF DRILLER: MARCUS HALLOWES

START TIME: 16:00 END TIME: 24:00

BITS

Bit Number	1
Size	311
IADC Code	
Manufacturer	Smith
Type	mi616
Serial No	JD3509
Jets	14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29
Depth Out (m)	
Depth In (m)	18.00
Total Drilled (m)	245.00
Hrs Run Today	3.50
Cumulative Hrs Run	16.25
Entry Date	

CUTTING STRUCTURE: TI; TO; MDC; LOC; BRG; Gauge; ODC; Reason Pulled; Total Run (m/ft): 15.06

METRES DRILLED

From	To	D-R-C	RPM	WOB
188.00	263.00	DRILL	85	4

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	PDC 311mm bit	311	67	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.59
1	Bell sub	232	69	0.66
12	6" D.C	160	60	111.47
1	X/O 4" H-90	162	62	0.80
14	4" H.W	101	65	130.45

0 Drill Pipe Stands 0.00; 0 Drill Pipe Singles 0.00

Kelly Down 0.00; Total 263.74; Weight of DC; Weight of String 43000.00

HOLE CONDITION: Hole Drag Up 0; Down 0; Torque At Bottom; Fill On Bottom

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time		
Density		
Funnel Viscosity		
Fluid Loss		
pH		
Location Of Sample		
Depth		@
PVT		@

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
1	PARALLEL	152	105	8700	4.00
2	PARALLEL	152	105	8700	4.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type
16:15	188.00	0.20	0	WIRELINE
18:15	208.00	0.20	0	WIRELINE
19:45	244.00	0.20	0	WIRELINE

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	17:15	1.25	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 188m to 207m
17:15	17:30	0.25	7	Rig service function test rig smart anti collision system function test crown saver, function test flair stack ignitor, grease all moving parts check fluid levels in floor motor and HPU
17:30	18:45	1.25	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 207m to 245m
18:45	19:00	0.25	21D	Crew change safety meeting Conoco Reps. present
19:00	20:30	1.50	5E	Circulate and condition mud additions of gel to 80 viscosity and L.C.M
20:30	23:00	2.50	5E	Build volume with pumps off add L.C.M mud viscosity to 80
23:00	24:00	1.00	2	Drill 311mm hole with Mi616 Smith PDC bit drill from 245m to 263m

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 50L

SAFETY

Safety Topic	MEHL	MACP
Mixing mud products		

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140128_1A | Vendor Software Version: RMS 2013.6.14.27104 | Year: 2014 | Month: 01 | Day: 28

License No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time
10351812	152	

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
DAVE OPPER	RICK YAVIS	

DAILY CHECKS — OP RM

	DD	RY
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required		
(4.) Well Licence & Stick Diagram Posted		
(5.) Flare Lines Staked		
(6.) BOP Drills Performed		
(7.) Manally Inspected BOPs-Flare Lines & Degasser Lines		
(1.) Rig Site Health & Safety Meeting (environment)		RY
(2.) CADDC Rig Safety Inspection Checklist (requirements)		RY
(3.) Hand Inspection before Raising or Lowering		RY
(4.) Crown Saver Checked		RY
(5.) Motor Kills Checked		RY

Code	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	TOTAL
	Rig Up	Drill Actual	Reaming	Casing	Cond Mud & Circ	Trips	Rig Service	Repair Rig	Cut Off Drlg Line	Dev Survey	Wireline Logs	Run Csg & Cement	Wait On Cement	Nipple BOP	Test BOP	Drillstem Test	Plug Back	Squeeze Cement	Fishing	Dir Work	Safety Meeting	Tear Down	Waiting On	Rig Watch	Other	
Tour 1	7.75						0.25																			8.00
Tour 2	7.75						0.25																			8.00
Tour 3	2.50	2.00				2.50	0.25														0.75					8.00
TOTAL	18.00	2.00				2.50	0.75														0.75					24.00

HOURS

Kelly Bushing | Drl Floor

FUEL @ 08.00 HRS

WEATHER

Rig	Meter
190	200
Time	Temp
06:15	-20
Current Conditions	
PARTLY CLOUDY	
Wind Direction	Wind Strength
N	UP TO 19 KM/H
Road Conditions	
GOOD	

TOUR 1 | SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LDC		Total Run (m/hr)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION

Hole Drag	Up	Down
Torque At Bottom		
Fill On Bottom		

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	445

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig service function test rig smart function test crown saver
0:15	8:00	7.75	1	Cut conductor and prepare diverter system weld on flange and nipple up diverter system, fill mud tanks hook up flair lines.

Remarks
Level one overhead inspection mh
Blew down boilers 2 times @ 100L

SAFETY

Safety Topic	MEHL	MACP
Nipple up diverter		

TOUR 2 | SIGNATURE OF DRILLER: BRADY YAVIS | START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LDC		Total Run (m/hr)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION

Hole Drag	Up	Down
Torque At Bottom		
Fill On Bottom		

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Lose	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type
Bentonite	34	sx
Fedzan	3	sx
Soda Ash	2	sx

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:15	0.25	7	Rig service function test rig smart function test crown saver
8:15	16:00	7.75	1	Weld and nipple up diverter system, hook up flare lines

Remarks
Level one overhead inspection BY
Blow down boilers 100L 2 times

SAFETY

Safety Topic	MEHL	MACP
Nipple up Rotating Diverter System		

TOUR 3 | SIGNATURE OF DRILLER: MARCUS HALLOWES | START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	1
Size	311
IADC Code	
Manufacturer	Smith
Type	mi616
Serial No	JD3509
Jets	14.29 14.29 14.29 [illegible] / 14.29 14.29 14.29 [illegible]
Depth Out (m)	
Depth In (m)	18.00
Total Drilled (m)	2.00
Hrs Run Today	0.25
Cumulative Hrs Run	0.25
Entry Date	

CUTTING STRUCTURE

TI		Gauge	
TO		ODC	
MDC		Reason Pulled	
LDC		Total Run (m/hr)	6.00
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB
18.00	20.00	DRILL	120	3

DRILLING ASSEMBLY

No	Component	OD	ID	Length
1	PDC 311mm bit	311	67	0.35
1	Bit sub	235	70	0.94
2	9" D.C	233	71	18.50
1	Bell sub	232	69	0.66

0	Drill Pipe: Stands	0.00
0	Drill Pipe: Singles	0.00
	Kelly Down	0.00
	Total	20.45
	Weight of DC	
	Weight of String	26.00

HOLE CONDITION

Hole Drag	Up	0	Down	0
Torque At Bottom				
Fill On Bottom				

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	23:15
Density	
Funnel Viscosity	
Fluid Lose	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run
2	SINGLE	152	100	1200	1.00

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	18:00	2.00	1	Weld and nipple up diverter system, hook up air lines to diverter valves and function test
18:00	18:15	0.25	7	Rig service, function tested rig smart anti-collision system, funtion tested crown saver, checked oil and greased all moving parts
18:15	18:45	0.50	1	Pick up and prepare 311mm Mi616 Smith PDC bit
18:45	19:00	0.25	21	Crew handover meeting with rig crews, rig manger and Conoco rep. present
19:00	21:30	2.50	6C	Make up 311mm Mi616 Smith PDC bit, 9inch drill collar and bit sub, Finish flair stack
21:30	23:00	1.50	2C	Ran 311mm Mi616 Smith PDC bit in, tagged ice in conductor, make 9" collar conection with drill sub, drill out ice in conductor barrel, ran in and tagged conductor cement
23:00	23:15	0.25	21F	Pre-spud safety inspection with rig crew
23:15	23:30	0.25	21A	Diverter drill with crews review task and positions
23:30	24:00	0.50	2	Drill out ice & cement in bottom of conductor

Remarks
Level one overhead inspection mh

SAFETY

Safety Topic	MEHL	MACP
Pre spud inspection diverter drill		

FRONT PAGE SUMMARY

Tour Sheet Serial Number: BEAV2_20140127_1A | Vendor Software Version: RMS 2013.8.14.27104 | Year: 2014 | Month: 01 | Day: 27

License No: 1211 | Well Name: COPRC MIRROR LAKE P-20 | Surface Location: P-20-65-00-126-45 | Prov: NT | Lic Type: CLSS | Unique Well Id:

Operator: Conoco Canada | Contractor: Beaver Drilling Ltd. | Rig No: 2 | Well Type: | Re-Entry: ☐

Operator's AFE: 10351812 | Contractor's Job No: 152 | Spud Date Time:

Signature Of Operator's Representative: DAVE OPPER | Signature Of Contractor's Rig Manager: RICK YAVIS | Rig Release Date Time:

DAILY CHECKS

	DO	RY
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted If Required		
(4.) Well Licences & Stick Diagram Posted	DO	RY
(5.) Flare Lines Staked		
(6.) BOP Drills Performed		
(7.) Visually Inspected BOPs Flare Lines & Degasser Lines		
(1.) Rig Site Health & Safety Meeting (once a month)		RY
(2.) CAODC Rig Safety Inspection Checklist (once a month)		
(3.) Meet Inspection before Raising or Lowering		
(4.) Crown Saver Checked		RY
(5.) Mentor Kills Checked		

Code: 1 Rig Up | 2 Drill Actual | 3 Reaming | 4 Coring | 5 Cond Mud & Circ | 6 Trips | 7 Rig Service | 8 Repair Rig | 9 Cut Off Drlg Line | 10 Dev Survey | 11 Wireline Logs | 12 Run Csg & Cement | 13 Wait On Cement | 14 Nipple BOP | 15 Test BOP | 16 Pressure Test | 17 Plug Back | 18 Squeeze Cement | 19 Fishing | 20 Dir Work | 21 Safety Meeting | 22 Tear Down | 23 Waiting On | 24 Rig Welsh | 25 Other | TOTAL

HOURS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	TOTAL
Tour 1	0.75						0.25														0.25				6.75	8.00
Tour 2	7.00																				1.00					8.00
Tour 3	7.75						0.25																			8.00
TOTAL	15.50						0.50														1.25				6.75	24.00

FUEL @ 08 00 HRS

	Used
M	170
Time	Temp
06:15	-27

WEATHER

Barometric Conditions: CLEAR | Wind Direction: SW | Wind Strength: CALM | Road Conditions: GOOD

Kelly Bushing: | Up Hole:

TOUR 1

SIGNATURE OF DRILLER: RICK YAVIS

START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

I		Gauge	
TO		ODC	
MDC		Reason Pulled	
LDC		Total Run (hrs)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles

Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION

Hole Drag: Up | Down

Torque At Bottom

Fill On Bottom

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	0:15	0.25	7	Rig service
0:15	7:00	6.75	25	Boiler watch, rig in hoses and cords
7:00	7:15	0.25	21D	Crew change and safety meeting with crews, rig manager and Conoco reps
7:15	8:00	0.75	1	Rig up and dress derrick prior to raise

Remarks

SAFETY

	Safety Topic	MEHL	MACP

TOUR 2

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

I		Gauge	
TO		ODC	
MDC		Reason Pulled	
LDC		Total Run (hrs)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles

Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION

Hole Drag: Up | Down

Torque At Bottom

Fill On Bottom

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	8:45	0.75	21F	Safety inspection of derrick before raising RY,BB,DS,ER,SM
8:45	9:00	0.25	21D	Prejob safety meeting on raising derrick
9:00	9:15	0.25	1	Raise derrick & pin same
9:15	16:00	6.75	1C	Spot 400 barrel tanks & rental mud trailers and casing

Remarks

SAFETY

	Safety Topic	MEHL	MACP

TOUR 3

SIGNATURE OF DRILLER: BRADY YAVIS

START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE

I		Gauge	
TO		ODC	
MDC		Reason Pulled	
LDC		Total Run (hrs)	
BRG			

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles

Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION

Hole Drag: Up | Down

Torque At Bottom

Fill On Bottom

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	16:15	0.25	7	Rig service, grease moving parts, check oil in floor motor and HPU
16:15	24:00	7.75	1B	Rig up torque tube and Top drive

Remarks

Blow down boiler 100L 2 times

SAFETY

	Safety Topic	MEHL	MACP
	Rig up Top Drive		

FRONT PAGE SUMMARY

Tour Sheet Serial Number	Vendor Software Version	Year	Month	Day
BEAV2_20140126_1A	RMS 2013.6.14.27104	2014	01	26

License No	Well Name	Surface Location	Prov	Lic Type	Unique Well Id
1211	COPRC MIRROR LAKE P-20	P-20-65-00-126-45	NT	CLSS	

Operator	Contractor	Rig No	Well Type	Re-Entry
Conoco Canada	Beaver Drilling Ltd.	2		☐

Operator's AFE	Contractor's Job No	Spud Date Time
10351812	152	

Signature Of Operator's Representative	Signature Of Contractor's Rig Manager	Rig Release Date Time
DAVE OPPER	RICK YAVIS	

DAILY CHECKS (DO / RY)

(1.) Daily Walk Around Inspection
(2.) Detailed Inspection - Weekly (Using Check List)
(3.) H2S Signs Posted If Required
(4.) Well Licence & Sour Diagram Posted
(5.) Flare Lines Staked
(6.) BOP Drills Performed
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines
(1.) Rig Site Hazard & Safety Meeting (emphasis/event(s))
(2.) CAODC Rig Safety Inspection Checklist (send to/forward)
(3.) Mast Inspection before Raising or Lowering
(4.) Crown Saver Checked
(5.) Mast Win Checked

Code	1 Rig Up	2 Drill Actual	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
HOURS Tour 1																									8.00	8.00
Tour 2	6.75																				0.25		1.00			8.00
Tour 3	3.00																								5.00	8.00
TOTAL	9.75																				0.25		1.00		13.00	24.00

Kelly Bushing | Op Field

FUEL @ 08:00 HRS

WEATHER: Rig 90 | Intake 50 | Time 05:00 | Temp -25 | Current Conditions OVERCAST | Wind Direction N | Wind Strength UP TO 19 KM/H | Road Condition GOOD

TOUR 1 | SIGNATURE OF DRILLER: RICK YAVIS | START TIME 0:00 | END TIME 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: I | Cond | TO | DOC | MDC | Reason Pulled | LOC | Total Rev in Pull | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands | Drill Pipe Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD: Mud Type Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	8:00	8.00	25	Boiler watch w/2 men

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 2 | SIGNATURE OF DRILLER: DEVAN SCHLITTER | START TIME 8:00 | END TIME 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: I | Cond | TO | DOC | MDC | Reason Pulled | LOC | Total Rev in Pull | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands | Drill Pipe Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD: Mud Type Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	9:00	1.00	23I	Wait on camel trucks
9:00	9:15	0.25	21D	Safety meeting with rig crews, rig manager, SimOps, safety hands and Conoco reps
9:15	16:00	6.75	1C	Spot matting, sub, inspect and pin derrick, spot buildings and cat-walk

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 3 | SIGNATURE OF DRILLER: RICK YAVIS | START TIME 16:00 | END TIME 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Date	

CUTTING STRUCTURE: I | Cond | TO | DOC | MDC | Reason Pulled | LOC | Total Rev in Pull | BRG

METRES DRILLED

From	To	D-R-C	RPM	WOB

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe Stands | Drill Pipe Singles | Kelly Down | Total | Weight of DC | Weight of String

HOLE CONDITION: Hole Drag Up | Down | Torque At Bottom | Fill On Bottom

MUD RECORD: Mud Type Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure		Strokes/min		Depth
		@		@	
		@		@	
		@		@	

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	19:00	3.00	1C	Spot rig & buildings
19:00	24:00	5.00	25	Boiler watch and rig up steam lines

Remarks

SAFETY

Safety Topic	MEHL	MACP

FRONT PAGE SUMMARY

Licence No: 1211	Well Name: COPRC MIRROR LAKE P-20	Tour Sheet Serial Number: BEAV2_20140125_1A	Vendor Software Version: RMS 2013.6.14.27104	Year: 2014	Month: 01	Day: 25			
Operator: Conoco Canada		Surface Location: P-20-65-00-126-45	From: NT	Loc Type: CLSS	Unique Well Id:				
Operator's AFE: 10351812	Contractor: Beaver Drilling Ltd.		Rig No: 2	Well Type:		Re-Entry: ☐			
Signature Of Operator's Representative: DAVE OPPER	Contractor's Job No: 152	Spud Date Time:							
	Signature Of Contractor's Rig Manager: RICK YAVIS	Rig Release Date Time:							

DAILY CHECKS

	DO	RV
(1.) Daily Walk Around Inspection		
(2.) Detailed Inspection - Weekly (Using Check List)		
(3.) H2S Signs Posted if Required		
(4.) Well Licence & Std. Diagram Posted	DO	RV
(5.) Flare Lines Staked		
(6.) BOP Drills Performed		
(7.) Visually Inspected BOPs-Flare Lines & Degasser Lines		
(1.) Rig Site Health & Safety Meeting (area assessments)		RV
(2.) CAODC Rig Safety Inspection Checklist (once/fortnight)		
(3.) Mast Inspection before Raising or Lowering		
(4.) Crown Saver Checked		
(5.) Motor Kills Checked		

HOURS

Code	1 Rig Up	2 Drill Ahead	3 Reaming	4 Coring	5 Cond Mud & Circ	6 Trips	7 Rig Service	8 Repair Rig	9 Cut Off Drlg Line	10 Dev Survey	11 Wireline Logs	12 Run Csg & Cement	13 Wait On Cement	14 Nipple BOP	15 Test BOP	16 Drillstem Test	17 Plug Back	18 Squeeze Cement	19 Fishing	20 Dir Work	21 Safety Meeting	22 Tear Down	23 Waiting On	24 Rig Watch	25 Other	TOTAL
Tour 1																					0.25	7.00	0.75			8.00
Tour 2	6.25																				0.25		1.50			8.00
Tour 3																									8.00	8.00
TOTAL	6.25																				0.50	7.00	2.25		8.00	24.00

WEATHER

Daily Breakup: | Op Fuel: FUEL @ 08 00 HRS

Rig: 100 | Meter: 60 | Time: 06:15 | Temp: -15 | Current Conditions: OVERCAST | Wind Direction: N | Wind Strength: UP TO 19 KM/H | Road Conditions: GOOD

TOUR 1

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 0:00 | END TIME: 8:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Data	

CUTTING STRUCTURE: TI | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Run In Hrs | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down | Torque At Bottom | Fill On Bottom

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
0:00	7:00	7.00	22	Tear out rig to move off location, prepare derrick, clean and cover well head, fold up dog house wings and walk ways on buildings
7:00	7:15	0.25	21D	Crew change safety meeting with rig crews, rig manager and Conoco reps
7:15	8:00	0.75	23I	Wait on CANOL trucks

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 2

SIGNATURE OF DRILLER: DEVAN SCHLITTER

START TIME: 8:00 | END TIME: 16:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Data	

CUTTING STRUCTURE: TI | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Run In Hrs | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down | Torque At Bottom | Fill On Bottom

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
8:00	9:30	1.50	23I	Wait on CANOL trucks
9:30	9:45	0.25	21D	Pre-move safety meeting with rig crew, rig manager, Conoco safety and SimOps, well site supervisor and CANOL truckers
9:45	16:00	6.25	1A	Load out rig buildings and rentals, lift derrick off sub, load sub and move off location E-76

Remarks

SAFETY

Safety Topic	MEHL	MACP

TOUR 3

SIGNATURE OF DRILLER: BRIAN BERGSETH

START TIME: 16:00 | END TIME: 24:00

BITS

Bit Number	
Size	
IADC Code	
Manufacturer	
Type	
Serial No	
Jets	
Depth Out (m)	
Depth In (m)	
Total Drilled (m)	
Hrs Run Today	
Cumulative Hrs Run	
Entry Data	

CUTTING STRUCTURE: TI | Gauge | TO | ODC | MDC | Reason Pulled | LOC | Total Run In Hrs | BRG

DRILLING ASSEMBLY

No	Component	OD	ID	Length

Drill Pipe: Stands | Drill Pipe: Singles | Kelly Down | Total | Weight of DC | Weight of String

MUD RECORD

Mud Type: Water ☑ Oil ☐ Other

Time	
Density	
Funnel Viscosity	
Fluid Loss	
pH	
Location Of Sample	
Depth	
PVT	

Circulation

Pump #	Type	Liner Size	SPM	Pressure	Hrs Run

Remarks

REDUCED PUMP SPEED

Pump #	Pressure	Strokes/min	Depth
	@	@	
	@	@	
	@	@	

METRES DRILLED

From	To	D-R-C	RPM	WOB

HOLE CONDITION

Hole Drag: Up | Down | Torque At Bottom | Fill On Bottom

DEVIATION SURVEYS

Time	Depth	Deviation	Direction	Type

SOLIDS CONTROL

Equipment Name	Hours Run	Intake Density	Over Flow Density	Under Flow Density

MUD MATERIALS ADDED

Product	Amount	Type

BOILER

BoilerNo	HoursRun	pH	StackTemp
1	8.00	11	450
2	8.00	11	450

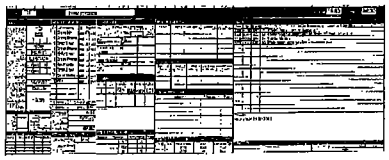
TIME LOG

From	To	Elapsed	Code	Details Of Operations In Sequance & Remarks
16:00	19:00	3.00	25	Lift matting, move off E-76
19:00	24:00	5.00	25	Boiler watch w/ 2 man

Remarks

SAFETY

Safety Topic	MEHL	MACP



X. Bit record

ConocoPhillips Canada

Bit Summary

COPRC MIRROR LAKE P-20 65-00 126-45

API / UWI	Surface Legal Location	District	Field Name	License No.	Program	Well Type	Well Config	Orig KB/RT (m)	KB-Grd (m)
200/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470		Appraisal	HORIZONTAL	289.35	5.20

Bits

BHA No.	Bit Run	Size (mm)	Make	Model	SN	IADC Codes	TFA (incl Noz) (mm²)	Nozzles (mm)	Depth In (mKB)	Depth Out (mKB)	Drilled (m)	Drill Time (hr)	BHA ROP (m/hr)	WOB Max (daN)	WOB Min (daN)	Max RPM (rpm)	Min RPM (rpm)	Bit Dull
1	1	311.0	Smith	mi616	JD3509	___	1,283	14.3/14.3/14.3/14.3/14.3/14.3/14.3/14.3	18.00	450.00	432.00	29.00	14.9	10,000	3,000	120	69	1-1-NO-G-X--WT-HP
2	2	311.0	Reed	m4685	b159531	___	982	19.1/19.1/19.1/12.7	450.00	602.00	152.00	21.00	7.2	11,000	9,000	120	120	-------
3	3	222.0	ulterra	u513	17071	___	677	11.1/11.1/11.1/11.1/11.1/11.1/11.1/11.1	602.00	1,921.00	1,319.00	62.25	21.2	8,000	6,000	208	191	-------
4	4	222.0	Smith	FHi18B	RA3595	___	942	20.0/20.0/20.0	1,921.00	2,152.00	231.00	37.50	6.2	20,000	16,000	171	141	2-3-WT-G-1-1-NO-TD
5	5	156.0	Smith	MS1613UBPXX	JH8401	___	581	11.1/11.1/11.1/11.1/11.1/11.1/11.1	2,152.00	3,142.00	990.00	41.75	23.7	10,000	8,000	215	215	-------
6	5 RR	156.0	Smith	MS1613UBPXX	JH8401	___	581	11.1/11.1/11.1/11.1/11.1/11.1/11.1	3,142.00	3,152.00	10.00	0.50	20.0	8,000	8,000	80	80	1-1-NO-G-1-1-NO-TD

XI. Directional Summary

ConocoPhillips Canada

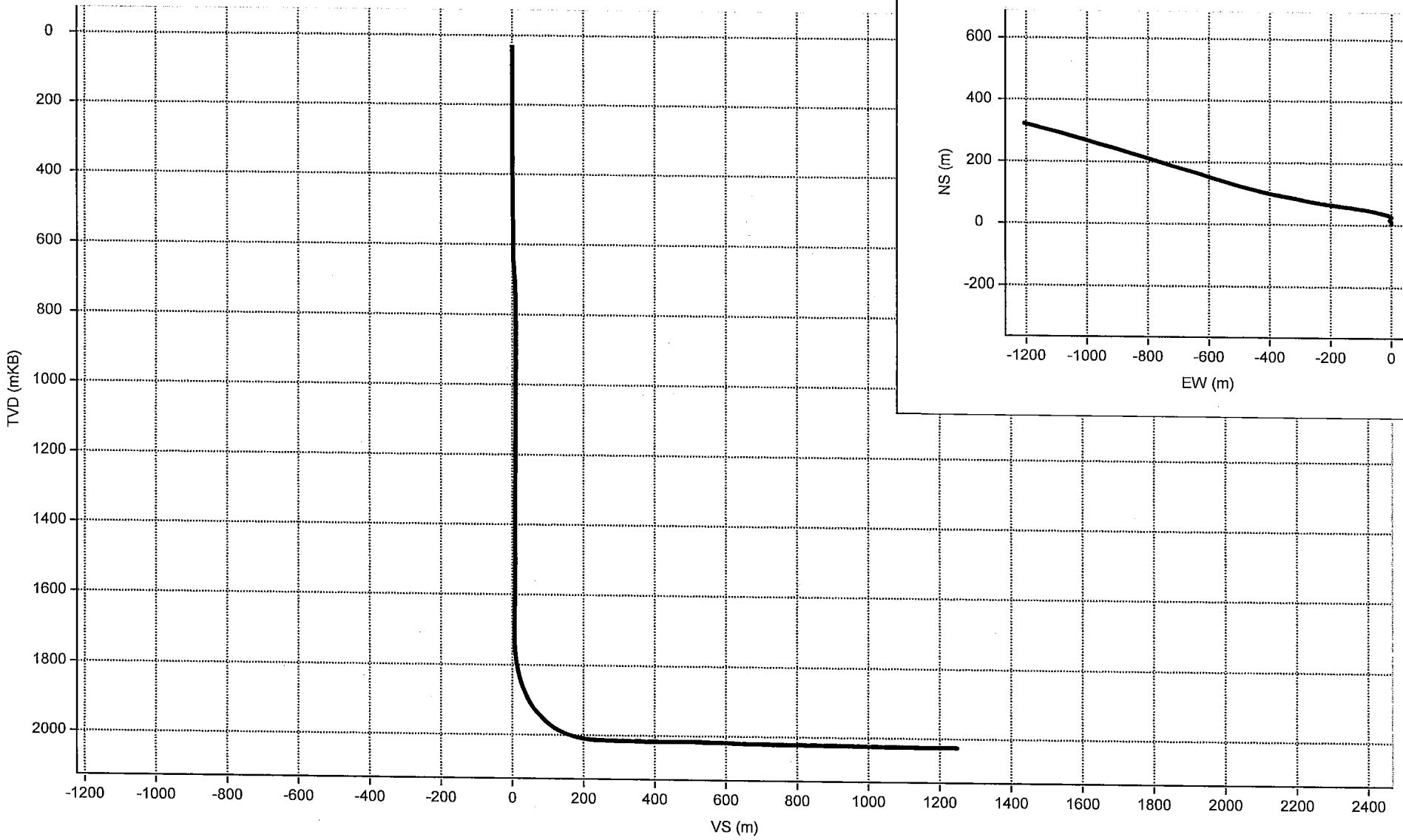
Directional Plot

COPRC MIRROR LAKE P-20 65-00 126-45

API / UWI	Surface Legal Location	District	Field Name	License No.	Program	Well Type	Well Config	Orig KB/RT (m)	KB-Grd (m)
200/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470		Appraisal	HORIZONTAL	289.35	5.20

Kick Off Date	Kick Off Method	Kick Off Depth (mKB)	Kick Off Depth (mKB)	MD Tie In (mKB)	TVDTie In (mKB)	Azimuth Tie...	Inclination...	NSTie In (m)	EWTie In (m)	VS Tie In (m)

Vertical Section



Plan

ConocoPhillips
Canada

Directional Survey
Mirror Lake P-20 65-00 126-45

/ UWI	Surface Legal Location	District	Field Name	License No.
/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Wellbore Name	Parent Wellbore	Wellbore API/UWI	Job
Original Hole			DRILLING ORIGINAL, 1/24/2014 00:00
Kick Off Date	**Kick Off Method**	**Kick Off Depth (mKB)**	**Vertical Section Direction (°)**

Date	Description	As Ran	Proposed?
1/29/2014	Directional Survey from Tour Sheet Import	No	No

MD Tie In (mKB)	TVDTie In (mKB)	Inclination Tie In (°)	Azimuth Tie In (°)	NSTie In (m)	EWTie In (m)

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	VS (m)	NS (m)	EW (m)	DLS (°/30m)	Method	Survey Company
1/29/2014	28.00	0.50	0.00	28.00	0.12	0.03	0.12	0.00	0.54	WIRELINE	
1/29/2014	56.00	0.60	0.00	56.00	0.39	0.10	0.39	0.00	0.11	WIRELINE	
1/29/2014	56.00	0.60	0.00	56.00	0.39	0.10	0.39	0.00	0.11	WIRELINE	
1/29/2014	84.98	0.40	0.00	84.98	0.64	0.17	0.64	0.00	0.21	WIRELINE	
1/29/2014	131.00	0.30	0.00	131.00	0.92	0.24	0.92	0.00	0.07	WIRELINE	
1/29/2014	151.00	0.30	0.00	151.00	1.03	0.27	1.03	0.00	0.00	WIRELINE	
1/29/2014	188.00	0.20	0.00	188.00	1.19	0.31	1.19	0.00	0.08	WIRELINE	
1/30/2014	281.00	0.20	0.00	281.00	1.52	0.39	1.52	0.00	0.00	WIRELINE	
1/30/2014	300.00	0.20	0.00	300.00	1.58	0.41	1.58	0.00	0.00	WIRELINE	
1/31/2014	328.00	0.90	0.00	327.99	1.85	0.48	1.85	0.00	0.75	WIRELINE	
1/31/2014	355.00	1.30	0.00	354.99	2.37	0.61	2.37	0.00	0.44	WIRELINE	
1/31/2014	357.00	1.30	0.00	356.99	2.41	0.62	2.41	0.00	0.00	WIRELINE	
1/31/2014	388.00	1.60	0.00	387.98	3.20	0.82	3.20	0.00	0.29	WIRELINE	
1/31/2014	412.00	2.00	0.00	411.97	3.95	1.02	3.95	0.00	0.50	WIRELINE	
[illegible]/2014	450.00	2.30	0.00	449.94	5.38	1.38	5.38	0.00	0.24	WIRELINE	
[illegible]2014	467.00	0.40	0.00	466.93	5.78	1.49	5.78	0.00	3.35	WIRELINE	
2/2/2014	487.00	1.30	0.00	486.93	6.08	1.56	6.08	0.00	1.35	WIRELINE	
2/2/2014	514.00	1.50	0.00	513.92	6.74	1.73	6.74	0.00	0.22	WIRELINE	
2/2/2014	544.00	1.90	0.00	543.91	7.63	1.96	7.63	0.00	0.40	WIRELINE	
2/2/2014	600.00	1.40	0.00	599.89	9.24	2.38	9.24	0.00	0.27	WIRELINE	
2/7/2014	608.40	1.60	7.20	608.28	9.46	2.42	9.46	0.01	0.98	DIRECTIONA	PathFinder
2/7/2014	645.63	0.60	311.20	645.51	10.10	2.66	10.10	-0.07	1.09	DIRECTIONA	PathFinder
2/7/2014	683.60	9.00	318.00	683.31	12.64	5.34	12.44	-2.21	6.64	DIRECTIONA	PathFinder
2/7/2014	721.66	0.90	317.90	721.20	15.52	8.09	14.88	-4.40	6.38	DIRECTIONA	PathFinder
2/7/2014	759.75	0.90	254.40	759.28	15.80	8.59	15.02	-4.89	0.75	DIRECTIONA	PathFinder
2/7/2014	797.80	0.70	282.20	797.33	15.94	9.08	14.99	-5.41	0.34	DIRECTIONA	PathFinder
2/7/2014	835.87	0.40	326.90	835.40	16.19	9.42	15.15	-5.71	0.40	DIRECTIONA	PathFinder
2/7/2014	873.90	0.40	355.60	873.43	16.45	9.56	15.40	-5.79	0.16	DIRECTIONA	PathFinder
2/7/2014	912.00	0.80	20.40	911.52	16.78	9.58	15.78	-5.71	0.37	DIRECTIONA	PathFinder
2/7/2014	988.00	0.70	19.50	987.52	17.55	9.49	16.71	-5.37	0.04	DIRECTIONA	PathFinder
2/8/2014	1,045.00	1.50	14.84	1,044.51	18.47	9.46	17.76	-5.06	0.42	DIRECTIONA	PathFinder
2/8/2014	1,083.00	1.28	27.45	1,082.50	19.21	9.37	18.62	-4.74	0.30	DIRECTIONA	PathFinder
[illegible]014	1,121.00	1.59	29.26	1,120.48	19.92	9.15	19.46	-4.28	0.25	DIRECTIONA	PathFinder
2/8/2014	1,197.00	0.90	31.80	1,196.47	21.17	8.71	20.88	-3.45	0.27	DIRECTIONA	PathFinder
2/8/2014	1,235.00	0.70	28.10	1,234.46	21.58	8.57	21.34	-3.19	0.16	DIRECTIONA	PathFinder

ConocoPhillips Canada

Directional Survey

Mirror Lake P-20 65-00 126-45

API / UWI	Surface Legal Location	District	Field Name	License No.
200/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	VS (m)	NS (m)	EW (m)	DLS (°/30m)	Method	Survey Company
2/8/2014	1,273.00	1.10	150.40	1,272.46	21.43	8.26	21.23	-2.90	1.25	DIRECTIONAL	PathFinder
2/8/2014	1,311.00	1.00	101.40	1,310.45	20.98	7.68	20.85	-2.39	0.69	DIRECTIONAL	PathFinder
2/8/2014	1,349.50	1.20	349.90	1,348.95	21.28	7.51	21.18	-2.13	1.42	DIRECTIONAL	PathFinder
2/8/2014	1,387.50	1.40	15.40	1,386.94	22.11	7.68	22.02	-2.08	0.48	DIRECTIONAL	PathFinder
2/8/2014	1,425.50	0.40	0.10	1,424.94	22.68	7.71	22.60	-1.96	0.80	DIRECTIONAL	PathFinder
2/8/2014	1,463.50	0.62	1.66	1,462.93	23.02	7.79	22.93	-1.95	0.17	DIRECTIONAL	PathFinder
2/8/2014	1,501.50	0.88	5.67	1,500.93	23.51	7.88	23.43	-1.92	0.21	DIRECTIONAL	PathFinder
2/9/2014	1,539.50	0.90	135.50	1,538.93	23.57	7.67	23.51	-1.68	1.27	DIRECTIONAL	PathFinder
2/9/2014	1,577.50	0.70	120.30	1,576.92	23.21	7.19	23.18	-1.27	0.23	DIRECTIONAL	PathFinder
2/9/2014	1,654.00	1.00	54.80	1,653.42	23.33	6.31	23.33	-0.32	0.37	DIRECTIONAL	PathFinder
2/9/2014	1,692.00	1.20	31.40	1,691.41	23.86	5.99	23.86	0.16	0.38	DIRECTIONAL	PathFinder
2/9/2014	1,711.00	1.80	359.80	1,710.40	24.33	6.01	24.33	0.26	1.58	DIRECTIONAL	PathFinder
2/9/2014	1,720.00	1.90	10.60	1,719.40	24.62	6.06	24.61	0.29	1.21	DIRECTIONAL	PathFinder
2/9/2014	1,730.00	1.60	353.80	1,729.40	24.92	6.12	24.92	0.30	1.77	DIRECTIONAL	PathFinder
2/9/2014	1,739.00	2.30	320.90	1,738.39	25.18	6.31	25.18	0.18	4.31	DIRECTIONAL	PathFinder
2/9/2014	1,749.00	3.71	313.14	1,748.38	25.56	6.76	25.56	-0.19	4.39	DIRECTIONAL	PathFinder
2/9/2014	1,758.00	5.10	309.20	1,757.35	26.02	7.38	26.01	-0.71	4.74	DIRECTIONAL	PathFinder
2/9/2014	1,767.50	6.10	306.60	1,766.80	26.62	8.23	26.58	-1.44	3.26	DIRECTIONAL	PathFinder
2/9/2014	1,786.00	8.48	304.86	1,785.15	28.14	10.43	27.94	-3.35	3.88	DIRECTIONAL	PathFinder
2/9/2014	1,796.50	9.90	302.26	1,795.52	29.26	12.02	28.87	-4.75	4.23	DIRECTIONAL	PathFinder
2/9/2014	1,805.50	10.78	296.84	1,804.37	30.29	13.58	29.66	-6.15	4.37	DIRECTIONAL	PathFinder
2/9/2014	1,815.00	11.62	293.18	1,813.69	31.43	15.40	30.44	-7.83	3.47	DIRECTIONAL	PathFinder
2/9/2014	1,824.50	12.90	289.66	1,822.97	32.65	17.40	31.17	-9.70	4.68	DIRECTIONAL	PathFinder
2/10/2014	1,834.00	14.58	285.16	1,832.20	33.98	19.65	31.84	-11.86	6.28	DIRECTIONAL	PathFinder
2/10/2014	1,843.50	16.22	285.66	1,841.36	35.51	22.18	32.51	-14.29	5.20	DIRECTIONAL	PathFinder
2/10/2014	1,853.00	18.12	286.88	1,850.44	37.38	24.98	33.30	-16.98	6.11	DIRECTIONAL	PathFinder
2/10/2014	1,862.50	20.00	286.20	1,859.42	39.58	28.08	34.18	-19.95	5.98	DIRECTIONAL	PathFinder
2/10/2014	1,873.00	21.61	284.46	1,869.23	42.32	31.81	35.17	-23.55	4.93	DIRECTIONAL	PathFinder
2/10/2014	1,881.50	23.70	283.00	1,877.08	44.79	35.08	35.94	-26.73	7.64	DIRECTIONAL	PathFinder
2/10/2014	1,891.50	25.50	284.70	1,886.17	48.08	39.24	36.94	-30.77	5.80	DIRECTIONAL	PathFinder

ConocoPhillips
Canada

Directional Survey
Mirror Lake P-20 65-00 126-45

/ UWI	Surface Legal Location	District	Field Name	License No.
J/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	VS (m)	NS (m)	EW (m)	DLS (°/30m)	Method	Survey Company
2/10/2014	1,901.00	27.00	282.34	1,894.69	51.51	43.44	37.92	-34.86	5.77	DIRECTIONA	PathFinder
2/11/2014	1,910.50	28.80	283.40	1,903.08	55.23	47.89	38.91	-39.19	5.90	DIRECTIONA	PathFinder
2/11/2014	1,920.00	30.90	281.10	1,911.32	59.26	52.61	39.91	-43.81	7.55	DIRECTIONA	PathFinder
2/11/2014	1,929.50	34.60	284.40	1,919.31	63.78	57.74	41.05	-48.82	12.97	DIRECTIONA	PathFinder
2/11/2014	1,939.00	37.70	282.90	1,926.98	68.85	63.34	42.37	-54.26	10.18	DIRECTIONA	PathFinder
2/11/2014	1,948.50	40.30	282.34	1,934.36	74.29	69.32	43.68	-60.10	8.29	DIRECTIONA	PathFinder
2/11/2014	1,958.00	42.51	282.34	1,941.49	80.09	75.59	45.02	-66.24	6.98	DIRECTIONA	PathFinder
2/11/2014	1,967.50	44.32	279.87	1,948.39	86.13	82.11	46.27	-72.64	7.84	DIRECTIONA	PathFinder
2/12/2014	1,977.00	46.31	280.45	1,955.07	92.41	88.84	47.47	-79.29	6.42	DIRECTIONA	PathFinder
2/12/2014	1,986.50	48.39	279.96	1,961.51	98.98	95.80	48.70	-86.17	6.67	DIRECTIONA	PathFinder
2/12/2014	1,996.00	50.69	277.67	1,967.67	105.77	102.99	49.81	-93.31	9.11	DIRECTIONA	PathFinder
2/12/2014	2,015.00	57.30	277.60	1,978.83	120.28	118.22	51.85	-108.53	10.44	DIRECTIONA	PathFinder
/2014	2,024.50	60.60	278.50	1,983.73	128.07	126.30	52.99	-116.59	10.70	DIRECTIONA	PathFinder
2/12/2014	2,034.00	64.20	278.50	1,988.13	136.18	134.67	54.23	-124.92	11.37	DIRECTIONA	PathFinder
2/12/2014	2,043.50	66.00	277.50	1,992.13	144.50	143.22	55.43	-133.45	6.37	DIRECTIONA	PathFinder
2/12/2014	2,053.00	67.70	277.00	1,995.87	152.95	151.88	56.53	-142.11	5.56	DIRECTIONA	PathFinder
2/12/2014	2,062.50	70.22	276.74	1,999.28	161.53	160.66	57.59	-150.92	7.99	DIRECTIONA	PathFinder
2/12/2014	2,072.00	72.78	276.88	2,002.29	170.28	169.57	58.66	-159.86	8.10	DIRECTIONA	PathFinder
2/12/2014	2,081.50	75.30	278.37	2,004.91	179.21	178.63	59.88	-168.91	9.15	DIRECTIONA	PathFinder
2/13/2014	2,091.00	77.91	276.74	2,007.11	188.26	187.80	61.09	-178.07	9.64	DIRECTIONA	PathFinder
2/13/2014	2,100.50	79.72	277.98	2,008.95	197.40	197.04	62.28	-187.32	6.89	DIRECTIONA	PathFinder
2/13/2014	2,110.00	81.80	277.50	2,010.47	206.62	206.34	63.55	-196.61	6.74	DIRECTIONA	PathFinder
2/13/2014	2,119.50	84.20	277.36	2,011.63	215.90	215.69	64.77	-205.96	7.59	DIRECTIONA	PathFinder
2/13/2014	2,131.00	85.90	277.90	2,012.62	227.20	227.05	66.29	-217.31	4.65	DIRECTIONA	PathFinder
2/13/2014	2,152.00	89.00	277.90	2,013.56	247.93	247.87	69.17	-238.09	4.43	DIRECTIONA	PathFinder
2/16/2014	2,171.00	88.00	279.90	2,014.06	266.78	266.76	72.11	-256.85	3.53	DIRECTIONA	PathFinder
2/16/2014	2,190.00	88.00	280.50	2,014.72	285.69	285.68	75.47	-275.54	0.95	DIRECTIONA	PathFinder
,2014	2,209.00	88.50	281.10	2,015.30	304.62	304.62	79.03	-294.19	1.23	DIRECTIONA	PathFinder
2/16/2014	2,228.00	89.20	281.20	2,015.68	323.58	323.58	82.70	-312.83	1.12	DIRECTIONA	PathFinder
2/16/2014	2,247.00	89.30	281.50	2,015.93	342.54	342.54	86.44	-331.46	0.50	DIRECTIONA	PathFinder

ConocoPhillips Canada

Directional Survey

Mirror Lake P-20 65-00 126-45

API / UWI	Surface Legal Location	District	Field Name	License No.
200/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	VS (m)	NS (m)	EW (m)	DLS (°/30m)	Method	Survey Company
2/16/2014	2,266.00	88.20	276.50	2,016.34	361.45	361.43	89.41	-350.21	8.08	DIRECTIONA	PathFinder
2/16/2014	2,285.00	89.30	281.00	2,016.76	380.35	380.31	92.30	-368.98	7.31	DIRECTIONA	PathFinder
2/16/2014	2,304.00	89.80	281.90	2,016.91	399.33	399.27	96.07	-387.60	1.63	DIRECTIONA	PathFinder
2/16/2014	2,323.00	90.00	281.90	2,016.94	418.32	418.25	99.99	-406.20	0.32	DIRECTIONA	PathFinder
2/17/2014	2,342.50	90.40	283.80	2,016.87	437.82	437.73	104.33	-425.21	2.99	DIRECTIONA	PathFinder
2/17/2014	2,342.50	90.40	283.80	2,016.87	437.82	437.73	104.33	-425.21	2.99	DIRECTIONA	PathFinder
2/17/2014	2,361.50	90.70	284.40	2,016.69	456.82	456.73	108.96	-443.63	1.06	DIRECTIONA	PathFinder
2/17/2014	2,380.50	90.60	283.40	2,016.48	475.82	475.73	113.52	-462.08	1.59	DIRECTIONA	PathFinder
2/17/2014	2,399.50	89.40	283.60	2,016.48	494.81	494.72	117.96	-480.55	1.92	DIRECTIONA	PathFinder
2/17/2014	2,418.50	89.88	284.94	2,016.59	513.81	513.72	122.64	-498.96	2.25	DIRECTIONA	PathFinder
2/17/2014	2,437.50	89.60	285.90	2,016.68	532.81	532.72	127.69	-517.28	1.58	DIRECTIONA	PathFinder
2/17/2014	2,514.00	87.80	286.80	2,018.42	609.22	609.17	149.22	-590.66	0.79	DIRECTIONA	PathFinder
2/17/2014	2,552.00	88.10	287.00	2,019.78	647.15	647.12	160.26	-627.00	0.28	DIRECTIONA	PathFinder
2/17/2014	2,571.00	88.30	287.10	2,020.37	666.12	666.10	165.83	-645.15	0.35	DIRECTIONA	PathFinder
2/17/2014	2,589.50	89.10	285.40	2,020.79	684.61	684.59	171.00	-662.91	3.05	DIRECTIONA	PathFinder
2/17/2014	2,609.00	89.70	285.60	2,021.00	704.11	704.09	176.21	-681.70	0.97	DIRECTIONA	PathFinder
2/17/2014	2,628.00	89.80	287.00	2,021.08	723.10	723.08	181.54	-699.93	2.22	DIRECTIONA	PathFinder
2/17/2014	2,703.50	89.60	286.70	2,021.47	798.54	798.54	203.43	-772.19	0.14	DIRECTIONA	PathFinder
2/17/2014	2,722.50	89.00	287.30	2,021.71	817.52	817.52	208.98	-790.36	1.34	DIRECTIONA	PathFinder
2/17/2014	2,741.50	88.90	284.90	2,022.06	836.51	836.51	214.25	-808.61	3.79	DIRECTIONA	PathFinder
2/17/2014	2,760.50	89.10	285.60	2,022.39	855.51	855.51	219.25	-826.94	1.15	DIRECTIONA	PathFinder
2/17/2014	2,779.50	89.30	286.40	2,022.65	874.50	874.50	224.49	-845.20	1.30	DIRECTIONA	PathFinder
2/17/2014	2,798.50	89.40	286.30	2,022.87	893.50	893.50	229.83	-863.43	0.22	DIRECTIONA	PathFinder
2/18/2014	2,818.00	89.70	286.60	2,023.02	912.99	912.99	235.36	-882.13	0.65	DIRECTIONA	PathFinder
2/18/2014	2,818.00	89.70	286.60	2,023.02	912.99	912.99	235.36	-882.13	0.65	DIRECTIONA	PathFinder
2/18/2014	2,837.00	89.90	286.60	2,023.09	931.98	931.98	240.78	-900.34	0.32	DIRECTIONA	PathFinder
2/18/2014	2,856.00	89.90	284.70	2,023.12	950.98	950.98	245.91	-918.64	3.00	DIRECTIONA	PathFinder
2/18/2014	2,875.00	88.80	283.80	2,023.34	969.98	969.98	250.58	-937.05	2.24	DIRECTIONA	PathFinder
2/18/2014	2,894.00	89.00	285.50	2,023.70	988.97	988.97	255.39	-955.43	2.70	DIRECTIONA	PathFinder
2/18/2014	2,913.00	89.10	286.00	2,024.02	1,007.97	1,007.97	260.55	-973.71	0.81	DIRECTIONA	PathFinder

ConocoPhillips Canada

Directional Survey
Mirror Lake P-20 65-00 126-45

/ UWI	Surface Legal Location	District	Field Name	License No.
)/D-020/L094P1699	P-20 65-00 126-45	NEW VENTURES	Mirror Lake	EL 470
Program	**Well Type**	**Well Configuration Type**	**Original KB/RT Elevation (m)**	**KB-Ground Distance (m)**
	Appraisal	HORIZONTAL	289.35	5.20

Survey Data

Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	VS (m)	NS (m)	EW (m)	DLS (°/30m)	Method	Survey Company
2/18/2014	2,932.00	89.10	285.60	2,024.31	1,026.96	1,026.96	265.72	-991.99	0.63	DIRECTIO NA	PathFinder
2/18/2014	2,951.00	89.40	285.80	2,024.56	1,045.96	1,045.96	270.86	-1,010.28	0.57	DIRECTIO NA	PathFinder
2/18/2014	3,008.00	89.70	284.50	2,025.01	1,102.96	1,102.96	285.76	-1,065.30	0.70	DIRECTIO NA	PathFinder
2/18/2014	3,027.00	89.90	285.10	2,025.08	1,121.96	1,121.95	290.61	-1,083.67	1.00	DIRECTIO NA	PathFinder
2/18/2014	3,046.00	89.70	284.30	2,025.14	1,140.96	1,140.95	295.43	-1,102.04	1.30	DIRECTIO NA	PathFinder
2/18/2014	3,065.00	89.80	283.80	2,025.23	1,159.95	1,159.95	300.04	-1,120.48	0.81	DIRECTIO NA	PathFinder
2/18/2014	3,065.00	89.90	284.90	2,025.23	1,159.95	1,159.95	300.04	-1,120.48	0.81	DIRECTIO NA	PathFinder
2/18/2014	3,103.00	89.90	283.70	2,025.29	1,197.95	1,197.95	309.43	-1,157.30	0.95	DIRECTIO NA	PathFinder
2/20/2014	3,153.00	89.90	283.90	2,025.38	1,247.94	1,247.94	321.36	-1,205.85	0.12	DIRECTIO NA	PathFinder

XII. Completions Daily Reports

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 1
Report Date: 2/18/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/18/2014 07:30	2/18/2014 17:30	952,031.70	952,031.70	84.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-28	Ice Pad / Snow Covered

Last 24hr Summary
MIRU Temporary Office Trailer / Light Tower / Portable flameless heater / Recycle Trailer / Spot 12 8 x 40 sheets matting / Offload Geo Tech / Offload Liner

24hr Forecast
in containment liner / stand 14 tanks in flow back farm

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedural meeting with all on location regarding daily operations. Conduct CPC PJHA regarding equipment move / set up.
08:00	19:30	11.50	P	MIRU Canol trucking on E-76 location and load out 12 x Clean 400 bbl tanks / Load out 11 - 8x40 matting / Load out 1 - 8 x 40 matting from N20 location / Load out Geo Textile / 20 x 35m Textured liner system and containment walls. Utilize onsite loader to position 12 - 8 x 40 matting for flow back farm. Temporarily spot and rig in HD Mobile office trailer / HD Recycle Trailer / 20 kVW large fuel light tower. Position Flameless heater and liner on matting and preheat for night.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	25.50	0.00	25.50	0.00	25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	6,220.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,810.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	94,185.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	4,490.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	4,490.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	14,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	14,500.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
pletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
ompletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 1
Report Date: 2/18/2014
Final Job Status: GAS
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
In-House Engineering & Design	CONOCO	V100	285,000.00
Service Rig	CONOCO	E120	40,086.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	67,549.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	Q300	2,730.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,245.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	150.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	660.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	360.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	510.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	2,956.00
Surface Equipment / Installation	CORNERSTONE OILFIELD SERVICES LTD	Q300	500.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	B110	550.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	3,340
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	T130	2,200.00
Surface Completion Equipment Rental	MYB CONSTRUCTION LTD	P100	1,000.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	Q300	1,500.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	19,550.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	2,640.00
Completion Fluids & Other Chem	QUADRA CHEMICALS	G300	2,640.00
Completion Fluids & Other Chem	QUADRA CHEMICALS	G300	18,418.66
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	G300	18,420.19
Wellsite Supervision & Engineering	S C T OILFIELD CONSULTING LTD	Q300	15.00
Surface Equipment / Installation	STREAM FLO INDUSTRIES LTD	T130	6,861.62
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	B110	71,195.23
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	186,975.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	14,500.00
		M220	14,500.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 1
Report Date: 2/18/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 2
Report Date: 2/19/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/19/2014 07:30	2/19/2014 17:30	265,012.50	1,217,044.20	120.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Overcast	-31	Ice Pad / Snow Covered

Last 24hr Summary
Rig in 10m x 32m flow back containment / Offload 5 x dirty 400 bbl tanks for flow back farm / Spot 24 sheets of swamp matting and stand 4 x clean 400 bbl tanks.

hr Forecast
t in 400 bbls in containment / Haul in and stand remaining clean 400 bbl tanks / Begin hauling water from E-76 location to clean tank farm

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedural meeting with all on location regarding daily activities Conduct CPC PJHA regarding rigging in liner / berm system / setting in tank farm / weather conditions and frequent warm up breaks (-38 with wind)
08:00	19:30	11.50	P	Spot and rig in RCS crew and clear matting of snow / ice. Roll out barrier GeoTextile / Stand walls and secure / Lap over liner and secure Offload 5 x Dirty 400 bbl tanks and stand outside containment Utilize loader and spot 24 8 x 14 sheets of swamp matting for clean tank farm Offload 4 x Clean 400 bbl tanks and stand on swamp matting NOTE: Hydraulic leak on 90T Crane preventing use (captured and contained) Demobilize crane to staging area at km 38.5 for repair NOTE: Hydraulic leak on Bed truck winch preventing use (captured and contained) Demobilize bed truck to Norman Wells for repair

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	0.00	0.00	0.00	0.00	25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	***VENDOR NOT LISTED***	P100	1,000.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,130.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,480.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	31,395.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	3,325.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
npletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
ompletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 2
Report Date: 2/19/2014
Final Job Status: GA
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	Q300	195.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,670.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	T130	1,100.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	Q300	15.00
		M220	193,207.50

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing

Report Printed: 4/28/2014

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 3
Report Date: 2/20/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/20/2014 07:30	2/20/2014 17:30	473,237.50	1,690,281.70	180.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-36	Ice Pad / Snow Covered

Last 24hr Summary
Set in 14 x 400 bbls in containment / Haul in and stand remaining clean 400 bbl tanks / Begin hauling water from E-76 location to clean tank farm

24hr Forecast
ʒ out frac tank farm on E-76 location and begin staging in field at km 45 for rig up on location

AILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedual meeting with all on location regarding daily activities. Conduct CPC PJHA regarding offloading tanks / material handling / offloading water
08:00	17:30	9.50	P	Spot and rig in Canol Trucking Contine bed loading clean / dirty tanks to location from km 45 staging area. Utilize Canol 50T picker to position tanks into containment farm. Place total 14 x 400 bbl tanks in containment Stand total 12 x 400 bbl tanks on swamp matting for frac tank farm. Spot and rig in N.T.S. and begin hauling in clean warm water from E-76 Location

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	165.00	14.00			25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	***VENDOR NOT LISTED***	P100	1,000.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,530.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,100.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	313,595.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
npletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 3
Report Date: 2/20/2014
Final Job Status: GAS
Final Report? '

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	6,120.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	105,952.50

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 4
Report Date: 2/21/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/21/2014 07:30	2/21/2014 17:30	175,372.00	1,865,653.70	560.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-40	Ice Pad / Snow Covered

Last 24hr Summary
Continue hauling in clean warm water from E76 / Offload 84 m³ Methanol / Begin rig out of tank farm on E-76 and staging equipment to km 45

24hr Forecast
Continue staging tanks / matting / transferring water from E-76

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedural meeting with all on location regarding daily operations. Conduct tailgate safety meeting with trucks prior to unloading methanol
08:00	17:30	9.50	P	Spot and rig in Initial Trucking / Eldon's Transport containing 84 m³ combined Methanol Preheat storage tanks in flow back containment / bond and ground all tanks in farm Offload 29 m³ into North Tank for Coil Tubing Use Offload 55 m³ into South Tank for Frac Use E-76 Continue hauling fresh warm water from E-76 to location for frac use. Begin rigging out frac tank farm and stage at km 45 staging area.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	331.50	0.00			25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	480.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,210.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,960.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,410.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	31,395.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 4
Report Date: 2/21/2014
Final Job Status: GAS
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	20,527.50
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	19,772.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	17,272.50
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	10,290.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	7,510.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	29,730.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 5
Report Date: 2/22/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/22/2014 07:30	2/22/2014 17:30	205,168.50	2,070,822.20	192.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-40	Ice Pad / Snow Covered

Last 24hr Summary
Continue staging tanks / matting at km 45 staging area / transferring water from E-76 / Haul in water from water source 5 / Move in small rentals

24hr Forecast
gin setting in matting for second clean tank farm

JILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding equipment moving / material handling
08:00	17:30	9.50	P	Spot and rig in Canol trucking on E-76 location. Spot and rig in N.T.S. trucking on E-76 location Continue loading out warm unused frac water from E-76 and move to location Load out remaining 3 x 400 bbl tanks / 10 - 8 x 40 sheets matting and move to staging area @ km 45 / haul in segregated garbage bin from lower km 6 rack site Haul in 2 x Large Fuel 20 kVW light towers Haul in 2 x Wheeled light stands Haul in I.E.S. work trailer Haul in total 525.5 m³ Warm unused frac water from E-76 Location. Haul in 131.5 m³ lake water from water source 5 and mix with half warm water tanks on location. Frac Farm #2 - Full with 12 tanks @ 55 m³ Discuss daily operations with Drilling Rig Supervisor, Richard Turgeon, USIT log complete / rig running Tie Back string today.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	244.50	10.00			25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,410.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,720.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,140.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
ture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	31,395.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	27,500.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 5
Report Date: 2/22/2014
Final Job Status: GAS
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Service Rig	CONOCO	E120	40,086.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Trucking/Hauling/ Hot Shot Services	NCSG CRANE & HEAVY HAUL SERVICES LTD	P100	50,610.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	7,432.50

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 6
Report Date: 2/23/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/23/2014 07:30	2/23/2014 17:30	109,937.50	2,180,759.70	216.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-33	Ice Pad / Snow Covered

Last 24hr Summary
Continue staging in 8 x 40 matting / miscellaneous loads / ground anchors

24hr Forecast
gin setting in matting for second clean tank farm

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PHJA regarding handling fluids / equipment
08:00	17:30	9.50	P	Spot and rig in N.T.S. Trucking and move 20 m³ warm water to methanol tank / load out 20 m³ from water source 5 to tank farm Load out remaining matting / test equipment / zero ground disturbance anchors / 10 x 55m containment walls and stage at km 45 staging area and on P-20 location. NOTE: Load out PBN Tundra 1400 flameless heater to Norman Wells for repairs / return NOTE: Profile complete on water source 5 with 59" ice rated > 64,000 kg's / Drilled two withdrawl holes with on having 37" free water below ice and one having 25" free water below ice. NOTE: Profile complete on water source 4 with 40" ice rated +/- 40,000 kg's / Drilled 6 withdrawl holes with one being solid / varying in depths up to 24" free water below ice. Construction continuing ice flooding daily.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	20.00	0.00			25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,140.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,590.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,720.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,510.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	0.00
vice Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
vice Rig	CANOL OILFIELD SERVICES INC	E120	1,985.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	1,985.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	1,985.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	1,985.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	1,985.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,050.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 6
Report Date: 2/23/2014
Final Job Status: GAS
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,050.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Fracture Stimulation Services	MYB CONSTRUCTION LTD	N110	31,395.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	8,575.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	17,840.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	7,432.50

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 7
Report Date: 2/24/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/24/2014 07:30	2/24/2014 17:30	204,851.55	2,385,611.25	564.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-30	Ice Pad / Snow Covered

Last 24hr Summary
Begin setting in matting for second clean tank farm / Offload 60 m³ Lake Water / Offload m³ methanol

24hr Forecast
mplete setting in matting / install geo and liner on matting / erect containment

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedural meeting with all location regarding daily activies. Conduct CPC PJHA regarding fluid hauling / equipment handling
08:00	17:30	9.50	P	Spot and rig in N.T.S. / Spot and rig in Clean Harbors Mobile Boiler / Spot and rig in HRN Loader Offload 60 m³ water from water source 5. Heat water in Coil Tubing work tank with mobile steamer Offload 60 m³ Methanol into storage tank in dirty tank farm = 115 m³ raw methanol on location. Begin laying out 5 - 8 x 40 matting for frac tank farm containmen / reposition liner and geo textile and preheat with flameless heater

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	120.00	11.00			25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,990.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,662.50
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	31,395.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	390.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
pletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 7
Report Date: 2/24/2014
Final Job Status: G
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Service Rig	HRN CONTRACTING LTD	E120	2,000.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	17,840.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	13,770.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	13,770.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	1,151.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	1,100.00
Completion Fluids & Other Chem	PBN ENERGY SERVICES LTD	G300	19,390.00
Completion Fluids & Other Chem	QUADRA CHEMICALS	G300	19,513.59
Completion Fluids & Other Chem	QUADRA CHEMICALS	G300	19,511.96
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	4,080.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	11,782.50

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 7
Report Date: 2/24/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 8
Report Date: 2/25/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/25/2014 07:30	2/25/2014 17:30	212,387.35	2,597,998.60	240.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-29	Ice Pad / Snow Covered

Last 24hr Summary: Complete setting in matting for main frac tank farm / preheat liner - geo textile

24hr Forecast: tall frac tank berm system / begin installing frac tanks in berming system / reposition shacks from E76 location

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding equipment handling
08:00	17:30	9.50	P	Spot and rig in HRN loader Spot remaining 20 - 8 x 40 sheets matting for frac tank farm containment Spot geo textile and liner on matting and preheat for night. Spot and rig in RCS Place required placards on tanks with fluids / Spot second flameless heater at km 28.5 staging area and preheat RCS generator and NOV generator NOTE: Drilling rig disassembled and off location. Shacks / cuttings / ramp and auxillary equipment remaining awaiting load out. NOTE: Awaiting lease prep for completions

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	0.00	0.00	0.00	0.00	25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,560.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	780.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,200.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	31,395.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,170.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
rvice Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
vice Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	8,760.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 8
Report Date: 2/25/2014
Final Job Status: G
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	96,340.00
Rig Camp	PBN ENERGY SERVICES LTD	E500	1,655.00
Rig Camp	PBN ENERGY SERVICES LTD	E500	1,550.00
Completion Fluids & Other Chem	QUADRA CHEMICALS	G300	19,509.52
Completion Fluids & Other Chem	QUADRA CHEMICALS	G300	19,510.33
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	11,782.50

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 9
Report Date: 2/26/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/26/2014 07:30	2/26/2014 18:30	144,130.00	2,742,128.60	380.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-25	Ice Pad / Snow Covered

Last 24hr Summary
Install frac tank berm system / installing 18 frac tanks in berming system / reposition shacks, septic, power from E76 location / Crib in wellhead area and back fill with snow and water in.

r Forecast
MIRU WFT test equipment / MIRU HD boiler / Install frac manifold

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding equipment handling / rigging in equipment
08:00	18:30	10.50	P	Spot and rig in Sahtu RCS labor crew and install 10 x 55 x 1m containment for frac tank farm Spot and rig in HRN loader and continue unloading equipment / material handling as required Spot and rig in HRN grader with Marquis environmental and begin lease clean up in preparation for completion operations Spot and rig in Canol Trucking and spot Engineering Wellsite / Superintendant Wellsite / Command Center / Safety Meeting shack / 18 x 400 bbl tanks placed in containment via NCSG / double stack frac manifold in containment / NOV x 250 KVW generator / RCS x 115 KVW generator / black opal septic / enviro sort garbage bin. NOTE: Drilling equipment off location - Wrangler bins and sawdust remaining

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	0.00	0.00	0.00	0.00	25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	10,520.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	10,520.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,430.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	31,395.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,880.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,960.00
cking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	480.00
vice Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	900.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 9
Report Date: 2/26/2014
Final Job Status: C
Final Report? \

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	250.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	4,190.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	29,032.50
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	17,840.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	2,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	11,782.50

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing

Report Printed: 4/28/2014

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 10
Report Date: 2/27/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/27/2014 06:30	2/27/2014 18:30	485,781.00	3,227,909.60	556.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Overcast	-20	Ice Pad / Snow Covered

Last 24hr Summary
Spot WFT test equipment / MIRU HD boiler / Split and rig in frac manifold to tank farm A / B

24hr Forecast
ntinue rig in WFT Test equipment

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	07:00	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding MIRU test equipment / multiple operations
07:00	18:30	11.50	P	Spot and rig in Canol Trucking / HRN Loader / Marquis Environmental / WFT Testing / Sahtu RCS / HD Boiler Spot WFT Test equipment as per OH&S / WFT and CPC policies and procedures. 675 psi 4 phase high stage / 285 psi 2 stage hot head / 3" x 10 K junk catcher / 3" x 10 K manifold shack / tool houses / compressor building / Pipe Skids / 2 x 60' portable flare stacks Begin spotting oak matting base for flare stacks. Haul in IES frac head and buffalo head c/w remote isolation valve S.I.PC.P. - 0 kPa Remove 69 mPa turtle cap and install 69 mPa Gate Valve and secure (spec) to THF via IES torque tools. Spot and begin rigging in HD 175 HP Boiler / MIRU Flameless heater and heat boiler for night. Remove single 8' section 12" manifold and set in second clean tank farm / Rig in frac manifold to first clean tank farm. NOTE: MIRU Trophy Buck tank truck unable to offload 25 m³ 28% HcL in tank #17 due to freezing issue with external valve. Hose rollled into 400 bbl tank / disconnected and secured for night NOTE: Water Resource officer Katherine Ades with AANDC on location for walk around inspection with WSS. No questions or concerns at the time of inspection.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	190.00	14.00			25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,430.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	3,420.00
acture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	31,395.00
cking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	24,530.00
Service Rig	CONOCO	E120	40,086.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 10
Report Date: 2/27/2014
Final Job Status: C
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
	FRONTIERMEDEX CANADA I/P/W EXLOGS SAHTU LTD		0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	500.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	5,510.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	17,840.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	2,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	N110	310,400.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	14,500.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 10
Report Date: 2/27/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 11
Report Date: 2/28/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
2/28/2014 06:30	2/28/2014 18:30	653,541.86	3,881,451.46	468.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-25	Ice Pad / Snow Covered

Last 24hr Summary
Continue rig in WFT Test equipment / Rig in frac head / Rig in dual stage work platform / Rig in HD boiler / Complete rig in of water management / continue hauling water to tank farm

Forecast
Continue rig in WFT Test equipment / Heat wellhead / Pressure test Frac Head / Pressure test intermediate casing

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	07:00	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC regarding multiple operations - rigging in test equipment / hauling fluids / material handling / product handling
07:00	18:30	11.50	P	Continue rigging in WFT test package Continue rigging in HD 175HP boiler Install and torque to spec IES frac head as follows: 7 1/16" x 4 1/16" crossover 4 1/16" x 10K Gate Valve 2 port flow block with single access valve on one side and 2 flow valves to test line 4 1/16" x 10K Hydraulic valve 4 port buffalo head c/w 10K valves on each outlet 4 1/16" x 10K swab valve with test cap above Offload 25 m³ 28% HcL into acid storage tank #17 in frac tank farm A Offload second portable washroom Complete rig in of water management system Spot coil twin pump. Rig up dual stage work platform

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	341.00	12.10			25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	958.00
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	1,550.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,430.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	7,410.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	31,395.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,966.41
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 11
Report Date: 2/28/2014
Final Job Status: G
Final Report? \

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	6,600.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	280.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	195.00
Rig Camp	CORNERSTONE OILFIELD SERVICES LTD	E500	8,008.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Safety Equipment & Services	HODGSON'S CONTRACTING (2005) LTD	T430	60,600.65
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	500.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	5,510.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	MYB CONSTRUCTION LTD	Q300	2,990.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Trucking/Hauling/ Hot Shot Services	NCSG CRANE & HEAVY HAUL SERVICES LTD	P100	44,480.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	17,840.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	12,250.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	2,000.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	5,600.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	55,484.
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	19,760.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	24,480.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	90,780.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	15,600.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	5,200.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	39,000.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	1,950.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	6,500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	6,500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	113,359.80
Service Rig	TRIDENT OILFIELD SERVICES LTD	Q300	23,400.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	E120	600.00
		M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing

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COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 11
Report Date: 2/28/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

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ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 12
Report Date: 3/1/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/1/2014 07:30	3/1/2014 18:30	116,714.00	3,998,165.46	492.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-22	Ice Pad / Snow Covered

Last 24hr Summary
Continue rig in WFT Test equipment / Heat wellhead / spot sand chiefs and hopper / rig in Hurricane Dustless System

24hr Forecast
ot coil tbg, heat water for pressure testing, Move in Schlumberger frac equipment, Position anchors and other equipment around location

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	08:00	0.50	P	Safety and procedural meeting with all on location regarding daily activities. Conduct CPC PJHA regarding multiple operations / fluid handling / material handling
08:00	18:00	10.00	P	Continue rigging in WFT test package Continue rigging in HD 175HP boiler Tarp and cover dual stage work platform with steam heaters enclosed to heat IES frac head and related well head parts Applied heat to well head and related parts, and ran heat to WFT test equipment Moved in and spotted Schlumberger 3 x sand chief and hopper. Positioned Hurricane dust prevention unit and rigged in to Schlumberger sand cheif Offload 25 m³ 28% HcL into acid storage tank #17 in frac tank farm "A" = 50 m³ on location Moved 30 m³ of methanol into tank #15 and tank #16 in frac tank farm "A" for a total of 60 m³ transferred Mixed 20 m³ of fresh water into tank #15 and tank #16 to giving us a total of100 m³ of 60% methanol 40% water blend
18:00	18:30	0.50	P	WSS Crew Change, Conduct handover, review ERP and night Operations.
18:30	06:00	11.50	P	Conduct walk-around inspections to ensure equipment running issue free through-out the night, visually inspect for leaks in and around equipment and tank farms periodically.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	345.00	7.09			25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	2,000.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,670.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
npletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
mpletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00

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COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 12
Report Date: 3/1/2014
Final Job Status: G
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DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	2,300.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	5,510.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	23,720.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	2,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing

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Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 12
Report Date: 3/1/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

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Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 13
Report Date: 3/2/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/2/2014 06:00	3/3/2014 06:00	392,923.13	4,391,088.59	492.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-24	Ice Pad / Snow Covered

Last 24hr Summary
Moved in Coil tbg unit, Positioned anchors, Applied heat to Coil BOP stack Continue rigging in test equipment, SCVF /no vent flow indicated. Rolled meth tank
r Coil TBG use, install heat tracer and insulate all surface lines and complete boiler rig in.

ır Forecast
Move in and spot Frac equipment, Pressure test Frac head/Coil tbg BOP, Coil tbg clean out

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:30	0.50	P	Safety and procedural meeting with all on location regarding daily activities. Conduct CPC PJHA regarding multiple operations / fluid handling / material handling/ spotting equipment
06:30	18:00	11.50	P	Continue rigging in WFT test package Continue rigging in HD 175HP boiler Moved in and spotted Coil tubing unit and laid lines Off loaded air trailer Positioned all coil tbg anchors with 3 - 2 tone cement blocks on each for a total of 6 tonne per anchor Applied heat to coil tbg BOP and hydrolics Installed on SCVF adaptor with 1 inch of enviromentally friendly fluid (seen NO bubbles in 10 min)
18:00	18:30	0.50	P	WSS Crew Change, Conduct handover, review ERP and night Operations.
18:30	19:00	0.50	P	Conduct Safety and procedural meeting with all on location regarding daily activities. Review CPC PJHA regarding multiple operations, securing and insulating surface lines, heating water/meth tank and function testing hydraulic wellhead valve.
19:00	06:00	11.00	P	Rig in remaining tracer line on testing iron, and return lines to HD Boiler. Pressure test steam lines with 120psi steam. o.k. Wrap up all testing iron with insulation. Function test 101.6mm (4 1/16") 69 MPa hydraulic master valve. good test, valve left in open position (locked). Tidy up location, removed trip hazards and picked up un-used equipment. Meth/water heated to 20c in preparation for pressure testing frac-head, Testing iron and coil Bop's in morning. Conduct walk around inspections through-out the night checking for leaks, down equipment, etc...

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	0.00	0.00	0.00	0.00	25.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
mpletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	4,410.00
mpletion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,430.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 13
Report Date: 3/2/2014
Final Job Status: C
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Service Rig	CONOCO	E120	40,086.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	Q300	215.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,670.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	Q300	50.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	N110	5,760.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	Q300	500.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	P100	1,000.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	T130	1,595.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	G300	23,720.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	1,000.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	15.00
Service Rig	SCHLUMBERGER CANADA LIMITED	Q300	500.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	141,463.13
Completion Fluids & Other Chem	TROPHY BUCK OILFIELD SERVICES LTD	E120	200.00
Completion Fluids & Other Chem	TROPHY BUCK OILFIELD SERVICES LTD	G300	48,200
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	G300	48,200.00
		M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 13
Report Date: 3/2/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

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ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 14
Report Date: 3/3/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/3/2014 06:00	3/4/2014 06:00	251,896.52	4,642,985.11	492.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-26	Ice Pad / Snow Covered

Last 24hr Summary

Rigged in and pressure tested Coil TBG BOP equipment, Run in hole c/w 98mm mill and clean out to PBTD (3129 mKB). Pull out of the hole, winterize coil and rface lines.

ır Forecast

Run in hole with coil tbg and TCP assembly, perforate intervals as per Theron Legarde, POOH and rig down coil equipment, prep for frac operations.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:30	0.50	P	Safety and procedural meeting with all on location regarding daily activities. Conduct CPC PJHA regarding multiple operations / fluid handling / material handling/ spotting equipment. Conduct lease inspect to check lease conditions, leaks, spills, trip hazards, etc.
06:30	18:00	11.50	P	Continue with rigging in coil BOP hoses, Insured all hydraulics and moving components where heated before pressure testing Fill lines and frac head to test vessel plus 1 m³ 60% methanol to preheat lines / displace air. Shut in at wing valve. Pressure test IES frac head as follows: 7 1/16" x 4 1/16" crossover 4 1/16" x 10K Gate Valve 2 port flow block with single access valve on one side and 2 flow valves to test line 4 1/16" x 10K Hydraulic valve 4 port buffalo head c/w 10K valves on each outlet 4 1/16" x 10K swab valve with test cap above Pressure test to 1.4 mPa - Good 10 min test / stage pressures in 15 mPa increments to max pressure 69 mPa. Isolate stack at 2 x 2" hammer valve and monitor 10 min = Good test. Bleed back to tank. Pressure test flow line to 1.4 mPa - Good 10 min test / stage pressures in 15 mPa increments to max pressure 65 mPa. Monitor 10 min - Good test. Bleed off to tank. Pressure test intermediate 114.3 mm x177.8 mm annulus 1.4 mPa- Good 10 min test / stage pressures in 15 mPa increments to max pressure 30 mPa. Monitor 10 min - Good test Set intermediate pop valve at ~ 20 mPa Bleed down intermediate casing pressure to 11 mPa and shut in. Pressure test 114.3 production casing and all connections under the lower-most 7 1/16' gate valve 1.4 mPa - Good 10 min test / stage pressures in 15 mPa increments to max pressure 67 mPa. Monitor 10 min - Good test Intermediate balooned to 18.5 mPa and subsided back to 11 mPa when production casing bled off. Rig in pump line to BOP stack and pressure test stack as follows: Blind - Shears - 1.5 + 50MPa for 15min each test. Good test. Pipe - Slips - 1.5 + 50 MPa for 15min each test. good test.
18:00	18:30	0.50	P	WSS Shift Change

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Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 14
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Final Job Status: C
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	19:00	0.50	P	Pre-job Safety and procedural meeting with all night personnel regarding daily activities. Conduct CPC PJHA review hazards associated with pressure testing equipment, rigging in coil tbg, BHA make-up and run procedures, fluid management, spill prevention and cold work procedures. Review all personnel's tickets and have worker's new to site complete medical history sheets for on-site medic's files.
19:00	00:00	5.00	P	Install and nipple up Coil Bop's, Pick injector out of cradle, make up 4 sections of lubricator to house Bha. Cut off previous connector, dress coil tbg and install new F/2 Dimple Connector assembly. Fill coil tbg with 6.4m³ 60% meth/water, pull test connector to 21,000daN. Pressure test connector to 35,000KPa. Good test. Make up Bha as follows: - 73mm F/2 Dimple Connector Assembly - 73mm (2 7/8") Rugged Motorhead Assembly c/w dual flapper check valves - Hydraulic disconnect (1 1/8" Ball Seat) - 5 Steel Pin (42 MPa) - Circ Sub (1" Ball Seat), 6 Shear Pins - With Ball = 21MPa, Without Ball = 42MPa - 73mm (2 7/8) Bi-Directional Ultra Jar - Max Overpull = 18,000 lbf, Max Overpush = 18,000 lbf - Torsional Yield - 700 ft-lbs - Max Lift after Jarring 95,000 lbf - Stroke 317.5mm (12.5") - Rugged Disconnect 73mm (2 7/8") - 7/8" Ball - 4 pin (4800 Psi) - 73mm (2 7/8") PowerPlus Motor - 5:6 Lobe; 4,7 Stage - Flow Range: 190-473 LPM - Revs per Unit Vol: 1rev/L - No Load Pressure: 390 KPa - Max Diff Pressure - 7033.5KPa - Torque (@ Max Pressure): 646 ft-lbs - 98mm 5 Blade Concave Mill c/w 5-10mm Water Ports. - 2-3/8" Pac Pin. Stab lubricator onto Bop's and secure to cement anchors. Pump fluid across to tester's, shut in at tester's and pressure test lubricator against stripper to 1.5 + 50 MPa for 15min each test. Good Test.
00:00	06:00	6.00	P	Run in the hole with Mill assembly on coil tbg, Function test Mud Motor @ 45 mKB as follows: - 200 lpm @ 9009 KPa - 300 lpm @ 18068 KPa - 400 lpm @ 31146 KPa Continue in hole circulating 400 lpm to tester's, Pull test @ following depths: - 2000m = Up Weight - 9302 daN - 2500m = Up Weight - 9737.5 daN - 3000m = Up Weight - 10189 daN Continue in hole and tag fill @ 3115 mKB, circulate down to 3129 mKB, sweep up to 3110 mKB, cycle back down and re-tag PBTD @ 3129 mKB. Circulate 1m³ B221w Gel sweep followed with 2m³ fresh water spacer and 1m³ Gel Sweep. Chase gel up hole and pump 2nd set of gel sweeps @ 1900 mKB (30 degrees), circulate @ 400 lpm out of hole to surface. Note: Silt noticed in returns when gel sweeps at surface. PBTD = 3129 mKB

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	0.00	0.00	0.00	0.00	

DAILY COST 0.15 0.00 25.65

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,370.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	G300	3,290.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	Q300	2,430.00
Service Rig	CANOL OILFIELD SERVICES INC	S990	3,500.00
	CANOL OILFIELD SERVICES INC	E120	3,295.00

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Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Surface Completion Equipment Rental	HODGSON'S CONTRACTING (2005) LTD	Q300	50.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	5,760.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	23,720.00
Completion Fluids & Other Chem	PBN ENERGY SERVICES LTD	G300	16,430.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Rig Camp	PBN ENERGY SERVICES LTD	E500	1,550.00
Rig Camp	PBN ENERGY SERVICES LTD	E500	1,655.00
rface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
urface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Service Rig	SCHLUMBERGER CANADA LIMITED	E120	37,996.63
Fishing / Milling Services	SCHLUMBERGER CANADA LIMITED	S500	41,309.50
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	23,131.24
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	7,500.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqprnt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	22,465.15

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
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3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
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3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
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3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing

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PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
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3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
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3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 15
Report Date: 3/4/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/4/2014 06:00	3/5/2014 06:00	349,037.09	4,992,022.20	1,060.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Overcast	-20	Ice Pad / Snow Covered

Last 24hr Summary: Perforate toe interval cluster #1 from 3118 - 3119 / 3089 - 3090 / 3069 - 3070 / 3059 - 3060 / 3040 - 3041 mKB / Cycle out with coil and purge w/ N^2. Begin MIRU Frac Equipment / Begin MIRU Schlumberger E-Line

24hr Forecast: Heat 400bbl tanks with Super Heater, rig in remaining frac equipment, prep for frac.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:30	0.50	P	WSS Shift Change Night shift continue pull out with coil
06:30	07:00	0.50	P	Safety and procedural meeting with all on location regarding daily activities. Conduct CPC PJHA regarding coil tubing operations / perforating / spotting equipment
07:00	07:30	0.50	P	Crew change
07:30	08:30	1.00	P	Drain stack / suck back on lines / disconnect from wellhead / break down clean out BHA and inspect. All appears in good working order
08:30	10:00	1.50	P	Pull test / pressure test coil connector Make up and torque BHA as follows: Top Down 73 mm Dimpled Coil Connector - 21 DAN pull / 35 MPA Test 73 mm Rugged MHA - Double Flapper / Disconnect / Circ Sub 60.3 mm PAC x EUE crossover 73 mm Swivel Fill / Flow Sub Pressure activated firing head 79 mm HRSC 21G/60°/6 SPM perf gun 6 min time delay #4 79 mm HRSC 21G/60°/6 SPM perf gun 6 min time delay #3 79 mm HRSC 21G/60°/6 SPM perf gun 6 min time delay #2 79 mm HRSC 21G/60°/6 SPM perf gun 6 min time delay #1 79 mm HRSC 21G/60°/6 SPM perf gun Tapered bull nose Install lube on QTS and pressure test to 55 mPa
10:00	13:30	3.50	P	Open wellbore / establish circulation to P-Tank R.I.H. at min rates / speed to 150m Increase run speed to 25m/min rates @ 50L/min - 100l/min - Recycled Fluid Perform required pull tests with zero indication of excessive push/pull force Shut in well to test equipment and begin pressure up on coil string for differential required to intitate perforating sequence.
13:30	14:00	0.50	P	Pressure up to 32 mPa on coil w/ zero indication of Annulus Pressure Stop pump and confirm valve set on frac head. Perform stops at all required perf intervals with no definitive perforating action.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 15
Report Date: 3/4/2014
Final Job Status: GA
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
14:00	14:30	0.50	P	Repair crashed computer in coil cab.
14:30	15:30	1.00	P	R.I.H. to tag depth 3129.6 m / pull back into position to begin perforating sequence / manipulate wellhead to pump common Pressure up wellbore to 30 mPa identify positive activation of firing head. Perforate HZ Canol interval from 3118 - 3119 mKB @ 15:07 p.m. / Pull string into next position for stage 2 within 6 min time delay Perforate HZ Canol interval from 3098 - 3099 mKB @ 15:13 p.m. / Pull string into next position for stage 3 within 6 min time delay Perforate HZ Canol interval from 3079 - 3080 mKB @ 15:19 p.m. / Pull string into next position for stage 4 within 6 min time delay Perforate HZ Canol interval from 3059 - 3060 mKB @ 15:25 p.m. / Pull string into next position for stage 5 within 6 min time delay Perforate HZ Canol interval from 3040 - 3041 mKB @ 15:31 p.m. Maintaining ~10 mPa positive wellbore pressure during perforating operations
15:30	18:00	2.50	P	Cycle coil back to surface filling well with recycled water for metal displacement. Cycle lateral @ 15 m/min Cycle build @ 20 m/min Cycle vertical @ 25 m/min. Crown out tool string and drain stack / line with vacuum truck Cool down N^2 for line / coil purge
18:00	19:00	1.00	P	Safety and procedural meeting with all night personnel. Conduct CPC PJHA, review hazards and procedures regarding Purging coil tbg with N^2, rigging out coil tbg, installing and pressure testing E-line Bop's and lubricator, and rigging in remaining Frac equipment and iron. Operational Safety Coach (Clancy Liss) and Conoco HSE (Derrick Tate) on location, hold safety stand down with all crews. Checked all personnel's tickets and orientation's. all valid.
19:00	02:00	7.00	P	Coil tbg @ surface, break off lubricator at Bop's, lower TCP's and inspect (all shots fired), break off and lay out perforating guns, re-stab lubricator onto Bop's and displace coil tbg with N^2 to tester's. Rig off coil tbg and remove coil Bop's. Install Schlumburger E-line Pump Down Pressure Control Equipment as follows: (Frac head up) Description — I.D (mm) - 4 1/16" X/O — 108.00 - Tool Trap — 130.40 - Triple Stack BOP — 130.40 - Flow "T" — 130.40 - Quick Test Sub — 130.40 - 10K Lubricator (x6) — 130.40 - 5 1/8" to 3" Bell Sub X/O — 60.30 - Streamline Dual Pack Off — 8.38 (Total swallow of E-line stack = 21.48m)
02:00	06:00	4.00	P	Rig in remaining Frac equipment and iron, tie in treatment lines (x4) to Buffalo Head. Start firing up equipment to ensure all equipment operational. Rig in 38,000 btu Super Heater and begin heating 400bbl tanks containing fresh water to 35c in preperation for frac. (note: valves frozen and layer of ice built up in behind valves) - heat all valves with portable steamer and push warm fluid through inlets to thaw ice build up behind valves. Pressure test E-line Pressure Control Equipment to 1.5MPa, slight leak off, bump up pressure and monitor, still leaking off. No visible leaks on lubricator, Bop's or flange connection. Bump up pressure and monitor for 15min, 200KPa leak off. Pressure up lubricator to 45MPa and monitor, pressure leaking off, still no visible signs of leak. Lay down lubricator and apply heat, close swab valve on frac head and apply 1.5MPa, monitor for 15 min, good test, Install pressure cap on top of Bop's, open swab valve and apply 1.5MPa, monitor for 15min, good test. Once lubricator warm pick up and re-install on top of Bop's, fill lubricator and pressure test with 60/40% meth/water to 1.5 + 55MPa for 15min each test. good test. Lay dow lubricator, close swab valve and install pressure cap on Coil Bop's.

FLUID SUMMARY

Fluid	To lease (m^3)	From lease (m^3)	To well (m^3)	From well (m^3)	Left to recover (m^3)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	0.00	0.00	0.00	25.65

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 15
Report Date: 3/4/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,300.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,275.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Service Rig	CONOCO	E120	40,086.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	5,790.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
ellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	13,720.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	23,720.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Service Rig	SCHLUMBERGER CANADA LIMITED	E120	96,147.20
Fishing / Milling Services	SCHLUMBERGER CANADA LIMITED	S500	28,254.89
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	32,250.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	20,000.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
/7/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 15
Report Date: 3/4/2014
Final Job Status: G[illegible]
Final Report?

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 16
Report Date: 3/5/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/5/2014 06:00	3/6/2014 06:00	670,929.34	5,662,951.54	1,056.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Overcast	-23	Ice Pad / Snow Covered

Last 24hr Summary
Prep all equipment for frac / heat water / open water holes / heat frac equipment
Perform frac on Interval #1 @ 3040 - 3119mKB
Opening well Pressure=0.5MPa
Pump 15% HCl acid @ 0.6m³/min - 22.5MPa, start Pad #1 Slickwater for 15.5m³ @ 0.7m³/min - 22.8MPa
- Shut down pumps, ISIP=21.9MPa
- Continue pad #1 / Acid Squeeze, pump 18.0m³ @ 0.3m³/min - 14.1MPa
- Shut down Pumps, ISIP=11.0MPa
- Continue Pad #1, pump 191.3m³ @ 0.90m³/min - 8.2MPa
- Start Pad #2 (WF130), pump 317.1m³ @ 8.6m³/min - 34.5MPa
- Start Pad #3 (YF130 Flex) - pump 34m³
-Start sand 40/70 @ 50 kgPA @ 8m³/min - 31.5MPa for 33.5m³, 75 kgPA @ 8m³ - 32.1MPa for 33.5m³, 100kgPA @ 8.2m³/min - 31.7MPa for 75.7m³

PCM unit overheating due to fan clutch issues, go to flush immediately.
- Pump 32.8m³ WF130 followed with 33.9m³ Slickwater. Shut down all pumps.
- ISIP=12.5MPa

Breakdown = 26.0MPa
Max pressure= 33.2 MPa
Ave pressure = 31.5 MPa
Max rate = 8.4m³/min
Avg rate = 8.1m³/min
Proppant pumped = 7840 KG 40/70
Max concentration = 100 kg/m3
Total water pumped = 770.9 m3
Total 15% HCL pumped = 10.8 m3
Post frac ISIP = 12.5MPa

24hr Forecast
Wait for replacement parts for PCM, repair and continue fraccing operations, heat fresh water in tank farm.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change
06:00	06:30	0.50	P	Safety and procedural meeting with all on location regarding daily activities. Conduct CPC PJHA regarding spotting equipment / fluid haulling / over head loads

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 16
Report Date: 3/5/2014
Final Job Status: GAS
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	18:00	11.50	P	Rigged in Frac equipment, Prepared all lines and hydraulics Performed daily maintenance Spotted and rigged in trailers for frac Heated Frac tank farm fluids with hot oilier to 30 degree C Heated 2 Frac Hot tanks to 60 degree C Positioned light towers Heated and prepared frac pumps / lines / manifolds Opened water source 4 and 5 with portable steamer Pressure test Frac manifold to 1.4 mPa for 15 min, increase pressure in 15 mPa increments to 69 mPa and held for 15 min (GOOD TEST)
18:00	18:00		P	WSS Shift Change
18:00	18:30	0.50	P	Safety and procedural meeting with all night personnel regarding daily activities. Conduct CPC PJHA regarding frac ops, loading, unloading and heating fresh water for frac, etc.
18:30	02:30	8.00	P	Perform frac on Interval #1 @ 3040 - 3119mKB as follows: Pump 15m³ 60c hot water across to tester's to warm up all frac pumpers and iron. Pressure test standing iron to 69.0MPa, good test. IES open up master valve and commence Frac Ops as follows: - Opening well Pressure=0.5MPa - Pump 15% HCl acid @ 0.6m³/min - 22.5MPa, start Pad #1 Slickwater for 15.5m³ @ 0.7m³/min - 22.8MPa - Shut down pumps, ISIP=21.9MPa - Continue pad #1 / Acid Squeeze, pump 18.0m³ @ 0.3m³/min - 14.1MPa - Shut down Pumps, ISIP=11.0MPa - Continue Pad #1, pump 191.3m³ @ 0.90m³/min - 8.2MPa - Start Pad #2 (WF130), pump 317.1m³ @ 8.6m³/min - 34.5MPa - Start Pad #3 (YF130 Flex) - pump 34m³ -Start sand 40/70 @ 50 kgPA @ 8m³/min - 31.5MPa for 33.5m³, 75 kgPA @ 8m³ - 32.1MPa for 33.5m³, 100kgPA @ 8.2m³/min - 31.7MPa for 75.7m³ PCM unit overheating due to fan clutch issues, go to flush immediately. - Pump 32.8m³ WF130 followed with 33.9m³ Slickwater. Shut down all pumps. - ISIP=12.5MPa Breakdown = 26.0MPa Max pressure= 33.2 MPa Ave pressure = 31.5 MPa Max rate = 8.4m³/min Avg rate = 8.1m³/min Proppant pumped = 7840 KG 40/70 Max concentration = 100 kg/m3 Total water pumped = 770.9 m3 Total 15% HCL pumped = 10.8 m3 Post frac ISIP = 12.5MPa CFT Tracer 1000
02:30	06:00	3.50	P	Push fluids off of PCM to tester's, winterize all frac iron with 60/40% meth/water and drain up all suction hoses on frac manifold. Continue hauling in water to 400bbl tanks and heating to 35c with super heater in preperaton for future frac operations.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER			770.90	0.00	796.50

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,960.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 16
Report Date: 3/5/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	5,790.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	23,720.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Fracture Stimulation Services	PROTECHNICS - CORE LABS	N110	19,429.14
face Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Service Rig	SCHLUMBERGER CANADA LIMITED	E120	37,100.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	7,500.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	20,000.00
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	N110	471,721.20
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
'2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing

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ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 16
Report Date: 3/5/2014
Final Job Status: G[illegible]
Final Report? [illegible]

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 17
Report Date: 3/6/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/6/2014 06:00	3/7/2014 06:00	900,157.48	6,563,109.02	1,056.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-25	Ice Pad / Snow Covered

Last 24hr Summary
Waiting on parts for frac unit to be flown in on chartered flight,parts arrive, repair and function test PCM, repairs successful. While circulating pumps over to warm up equipment Dresser sleeve on Blender began to leak, apply steam, warm up Dresser sleeve, torque down compression cap to enhance seal, and re-attempt pumping through Blender. Leak remained constant. Discuss with Frac Sup and Mechanic, decision is made that swapping out blender with spare unit is quickest route to commence fraccing operations. Swap out blender, apply heat to warm up blender, function test hydraulics. o.k. Air actuated valves frozen in closed position, apply heat to thaw out valves.

24hr Forecast
Resume with frac / plug and perf as per program.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change
06:00	06:30	0.50	P	Safety and procedural meeting with all on location regarding daily activities. Conduct CPC PJHA regarding fluid hauling / over head loads / equipment repairs
06:30	17:30	11.00	T	Sweep location for LEL (none), Inspect all slings / tag lines / over head equipment / chalk blocks / muster points / spill containments Insure all equipment is running and spill / leak free (if leaks exist good containment) Continuous monitoring on all equipment to insure no freezing and to keep all equipment in working order Clean up and organize equipment and materials on location Visual inspection on all matting / spill containments and other walking areas for trip and slip hazards, minimize all hazards if possible
17:30	18:00	0.50	T	Checked Intermediate Casing (10500 KPa)
18:00	18:00		P	WSS Shift Change
18:00	18:30	0.50	P	Safety and procedural meeting with all night personnel regarding daily activities. Conduct CPC PJHA regarding frac ops, loading, unloading and heating fresh water for frac, etc.
18:30	00:00	5.50	T	Wait for parts to arrive from chartered flight. Prep all support equipment for frac, fill and heat hot tanks to 60c and fuel up all equipment on location.
00:00	03:00	3.00	T	Parts arrive, repair and function test PCM, repairs successful. While circulating pumps over to warm up equipment Dresser sleeve on Blender began to leak, apply steam, warm up Dresser sleeve, torque down compression cap to enhance seal, and re-attempt pumping through Blender. Leak remained constant. Discuss with Frac Sup and Mechanic, decision is made that swapping out blender with spare unit is quickest route to commence fraccing operations, send partial crew to bring up replacement blender from staging area, remaining crew rig drain up, rig out and move broken blender out of way to make room for replacement blender.
00	06:00	3.00	T	New blender on location, spot, tarp in and apply heat for rig in. Function test blender's hydraulics, hydraulics operational, air actuated valves frozen, apply heat to thaw out valves.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	737.00	12.00			796.55

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 17
Report Date: 3/6/2014
Final Job Status: GA
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,210.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,570.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Service Rig	CONOCO	E120	40,086.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	Q300	215.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,670.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	Q300	50.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	N110	5,790.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	Q300	500.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	P100	1,000.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	T130	1,595.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	G300	25,680.00
Fracture Stimulation Services	PROTECHNICS - CORE LABS	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	N110	19,429.14
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	15.00
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	Q300	500.00
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	N110	551,861.18
Service Rig	SCHLUMBERGER CANADA LIMITED	N110	72,150.00
Fishing / Milling Services	SCHLUMBERGER CANADA LIMITED	E120	31,800.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	S500	28,859.75
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	20,000.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	K100	7,500.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	E120	200.00
		M220	26,477.41

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 17
Report Date: 3/6/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
0/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 18
Report Date: 3/7/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/7/2014 06:00	3/8/2014 06:00	220,175.35	6,783,284.37	1,056.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-35	Ice Pad / Snow Covered

Last 24hr Summary
frac on Interval #1 - 3040.0 - 3119.0 mKB

Set B.P @ 3031mKB, Perforate Stage #2 Interval - 2943.0 - 2944.0mKB - conduct selective breakdown, perforate following intervals: 2962.0 - 2963.0mKB, 2982.0 - 2983.0mKB, 3001.0 - 3002.0mKB, 3021.0 - 3022.0mKB

Frac Interval #2 - 2943.0 - 3022.0 mKB

Set B.P @ 2931.0mKB, Perforate Stage #3 Intervals - 2846.0 - 2847.0mKB - conduct selective breakdown, perforate following intervals: 2866.0 - 2867.0mKB, 2885.0 - 2886.0mKB, 2904.0 - 2905.0mKB, 2924.0 - 2925.0mKB

Frac Interval #3 - 2924.0 - 2847.0mKB

24hr Forecast
Continue with plug, perf and frac operations.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:30	0.50	P	WSS Shift Change
06:30	07:00	0.50	P	Safety and procedural meeting with all on location regarding daily activities. Conduct CPC PJHA regarding fluid hauling / over head loads / equipment repairs / frac opps
07:00	11:00	4.00	P	Perform frac on Interval #1 - 3040 - 3119 mKB: Hole Fill = Full Initial Pressure - 3.2 mPa Break Down - 26 MPa Min Pressure - 3.7 mPa Avg Pressure - 31.9 mPa Max Pressure - 49.7 mPa Min Rate - 0.2 m^3/min Avg Rate - 6.1 m^3/min Max Rate - 9.5 m^3/min Sand Pumped - 12 T 40/70 - 60T 30/50 - 20T 30/50 PR6000 Max BHC - 600 kg/m^3 Acid Placed - m^3 - Previously placed Water Pumped - 532.9 m^3 TLFLTR - Interval #1 - 1364.40 m^3 Post Frac ISIP - 23.1 mPa CFT Tracer 1000

Report Printed: 4/28/2014

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Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 18
Report Date: 3/7/2014
Final Job Status: GA^
Final Report? \

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
11:00	16:00	5.00	P	Prepared Schlumberger E-Line equipment, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 6 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60degree phasing Using one(1) gun as a spare which was not fired Perforation intervals as follows: R.I.H. w/ tool string correlating on depth to tie back packer @ 1728.3 mKB Initiate pump down sequence @ 1920 mKB. TIME DEPTH SPEED RATE PRESSURE TENSION 14:00 1900 50 0 6.5 600 lbs 14:02 1920 50 0.30 11 600 lbs 14:05 2024 60 0.60 14.2 550 lbs 14:06 2100 45 0.90 31 302 lbs 14:15 2500 46 1.10 30.8 410 lbs 14:25 3000 44 1.10 33.5 345 lbs Final depth with tool bottom 3037 mKB = 24.30 m³ for pump down. Pull into position with ccl @ 3015.7 mKB setting Halliburton Obsidian bridge plug with center element @ 3031 mKB. B.Plug set with zonal isolation @ 14:31 p.m. I.S.I.P. when setting B.Plug = 16 mPa. Pull E-Line into position to begin firing sequence of Perf Interval #2 Pressure up wellbore to 36.3 mPa. monitor for 5 min with 1 mPa gain in pressure. = Good test. Bleed back well to 26.3 mPa Perforate Cluster # 1 - 3021 - 3022 mKB @ 14:57 ISIP - 26 mPa / 1 min - 25.8 mPa / 2 min 25.8 mPa / 3 min 25.8 mPa / 4 min 26 mPa / 5 min - 26 mPa Pulled up wireline 2m and establish stabilized feed rate @ 0.3 m³/min - 36.6 mPa. Increased rate to 1.13 m³/min - 55 mPa Step down rates 0.89 m³/min - 56.6 mPa Stop pumps - ISIP - 49.6 mPa / 5 min - 17.1 mPa Pumped 5.4 m³ Continued perforating Clusters 2 thru 5 @ 3001 - 3002 mKB @ 15:19 p.m. 2982 - 2983 mKB @ 15:23 p.m. 2962 - 2963 mKB @ 15:26 p.m. 2943 - 2944 mKB @ 15:28 p.m. P.O.O.H. and rig down wire line NEB on location for lease inspection
16:00	20:00	4.00	P	Fill lines and circulate to test equipment to preheat lines. Increase intermediate casing pressure from 2.5 mPa - 10 mPa. Pressure test lines to 68 mPa. Perform frac on Interval #2 - 2943 - 3022 mKB: Hole Fill = Full Initial Pressure - 8.7 mPa Break Down - MPa Min Pressure - 34.2 mPa Avg Pressure - 39.0 mPa Max Pressure - 44.8 mPa Min Rate - 8.1 m³/min Avg Rate - 9.1 m³/min Max Rate - 9.8 m³/min Sand Pumped - 20 T 40/70 - 60 T 30/50 - 20 T 30/50 PR6000 Max BHC - 600 kg/m³ Acid Placed - 10.0 m³ Water Pumped - 731.9 m³ Post Frac ISIP - 19.1 mPa

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Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 18
Report Date: 3/7/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
20:00	01:00	5.00	P	Prepared Schlumberger E-Line equipment, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 6 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60 degree phasing Using one(1) gun as a spare which was not fired Perforation intervals as follows: R.I.H. w/ tool string correlating on depth to tie back packer @ 1728.3 mKB Initiate pump down sequence @ 1890 mKB. TIME DEPTH SPEED RATE PRESSURE TENSION 22:47 1900 46 0.30 8.1 827 lbs 22:48 1950 45 0.60 9.5 798 lbs 22:49 2000 45 0.90 12.2 721 lbs 22:52 2100 45 1.20 14.5 864 lbs 23:00 2500 45 1.20 16.8 736 lbs 23:09 2900 46 1.20 17 689 lbs Final depth with tool bottom 2937.7 mKB = 25.11 m³ for pump down. Pull into position with ccl @ 2915.7 mKB setting Halliburton Obsidian bridge plug with center element @ 2931 mKB.(Moved up 3m due to Csg Collar). B.Plug set with zonal isolation @ 23:20 p.m. I.S.I.P. when setting B.Plug = 9.6 mPa. Pull E-Line into position to begin firing sequence of Perf Interval #3 Pressure up wellbore to 35.2 mPa. monitor for 5 min with 0.7 mPa gain in pressure. =35.9mpa. Good test. Bleed back well to 21.8 mPa Perforate Cluster # 1 - 2924-2925 mKB @ 23:43 ISIP - 21.8 mPa / 1 min - 21.5 mPa / 2 min 21.6 mPa / 3 min 21.7 mPa / 4 min 21.9 mPa / 5 min - 21.9 mPa Pulled up wireline 16m and establish stabilized feed rate @ 0.3 m³/min - 39 mPa. Increased rate to 1.16 m³/min - 50.6 mPa Step down rates 0.8 m³/min - 47.9 mPa Stop pumps - ISIP - 38.2 mPa / 5 min - 18 mPa Pumped 6 m³ Continued perforating Clusters 2 thru 5 @ 2903 - 2904 mKB @ 00:07 p.m. 2982 - 2983 mKB @ 00:08 p.m. 2962 - 2963 mKB @ 00:10 p.m. 2943 - 2944 mKB @ 00:12 p.m. P.O.O.H. and rig down wire line
01:00	02:30	1.50	P	IES service and grease all valves on frac head in preperation for frac.
02:30	05:30	3.00	P	Fill lines and circulate to test equipment to preheat lines. Pressure test lines to 68 mPa. Perform frac on Interval #3 - 2846 - 2905 mKB: Hole Fill = Full Initial Pressure - 4.9 mPa Break Down - 24.0 MPa Min Pressure - 5.6 mPa Avg Pressure - 30.6 mPa Max Pressure - 43.4 mPa Min Rate - 0.3 m³/min Avg Rate - 5.9 m³/min Max Rate - 9.6 m³/min Sand Pumped - 20 T 40/70 - 60 T 30/50 - 20 T 30/50 PR6000 Max BHC - 600 kg/m³ Acid Placed - 10.0 m³ Water Pumped - 707.8 m³ TLFLTR - Interval #2 - 707.8 m³ Post Frac ISIP - 15.6 mPa
05:30	06:00	0.50	P	WSS shift Change
06:00	06:00			

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	1,020.00	2.00	1,361.30	0.00	2,157.85

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 18
Report Date: 3/7/2014
Final Job Status: GA
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,630.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,510.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	4,410.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,420.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Safety Equipment & Services	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Fracture Stimulation Services	HRN CONTRACTING LTD	Q300	50.00
Surface Completion Equipment Rental	ISOLATION EQUIPMENT SERVICES INC	N110	7,115.00
Trucking/Hauling/ Hot Shot Services	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Wellsite Supervision & Engineering	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Completion Fluids & Other Chem	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	NORTHERN TRUCK SERVICES (1994) LTD	G300	11,232.0
Fracture Stimulation Services	PBN ENERGY SERVICES LTD	Q300	1,000.
Surface Completion Equipment Rental	PROTECHNICS - CORE LABS	N110	12,769.35
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Service Rig	RONS AUTO SERVICE LTD	Q300	500.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	E120	31,800.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	29,400.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	26,400.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	K100	7,500.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	E120	200.00
		M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing

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PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 19
Report Date: 3/8/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/8/2014 06:00	3/9/2014 06:00	1,429,496.94	8,212,781.31	1,056.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-37	Ice Pad / Snow Covered

Last 24hr Summary

Run in hole with E-line and set B.P @ 2834mKB C.E, Perforate Stage #4 as follows:
2749.0 - 2750.0mKB
2769.0 - 2770.0mKB
- 2807.0 - 2808.0mKB
- 2827.0 - 2828.0mKB

Frac Interval #4

Perform frac on Interval #4 - 2749.0 - 2828.0 mKB:
Hole Fill = Full
Initial Pressure - 6.4 mPa
Break Down - 24.8MPa
Min Pressure - 14.4mPa
Avg Pressure - 34.6mPa
Max Pressure - 39.0mPa
Min Rate - 4.3m³/min
Avg Rate - 9.2 m³/min
Max Rate - 9.7m³/min
Sand Pumped 19 - T 40/70
66- T 30/50
22- T 30/50 PR6000
Max BHC -600 kg/m³
Acid Placed - 10.0m³
Water Pumped - 689.2 m³
Post Frac ISIP - 16.6 mPa

Run in hole with E-line and set B.P @ 2741.9mKB, Perforate Stage #5 as follows:
- 2691.0 - 2692.0mKB
- 2710.0 - 2711.0mKB
- 2730.0 - 2731.0mKB

IES grease and service all valves on Frac head.

24hr Forecast

Continue with frac, plug and perf operations.

DAILY TIME LOG

art Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:30	0.50	P	Well site supervisors shift change NOTE: Frac Crew winterizing equipment after frac #3 NOTE: E-Line building pump down assembly.
06:30	07:00	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding frac ops / pump down ops / hauling and heating fluids
07:00	07:30	0.50	P	Crew Change

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 19
Report Date: 3/8/2014
Final Job Status: G
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
07:30	09:30	2.00	T	Prepared Schlumberger E-Line equipment, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized to 6.5 mPa (S.I.PC.P.) Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 6 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60 degree phasing R.I.H. 4.5 m and tag up on (assuming) bit guide. Slack string weight off to neutral. Attempt to hoist string off obstruction. Pull 500 lbs over string weight (±800 lbs) Work string from neutral to 50% pull out = 1600 lbs. Manually work line to free tool string and begin moving down x 2m and stop. Attempt to hoist string via winch and man power. Hoist string back into frac head with B.Plug sitting above 7 1/16" master valve. Shut in well at 7 1/16" Ground Master.
09:30	09:45	0.25	T	Conduct CPC PJHA regarding hoisting live guns / setting tools to surface and disassembling.
09:45	12:15	2.50	T	Hoist E-Line string via winch with slight overpull and swallow tool string in lubricator. Shut in 4 1/16" valve for double isolation and bleed off pressure equipment to vessel. Hoist and remove lubricator / lower out B.Plug and inspect. Good condition / still in run position. Lay out lubricator and tool string / remove tool string and inspect setting tool / crossovers / perf guns / cable head / packoff / cable head / utilize flash light and peer into BOP / tool trap with no indications of why tool string hung up in frac head. Fill lines and flush wellbore with 31 m^3 (25 fresh - 6 methanol water) to wellbore @ 1.7 m^3/min - 1 m/min final displacing rate and 16.9 mPa final displacing pressure. Shut in wellbore and isolate frac equipment.
12:15	13:15	1.00	T	Make up and prep to R.I.H. w/ 96 mm Gauge Ring / Junk Basket Hoist and install lubricator equalizing across master valve with wellbore pressure. R.I.H. 1.2m and tag obstruction. Top ram of BOP's Pull up with no overpull R.I.H. 1.2m and retag. Manually work line and lower down 0.2 m Second ram of BOP's Decision made infield to rig down E-Line equipment and thoroughly inspect for deficiency.
13:15	18:00	4.75	T	Bleed off SLB pressure equipemnt. Hoist and remove lubricator and BHA. Rig down quick test sub / BOP's / Tool trap and visually inspect Upon inspection it was noticed that the Tool trap had sand and sludge behind it with indacations of the tool string hitting it from the semi open position Hoist and install BOP's / Tool trap / quick test sub Hoist and install lubricator with 96mm guage ring and junk basket Lowered guage ring above 4 1/16 master valve with out tagging it (seen no obstructions) Pulled junk basket and guage ring to the top of the lubricator Pressure test all well head parts above 4 1/16 master valve to 60 mPa for 10 min (good test) Bled down pressure to vessel leaving 1 mPa over well bore pressure (6mPa) Opened and ran in 96mm guage ring and junk basket to 2061 mKB (point of rejection) POOH with BHA and closed master valve Bleed off pressure equipment to vessel hoist and removed lubricator and lowered BHA to the ground
18:00	18:30	0.50	P	Well site supervisors shift change Note: E-line running in the hole with Bridge plug / perforating gun assembly.

Report Printed: 4/28/2014

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	21:00	2.50	P	Prepared Schlumberger E-Line equipment to Perforate Stage #4, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 6 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60degree phasing Using one(1) gun as a spare which was not fired Perforation intervals as follows: R.I.H. w/ tool string correlating on depth to tie back packer @ 1728.3 mKB Initiate pump down sequence @ 1920 mKB. TIME DEPTH SPEED RATE PRESSURE TENSION 18:34 1900 59 0 6.3 730 lbs 18:35 1950 57 0.30 9.2 700 lbs 18:36 2000 56 0.60 10.3 650 lbs 18:37 2050 55 0.90 12.2 590 lbs 18:45 2500 54 1.10 16.0 490 lbs 18:51 2800 51 1.10 16.2 470 lbs Final depth with tool bottom 2842.6 mKB = 17.5 m^3 for pump down. Pull into position with ccl @ 2818.4 mKB setting Halliburton Obsidian bridge plug with center element @ 2834.4 mKB. B.Plug set with zonal isolation @ 19:00 p.m. I.S.I.P. when setting B.Plug = 8.1 mPa. Pull E-Line into position to begin firing perf cluster #1 Attempt to Pressure up wellbore to pressure test plug, pump 2.3m^3, pressure increased to 8.4MPa, shut down pumps, pressure dropped to 8.0MPa, pump 0.6m^3, pressure increased to 8.4MPa. Ball not seated. Pull up and perforate clusters 1 through 5 at following intervals: TIME INTERVAL 19:17 2827.0 - 2828.0mKB 19:22 2807.0 - 2808.0mKB 19:23 2788.0 - 2789.0mKB 19:25 2769.0 - 2770.0mKB 19:27 2749.0 - 2750.0mKB Fluid Pumped for attempted pressure test - 2.9m^3 Total Pumped for pump down operation - 20.4m^3 P.O.O.H. and rig down wire line
21:00	01:00	4.00	P	Fill lines and circulate to test equipment to preheat lines. Pressure test lines to 68 mPa. Perform frac on Interval #4 - 2749.0 - 2828.0 mKB: Hole Fill = Full Initial Pressure - 6.4 mPa Break Down - 24.8MPa Min Pressure - 14.4mPa Avg Pressure - 34.6mPa Max Pressure - 39.0mPa Min Rate - 4.3m^3/min Avg Rate - 9.2 m^3/min Max Rate - 9.7m^3/min Sand Pumped 19 - T 40/70 66- T 30/50 22- T 30/50 PR6000 Max BHC -600 kg/m^3 Acid Placed - 10.0m^3 Water Pumped - 689.2 m^3 Post Frac ISIP - 16.6 mPa Drain up and winterize all standing iron.
00	02:00	1.00	P	Daylight savings time- clocks set ahead 1 hour.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 19
Report Date: 3/8/2014
Final Job Status: G
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
02:00	05:00	3.00	P	Prepared Schlumberger E-Line equipment to Perforate Stage #5, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 6 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60degree phasing Using one(1) gun as a spare which was not fired Perforation intervals as follows: R.I.H. w/ tool string correlating on depth to tie back packer @ 1728.3 mKB Initiate pump down sequence @ 1920 mKB. TIME DEPTH SPEED RATE PRESSURE TENSION 3:35 1900 70 0.30 6.4 693 lbs 3:35 1950 70 0.60 7.0 650 lbs 3:36 2000 70 0.90 8.3 683 lbs 3:37 2050 70 0.90 8.9 584 lbs 3:43 2500 70 1.20 12.7 584 lbs 3:46 2700 70 1.20 13.2 572 lbs Final depth with tool bottom 2732.79 mKB = 13.12m³ for pump down. Pull into position with ccl @ 2730.21mKB setting Halliburton Obsidian bridge plug with center element @ 2741.9mKB. B.Plug set with zonal isolation @ 3:49 p.m. I.S.I.P. when setting B.Plug = 6.7 mPa. Pull E-Line into position to begin firing perf cluster #1 Pressure up wellbore to 35.0 mPa. monitor for 5 min with 0.3 mPa gain in pressure. = Good test. Bleed back well to 16.7 mPa Perforate Cluster # 1 - 2730.0 - 2731.0 mKB @ 4:20 ISIP - 16.0 mPa / 1 min - 16.0 mPa / 2 min 16.0 mPa / 3 min 16.0 mPa / 4 min 16.0 mPa / 5 min - 16.0 mPa Pulled up wireline 2m and establish stabilized feed rate @ 0.3 m³/min - 29.4 mPa. Increased rate to 1.45 m³/min - 31.8 mPa Step down rates 1.0 m³/min - 27.2 mPa Stop pumps - ISIP - 17.2 mPa / 5 min - 10.2 mPa Pumped 4.77 m³ Continued perforating Clusters 2 thru 5 @ 2710.0 - 2711.0 mKB @ 4:40 2691.0 - 2692.0 mKB @ 4:41 P.O.O.H. and rig down wire line
05:00	06:00	1.00	P	IES grease and function test all valves on frac head.
06:00	06:00			

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	995.00	10.00	1,445.60	0.00	3,603.45

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,910.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,595.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	Q300	215.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,670.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
		Q300	50.00

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COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 19
Report Date: 3/8/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	5,790.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	6,000.75
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	3,200.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Fracture Stimulation Services	PROTECHNICS - CORE LABS	N110	13,348.95
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Surface Completion Equipment Rental	SCHLUMBERGER CANADA LIMITED	N110	1,210,551.45
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	E120	31,800.00
Service Rig	SCHLUMBERGER CANADA LIMITED	S500	28,859.75
Fishing / Milling Services	SCHLUMBERGER CANADA LIMITED	K100	31,564.04
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	7,500.00
Electric Line Servs on Drilling Ops.	TERVITA CORP	G300	3,528.00
Completion Fluids & Other Chem	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Service Rig	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)			

IMULATIVE JOB FLARED GAS BY ZONE

ne	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 19
Report Date: 3/8/2014
Final Job Status: G
Final Report? Y

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

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Daily Morning Report
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Report #: 20
Report Date: 3/9/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/9/2014 06:00	3/10/2014 06:00	950,518.09	9,163,299.40	1,056.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-30	Ice Pad / Snow Covered

Last 24hr Summary
Perform frac on Interval #5 - 2691.0- 2731.0

t B.P @ 2682.0mKB C.E, Perforate Cluster #1 on Interval #6 @ 2633.0 - 2633.0mKB. Preform selective breakdown: 0.3m³/min - 24.0MPa, 1.5m³/min - .0MPa
1.00m³/min - 26.0MPa.
ISIP - 17.2MPa.
Perforate cluster's 2 thru 3 @ 2652.0 - 2652.0mKB, 2633.0 - 2634.0mKB.

-Perform frac on Interval #6 - 2633.0 - 2673.0 mKB

-Set B.P @ 2624.0mKB C.E, perforate cluster #1 on Interval #7 @ 2613.0 - 2614.0mKB, perform selective breakdown: 0.3m³/min - 22.2MPa, 1.37m³/min - 34.1MPa,
1.00m³ - 30.6m³/min - 30.6m³.
ISIP - 17.4MPa, 5 min - 14.0MPa.
Perforate cluster's 2 thru 5 @ 2594.0 - 2595.0mKB, 2575.0 - 2576.0mKB, 2555.0 - 2556.0mKB, 2536.0 - 2537.0mKB

-Perform frac on Interval #7 - 2536.0 - 2614.0 mKB

-Set B.P @ 2525.0mKB C.E, Perforate Cluster #1 on interval #7 @ 2516.0 - 2517.0mKB, perform selective breakdown: 0.5m³ - 28.7MPa, 1.45m³ - 32.1MPa, 1m³ - 25.3MPa.
ISIP-23.2MPa, 5min ISIP - 9.2MPa
Perforate cluster's 2 thru 5 @ 2497.0 - 2498.0mKB, 2478.0 - 2479.0mKB, 2458.0 - 2459.0mKB, 2439.0 - 2440.0mKB

-Perform frac on interval #8

24hr Forecast
Continue with frac, plug and perf operations.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	Well site supervisors shift change
06:00	06:30	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding frac ops / pump down ops / hauling and heating fluids

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 20
Report Date: 3/9/2014
Final Job Status: G
Final Report? \

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	07:30	1.00	P	Greased all IES buffalo head valves Fill lines and circulate to test equipment to preheat lines. Pressure test lines to 68 mPa. Perform frac on Interval #5 - 2691.0- 2731.0 mKB: Hole Fill = Full Initial Pressure - 6.4 mPa Break Down - 23.3 MPa Min Pressure - 32.4 mPa Avg Pressure - 36.8mPa Max Pressure - 39.6mPa Min Rate - 9.4m³/min Avg Rate - 9.4m³/min Max Rate - 9.5m³/min Sand Pumped 19.7 - T 40/70 63.8- T 30/50 30.2- T 30/50 PR6000 Max BHC -600 kg/m³ Acid Placed - 10.0m³ Water Pumped - 698.4 m³ Post Frac ISIP - 24.4 mPa
07:30	10:30	3.00	P	Prepared Schlumberger E-Line equipment to Perforate Stage #6, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 4 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60degree phasing Using one(1) gun as a spare which was not fired Perforation intervals as follows: R.I.H. w/ tool string correlating on depth to tie back packer @ 1728.3 mKB Initiate pump down sequence @ 1920 mKB.

TIME	DEPTH(m)	SPEED(m/min)	RATE(L/min)	PRESSURE(mPa)	TENSION
11:20	1901	60	0.30	8.9	742
11:23	2000	60	0.62	10.0	701
11:24	2040	60	0.86	11.5	667
11:25	2108	55	0.90	12.4	524
11:26	2140	55	1.13	13.4	603
11:28	2325	56	1.11	13.9	598
11:30	2437	55	1.11	13.8	600

Final depth with tool bottom 2686.0 mKB= 13.8 m³ for pump down.
Pull into position with ccl @2670.31 mKB setting Halliburton Obsidian bridge plug with center element @ 2682 mKB. B.Plug set with zonal isolation @ 11:43 a.m.
I.S.I.P. when setting B.Plug =8.6 mPa.
Pull E-Line into position to begin firing perf cluster #6

10:30	13:30	3.00	P	Pressure up wellbore to 35.0 mPa. monitor for 5 min with 0.3 mPa gain in pressure. = Good test. Bleed back well to 18.0 mPa Perforate Cluster # 6-2633 - 2673 mKB @ 11:58 ISIP - 17.7 mPa / 1 min - 17.4 mPa / 2 min 17.2 mPa / 3 min 17.0 mPa / 4 min 16.8 mPa / 5 min - 16.6 mPa Pulled up wireline 2m and establish stabilized feed rate @ 0.3 m³/min - 24.0 mPa. Increased rate to1.5m³/min -28.0 mPa Step down rates1.00 m³/min -26 mPa Stop pumps - ISIP - 17.2 mPa / 5 min -12.4 mPa Pumped4.5 m³ Continued perforating Clusters 2 and 3 @ 2652 - 2653 mKB @ 12:15 2633 - 2634 mKB @ 12:17 P.O.O.H. and rig down wire line

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Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 20
Report Date: 3/9/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
13:30	18:00	4.50	P	Fill lines and circulate to test equipment to preheat lines. Pressure test lines to 68 mPa. Perform frac on Interval #6 - 2633.0 - 2673.0 mKB: Hole Fill = Full Initial Pressure - 5.9 mPa Break Down - 25.9 MPa Min Pressure - 30.5mPa Avg Pressure - 37.3mPa Max Pressure - 49.3mPa Min Rate - 7.5m³/min Avg Rate - 9.1 m³/min Max Rate - 9.6m³/min Sand Pumped 17.7 - T 40/70 62.8- T 30/50 24.2- T 30/50 PR6000 Max BHC -600 kg/m³ Acid Placed - 10.0m³ Water Pumped - 770.4 m³ Post Frac ISIP - 15.6 mPa Drain up and winterize all standing iron.
18:00	18:00			Well Site Supervisor shift change.
18:00	18:30	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Review CPC PJHA regarding frac ops / pump down ops / hauling and heating fluids
18:30	21:30	3.00	P	Prepared Schlumberger E-Line equipment to Perforate Stage #6, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 4 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60degree phasing Using one(1) gun as a spare which was not fired Perforation intervals as follows: R.I.H. w/ tool string correlating on depth to tie back packer @ 1728.3 mKB Initiate pump down sequence @ 1920 mKB.

TIME	DEPTH(m)	SPEED(m/min)	RATE(L/min)	PRESSURE(mPa)	TENSION
16:50	1900	60	0.30	9.1	635
16:52	1998	60	0.60	10.0	661
16:54	2080	62	0.90	12.5	561
16:55	2123	61	1.05	13.5	593
17:00	2400	61	1.20	15.7	615

Final depth with tool bottom 2629.0 mKB= 12.23 m³ for pump down.
Pull into position with ccl @2608.00 mKB setting Halliburton Obsidian bridge plug with center element @ 2624 mKB. B.Plug set with zonal isolation @ 17:08
I.S.I.P. when setting B.Plug =9.5 mPa.
Pull E-Line into position to begin firing perf cluster #7

21:30	23:30	2.00	P	Pressure up wellbore to 35.0 mPa. monitor for 5 min with 0.6 mPa gain in pressure. = Good test. Bleed back well to 19.3 mPa Perforate Cluster # 1 on Interval # 7 2613 - 2614 mKB @ 17:30 ISIP - 19.4 mPa / 1 min - 17.6 mPa / 2 min 16.7 mPa / 3 min 16.1 mPa / 4 min 15.7 mPa / 5 min - 15.4mPa Pulled up wireline 2m and establish stabilized feed rate @ 0.3 m³/min - 22.2 mPa. Increased rate to1.37m³/min -34.1 mPa Step down rates1.00 m³/min -30.6 mPa Stop pumps - ISIP - 17.4 mPa / 5 min -14.0 mPa Total Pumped on injectivity test - 5.30 m³ Continued perforating Clusters 2 and at following intervals: 2594.0 - 2595.0 mKB @ 17:44 2575.0 - 2576.0 mKB @ 17:46 2555.0 - 2556.0 mKB @ 17:48 2536.0 - 2537.0 mKB @ 17:51 P.O.O.H. and rig down wire line

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 20
Report Date: 3/9/2014
Final Job Status: G
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
23:30	01:00	1.50	P	Fill lines and circulate to test equipment to preheat lines. Pressure test lines to 68 mPa. Perform frac on Interval #7 - 2536.0 - 2614.0 mKB: Hole Fill = Full Initial Pressure - 4.80 MPa Break Down - 22.20 MPa Min Pressure - 31.60 MPa Avg Pressure - 36.10 MPa Max Pressure - 48.10 MPa Min Rate - 9.50m³/min Avg Rate - 9.60m³/min Max Rate - 9.60m³/min Sand Pumped 21.59 - T 40/70 63.75 - T 30/50 21.64 - T 30/50 PR6000 Max BHC -600 kg/m³ Acid Placed - 10.0m³ Water Pumped - 687.10 m³ Post Frac ISIP - 18.20 MPa 5min ISIP - 13.10MPa 10min ISIP - 9.90MPa 15min ISIP - 8.60MPa Drain up and winterize all standing iron.
01:00	05:00	4.00	P	Prepared Schlumberger E-Line equipment to Perforate Stage #8, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 6 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60degree phasing Using one(1) gun as a spare which was not fired Perforation intervals as follows: R.I.H. w/ tool string correlating on depth to tie back packer @ 1728.3 mKB Initiate pump down sequence @ 1920 mKB. TIME DEPTH SPEED RATE PRESSURE TENSION 3:29 1900 70 0.30 5.7 897 lbs 3:29 1950 70 0.60 6.4 761 lbs 3:30 2000 70 0.90 6.8 669 lbs 3:31 2050 70 0.90 8.6 584 lbs 3:34 2300 70 1.20 10.4 649 lbs 3:36 2400 70 1.20 10.9 601 lbs Final depth with tool bottom 2531.83 mKB = 9.4 m³ for pump down. Pull into position with ccl @ 2509.7mKB setting Halliburton Obsidian bridge plug with center element @ 2525mKB. B.Plug set with zonal isolation @ 3:49 a.m. I.S.I.P. when setting B.Plug = 6.2 mPa. Pull E-Line into position to begin firing Perf Interval #8 Pressure up wellbore to 35.0 mPa. monitor for 5 min with 0.1 mPa gain in pressure. = Good test. Bleed back well to 16.0 mPa Perforate Cluster # 1 - 2516.0 - 2517.0 mKB @ 4:15 a.m. ISIP - 16.1 mPa / 1 min - 15.8 mPa / 2 min 15.8 mPa / 3 min 15.8 mPa / 4 min 15.7 mPa / 5 min - 15.7 mPa Pulled up wireline 3 m and establish stabilized feed rate @ 0.5 m³/min - 28.7 mPa. Increased rate to 1.45 m³/min - 32.1 mPa Step down rates 1.0 m³/min - 25.3 mPa Stop pumps - ISIP - 23.2 mPa / 5 min - 9.2 mPa Pumped 4.6 m³ Continued perforating Clusters 2 thru 5 @ 2497.0 - 2498.0 mKB @ 4:34 a.m 2478.0 - 2479.0 mKB @ 4:35 a.m 2458.0 - 2459.0 mKB @ 4:37 a.m 2439.0 - 2440.0 mKB @ 4:39 a.m P.O.O.H. and rig down wire line
05:00	06:00	1.00	P	Haul in and heat fluid, blend up acid and prep all equipment to perform frac on Interval #8.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	2,106.00	89.00	2,225.80	0.00	5,829.25

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 20
Report Date: 3/9/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,120.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,495.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,025.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,420.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	465.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	830.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	420.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	830.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	1,076.52
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,420.00
Service Rig	CONOCO	E120	40,086.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
mpletion Fluids & Other Chem	ENZO ENERGY SERVICES - 1521872 AB	G300	16,520.00
mpletion Fluids & Other Chem	ENZO ENERGY SERVICES - 1521872 AB	G300	16,520.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Maintain Road & Location	HRN CONTRACTING LTD	D230	2,788.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	7,510.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	25,480.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	20,922.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Fracture Stimulation Services	PROTECHNICS - CORE LABS	N110	15,963.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Service Rig	RONS AUTO SERVICE LTD	E120	500.00
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	N110	552,666.29
Service Rig	SCHLUMBERGER CANADA LIMITED	E120	38,077.06
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	27,900.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	7,500.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	24,900.00
ctric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	26,400.00
Completion Fluids & Other Chem	TERVITA CORP	G300	4,500.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA	M220	23,080.22
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 20
Report Date: 3/9/2014
Final Job Status: G
Final Report? Y

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 21
Report Date: 3/10/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/10/2014 06:00	3/11/2014 06:00	1,976,515.83	11,139,815.23	1,056.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-28	Ice Pad / Snow Covered

Last 24hr Summary
Perform frac on Interval #8 - 2439.0- 2517.0

et B.P @ 2527.0mKB C.E, Perforate Cluster #1 on Interval #9 @ 2342.0 - 2420.0mKB. Preform selective breakdown: 0.3m³/min -30.2MPa, 1.07m³/min - .5MPa
0.7m³/min -36.3MPa.
ISIP - 24.7MPa.
Perforate cluster's 2 thru 5 @ 2400 - 2401.0mKB, 2381.0 - 2382.0mKB, 2361 - 2362mKB , 2342 - 2343mkB

-Perform frac on Interval #9 - 2342.0 - 2420.0 mKB

-Set B.P @2333.0mKB C.E, perforate cluster #1 on Interval #10 @ 2322.0 - 2323.0mKB, perform selective breakdown: 0.3m³/min -36.9MPa, 1.54m³/min - 39.7MPa,
-1.05m³/min - 39.7m³.
ISIP -21.0MPa, 5 min -29.0MPa.
Perforate cluster's 2 thru 5 @2303.0 - 2304.0mKB, 2284.0 - 2285.0mKB, 2264.0 - 2265.0mKB, 2245.0 - 2246.0mKB

-Perform frac on Interval #10 - 2245.0 - 2323.0 mKB

24hr Forecast
Drill out Bridge plugs & Clean out to P.B.T.B

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	Well site supervisors shift change
06:00	06:30	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding frac ops / pump down ops / hauling and heating fluids

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 21
Report Date: 3/10/2014
Final Job Status: GA
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	08:30	2.00	P	Perform frac on Interval #8 - 2439.0- 2517.0 mKB: Hole Fill = Full Initial Pressure - 4.7 mPa Break Down - 31.7 MPa Min Pressure - 31.5 mPa Avg Pressure - 34.4mPa Max Pressure - 37.9mPa Min Rate - 9.4m³/min Avg Rate - 9.5m³/min Max Rate - 9.5m³/min Sand Pumped 20.3 - T 40/70 59.7- T 30/50 22.8- T 30/50 PR6000 Max BHC -600 kg/m³ Acid Placed - 10.0m³ Water Pumped - 662.6 m³ Post Frac ISIP - 17.1 mPa Pumped 6.5 m³ of methanol water to winterize frac pumps
08:30	10:30	2.00	P	Prepared Schlumberger E-Line equipment to Perforate Stage #9, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 6 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60degree phasing Using one(1) gun as a spare which was not fired Perforation intervals as follows: R.I.H. w/ tool string correlating on depth to tie back packer @ 1728.3 mKB Initiate pump down sequence @ 1900 mKB. TIME DEPTH(m) SPEED(m/min) RATE(L/min) PRESSURE(mPa) TENSION 10:00 1900 57 0.30 8.4 778 10:01 1974 57 0.60 9.4 692 10:02 2033 57 0.82 10.9 616 10:03 2093 57 0.90 11.8 500 10:04 2134 55 1.10 12.8 525 10:06 2299 55 1.11 13.3 490 Final depth with tool bottom 2435.7 mKB= 8.54 m³ for pump down. Pull into position with ccl @2414.7 mKB setting Halliburton Obsidian bridge plug with center element @ 2430.0 mKB. B.Plug set with zonal isolation @ 10.08 a.m. I.S.I.P. when setting B.Plug =9.2 mPa. Pull E-Line into position to begin firing perf cluster #9
10:30	12:30	2.00	P	Pressure up wellbore to 35.0 mPa. monitor for 5 min with 0.3 mPa gain in pressure. = Good test. Bleed back well to 19.0 mPa Perforate Cluster # 1-2419 - 2343 mKB @ 10:28 ISIP - 19.0 mPa / 1 min - 18.6 mPa / 2 min 18.7 mPa / 3 min 18.7 mPa / 4 min 18.7 mPa / 5 min - 18.7 mPa Pulled up wireline 2m and establish stabilized feed rate @ 0.3 m³/min - 30.2 mPa. Increased rate to1.07m³/min -50.5 mPa Step down rates0.70 m³/min -36.3 mPa Stop pumps - ISIP - 24.7 mPa / 5 min -13.0 mPa Pumped4.7m³ Continued perforating Clusters 2 and 5 @ 2400 - 2401 mKB @ 10:47 2381 - 2382 mKB @ 10:48 2361 - 2362 mKB @ 10:50 2342 - 2343 mKB @ 10:52 P.O.O.H. and rig down wire line

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
12:30	14:30	2.00	P	Perform frac on Interval #9 - 2342.0- 2420.0 mKB: Hole Fill = Full Initial Pressure - 6.8 mPa Break Down - 50.5MPa Min Pressure - 31.2mPa Avg Pressure - 37.4mPa Max Pressure - 41.4mPa Min Rate - 9.4m³/min Avg Rate - 9.5m³/min Max Rate - 9.5m³/min Sand Pumped 17.1 - T 40/70 63.6- T 30/50 25.8- T 30/50 PR6000 Max BHC -600 kg/m³ Acid Placed - 10.0m³ Water Pumped - 658.3m³ Post Frac ISIP - 21.5 mPa CFT Tracer 2100 Pumped 8.0 m³ of methanol water to winterize frac pumps
14:30	16:30	2.00	P	Prepared Schlumberger E-Line equipment to Perforate Stage #10, Lifted lube into position and installed onto IPS buffalo frac head Rigged in to equalize above and below the master valve and equalized Opened master valve RIH with 114.3mm 55.16 MPa Obsidian Bridge plug and 6 - 21 gm .HMX (DP) Owens SDP-3125-411NT4 guns with 60degree phasing Using one(1) gun as a spare which was not fired Perforation intervals as follows: R.I.H. w/ tool string correlating on depth to tie back packer @ 1728.3 mKB Initiate pump down sequence @ 1900 mKB. TIME DEPTH(m) SPEED(m/min) RATE(L/min) PRESSURE(mPa) TENSION 16:20 1900 64 0.30 8.8 744 16:22 1988 64 0.60 10.0 700 16:23 2040 63 0.90 11.3 640 16:30 2134 62 1.12 13.5 508 Final depth with tool bottom 2321.9 mKB= 6.18 m³ for pump down. Pull into position with ccl @2317.7 mKB setting Halliburton Obsidian bridge plug with center element @2333.0 mKB. B.Plug set with zonal isolation @ 16:30 a.m. I.S.I.P. when setting B.Plug =9.7 mPa. Pull E-Line into position to begin firing perf cluster #10
16:30	18:30	2.00	P	Pressure up wellbore to 36.6 mPa. monitor for 5 min with 0.3 mPa gain in pressure. = Good test. Bleed back well to 18.4 mPa Perforate Cluster # 1-2322.0 -2323.0 mKB @ 16:52 ISIP - 18.2 mPa / 1 min -18.0 mPa / 2 min17.8 mPa / 3 min17.8 mPa / 4 min17.8 mPa / 5 min -17.8 mPa Pulled up wireline 2m and establish stabilized feed rate @ 0.3 m³/min -30.2 mPa. Increased rate to1.54m³/min -39.7 mPa Step down rate1.05 m³/min -29.0 mPa Stop pumps - ISIP -21.0 mPa / 5 min -13.1 mPa Pumped XXX m³ Continued perforating Clusters 2 and 5 @ 2303 - 2304 mKB @ 17:12 2284 - 2285 mKB @ 17:15 2264 - 2265 mKB @ 17:17 2245 - 2246 mKB @17:19 P.O.O.H. and rig down wire line

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 21
Report Date: 3/10/2014
Final Job Status: GA
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	21:30	3.00	P	Perform frac on Interval #10 - 2245 mKB - 2323 mKB: Hole Fill = Full Initial Pressure - 6.8 mPa Break Down - 30.5 MPa Min Pressure - 22.5 mPa Avg Pressure - 35.7 mPa Max Pressure - 41.4 mPa Min Rate - 4.0m³/min Avg Rate - 9.6m³/min Max Rate - 9.7m³/min Sand Pumped 36 - T 40/70 50 - T 30/50 18 - T 30/50 PR6000 Max BHC -600 kg/m³ Acid Placed - 10.0m³ Water Pumped - 707.4m³ Post Frac ISIP - 17.1 mPa CFT Tracer 2200
21:30	04:00	6.50	P	Rigged out the Frac Equipment, Removed E-Line B.O.P, Transfered Fluids in Tank Farm, Started moving the Frac equipment off the location. Prepared the Coil Tbg Unit, Pressure tested the Coil B.O.P's . 1.5 MPa Low/ 50 MPa High on the slips (15 min each test). Test good. 1.5 MPa Low/ 50 MPaHigh on the Shear (15 min each test).Test good. Installed the Coil B.O.P's and Injector on the well,
04:00	06:00	2.00		Held P.J.H.A meeting with all services, Circulated & warmed up the coil equipment,Pressure tested the Coil Lube 1.5 MPa low Pressure bled down, Re-Pressured up Pressure bled down,Pressured up to 10 mpa, pressure bleeding down,Pressured up to 50 MPa high. Pressure Bleeding off out of the stripper Hose. Changed out stripper rubber.
06:00	06:00			Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding drill out of bridge plugs with Coil Tbg.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	2,095.00	39.00	2,090.56	0.00	7,919.81

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,170.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,750.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,170.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,977.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	P100	11,544.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	G300	3,430.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	D230	2,025.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,420.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,495.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	Q300	215.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,670.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T130	1,595.00
Service Rig	HRN CONTRACTING LTD	T430	0..
Surface Completion Equipment Rental	HRN CONTRACTING LTD	E120	2,000.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	Q300	50.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	N110	9,140.00
		Q300	500.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 21
Report Date: 3/10/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	23,100.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	23,100.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	11,760.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	48,450.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Fracture Stimulation Services	PROTECHNICS - CORE LABS	N110	21,817.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	N110	1,552,044.82
Fishing / Milling Services	SCHLUMBERGER CANADA LIMITED	S500	26,090.21
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	31,900.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	26,400.00
Service Rig	SCHLUMBERGER CANADA LIMITED	E120	50,858.80
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	26,400.00
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	7,500.00
Completion Fluids & Other Chem	TERVITA CORP	G300	4,500.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
elltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	22,265.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 21
Report Date: 3/10/2014
Final Job Status: G/
Final Report? Y

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 22
Report Date: 3/11/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/11/2014 06:00	3/12/2014 06:00	1,528,513.13	12,668,328.36	1,056.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-29	Ice Pad / Snow Covered

Last 24hr Summary
Pressure test coil tbg, run in and drill out isolation Bridge Plugs

24hr Forecast
] out Coil Tbg and Prepare for E line Operation.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	Well site supervisors shift change
06:00	06:30	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding Rig in Coi tbg equipment, drill out procedures and equipment moving.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 22
Report Date: 3/11/2014
Final Job Status: GA
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	15:30	9.00	P	Pressure test Coil tubing lube and injector low 1.5mPa for 15 min (Good test), pressure test high 51 mPa and seen slight bleed off, and noticed a leak, bled back pressure and inspect connections on lube. Applied heat to the lube to heat rubbers. Pressure test Coil tubing lube and injector low 1.5 mPa for 15 min (good test), pressure test high 51 mpa (Good test), Pull test coil tbg connector to 8,900daN, pressure test connector to 35MPa. Good tests. Remove lube from quick test sub and lower to the ground and installed drilling equipment as follows: - Connector assembly, Dimple F/2 CT - 73mm (2 7/8") Rugged Motorhead Assembly - c/w dual flapper check valve - Hydraulic disconnect (1 1/8" ball seat) - 4 steel pin - 35MPa -Circ Sub (1" ball seat / 6 shear pins) - with ball 21MPa, without ball 42MPa - 73.0mm (2 7/8") Bi-Directional Ultra Jar -Max Overpull : 14 270daN (32,000lbf) -Max Overpush: 14,270daN (32,000lbf) -Torsional Yield 367 daNm (2,700 ft-lbs) -Max lift after jarring: 195,000 lbf -Pump open area: 2.3in² -Stroke: 304.8mm (12") -73.0mm (2 7/8") Rugged Disconnect c/w 7/8" ball, 4 pin 4800psi. - 73.0mm (2 7/8") Powerplus Motor - 5:6 Lobe; 4.7 Stage - Flow Range: 190-473 LPM - Revs per Unit Volume: 1 rev/l - Speed 188 - 470 rpm - No load pressure: 390kpa - Max Diff Pressure: 7033.5KPa - Torwue (@ Max Pressure): 646 ft/lbs -96.0mm 5 Blade Concave Mill c/w 5-10mm water ports. Rig onto wellhead, pressure test quick test sub to 50MPa. good test. Break circulation to tester's and RIH. With coil @ 60mKB function test motor as follows: - 200lpm @ 9946KPa - 300lpm @ 19382KPa - 400lpm @ 28722KPa Continue in the hole with coil to drill out bridge plugs # 1 thru #9
15:30	18:00	2.50	P	Tag and drill out Bridge plug's as follows: B.P #1 - 2332.65mKB (2325.9mKB CT depth) - (10min to drill out), run in and tag plug #2. Pump 1m³ Gel sweep, 2m³ spacer and 1m³ Gel sweep, continue to next plug. B.P #2 -2429.65mKB (2422.1mKB CT depth) - (21min to drill out), run in and tag plug #3. Pump 1m³ Gel sweep, 2m³ spacer and 1m³ Gel sweep, sweep up to 1920,0mKB (30°), run in and tag plug #3
18:00	18:00		P	Well site supervisors shift change
18:00	18:30	0.50	P	Safety and procedural meeting with all on location regarding daily activites. Conduct CPC PJHA regarding Rig in Coi tbg equipment, drill out procedures and equipment moving.
18:30	21:00	2.50	P	Continue to tag and drill out Bridge plug's as follows: B.P #3 - 2526.65mKB (2517.1mKB CT depth) - (31min to drill out), run in and tag plug #4. Pump 1m³ Gel sweep, 2m³ spacer and 1m³ Gel sweep, continue to next plug. B.P #4 -2623.65mKB (2615.0mKB CT depth) - (30min to drill out), run in and tag plug #5. Pump 1m³ Gel sweep, 2m³ spacer and 1m³ Gel sweep, sweep up to 1920,0mKB (30°), run in and tag plug #5.
21:00	00:30	3.50	P	B.P #5 -2681.65mKB (2673.3mKB CT depth) - (15min to drill out), run in and tag plug #6. Pump 1m³ Gel sweep, 2m³ spacer and 1m³ Gel sweep, continue to next plug. B.P #6 -2741.65mKB (2732.9mKB CT depth) - (31min to drill out), run in and tag plug #7. Pump 1m³ Gel sweep, 2m³ spacer and 1m³ Gel sweep, sweep up to 1920,0mKB (30°), run in and tag plug #7.
00:30	04:30	4.00	P	B.P #7 -2833.65mKB (2824.8mKB CT depth) - (15min to drill out), run in and tag plug #8 Pump 1m³ Gel sweep, 2m³ spacer and 1m³ Gel sweep, continue to next plug. B.P #8 - 2930.65mKB (2920.9mKB CT depth) - (35min to drill out), run in and tag plug #9. Pump 1m³ Gel sweep, 2m³ spacer and 1m³ Gel sweep, sweep up to 1920,0mKB (30°), run in and tag plug #9.
04:30	06:00	1.50	P	B.P #9 - 3030.65mKB - (3021.1mKB CT depth) - (1hr 24min to drill out),Pump 1m³ Gel sweep, 2m³ spacer and 1m³ Gel sweep.
06:00	06:00		P	Well site supervisors shift change

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 22
Report Date: 3/11/2014
Final Job Status: GAS
Final Report? Yes

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	154.00			7,919.81

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,880.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,960.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,960.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,720.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,520.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,210.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	2,025.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	23,520.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	16,415.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	22,560.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	22,560.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,420.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,495.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
rvice Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Service Rig	HRN CONTRACTING LTD	E120	2,000.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Service Rig	HRN CONTRACTING LTD	E120	1,970.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	5,790.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Service Rig	NABORS PRODUCTION SERVICES LTD	E120	11,588.76
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	34,400.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	4,500.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Fracture Stimulation Services	PROTECHNICS - CORE LABS	N110	21,817.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	N110	888,680.33
Service Rig	SCHLUMBERGER CANADA LIMITED	E120	74,626.00
ctric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	20,000.00
cture Stimulation Services	SCHLUMBERGER CANADA LIMITED	N110	262,800.40
Completion Fluids & Other Chem	TERVITA CORP	G300	4,500.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA	M220	12,486.64
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 22
Report Date: 3/11/2014
Final Job Status: GA
Final Report? Y

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 23
Report Date: 3/12/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/12/2014 06:00	3/13/2014 06:00	319,775.19	12,988,103.55	1,056.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-27	Ice Pad / Snow Covered

Last 24hr Summary
Pull out of hole with coil tbg, displace with N^2 and prep coil for transport, rig in E-line, Run in hole with 96.5mm guage ring

24hr Forecast
Complete prep work & get ready to move in service rig & supporting equipment.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all Day personnel, review PJHA and discuss hazards associated with pulling coil, N^2 purging, Methanol (MSDS Locations), rigging out tank farm containment and lifting 400bbl tanks with crane.
06:30	10:30	4.00	P	Run in the hole with coil tbg, tag PBTD @ 3123.0 mKB, pull up to 3110.0mKB (no drag), run back into 3121.0 (no tag), pull up to 3119.0mkB. Pump $1m^3$ Gel, $2m^3$ Spacer and $1m^3$ Gel sweep, cwait for sweep to reach nozzle and pull out of the hole chasing gel to surface, pump $1m^3$ gel, $2m^3$ fresh water spacer, $1m^3$Gel spacer @ 1920mKB (30°), wait for gel to reach nozzle and chase gel to surface. (slight trace of sand in returns with gel to surface).
10:30	14:30	4.00	P	Pump $3m^3$ 60% methanol/water into coil string, shut in master valve and bleed off pressure. Break lubricator connection and hoist injector and lubricator off of wellhead, lower tool string, break down and lay out tool string. Displace coil tbg with nitrogen, close 4 1/16" master valve. Bullhead $24m^3$ fresh water at a rate of $1.20m^3$/min - 5,300KPa, Swich to 60% meth / water and pump $3m^3$ to winterize wellbore. Rig off injector and lubricator, remove Bop's and prep frachead for E-line.
14:30	18:00	3.50	P	Install E-line's Bop's, pick up lubricator and toolstring, stab on lubricator, pressure test bop's and lubricator to 1.5 + 35MPa for 15min each test. solid test. Run in the hole with 96.5mm guage ring, run down to 2060mKB (no weight loss) Pull out of the hole (no overpull off bottom).
18:00	18:00		P	WSS shift Change.
18:00	19:45	1.75	P	Continue to P.O.O.H with Guage Ring, Junk basket was clean.
19:45	23:15	3.50	P	Made up the packer B.H.A: 60.3mm 'PMP"pump-out plug w/ 6 pins @3613kPa each (21678kPa total shear.) Length 0.12m 60.3mm J-55 pup. length 0.65m 60.3mm WXN nipple with 47.63 otis 'XN' profile. length 0.32m 60.3mm 'NFT' extended slick jt c/w 47.63mm otis 'X' profile. length 1.13m Made up on to e-line setting tool and R.I.H., Correlate on depth at liner top (-1.65m out). Continue to R.I.H to 2045m. Pulled strip & correlated to CCL log - collar @ 2023.1 mKB. Positioned CCL @ 2018.35mKB (Packer C/E @ 2026.0mKB). Set the packer, Pulled up10m, R.I.H tagged packer. P.O.O.H with E-line & layed down the lubricator.
23:15	23:45	0.50	P	Took the well pressure, Well on vacume,monitored the pressure for 30min.
23:45	02:00	2.25	P	Rigged out E-line, Coil Tbg.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 23
Report Date: 3/12/2014
Final Job Status: GAS
Final Report? Y(

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
02:00	06:00	4.00	P	Held pre job meeting with all services, Rigged lines off the wellhead,Rigged out the out the HD workfloor, Removed the Frac head & re- tarped in the wellhead.
06:00	06:00		P	WSS Shift Change

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	60.00			7,919.81

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Fracture Stimulation Services	CANOL OILFIELD SERVICES INC	N110	30,000.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,300.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,190.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,410.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,860.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	2,025.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,495.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.(
Service Rig	CONOCO	E120	40,086.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Service Rig	HRN CONTRACTING LTD	E120	2,000.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Service Rig	HRN CONTRACTING LTD	E120	1,970.00
Maintain Road & Location	HRN CONTRACTING LTD	D230	5,660.90
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Service Rig	NABORS PRODUCTION SERVICES LTD	E120	14,582.04
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	3,570.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Service Rig	SCHLUMBERGER CANADA LIMITED	E120	60,876.(
Fishing / Milling Services	SCHLUMBERGER CANADA LIMITED	S500	31,526.
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	31,984.81
Electric Line Servs on Drilling Ops.	SCHLUMBERGER CANADA LIMITED	K100	12,555.04
Completion Fluids & Other Chem	TERVITA CORP	G300	3,360.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA	M220	11,678.92

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 23
Report Date: 3/12/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 24
Report Date: 3/13/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/13/2014 06:00	3/14/2014 06:00	388,565.57	13,376,669.12	1,088.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-25	Ice Pad / Snow Covered

Last 24hr Summary: MIRU Service Rig & Supporting Equipment.

24hr Forecast: I.H w/ Jet Pump B.H.A

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Handover and shift change
06:00	06:30	0.50	P	Hold Safety meeting, Review PJHA and discuss hazards associated with; rigging out equipment, suspended loads, load securement, and expectations regarding housekeeping.
06:30	11:30	5.00	P	Organize services to rig out and move around equipment as needed to prep for Service Rig arrival. - Rig out all 10k x 3" testing Iron - Rig out and remove 10k x 3" junk catcher, re-position manifold and swap out 10k manifold for 5k x 2" test manifold - Position line heater in preperation for rig in - Rig out and lay over 2x flare stacks, prep to move for installation of additional swamp mats prior to flow testing. - Re-locate IES frac head and associated equipment to side of location - Haul out Schlumburger tool shack (Blue Whale), re-locate all work boxes to water well staging area (km 40.5) - Move out E-line BOP skid and all associated equipment to water well staging area (km 40.5) - Start hauling out 400bbl tanks to water well staging area (km 40.5) to allow enough room for rig tank and pump. - Haul in 200 x swamp mats and unload in preperation for flare coverage. Offload and haul out 90m³ water from flow back farm to Tervita in Rainbow Lake (Longway Transport)
11:30	12:00	0.50	P	Service Rig Equipment starting to arrive on location from N-20. Hold safety meeting with Service Rig personnel and Rig movers, review PJHA and discuss associated hazards; moving equipment (use of spotters), loading and unloading equipment, heavy loads, road regulations abd radio usage, spotting plan.
12:00	14:00	2.00	P	Conduct walk around inspection and form spotting plan with WSS and Tool push, Spot matting for service rig, pump and tank. Spot all rig equipment as per NEB, CPC and Nabors policies and procedures.
14:00	14:30	0.50	P	Hold Pre-rig in safety meeting with all personnel, review PJHA and discuss hazards associated with standing and securing mast, riggin in associated equipment and well conditions and parameters. Check all personnel's safety tickets and orientations. All Tickets held and valid.
14:30	18:00	3.50	P	Conduct Mast inspection, raise and secure mast, spot hydraulic catwalk and pipe racks, position junk box, rig in stairs and all handrails. Rigid on location with mobile hydraulic spooler, spot spooler in place and position office trailer for Weatherford Data technician. Run accumulator lines and pump lines, fill rig tank with 15m³ fresh water. Begin to load tbg onto pipe racks with loader.
18:00	18:00		P	WSS handover and crew change.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 24
Report Date: 3/13/2014
Final Job Status: GA
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:00	02:00	8.00	P	Held Safety meeting, Reviewed P.J.H.A meeting with all services,continued to rig in Service rig equipment, function & stump tested B.O.P's. (1.4 MPa low - 34.5MPa high on each component for 15min each test.) Test Good. Bled off Csg pressure(145KPa) & Intermediate Csg Pressure (10,000 KPa), Landed the tbg hanger w/ back pressure valve in place, Removed 7 1/16 10K gate valve.
02:00	04:00	2.00	P	Installed adapter flange & B.O.P.'s, Re-pressure tested the B.O.P's, (1.4MPa low - 34.5 MPa high for 15 min each test). Test good.
04:00	06:00	2.00	P	Rigged in the workfloor & Tbg handling equipment.
06:00	06:00		P	WSS & crew change.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	187.82			7,919.81

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	32,040.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,630.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	2,025.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,495.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Surface Completion Equipment Rental	CONLEYMAX INC	Q300	27,661.[illegible]
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Service Rig	HRN CONTRACTING LTD	E120	2,000.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Service Rig	HRN CONTRACTING LTD	E120	1,970.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	5,790.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	27,506.79
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	27,506.79
Service Rig	NABORS PRODUCTION SERVICES LTD	E120	12,995.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	20,400.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	20,400.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	3,570.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	20,400.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.[illegible]
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.[illegible]
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Service Rig	SCHLUMBERGER CANADA LIMITED	E120	112,095.00
Completion Fluids & Other Chem	TERVITA CORP	G300	4,500.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA	M220	13,996.42

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 24
Report Date: 3/13/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
[illegible]9/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
[illegible]/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
[illegible]0/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 25
Report Date: 3/14/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/14/2014 06:00	3/15/2014 06:00	245,585.40	13,622,254.52	456.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-26	Ice Pad / Snow Covered

Last 24hr Summary
Made up Bha, Installed guages in guage carriers, tie in TEC lines, pressure test and perform function tests. Good tests. Run in the hole with tbg, Securing cables with Canon Guards and stainless strapping.

ır Forecast
ontinue to run in the hole with tbg, Securing cables with Canon Guards and stainless strapping.
Nipple up aStream Flow 7-1/16" 10K x 2- 1/16" production wellhead tree.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change and handover.
06:00	06:30	0.50	P	Conduct Safety meeting and PJHA Review, discuss hazards associated with making up Bha, testing Equipment, Running in the hole, installing Straps and Canon Guards.
06:30	16:30	10.00	P	Picked up BHA. Torqued all connections to spec and lined up gauge mandrels. Lined up blanked side of sliding sleeve for control lines. BHA (Bottom to top): 1 - Weatherford On-Off tool (Extended No Jay c/w nitrile seals) 1 - Joint 60.3mm J-55 EUE 6.99kg/m tubing 1 - X profile nipple (47.63mm seal bore - WX - SN# 53833188) 1 - 2.47m 60.3mm J-55 EUE pup joint (slim hole collar) 1 - 1.56m 60.3mm L-80 Gauge carrier (slim hole collar) - SN#WGDXBRT8005539 2/4) 1 - 3.06m 60.3mm J-55 EUE pup joint (slim hole collar) 1 - 1.56m 60.3mm L-80 Gauge carrier (slim hole collar) - SN#WGDXBRT8005539 3/4) 1 - 3.09m 60.3mm J-55 EUE pup joint (slim hole collar) 1 - 60.3mm CXU Weatherford sliding sleeve (47.63mm X profile in top / shift up to open) 1 - 1.24m 60.3mm J-55 EUE pup joint Installed gauge #1 into the bottom gauge carrier. Wrapped gauge with tarp and used steam heater to apply heat. Readied pressure testing equipment. Connected laptop to gauge and monitored temperature. Once temperature steadied out at 15°c pressure test was started. Pressure tested seal between gauge and mandrel: low 10340 kPa / high 51700 kPa. Both tests held solid for 15 minutes. Performed a TRD (Time Domain Reflectometer) test on cable. Good. Ran BHA down to second gauge madrel (3 bands installed on 10' pup inbetween mandrells). Removed protective coating on cable. Installed cable from bottom gauge into slot in the side of top gauge mandrell and secured. Installed gauge #2 into top gauge mandrell. Heated up gauge and begun pressure test. Pressure tested seal between gauge and mandrel: low 10340 kPa / high 51700 kPa. Both tests held solid for 15 minutes. Performed a TRD (Time Domain Reflectometer) test on cable. Good.
16:30	18:00	1.50	P	Start to run in hole 60.3mm/6.99kg/m/J-55 tubing, BHA and TEC line. Rigid installing 1 Canon clamp acoss each tubing connection. Weatherford tech testing resistance and gauges on way in hole.
18:00	18:00		P	WSS Shift Handover & Crew Change.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 25
Report Date: 3/14/2014
Final Job Status: GA
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:00	06:00	12.00	P	Held P.J.H.A meeting with all services, Performed 10 min bubble test on S.C.V, Continue to run in hole 60.3mm/6.99kg/m/J-55 tubing, BHA and TEC line. Rigid installing 1 Canon clamp acoss each tubing connection. Weatherford tech testing resistance and gauges on way in hole.
06:00	06:00		P	WSS Shift Handover & Crew Change.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	97.00			7,919.81

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,060.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,930.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,960.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,810.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,930.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,920.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	P100	2,060.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,585.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,025.00
Service Rig	CANOL OILFIELD SERVICES INC	Q300	2,585.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	1,970.0
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	E120	1,310.0
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,245.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CONOCO	E120	40,086.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Completion Fluids & Other Chem	ENZO ENERGY SERVICES - 1521872 AB	Q300	215.00
Completion Fluids & Other Chem	ENZO ENERGY SERVICES - 1521872 AB	G300	17,745.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	G300	19,705.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Maintain Road & Location	HRN CONTRACTING LTD	Q300	50.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	D230	240.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	Q300	500.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	P100	1,000.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Service Rig	NABORS PRODUCTION SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	E120	19,022.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	G300	3,570.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	1,000
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	500.00
Completion Fluids & Other Chem	TERVITA CORP	G300	6,917.40

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 25
Report Date: 3/14/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,965.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 26
Report Date: 3/15/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/15/2014 06:00	3/16/2014 06:00	1,100,596.83	14,722,851.35	456.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-18	Ice Pad / Snow Covered

Last 24hr Summary
Continue running in hole with 60.3mm tbg c/w TEC cable, installing straps, Canon Guards and testing as per Weatherford Tech's on way in, spaced out tbg, stripped TEC cables through tbg hanger (installing ferrule's), land tbg hanger with 7,000daN compression. Pressure test On/off and tbg hanger to 30,000KPa for min. Good Test. Rig out work floor and auxiliary equipment, strip off Bop's.

24hr Forecast
MIRU Slickline,shift sleeve,pump off plug, run recorders. Swab/Flow the well.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS handover and shift change.
06:00	06:30	0.50	P	Pre-job safety meeting, review PJHA and discuss hazards associated with Tripping tbg c/w TEC cables, installing canon guards and strapping, working with steam, moving equipment, and pressure testing.
06:30	14:00	7.50	P	Serviced rig equipment. Functioned crown saver and E-kills. Continued to run in hole Weatherford BHA c/w real time down hole gauges and dual control cables to surface. Tested cable restisance every 30 minutes and temerature/pressure every hour. All tests were good. Canon clamps were installed over every tubing collar. Slid over top of extended neck slick joint 2.33m in on joint #210. Set down 7000 daN onto packer and marked tubing. Pulled up and off packer and re-tagged in the same spot. Pulled tag joint and 1 more. Installed a 1.24m pup and 2x spacer nipples. Re ran joint # 210 and installed tubing hanger.
14:00	16:00	2.00	P	Lowered sheave out of the derrick and removed cables. Cut cables with 16' slack above tubing hanger. Stripped off protective coating from cable. Installed 12.7mm LP feral fittings onto cables (top and bottom of tubing hanger) and threaded the cables through the tubing hanger. Banded cables up to the bottom of the tubing hanger and then tightened Feral fittings. Landed the tubing hanger with 7000daN compression on packer.
16:00	17:00	1.00	P	Pumped down the casing and pressure tested the packer and On-off seals to 30000 kPa. Pressure held solid for 15 minutes. Good test. Started to rig out work floor and equipment.
17:00	18:00	1.00	P	Install Two way check valve, Strip off Bop's and 10k - 5k Dsi, visually inspect orientation of TEC lines, need to turn 1/16th of a turn counter clockwise, un-lag lock down screws, elevate tbg string and rotate string 1/16th of a turn counter clock wise, re-land and lag up lock down screws. Strip on wellhead adapter over TEC Lines and visually inspect orientation. Looks good, nipple up Wellhead adapter. Weatherford TEC Techs install high pressure Ferrule's on adapter.
18:00	18:00		P	WSS handover and shift change.
18:00	01:00	7.00	P	Held P.J.H.A meeting with all services, Weatherford TEC Techs continued to install high pressure Ferrule's on adapter & test the lines. Installed the wellhead, Rigged in the workfloor. Pressure tested the Primary & Secondary seals (1.4MPa low - 32MPa high) 15 min each test.test good, Pre-heated the wellhead,Pressure tested the wellhead (1.4MPa low - 32 Mpa high) 15 min each test. Test good.Removed the tbg back pressure valve. secured the wellhead.
01:00	06:00	5.00	P	Rig crew tarped in the wellhead, drained pump lines & suction, performing maintenance on equipment. Testers finishing rigging in & getting ready for flow test.
06:00	06:00		P	WSS handover & shift change.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 26
Report Date: 3/15/2014
Final Job Status: G
Final Report? Y

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	0.00	31.00			7,919.81

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	7,185.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,660.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,930.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,140.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,410.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	P100	3,110.00
Service Rig	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	E120	1,970.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,245.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	Q300	215.00
Downhole Completion Equipment	HALLIBURTON GROUP CANADA	T430	0.00
Safety Equipment & Services	HODGSON'S CONTRACTING (2005) LTD	C100	53,060.
Service Rig	HRN CONTRACTING LTD	T430	141,847.82
Surface Completion Equipment Rental	HRN CONTRACTING LTD	E120	2,000.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Service Rig	HRN CONTRACTING LTD	Q300	50.00
Maintain Road & Location	HRN CONTRACTING LTD	E120	1,970.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	D230	1,882.20
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	Q300	500.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	P100	1,000.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	MYB CONSTRUCTION LTD	T130	1,595.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	Q300	20,700.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	30,250.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	30,250.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	30,250.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	30,250.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	30,250.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	30,250.00
Service Rig	NABORS PRODUCTION SERVICES LTD	G300	3,510.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	E120	19,022.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	3,570.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	24,852.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	G300	24,852.00
Completion Fluids & Other Chem	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	G300	40,000.0
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.0
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	137,880.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	5,030.81
		Q300	877.07

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 26
Report Date: 3/15/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10,500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	5,625.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	52,200.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	21,000.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	4,050.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	64,020.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	7,500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	44,100.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	18,000.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	191.66
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	9,000.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	22,800.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	1,363.81
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	7,500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	2,250.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	7,500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	6,000.00
Completion Fluids & Other Chem	TERVITA CORP	G300	2,503.20
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Downhole Completion Equipment	WEATHERFORD CANADA	C100	41,111.84
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	21,814.27
Downhole Completion Equipment	WEATHERFORD CANADA PARTNERSHIP	C100	9,015.97
Downhole Completion Equipment	WEATHERFORD CANADA PARTNERSHIP	C100	13,383.01

CUMULATIVE JOB FLARED GAS BY ZONE

ne	Volume Gas Total (E3m³)
ANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 26
Report Date: 3/15/2014
Final Job Status: GAS
Final Report? Y

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 27
Report Date: 3/16/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/16/2014 06:00	3/17/2014 06:00	119,267.45	14,842,118.80	456.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-19	Ice Pad / Snow Covered

Last 24hr Summary
Rigged on Weatherford wellhead outlet assembly for real time down hole gauges. Rigged in slickline. Ran 48.3mm GR to top of sliding sleeve at 2001.71mKB. Opened sliding sleeve. Rig on and pressure test service rig pump line to tubing. Pressure up tubing and pump off PPMP plug on bottom of tubing. (22MPa to ear).RIH slickline with 47.63mm X-lock c/w instument hanger, shock absorber and bombwell. Bombwell containing 2- weatherford 10K gauges. Set in .63mm X profile nipple below gauge carriers @ 2014.29mKB. Rig out Slickline. Prepare to swab well with service rig.

24hr Forecast
Finish Configuring Scada Program/Flow the well

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change
06:00	06:30	0.50	P	Held a daily safety and operations meeting with all day shift personnel. Reviewed and discussed CPC PJHA regarding job scope and all associated hazards. All tickets checked and valid. Performed cross shift with night crews.
06:30	13:30	7.00	P	Weatherford gauge techs installed the wellhead outlet assembly into tbg and csg outlets on wellhead. Performed a TDR test on cables. Good. String out cables to Remote stand (real time). All work finished on wellhead, safe to rig in slickline.
13:30	14:00	0.50	P	Conduct PJHA meeting with all personnel regarding Slickline Ops, Pressure testing and circulating to confirm sleeve open.
14:00	14:30	0.50	P	Rin in slickline Bop's and lubricator (34.5MPa pressure rated).Purge with n^2 and Pressure test Slickline pressure control equipment to 1.5 + 34.5MPa for 15 min each test. Good Test.
14:30	16:30	2.00	P	Performed the following slickline runs (lubricator purged and tested with N2 before each run): 1. Ran in hole with a 48.3mm gauge ring. Tagged the top of the the sliding sleeve at 2001.71mKB (2003.4mKB slickline depth). Pulled out of the hole. Gauge ring ran in and out of the hole smoothly. 2. Ran in hole with a 50.8mm XO sleeve shifting tool. Located SS at 2001.71mKB. SITP - 500KPa, Spanged up 7 times and sleeve opened. Tubing pressure dropped 400 kPa. Ran XO tool up and down 4 times through sliding sleeve and did not locate. Pulled out of the hole.
16:30	17:00	0.50	P	Shut in tester's (Tbg line) at manifold and pumped down the csg to blow out Tbg End Plug and confirm sliding sleeve was open. Applied 22,013KPa and seen the end plug go. Pressure dropped to 1,500KPa on csg and tbg. Pull out of the hole with slickline. Check pressures SITP - 1,500KPa, SICP - 1,450KPa. Open up both sides to bleed off applied pressure, pressure bled down to 0 with a steady trickle to the tester's. (Approx $1m^3$ recovered from bleed off). Shut in both sides and monitor pressure. After 5min SITP - 1,500KPa, SICP 1,300KPa.

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Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 27
Report Date: 3/16/2014
Final Job Status: GA
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
17:00	18:00	1.00	P	Make up weatherford gauges, install in bombwell make up rest of tool string as follows: top down - 2" X -line running tool -47.63mm X lock c/w instrument hanger -Shock abosorber and bombwell. Bombwell contains 2- Weatherford 10K gauges. Bottom Primary SN 8955, Top Secondary SN 8954 All connections were locktighted. Purge and pressure test lube with nitrogen. Open well @ 17:12 pm. RIH 100m/min, perform pull test (ok). Ran through sliding sleeve with no issues down to 47.63mm X profile nipple below gauge carriers @ 2014.29 mKB. 17:42pm gauges landed in X profile nipple @2014.29mKB POOH and rig out Opsco wireline. Was not able to confirm a fluid level.
18:00	18:00		P	WSS shift change
18:00	18:30	0.50	P	Held a daily safety and operations meeting with all night shift personnel. Reviewed and discussed CPC PJHA regarding job scope and all associated hazards. All tickets checked and valid. Performed cross shift with day crews.
18:30	06:00	11.50	P	1/2 Hr readings. Time B.H.P TBG Pressure CSG Pressure 18:00 Hrs 20513 KPa 18:30 Hrs 20471 KPa 19:00 Hrs 20479 KPa 1608 KPa 1584 KPa 19:30 Hrs 20474 KPa 1569 KPa 1579 KPa 20:00 Hrs 20450 KPa 1545 KPa 1581 KPa 20:30 Hrs 20449 KPa 1544 KPa 1585 KPa 20:30 - 21:00 Weatherford Tech performing softwear configuration. Continued to take 1/2 Hr readings. 21:00 Hrs 20447 KPa 1543 KPa 1583 KPa 21:30 Hrs 20604 KPa 1477 KPa 1572 KPa 22:00 Hrs 20606 KPa 1528 KPa 1575 KPa 22:30 Hrs 20584 KPa 1557 KPa 1584 KPa 23:00 Hrs 20558 Kpa 1557 KPa 1574 KPa 23:30 Hrs 20596 KPa 1543 KPa 1568 KPa 00:00 Hrs 20596 KPa 1515 KPa 1571 KPa 00:30 Hrs 20590 KPa 1557 KPa 1578 Kpa 01:00 Hrs 20588 KPa 1554 KPa 1572 KPa 01:30 Hrs 20588 KPa 1567 KPa 1568 Kpa 02:00 Hrs 20552 KPa 1552 KPa 1562 KPa 02:30 Hrs 20582 KPa 1527 KPa 1561 KPa 03:00 Hrs 20431 Kpa 1555 KPa 1579 KPa 03:30 Hrs 20434 KPa 1570 KPa 1570 KPa 04:00 Hrs 20436 Kpa 1570 KPa 1556 KPa 04:30 Hrs 20434 KPa 1570 KPa 1582 KPa 05:00 Hrs 20431 KPa 1586 KPa 1571 KPa 05:30 Hrs 20432 KPa 1586 KPa 1576 KPa 06:00 Hrs 20424 KPa 1573 KPa 1566KPa
06:00	06:00		P	WSS shift change
06:00	06:00		P	

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	0.00	0.00	0.00	7,919.81

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Pressure Truck/Hot Oiler	CANOL OILFIELD SERVICES INC	S990	3,500.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,245.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	21,670.0
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.0
Slickline Services	CORNERSTONE OILFIELD SERVICES LTD	U200	7,500.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00

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DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Safety Equipment & Services	FRONTIERMEDEX CANADA LTD/ EXLOGS SAHTU LTD	T430	0.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Service Rig	HRN CONTRACTING LTD	E120	1,970.00
Maintain Road & Location	HRN CONTRACTING LTD	D230	80.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Service Rig	NABORS PRODUCTION SERVICES LTD	E120	18,522.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	20,215.00
Downhole Completion Equipment	WEATHERFORD CANADA PARTNERSHIP	C100	2,400.00
Downhole Completion Equipment	WEATHERFORD CANADA PARTNERSHIP	C100	14,236.45

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing

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PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

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WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/17/2014 06:00	3/18/2014 06:00	162,912.96	15,005,031.76	456.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-19	Ice Pad / Snow Covered

Last 24hr Summary

Worked on SCADA and Weatherford real time data acquisition equipment until data communication was confirmed.

Open well @ 11:45a.m. on 12.70mm choke.

06:00 - 18 HRS 15 MIN - FLOWING HZ CANOL FOR CLEAN UP / EVALUATION - 9 HRS 30 MIN FLARE

FTP: 2150 kPa,SICP: 306 kPa,DHP= 18965 kPa,Intermediate CSG = TSTM,Flow Temp: 41 °c,Meter Run Temp: 43 °c,Choke size: 12.7 mm,Gas Rate: 2.70 E³m³/d,Gas to Flare last 6 hrs: 1.22 E³m³,Cumulative Gas to Flare: 5.17 E³m³,LFTR: 7919.81m³,LFR last hour: 8.94 m³,LFR last 6 hours: 50.90 m³ (hourly average last 6, hours = 8.48 m³/hr),LFR: 144.97 m³,TLFLTR: 7774.74m³,Oil rec. last hour: 0.00m³,Oil rec. last 6 hours: 0.00m³,Cumulative Oil rec: 00.00m³,Salinity: 18000 ppm,PH: 7,sand: Trace,Surface Total = 94.61 m³,Api = N/A,Hrs Flowed = 18 HRS 15 MIN,H²S = 0.0 ppm

24hr Forecast

Continue To Flow Well

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:30	0.50	P	WSS Shift Change and Handover
06:30	07:00	0.50	P	Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release night crew and continue PJHA meeting with day personnel, discuss hazards associated with flowing / swabbing, proper purging, LEL monitoring and rigging in and out procedures.
07:00	12:00	5.00	P	

Time	B.H.P (KPa)	TBG Pressure (KPa)	CSG Pressure (KPa)	
06:30	20423.0	1578.0	1563.0	
07:00	20427.0	1568.0	1558.0	
07:30	20474.5	1567.0	1566.0	
08:00	20472.2	1570.0	1561.0	
08:30	20469.7	1572.0	1562.0	
09:00	20463.2	1574.0	1552.0	
09:30	20384.0	1569.0	1557.0	
10:00		1575.0	1558.0	(No B.H.P due to adjustments being made to system)
10:30	20462.8	1569.0	1556.0	
11:00	20516.3	1563.0	1550.0	
11:30	20486.3	1558.0	1542.0	

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Start Time	End Time	Dur (hr)	Time P-T-X	Operation
12:00	14:00	2.00	P	Open up well to tester's Low Stage Vessel on 12.70mm (32/64") choke; Opening Pressures / Vol: Downhole Press - 20513.8 KPa SITP - 1554.0 KPa SICP - 1557.0 KPa TLFLTR : 7919.81m³ 11:46 (fluid to surface) 11:50 FTP: 653 KPa / SICP: 1331 KPa 11:55 FTP: 626 KPa / SICP: 1294 KPa 12:00 FTP: 603 KPa / SICP: 1271 KPa 12:15 FTP: 671 KPa / SICP: 1250 KPa 12:17 Bottoms up recovered (4.66m³) 12:30 FTP: 813 KPa / SICP: 1250 KPa 12:45 FTP: 748 KPa / SICP: 1224 KPa 13:00 FTP: 747 KPa / SICP: 1206 KPa 13:00 Flow summary (1.25 Hours flowed) FTP: 747 KPa SICP: 1206 KPa Flow Temp: 37°c Meter Run Temp: 21°c Choke size: 12.70mm Gas Rate: 0.00 E³m³/d Cumulative Gas to Flare: 0.00 E³m³ LFTR: 7919.81m³ LFR last hour: 6.66m³ LFR last 6 hours: 8.91m³ TLFR: 8.91m³ TLFLTR:7910.90 m³ Oil rec. last hour: 0.0m³ Oil rec. last 6 hours: 0.0m³ Cumulative Oil rec: 0.0m³ Salinity: 17000 ppm PH: 5 Sand: none
14:00	18:30	4.50	P	18:00 - HRS FLOWING HZ CANOL FOR CLEAN UP / EVALUATION - 6 HRS 15 MIN FTP: 788 kPa SICP: 935 kPa DHP= 9633 kPa Intermediate CSG = TSTM Flow Temp: 32°c Meter Run Temp: 11°c Choke size: 12.70mm Gas Rate: 1.73 E³m³/d Cumulative Gas to Flare: 0.13 E³m³ Cumulative Gas to Flare last 6 hrs: 0.13 E³m³ LFTR: 7919.81m³ LFR last hour: 4.66m³ LFR last 6 hours: 45.92m³ (hourly average last 6 hours = 7.65 m³/hr) TLFR: 45.92m³ TLFLTR: 7873.89m³ Oil rec. last hour: 0.00m³ Oil rec. last 6 hours: 0.00m³ Cumulative Oil rec: 00.00m³ Salinity: 19000ppm PH: 6 Sand: Trace Surface Total = 82.97m³ Api = N/A Hrs Flowed = 6.25 H²S = 0.0 ppm
18:30	18:30		P	WSS Shift Change

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Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 - 12 HRS 15 MIN - FLOWING HZ CANOL FOR CLEAN UP / EVALUATION - 3 HRS 30 MIN FLARE FTP: 1687 kPa SICP: 581 kPa DHP= 19229.4 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 42 °c Choke size: 12.7 mm Gas Rate: 7.35 E³m³/d Gas to Flare last 6 hrs: 3.87 E³m³ Cumulative Gas to Flare: 4.0 E³m³ LFTR: 7919.81m³ LFR last hour: 8.01 m³ LFR last 6 hours: 48.15 m³ (hourly average last 6 hours = 8.02 m³/hr) TLFR: 94.07 m³ TLFLTR: 7825.74 m³ Oil rec. last hour: 0.00m³ Oil rec. last 6 hours: 0.00m³ Cumulative Oil rec: 00.00m³ Salinity: 17000 ppm PH: 7 Sand: 0 Surface Total = 43.71m³ Api = N/A Hrs Flowed = 12 HRS 15 MIN H²S = 0.0 ppm
00:00	06:00	6.00	P	06:00 - 18 HRS 15 MIN - FLOWING HZ CANOL FOR CLEAN UP / EVALUATION - 9 HRS 30 MIN FLARE FTP: 2150 kPa SICP: 306 kPa DHP= 18965 kPa Intermediate CSG = TSTM Flow Temp: 41 °c Meter Run Temp: 43 °c Choke size: 12.7 mm Gas Rate: 2.70 E³m³/d Gas to Flare last 6 hrs: 1.22 E³m³ Cumulative Gas to Flare: 5.17 E³m³ LFTR: 7919.81m³ LFR last hour: 8.94 m³ LFR last 6 hours: 50.90 m³ (hourly average last 6 hours = 8.48 m³/hr) TLFR: 144.97 m³ TLFLTR: 7774.74m³ Oil rec. last hour: 0.00m³ Oil rec. last 6 hours: 0.00m³ Cumulative Oil rec: 00.00m³ Salinity: 18000 ppm PH: 7 Sand: Trace Surface Total = 94.61 m³ Api = N/A Hrs Flowed = 18 HRS 15 MIN H²S = 0.0 ppm
06:00	06:00		P	WSS Shift Change

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	0.00	109.00	0.00	144.97	7,774.84

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
...ce Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	465.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	2,025.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	17,704.00
Service Rig	CONOCO	E120	40,086.00

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Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	Q300	215.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,670.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Service Rig	HRN CONTRACTING LTD	Q300	50.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	E120	1,970.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	T130	1,100.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	P100	1,000.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Service Rig	NABORS PRODUCTION SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	E120	18,522.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	15.00
Completion Fluids & Other Chem	TERVITA CORP	Q300	18,223.95
Service Rig	TRIDENT OILFIELD SERVICES LTD	G300	8,840.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	E120	200.00
		M220	36,178

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

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3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
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3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing

Report Printed: 4/28/2014

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 29
Report Date: 3/18/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/18/2014 06:00	3/19/2014 06:00	467,177.72	15,472,209.48	336.00

Rig: RIGLESS, RIGLESS 1

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
2,163	288	Clear	-10	Ice Pad / Snow Covered

Last 24hr Summary

Flowed TBG to testers, Rigged out service rig, Continued flowing to testers
06:00 = 41hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 38 hrs 30 min FLARE
3721 kPa, SICP:1349 kPa, DHP=18029 kPa, Intermediate CSG = TSTM kPa, Flow Temp: 29 °c, Meter Run Temp: 41 °c
Choke size: 12.7 mm, Gas Rate: 15.20 E^3m^3/d, Gas to Flare last 6 hrs: 3.30 E^3m^3, Cumulative Gas to Flare:13.11E^3m^3
LFTR: 7919.81m^3, LFR last hour: 8.57 m^3, LFR last 6 hours: 55.72 m^3 (hourly average last 6 hours = 9.28 m^3/hr), TLFR: 349.34 m^3
TLFLTR: 7570.47 m^3, Oil rec. last hour: 0.00m^3, Oil rec. last 6 hours: 0.00m^3, Cumulative Oil rec: 00.00m^3, Salinity: 22000 ppm
PH: 7, Sand: Trace, Surface Total = 65.05 m^3, Api = N/A, Hrs Flowed = 41 HRS 30 MIN, H^2S = 0.0 ppm

24hr Forecast

Continue To Flow Well to testers

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00	0.00	P	WSS Shift Change
06:00	06:30	0.50	P	Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release night crew and continue PJHA meeting with day personnel, discuss hazards associated with flowing / swabbing, proper purging, LEL monitoring and rigging in and out procedures.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 29
Report Date: 3/18/2014
Final Job Status: C
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	07:30	1.00	P	Shut in well @ 10:45 Rigged out rig and equipment surounding the well head Pressure before shut in: CSG= 107 kPa TBG= 2186 kPa DH= 18723 kPa Openned TBG back up to testers @11:30 Before openning the TBG shut in pressure: CSG= 478kPa TBG= 3335 kPa DH= 19168.30 kPa 12:00 = 23hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 14 hrs 45 min FLARE FTP: 201 kPa SICP: 249 kPa DHP= 18843.4 kPa Intermediate CSG = 15,000 kPa Flow Temp: 38 °c Meter Run Temp: 33 °c Choke size: 38.1 mm Gas Rate: 0.46 E^3m^3/d Gas to Flare last 6 hrs: 1.10 E^3m^3 Cumulative Gas to Flare: 6.27 E^3m^3 LFTR: 7919.81m^3 LFR last hour: 3.52 m^3 LFR last 6 hours: 46.90 m^3 (hourly average last 6 hours = 7.81 m^3/hr) TLFR: 191.87 m^3 TLFLTR: 7727.94m^3 Oil rec. last hour: 0.00m^3 Oil rec. last 6 hours: 0.00m^3 Cumulative Oil rec: 00.00m^3 Salinity: 19000 ppm PH: 7 Sand: Trace Surface Total = 42.81 m^3 Api = N/A Hrs Flowed = 18 HRS 15 MIN H^2S = 0.0 ppm
07:30	12:30	5.00	P	

Time	B.H.P (KPa)	TBG Pressure (KPa)	CSG Pressure (KPa)
06:30	18927.9	2163	283
07:00	18912.4	2209	264
07:30	18894.1	2230	212
08:00	18856.0	2223	217
08:30	18848.1	2216	190
09:00	18826.0	2201	176
09:30	18803.6	2225	160
10:00	18767.5	2255	147
10:30	18743.1	2235	116
Shut in to rig out service rig			
11:00	19340.5	3238	438
11:30	19168.3	3335	478
Openned Tubing back up to testers			
12:00	18843.4	201	249

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
12:30	18:00	5.50	P	Held solid pressure test on intermediate CSG for 30 min at 15,000 kPa Bled down intermediate to 0.00 kPa 18:00 = 29hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 26 hrs FLARE (adjusted for time missed on Flare time) FTP: 2552 kPa SICP: 21 kPa DHP= 18499.2 kPa Intermediate CSG = 0 kPa Flow Temp: 39 °c Meter Run Temp: 41 °c Choke size: 12.70 mm Gas Rate: 7.55 E^3m^3/d Gas to Flare last 6 hrs: 1.41 E^3m^3 Cumulative Gas to Flare: 7.68 E^3m^3 LFTR: 7919.81m^3 LFR last hour: 3.52 m^3 LFR last 6 hours: 46.90 m^3 (hourly average last 6 hours = 7.81 m^3/hr) TLFR: 242.72 m^3 TLFLTR: 7677.09m^3 Oil rec. last hour: 0.00m^3 Oil rec. last 6 hours: 0.00m^3 Cumulative Oil rec: 00.00m^3 Salinity: 18000 ppm PH: 7 Sand: Trace Surface Total = 66.38 m^3 Api = N/A Hrs Flowed = 26 HRS H^2S = 0.0 ppm
18:00	18:00		P	WSS Shift change
18:00	00:00	6.00	P	Conduct PJHA meeting with night personnel, discuss hazards associated with flowing procedures.
00:00	06:00	6.00	P	00:00 = 35hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 32 hrs 45 min FLARE FTP: 3138 kPa SICP: 717 kPa DHP= 18265 kPa Intermediate CSG = TSTM kPa Flow Temp: 27 °c Meter Run Temp: 35 °c Choke size: 12.7 mm Gas Rate: 12.24 E^3m^3/d Gas to Flare last 6 hrs: 2.13 E^3m^3 Cumulative Gas to Flare: 9.81 E^3m^3 LFTR: 7919.81m^3 LFR last hour: 9.45 m^3 LFR last 6 hours: 50.90 m^3 (hourly average last 6 hours = 8.48 m^3/hr) TLFR: 293.62 m^3 TLFLTR: 7626.19m^3 Oil rec. last hour: 0.00m^3 Oil rec. last 6 hours: 0.00m^3 Cumulative Oil rec: 00.00m^3 Salinity: 21000 ppm PH: 7 Sand: Trace Surface Total = 99.84 m^3 Api = N/A Hrs Flowed = 35 HRS 30 MIN H^2S = 0.0 ppm

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 29
Report Date: 3/18/2014
Final Job Status: (
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	12:00	6.00	P	06:00 = 41hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 38 hrs FLARE FTP: 3721 kPa SICP:1349 kPa DHP=18029 kPa Intermediate CSG = TSTM kPa Flow Temp: 29 °c Meter Run Temp: 41 °c Choke size: 12.7 mm Gas Rate: 15.20 E³m³/d Gas to Flare last 6 hrs: 3.30 E³m³ Cumulative Gas to Flare:13.11E³m³ LFTR: 7919.81m³ LFR last hour: 8.57 m³ LFR last 6 hours: 55.72 m³ (hourly average last 6 hours = 9.28 m³/hr) TLFR: 349.34 m³ TLFLTR: 7570.47 m³ Oil rec. last hour: 0.00m³ Oil rec. last 6 hours: 0.00m³ Cumulative Oil rec: 00.00m³ Salinity: 22000 ppm PH: 7 Sand: Trace Surface Total = 65.05 m³ Api = N/A Hrs Flowed = 41 HRS 30 MIN H²S = 0.0 ppm
12:00	12:00		P	WSS Shift Change

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	220.72	0.00	204.37	7,570.47

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	BIG EAGLE LIMITED PARTNERSHIP	G300	24,000.00
Completion Fluids & Other Chem	BIG EAGLE LIMITED PARTNERSHIP	G300	24,000.00
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,610.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	2,025.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,495.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	21,645.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	14,460.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Maintain Road & Location	HRN CONTRACTING LTD	D230	5,216.90
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Service Rig	NABORS PRODUCTION SERVICES LTD	E120	15,857.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	22,440.00

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 29
Report Date: 3/18/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	22,440.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	22,440.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Completion Fluids & Other Chem	TERVITA CORP	G300	10,974.60
Completion Fluids & Other Chem	TERVITA CORP	G300	1,134.00
Service Rig	TRIDENT OILFIELD SERVICES LTD	E120	200.00
Rig Camp	TRUMPETER CAMP COMPANY PARTNERSHIP LTD	E500	1,645.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA	M220	206,824.78
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA	M220	25,491.44
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	21,565.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
'2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 29
Report Date: 3/18/2014
Final Job Status: C
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 30
Report Date: 3/19/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/19/2014 06:00	3/20/2014 06:00	98,655.99	15,570,865.47	312.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
3,803	1,429	Overcast	-14	Ice Pad / Snow Covered

Last 24hr Summary

Continued flowing the well to the testers.
0 = 65hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 62 hrs FLARE

FTP: 5780 kPa, SICP: 5879 kPa, DHP=16979 kPa, Intermediate CSG = TSTM, Flow Temp:53 °c, Meter Run Temp: 48 °c, Choke size: 12.7 mm, Gas Rate: 33.28m^3/d, Gas to Flare last 6 hrs: 7.82 E^3m^3, Cumulative Gas to Flare: 35.86E^3m^3, LFTR: 7919.81m^3, LFR last hour: 8.02 m^3, LFR last 6 hours: 47.71 m^3 (hourly average last , 6hours = 7.95 m^3/hr), TLFR: 555.01 m^3, TLFLTR: 7364.80 m^3, Oil rec. last hour: 0.00m^3, Oil rec. last 6 hours: 0.14m^3, Cumulative Oil rec: 00.65m^3, Salinity: 28000 ppm, PH: 7, Sand: Trace, Surface Total =232.17 m^3, Api = 58.8@15.6 C, Hrs Flowed = 65 HRS 30 MIN, H^2S = 0.0 ppm

24hr Forecast

Continue To Flow Well to testers

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change
06:00	06:30	0.50	P	Conduct PJHA meeting with day personnel, discuss hazards associated with flowing.
06:30	12:00	5.50	P	12:00 = 47hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 44 hrs FLARE FTP: 4306 kPa SICP:2143 kPa DHP=17771.6 kPa Intermediate CSG = TSTM Flow Temp: 52 °c Meter Run Temp: 31 °c Choke size: 12.7 mm Gas Rate: 21.58 E^3m^3/d Gas to Flare last 6 hrs: 4.10 E^3m^3 Cumulative Gas to Flare:17.21E^3m^3 LFTR: 7919.81m^3 LFR last hour: 10.34 m^3 LFR last 6 hours: 53.38 m^3 (hourly average last 6 hours = 8.89 m^3/hr) TLFR: 402.72 m^3 TLFLTR: 7517.09 m^3 Oil rec. last hour: 0.10m^3 Oil rec. last 6 hours: 0.38m^3 Cumulative Oil rec: 00.38m^3 Salinity: 23000 ppm PH: 7 Sand: Trace Surface Total =115.56 m^3 Api = 56.3@15.6 C Hrs Flowed = 47 HRS 30 MIN H^2S = 0.0 ppm

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COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 30
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Final Job Status: (
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
12:00	18:00	6.00	P	18:00 = 53hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 50 hrs FLARE FTP: 4841 kPa SICP:3276 kPa DHP=17507.3 kPa Intermediate CSG = TSTM Flow Temp:53 °c Meter Run Temp: 49 °c Choke size: 12.7 mm Gas Rate:21.22 E³m³/d Gas to Flare last 6 hrs: 4.63 E³m³ Cumulative Gas to Flare:21.84E³m³ LFTR: 7919.81m³ LFR last hour: 8.34 m³ LFR last 6 hours: 48.17 m³ (hourly average last 6 hours = 8.89 m³/hr) TLFR:450.89 m³ TLFLTR: 7517.09 m³ Oil rec. last hour: 0.00m³ Oil rec. last 6 hours: 0.09m³ Cumulative Oil rec: 00.47m³ Salinity: 25000 ppm PH: 7 Sand: Trace Surface Total =161.58 m³ Api = 56.3@15.6 C Hrs Flowed = 53 HRS 30 MIN H²S = 0.0 ppm
18:00	18:00		P	WSS Shift Change
18:00	18:00		P	Conduct PJHA meeting with night personnel, discuss hazards associated with flowing procedures.
18:00	00:00	6.00	P	00:00 = 59hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 56 hrs FLARE FTP: 5342 kPa SICP: 4543 kPa DHP=17223 kPa Intermediate CSG = TSTM Flow Temp:53 °c Meter Run Temp: 49 °c Choke size: 12.7 mm Gas Rate:27.91 E³m³/d Gas to Flare last 6 hrs: 6.20 E³m³ Cumulative Gas to Flare:28.04E³m³ LFTR: 7919.81m³ LFR last hour: 10.19 m³ LFR last 6 hours: 56.41 m³ (hourly average last 6 hours = 9.40 m³/hr) TLFR: 507.30 m³ TLFLTR: 7412.51 m³ Oil rec. last hour: 0.00m³ Oil rec. last 6 hours: 0.04m³ Cumulative Oil rec: 00.51m³ Salinity: 28000 ppm PH: 7 Sand: Trace Surface Total =232.17 m³ Api = 56.5@15.6 C Hrs Flowed = 59 HRS 30 MIN H²S = 0.0 ppm

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Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
00:00	06:00	6.00	P	06:00 = 65hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 62 hrs FLARE FTP: 5780 kPa SICP: 5879 kPa DHP=16979 kPa Intermediate CSG = TSTM Flow Temp:53 °c Meter Run Temp: 48 °c Choke size: 12.7 mm Gas Rate: 33.28 E³m³/d Gas to Flare last 6 hrs: 7.82 E³m³ Cumulative Gas to Flare: 35.86E³m³ LFTR: 7919.81m³ LFR last hour: 8.02 m³ LFR last 6 hours: 47.71 m³ (hourly average last 6 hours = 7.95 m³/hr) TLFR: 555.01 m³ TLFLTR: 7364.80 m³ Oil rec. last hour: 0.00m³ Oil rec. last 6 hours: 0.14m³ Cumulative Oil rec: 00.65m³ Salinity: 28000 ppm PH: 7 Sand: Trace Surface Total =232.17 m³ Api = 58.8@15.6 C Hrs Flowed = 65 HRS 30 MIN H²S = 0.0 ppm
06:00	06:00		P	WSS Shift Change

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
			0.00	205.67	7,364.80
FRESH WATER			0.00	0.65	-0.65
PRODUCED OIL					

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	1,715.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,495.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	21,037.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Maintain Road & Location	HRN CONTRACTING LTD	D230	6,914.50
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Service Rig	NABORS PRODUCTION SERVICES LTD	E120	16,680.12
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA	M220	12,355.37
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	18,370.00

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Final Report? Yes

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

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Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/20/2014 06:00	3/21/2014 06:00	311,010.32	15,881,875.79	396.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
5,795	5,920	Clear	-10	Ice Pad / Snow Covered

Last 24hr Summary
Continued flowing the well to the testers.

:0 = 89 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 86 hrs FLARE

FTP: 6527 kPa,SICP:11563 kPa, DHP= 16012 kPa, Intermediate CSG = TSTM, Flow Temp: 49 °c, Meter Run Temp: 42 °c, Choke size: 12.70 mm, Gas Rate: 60.70 , E³m³/d, Gas to Flare last 6 hrs: 14.63 E³m³, Cumulative Gas to Flare: 85.25E³m³, LFTR: 7919.81m³, LFR last hour: 11.49 m³, LFR last 6 hours: 45.02 m³ (hourly , verage last 6 hours = 7.50 m³/hr), TLFR: 734.43 m³,TLFLTR: 7185.38 m³, Oil rec. last hour: 0.17m³, Oil rec. last 6 hours: 0.85m³, Cumulative Oil rec: 2.69m³, Salinity: ,36000 ppm, PH: 7, Sand: Trace, Surface Total = 0 m³, Api = 60.1@15.6 C, Hrs Flowed = 89 HRS 30 MIN, H²S = 0.0 ppm

24hr Forecast
Continue To Flow Well to testers

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change
06:00	06:30	0.50	P	Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release night crew and continue PJHA meeting with day personnel, discuss hazards associated with flowing / swabbing, proper purging, LEL monitoring and rigging in and out procedures.

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Final Report?

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 71hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 68 hrs FLARE FTP: 6222 kPa SICP: 7243 kPa DHP=16688.0 kPa Intermediate CSG = TSTM Flow Temp: 52 °c Meter Run Temp: 47 °c Choke size: 12.7 mm Gas Rate: 45.34 E³m³/d Gas to Flare last 6 hrs: 10.01 E³m³ Cumulative Gas to Flare: 45.61E³m³ LFTR: 7919.81m³ LFR last hour: 6.97 m³ LFR last 6 hours:46.66 m³ (hourly average last 6 hours =7.77 m³/hr) TLFR: 601.67 m³ TLFLTR:7318.14 m³ Oil rec. last hour: 0.00m³ Oil rec. last 6 hours: 0.40m³ Cumulative Oil rec: 00.67m³ Salinity: 31000 ppm PH: 7 Sand: Trace Surface Total =182.08 m³ Api = 60.25@15.6 C Hrs Flowed = 71 HRS 30 MIN H²S = 0.0 ppm
12:00	13:00	1.00	P	Moved equipment that is not being used off location
13:00	18:00	5.00	P	18:00 = 77hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 74 hrs FLARE FTP: 6407 kPa SICP:8764 kPa DHP=16408.3 kPa Intermediate CSG = TSTM Flow Temp: 51 °c Meter Run Temp: 45 °c Choke size: 12.7mm Gas Rate:50.25 E³m³/d Gas to Flare last 6 hrs: 11.79 E³m³ Cumulative Gas to Flare: 57.40E³m³ LFTR: 7919.81m³ LFR last hour:7.64 m³ LFR last 6 hours45.95 m³ (hourly average last 6 hours =7.68 m³/hr) TLFR: 647.62 m³ TLFLTR:7272.19 m³ Oil rec. last hour: 0.00m³ Oil rec. last 6 hours:0.23m³ Cumulative Oil rec:0.81m³ Salinity: 34000 ppm PH: 7 Sand: Trace Surface Total =184.5 m³ Api = 60.25@15.6 C Hrs Flowed = 77 HRS 30 MIN H²S = 0.0 ppm
18:00	18:00		P	WSS Shift Change
18:00	18:30	0.50	P	Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release night crew and continue PJHA meeting with day personnel, discuss hazards associated with flowing / swabbing, proper purging, LEL monitoring and rigging in and out procedures.

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DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 83hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 80 hrs FLARE FTP: 6560 kPa SICP: 1024 kPa DHP= 16205 kPa Intermediate CSG = TSTM Flow Temp: 50 °c Meter Run Temp: 44 °c Choke size: 12.70 mm Gas Rate: 56.16 E³m³/d Gas to Flare last 6 hrs: 13.22 E³m³ Cumulative Gas to Flare:70.62E³m³ LFTR: 7919.81m³ LFR last hour: 6.43 m³ LFR last 6 hours: 41.79 m³ (hourly average last 6 hours = 6.96 m³/hr) TLFR: 689.41 m³ TLFLTR: 7230.40 m³ Oil rec. last hour: 0.13m³ Oil rec. last 6 hours: 0.56m³ Cumulative Oil rec: 1.84 m³ Salinity: 36000 ppm PH: 7 Sand: Trace Surface Total = 228.24 m³ Api = 59.1@15.6 C Hrs Flowed = 83 HRS 30 MIN H²S = 0.0 ppm
00:00	06:00	6.00	P	06:00 = 89 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 86 hrs FLARE FTP: 6527 kPa SICP:11563 kPa DHP= 16012 kPa Intermediate CSG = TSTM Flow Temp: 49 °c Meter Run Temp: 42 °c Choke size: 12.70 mm Gas Rate: 60.70 E³m³/d Gas to Flare last 6 hrs: 14.63 E³m³ Cumulative Gas to Flare: 85.25E³m³ LFTR: 7919.81m³ LFR last hour: 11.49 m³ LFR last 6 hours: 45.02 m³ (hourly average last 6 hours = 7.50 m³/hr) TLFR: 734.43 m³ TLFLTR: 7185.38 m³ Oil rec. last hour: 0.17m³ Oil rec. last 6 hours: 0.85m³ Cumulative Oil rec: 2.69m³ Salinity: 36000 ppm PH: 7 Sand: Trace Surface Total = 0 m³ Api = 60.1@15.6 C Hrs Flowed = 89 HRS 30 MIN H²S = 0.0 ppm
06:00	06:00		P	WWS Shift Change.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	188.00	0.00	179.42	7,185.38
PRODUCED OIL			0.00	2.04	-2.69

Y COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	1,635.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,495.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	13,720.00

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Final Report? .

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	26,471.50
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	26,471.50
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	26,471.50
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	G300	1,985.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	Q300	-21,645.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	P100	20,980.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	Q300	215.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,670.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	Q300	1,882.20
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	N110	10,950.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	Q300	500.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	T130	1,100.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	P100	1,000.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	T130	1,595.00
Completion Fluids & Other Chem	MYB CONSTRUCTION LTD	G300	25,682.81
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	G300	25,682.81
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	Q300	600
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	24,852
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	24,852.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	24,669.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	G300	24,669.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	5,690.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Completion Fluids & Other Chem	TERVITA CORP	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	G300	8,022.00
		M220	18,370.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 31
Report Date: 3/20/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 32
Report Date: 3/21/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/21/2014 06:00	3/22/2014 06:00	101,449.00	15,983,324.79	264.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
6,574	11,598	Clear	-23	Ice Pad / Snow Covered

Last 24hr Summary

Continued to flow the well to the testers.
`0 = 113 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 110 hrs FLARE, , FTP: 7177 kPa, SICP: 12395 kPa, DHP= 15067 ,Intermediate CSG = TSTM, Flow Temp: 47 °c, Meter Run Temp: 37 °c, Choke size: 12.70 mm, Gas Rate: 77.58 E³m³/d, Gas to Flare last 6 hrs: 19.07 E³m³, cumulative Gas to Flare:156.08 E³m³, LFTR: 7919.81m³, ,LFR last hour: 4.56 m³, LFR last 6 hours: 29.81 m³ (hourly average last 6 hours = 4.96m³/hr), TLFR: 858.17M3, TLFLTR: 7061.64 m³, Oil rec. last hour: 0.16m³, Oil rec. last 6 hours: 0.95 m³, Cumulative Oil rec: 6.25 m³, Salinity: 42000 ppm, PH: 7, Sand: Trace, Surface Total = 344.56m³, Api = 59.8@15 C, Hrs Flowed = 113 HRS 30 MIN, H²S = 0.0 ppm, CO2= 1.8

24hr Forecast

Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change
06:00	06:30	0.50	P	Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release night crew and continue PJHA meeting with day personnel, discuss hazards associated with flowing / proper purging, LEL monitoring

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 32
Report Date: 3/21/2014
Final Job Status: C
Final Report?

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	11:00	4.50	P	12:00 = 95 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 92 hrs FLARE FTP: 6789kPa SICP:12756 kPa DHP= 15762.3 kPa Intermediate CSG = TSTM Flow Temp: 49 °c Meter Run Temp: 41 °c Choke size: 12.70 mm Gas Rate:65.59 E^3m^3/d Gas to Flare last 6 hrs: 15.92 E^3m^3 Cumulative Gas to Flare:101.17 E^3m^3 LFTR: 7919.81m^3 LFR last hour:6.33 m^3 LFR last 6 hours: 27.41 m^3 (hourly average last 6 hours =4.57 m^3/hr) TLFR: 761.84 m^3 TLFLTR:7157.97 m^3 Oil rec. last hour:0.20m^3 Oil rec. last 6 hours:0.79 m^3 Cumulative Oil rec:3.48 m^3 Salinity: 38000 ppm PH: 7 Sand: Trace Surface Total = 302.26 m^3 Api = 60.1@15.6 C Hrs Flowed = 95 HRS 30 MIN H^2S = 0.0 ppm CO2= 2.2%
11:00	12:00	1.00	P	Removed insulation from flow back line to testers, and removed steam lines from the flow back line as well
12:00	18:00	6.00	P	18:00 = 101 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 98 hrs FLARE FTP6971kPa SICP:12710 kPa DHP=15461 kPa Intermediate CSG = TSTM Flow Temp: 49 °c Meter Run Temp: 41 °c Choke size: 12.70 mm Gas Rate:72.66 E^3m^3/d Gas to Flare last 6 hrs: 17.41 E^3m^3 Cumulative Gas to Flare:118.58 E^3m^3 LFTR: 7919.81m^3 LFR last hour:5.17 m^3 LFR last 6 hours:33.59 m^3 (hourly average last 6 hours =5.60 m^3/hr) TLFR: 795.43 m^3 TLFLTR:7157.97 m^3 Oil rec. last hour:0.14m^3 Oil rec. last 6 hours:0.85 m^3 Cumulative Oil rec:4.33 m^3 Salinity: 40000 ppm PH: 7 Sand: Trace Surface Total = 336.7 m^3 Api = 60.1@15.6 C Hrs Flowed = 101 HRS 30 MIN H^2S = 0.0 ppm CO2= 2.2%
18:00	18:00		P	WSS Shift Change
18:00	18:30	0.50	P	Held PJHA meeting with night personnel, discuss hazards associated with flowing the well.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 32
Report Date: 3/21/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 107 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 104 hrs FLARE FTP: 7040 kPa SICP: 12542 kPa DHP= 15262 kPa Intermediate CSG = TSTM Flow Temp: 47 °c Meter Run Temp: 38 °c Choke size: 12.70 mm Gas Rate: 75.82 E³m³/d Gas to Flare last 6 hrs: 18.43 E³m³ Cumulative Gas to Flare:137.01 E³m³ LFTR: 7919.81m³ LFR last hour: 6.09 m³ LFR last 6 hours: 32.93 m³ (hourly average last 6 hours =5.48 m³/hr) TLFR: 828.36 m³ TLFLTR: 7091.45 m³ Oil rec. last hour: 0.16m³ Oil rec. last 6 hours: 0.97 m³ Cumulative Oil rec: 5.30 m³ Salinity: 42000 ppm PH: 7 Sand: Trace Surface Total = 336.7 m³ Api = 59.7@15 C Hrs Flowed = 107 HRS 30 MIN H²S = 0.0 ppm CO2= 2.2%
00	06:00	6.00	P	06:00 = 113 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 110 hrs FLARE FTP: 7177 kPa SICP: 12395 kPa DHP= 15067 kPa Intermediate CSG = TSTM Flow Temp: 47 °c Meter Run Temp: 37 °c Choke size: 12.70 mm Gas Rate: 77.58 E³m³/d Gas to Flare last 6 hrs: 19.07 E³m³ Cumulative Gas to Flare:156.08 E³m³ LFTR: 7919.81m³ LFR last hour: 4.56 m³ LFR last 6 hours: 29.81 m³ (hourly average last 6 hours = 4.96m³/hr) TLFR: 858.17 m³ TLFLTR: 7061.64 m³ Oil rec. last hour: 0.16m³ Oil rec. last 6 hours: 0.95 m³ Cumulative Oil rec: 6.25 m³ Salinity: 42000 ppm PH: 7 Sand: Trace Surface Total = 344.56m³ Api = 59.8@15 C Hrs Flowed = 113 HRS 30 MIN H²S = 0.0 ppm CO2= 1.8
06:00	06:00		P	WSS Shift Change

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	56.80	0.00	123.74	7,061.64
DUCED OIL			0.00	3.56	-6.25

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,495.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 32
Report Date: 3/21/2014
Final Job Status: G
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	27,700.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	9,310.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	50.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	WEATHERFORD CANADA	Q300	15,225.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	17,620

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing

RFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 33
Report Date: 3/22/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/22/2014 06:00	3/23/2014 06:00	82,106.00	16,065,430.79	288.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
7,180	12,358	Clear	-20	Ice Pad / Snow Covered

Last 24hr Summary
Continued to flow the well to the testers.
T0 = 137 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 134 hrs FLARE,FTP: 7320 kPa, SICP: 11726 kPa, DHP= 14240 kPa, Intermediate CSG = TSTM, Flow Temp: 45 °c, Meter Run Temp: 33 °c, Choke size: 12.7mm, Gas Rate:90.02 E³m³/d, Gas to Flare last 6 hrs: 22.03 E³m³, Cumulative Gas to Flare:240.13E³m³, LFTR: 7919.81m³, LFR last hour: 4.53m³, LFR last 6 hours: 26.94 m³ (hourly average last 6 hours = 4.49m³/hr), TLFR:975.5 m³, TLFLTR:6944.31 m³,
Oil rec. last hour: 0.18m³, Oil rec. last 6 hours:1.17 m³, Cumulative Oil rec:10.80m³, Salinity: 45000 ppm, PH: 7, Sand: Trace, Surface Total = 405.5m³, Api = 60.3@15.6 C, Hrs Flowed = 137 HRS 30 MIN, H^2S = 0.0 ppm, CO2= 2.0%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change
06:00	06:30	0.50	P	Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release night crew and continue PJHA meeting with day personnel, discuss hazards associated with flowing / proper purging, LEL monitoring

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 33
Report Date: 3/22/2014
Final Job Status: C
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 119 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 116 hrs FLARE FTP: 7117 kPa SICP: 12208 kPa DHP= 14785.4 kPa Intermediate CSG = TSTM Flow Temp: 46 °c Meter Run Temp: 36 °c Choke size: 12.7mm Gas Rate: 83.70 E³m³/d Gas to Flare last 6 hrs: 19.88 E³m³ Cumulative Gas to Flare:175.96E³m³ LFTR: 7919.81m³ LFR last hour: 4.82m³ LFR last 6 hours: 33.13 m³ (hourly average last 6 hours = 5.52m³/hr) TLFR:889.3 m³ TLFLTR:7030.51 m³ Oil rec. last hour: 0.17m³ Oil rec. last 6 hours: 1.09 m³ Cumulative Oil rec: 7.34 m³ Salinity: 44000 ppm PH: 7 Sand: Trace Surface Total = 376.78m³ Api = 59.8@15 C Hrs Flowed = 119 HRS 30 MIN H²S = 0.0 ppm CO2= 2.0%
12:00	18:00	6.00	P	18:00 = 125 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 122 hrs FLARE FTP: 7239 kPa SICP: 12025 kPa DHP= 14616.1 kPa Intermediate CSG = TSTM Flow Temp: 46 °c Meter Run Temp: 34 °c Choke size: 12.7mm Gas Rate:83.58 E³m³/d Gas to Flare last 6 hrs: 20.66 E³m³ Cumulative Gas to Flare:196.62E³m³ LFTR: 7919.81m³ LFR last hour: 5.45m³ LFR last 6 hours: 30.88 m³ (hourly average last 6 hours = 5.15m³/hr) TLFR:920 m³ TLFLTR:6999.63 m³ Oil rec. last hour: 0.21m³ Oil rec. last 6 hours:1.17 m³ Cumulative Oil rec:7.97 m³ Salinity: 46000 ppm PH: 7 Sand: Trace Surface Total = 378.83m³ Api = 59.8@15 C Hrs Flowed = 125 HRS 30 MIN H²S = 0.0 ppm CO2= 2.2%
18:00	18:00	0.00	P	WSS Shift Change
18:00	18:30	0.50	P	Held PJHA meeting with night personnel, discuss hazards associated with flowing the well.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 33
Report Date: 3/22/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 131 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 128 hrs FLARE FTP: 7303 kPa SICP: 11883 kPa DHP= 14423 kPa Intermediate CSG = TSTM Flow Temp: 46 °c Meter Run Temp: 34 °c Choke size: 12.7mm Gas Rate:87.05 E^3m^3/d Gas to Flare last 6 hrs: 21.9 E^3m^3 Cumulative Gas to Flare:218.10E^3m^3 LFTR: 7919.81m^3 LFR last hour: 4.51m^3 LFR last 6 hours: 28.38 m^3 (hourly average last 6 hours = 4.73m^3/hr) TLFR: 948.56 m^3 TLFLTR:6971.25 m^3 Oil rec. last hour: 0.17m^3 Oil rec. last 6 hours:1.12 m^3 Cumulative Oil rec:9.63 m^3 Salinity: 46000 ppm PH: 7 Sand: Trace Surface Total = 377.39m^3 Api = 61.9@15.6 C Hrs Flowed = 131 HRS 30 MIN H^2S = 0.0 ppm CO2= 2.2%
)	06:00	6.00	P	06:00 = 137 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 134 hrs FLARE FTP: 7320 kPa SICP: 11726 kPa DHP= 14240 kPa Intermediate CSG = TSTM Flow Temp: 45 °c Meter Run Temp: 33 °c Choke size: 12.7mm Gas Rate:90.02 E^3m^3/d Gas to Flare last 6 hrs: 22.03 E^3m^3 Cumulative Gas to Flare:240.13E^3m^3 LFTR: 7919.81m^3 LFR last hour: 4.53m^3 LFR last 6 hours: 26.94 m^3 (hourly average last 6 hours = 4.49m^3/hr) TLFR:975.5 m^3 TLFLTR:6944.31 m^3 Oil rec. last hour: 0.18m^3 Oil rec. last 6 hours:1.17 m^3 Cumulative Oil rec:10.80m^3 Salinity: 45000 ppm PH: 7 Sand: Trace Surface Total = 405.5m^3 Api = 60.3@15.6 C Hrs Flowed = 137 HRS 30 MIN H^2S = 0.0 ppm CO2= 2.0%
06:00	06:00		P	WSS Shift Change

FLUID SUMMARY

Fluid	To lease (m^3)	From lease (m^3)	To well (m^3)	From well (m^3)	Left to recover (m^3)
	0.00	0.00	0.00	0.00	
SH WATER	0.00	60.94	0.00	117.33	6,944.31
DUCED OIL			0.00	4.55	-10.80

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 33
Report Date: 3/22/2014
Final Job Status: C
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	30,830.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Maintain Road & Location	SAHTU BUILDING SUPPLIES	D230	3,030.32
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	19,756.68

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing

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PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 34
Report Date: 3/23/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/23/2014 06:00	3/24/2014 06:00	146,991.14	16,212,421.93	300.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
7,375	11,704	Clear	-20	Ice Pad / Snow Covered

Last 24hr Summary
Continued to flow the well to the testers.
)0 = 161 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 158 hrs FLARE,FTP: 7277 kPa, SICP: 11290 kPa, DHP= 13690 kPa, rmediate CSG = TSTM, Flow Temp: 45 °c, Meter Run Temp: 32 °c, Choke size: 12.7mm, Gas Rate: 90.05 ,E³m³/d, Gas to Flare last 6 hrs: 22.40E³m³, Cumulative Gas to Flare: 329.49E³m³, LFTR: 7919.81m³, LFR last hour: 5.09 m³, LFR last 6 hours: 23.29m³ (hourly average last 6 hours = 3.88 m³/hr), TLFR: 1078.71 m³, TLFLTR: 6841.10 m³, Oil rec. last hour: 0.25m³, Oil rec. last 6 hours: 1.08 m³, Cumulative Oil rec: 15.35m³, Salinity: 48000 ppm, PH: 7, Sand: Trace, Surface Total = 438.26m³, Api = 60.5@15.6 C, Hrs Flowed = 161 HRS 30 MIN, H²S = 0.0 ppm, CO2= 2.0%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change
06:00	06:30	0.50	P	Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release night crew and continue PJHA meeting with day personnel, discuss hazards associated with flowing / proper purging, LEL monitoring

Report Printed: 4/28/2014

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Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 34
Report Date: 3/23/2014
Final Job Status: C
Final Report? \

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 143 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 140 hrs FLARE FTP: 7293 kPa SICP: 11578 kPa DHP=14054.4 kPa Intermediate CSG = TSTM Flow Temp: 45 °c Meter Run Temp: 32 °c Choke size: 12.7mm Gas Rate:90.63 E^3m^3/d Gas to Flare last 6 hrs: 22.45 E^3m^3 Cumulative Gas to Flare:262.58E^3m^3 LFTR: 7919.81m^3 LFR last hour: 4.31m^3 LFR last 6 hours:28.22m^3 (hourly average last 6 hours = 4.7m^3/hr) TLFR:1003.72 m^3 TLFLTR:6916.09 m^3 Oil rec. last hour: 0.18m^3 Oil rec. last 6 hours:1.23 m^3 Cumulative Oil rec:12.03m^3 Salinity: 48000 ppm PH: 7 Sand: Trace Surface Total = 384.95m^3 Api = 60.3@15.6 C Hrs Flowed = 143 HRS 30 MIN H^2S = 0.0 ppm CO2= 1.8%
12:00	18:00	6.00	P	18:00 = 149 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 146 hrs FLARE FTP: 7529kPa SICP: 11503 kPa DHP=13911.7 kPa Intermediate CSG = TSTM Flow Temp: 46 °c Meter Run Temp: 33 °c Choke size: 12.7mm Gas Rate:86.76 E^3m^3/d Gas to Flare last 6 hrs: 22.39 E^3m^3 Cumulative Gas to Flare:284.97E^3m^3 LFTR:7919.81m^3 LFR last hour: 4.86m^3 LFR last 6 hours:27.95m^3 (hourly average last 6 hours = 4.66m^3/hr) TLFR:1031.67 m^3 TLFLTR:6888.14 m^3 Oil rec. last hour: 0.19m^3 Oil rec. last 6 hours:1.20 m^3 Cumulative Oil rec:13.23m^3 Salinity: 50000 ppm PH: 7 Sand: Trace Surface Total =389.10m^3 Api = 60.3@15.6 C Hrs Flowed = 149 HRS 30 MIN H^2S = 0.0 ppm CO2= 2.1%
18:00	18:00		P	WSS Shift Change
18:00	18:30	0.50	P	Held PJHA meeting with night personnel, discuss hazards associated with flowing the well.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 34
Report Date: 3/23/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 155 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 152 hrs FLARE FTP: 7487 kPa SICP: 11393 kPa DHP= 13791 kPa Intermediate CSG = TSTM Flow Temp: 46 °c Meter Run Temp: 33 °c Choke size: 12.7mm Gas Rate: 86.03 E³m³/d Gas to Flare last 6 hrs: 22.12 E³m³ Cumulative Gas to Flare: 307.09E³m³ LFTR: 7919.81 m³ LFR last hour: 4.45m³ LFR last 6 hours: 23.75m³ (hourly average last 6 hours = 3.95 m³/hr) TLFR: 1055.42 m³ TLFLTR: 6864.39 m³ Oil rec. last hour: 0.18 m³ Oil rec. last 6 hours: 1.04 m³ Cumulative Oil rec: 14.27 m³ Salinity: 46000 ppm PH: 7 Sand: 0 Surface Total = 413.89 m³ Api = 59.6@15.6 C Hrs Flowed = 155 HRS 30 MIN H²S = 0.0 ppm CO2= 2.1%
0	06:00	6.00	P	06:00 = 161 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 158 hrs FLARE FTP: 7277 kPa SICP: 11290 kPa DHP= 13690 kPa Intermediate CSG = TSTM Flow Temp: 45 °c Meter Run Temp: 32 °c Choke size: 12.7mm Gas Rate: 90.05 E³m³/d Gas to Flare last 6 hrs: 22.40E³m³ Cumulative Gas to Flare: 329.49E³m³ LFTR: 7919.81m³ LFR last hour: 5.09 m³ LFR last 6 hours: 23.29m³ (hourly average last 6 hours = 3.88 m³/hr) TLFR: 1078.71 m³ TLFLTR: 6841.10 m³ Oil rec. last hour: 0.25m³ Oil rec. last 6 hours: 1.08 m³ Cumulative Oil rec: 15.35m³ Salinity: 48000 ppm PH: 7 Sand: Trace Surface Total = 438.26m³ Api = 60.5@15.6 C Hrs Flowed = 161 HRS 30 MIN H²S = 0.0 ppm CO2= 2.0%
06:00	06:00		P	WSS Shift Change

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
SH WATER	0.00	102.42	0.00	103.21	6,841.10
ODUCED OIL			0.00	4.55	-15.35

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00

Report Printed: 4/28/2014

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Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 34
Report Date: 3/23/2014
Final Job Status: C
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	17,110.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	CORE LABORATORIES CANADA LTD	M220	12,050.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	Q300	215.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	29,428.40
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	23,939.40
Fracture Stimulation Services	ISOLATION EQUIPMENT SERVICES INC	N110	8,270.59
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,000.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	RIGSAT COMMUNICATIONS INC	Q300	15
	WEATHERFORD CANADA PARTNERSHIP	M220	27,548.7

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 34
Report Date: 3/23/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 35
Report Date: 3/24/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/24/2014 06:00	3/25/2014 06:00	163,368.82	16,375,790.75	372.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
7,380	11,573	Clear	-18	Ice Pad / Snow Covered

Last 24hr Summary

Continued to flow the well to the testers.
0 = 185 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 182 hrs FLARE,FTP: 6879 kPa, SICP: 10944 kPa, DHP= 13216 kPa, ...rmediate CSG = TSTM, Flow Temp: 44 °c, Meter Run Temp: 30 °c, Choke size: 12.7mm, Gas Rate: 92.07 E³m³/d, Gas to Flare last 6 hrs:22.59 E³m³, Cumulative Gas to Flare:419.82 E³m³, LFTR:7919.81m³LFR, LFR last hour:3.45 m³, LFR last 6 hours:20.68 m³ (hourly average last 6 hours =3.44 m³/hr), TLFR: 1166.24 m³, TLFLTR:6753.57 m³, Oil rec. last hour: 0.19m³, Oil rec. last 6 hours: 1.20 m³, Cumulative Oil rec:19.87 m³, Salinity: 50000 ppm, PH: 7, Sand: Trace, Surface Total = 428.23 m³, Api = 59.5@15.6 C, Hrs Flowed = 185 HRS 30 MIN, H^2S = 0.10 ppm, CO_2= 2%

24hr Forecast

Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift Change
06:00	06:30	0.50	P	Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release night crew and continue PJHA meeting with day personnel, discuss hazards associated with flowing / proper purging, LEL monitoring

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 35
Report Date: 3/24/2014
Final Job Status: C
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 167 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 164 hrs FLARE FTP: 7246 kPa SICP: 11212 kPa DHP= 13517kPa Intermediate CSG = TSTM Flow Temp: 45 °c Meter Run Temp: 32 °c Choke size: 12.7mm Gas Rate: 89.17 E^3m^3/d Gas to Flare last 6 hrs:22.55E^3m^3 Cumulative Gas to Flare: 352.04E^3m^3 LFTR: 7919.81m^3LFR LFR last hour: 4.02 m^3 LFR last 6 hours:24.43m^3 (hourly average last 6 hours =4.07 m^3/hr) TLFR: 1103.14 m^3 TLFLTR: 6816.67 m^3 Oil rec. last hour: 0.19m^3 Oil rec. last 6 hours: 1.16 m^3 Cumulative Oil rec:16.51m^3 Salinity: 50000 ppm PH: 7 Sand: Trace Surface Total = 386.77m^3 Api = 60.5@15.6 C Hrs Flowed = 167 HRS 30 MIN H^2S = 0.0 ppm CO2= 1.8%
12:00	18:00	6.00	P	18:00 = 173 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 170 hrs FLARE FTP: 7014kPa SICP: 11096kPa DHP= 13341.2kPa Intermediate CSG = TSTM Flow Temp: 44 °c Meter Run Temp: 31 °c Choke size: 12.7mm Gas Rate: 90.71 E^3m^3/d Gas to Flare last 6 hrs:22.60E^3m^3 Cumulative Gas to Flare:374.64E^3m^3 LFTR:7919.81m^3LFR LFR last hour:3.72m^3 LFR last 6 hours:22.18m^3 (hourly average last 6 hours =3.7 m^3/hr) TLFR: 1125.32 m^3 TLFLTR:6794.49 m^3 Oil rec. last hour: 0.19m^3 Oil rec. last 6 hours: 1.04 m^3 Cumulative Oil rec:17.55m^3 Salinity: 50000 ppm PH: 7 Sand: Trace Surface Total = 384.99m^3 Api = 59.9@15.6 C Hrs Flowed = 173 HRS 30 MIN H^2S = 0.0 ppm CO2= 2%
18:00	18:00		P	WSS Shift Change
18:00	18:30	0.50	P	Held PJHA meeting with night personnel, discuss hazards associated with flowing the well.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 35
Report Date: 3/24/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 179 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 176 hrs FLARE FTP: 6859 kPa SICP: 10996 kPa DHP= 13358 kPa Intermediate CSG = TSTM Flow Temp: 43 °c Meter Run Temp: 29 °c Choke size: 12.7mm Gas Rate: 90.73 E³m³/d Gas to Flare last 6 hrs:22.59E³m³ Cumulative Gas to Flare:397.23E³m³ LFTR:7919.81m³LFR LFR last hour:3.84m³ LFR last 6 hours:20.25m³ (hourly average last 6 hours =3.37 m³/hr) TLFR: 1145.56 m³ TLFLTR:6774.25 m³ Oil rec. last hour: 0.21 m³ Oil rec. last 6 hours: 1.12 m³ Cumulative Oil rec:18.67 m³ Salinity: 50000 ppm PH: 7 Sand: none Surface Total = 406.35m³ Api = 59.7@15.6 C Hrs Flowed = 179 HRS 30 MIN H²S = 0.0 ppm CO2= 2%
00	06:00	6.00	P	06:00 = 185 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 182 hrs FLARE FTP: 6879 kPa SICP: 10944 kPa DHP= 13216 kPa Intermediate CSG = TSTM Flow Temp: 44 °c Meter Run Temp: 30 °c Choke size: 12.7mm Gas Rate: 92.07 E³m³/d Gas to Flare last 6 hrs:22.59 E³m³ Cumulative Gas to Flare:419.82 E³m³ LFTR:7919.81m³LFR LFR last hour:3.45 m³ LFR last 6 hours:20.68 m³ (hourly average last 6 hours =3.44 m³/hr) TLFR: 1166.24 m³ TLFLTR:6753.57 m³ Oil rec. last hour: 0.19m³ Oil rec. last 6 hours: 1.20 m³ Cumulative Oil rec:19.87 m³ Salinity: 50000 ppm PH: 7 Sand: Trace Surface Total = 428.23 m³ Api = 59.5@15.6 C Hrs Flowed = 185 HRS 30 MIN H²S = 0.10 ppm CO2= 2%
06:00	06:00		P	WSS Shift Change.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
SH WATER	0.00	74.66	0.00	87.54	6,753.56
DUCED OIL			0.00	4.52	-19.87

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 35
Report Date: 3/24/2014
Final Job Status: C
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	Q300	215.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,670.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	400.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	Q300	500.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,100.00
Wellsite Supervision & Engineering	MJ'S WELLSITE SUPERVISION LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	T130	1,595.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	Q300	600.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	24,529.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	26,184.00
Completion Fluids & Other Chem	NORTHERN TRUCK SERVICES (1994) LTD	G300	26,184.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	G300	26,184.00
Completion Fluids & Other Chem	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	G300	2,515.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15
Completion Fluids & Other Chem	TERVITA CORP	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	G300	1,508.00
		M220	25,180.82

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing

Report Printed: 4/28/2014

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 36
Report Date: 3/25/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/25/2014 06:00	3/26/2014 06:00	68,553.68	16,444,344.43	300.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
6,939	10,858	Clear	-16	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). ɘ water/gas/oil sample as per schedule by AGAT, send time sensitive samples in via MXL. Take Protecnics tracer sample at 12:00 (taken by Weatherford). ,0 = 209 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 206 hrs FLARE

FTP: 6977 kPaSICP: 10636kPaDHP= 12843 kPaIntermediate CSG = TSTMFlow Temp: 43 °cMeter Run Temp: 29 °cChoke size: 12.7mmGas Rate: 90.71 E³m³/dGas to Flare last 6 hrs:22.82E³m³Cumulative Gas to Flare: 510.91E³m³ILFTR: 7919.81m³LFR last hour: 3.18 m³LFR last 6 hours:18.91m³ (hourly average last 6 hours =3.15m³/hr)TLFR: 1244.39m³TLFLTR:6675.42 m³Oil rec. last hour: 0.19m³Oil rec. last 6 hours: 1.13 m³Cumulative Oil rec:24.23m³Salinity: 49000 ppmPH: 7Sand: 0Surface Total = 437.13m³Api = 59.7@15.6 CHrs Flowed = 209 HRS 30 MINH²S = 0.20 ppmCO2= 1.9%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS handover and shift change
06:00	06:30	0.50	P	Conduct Meeting with all day shift personnel, review PJHA, discuss hazards associated with flowing / proper purging, LEL monitoring, loading and offloading flow back water.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 36
Report Date: 3/25/2014
Final Job Status: C
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 191 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 188 hrs FLARE FTP: 6939 kPa SICP: 10858 kPa DHP= 13069.2 kPa Intermediate CSG = TSTM Flow Temp: 43 °c Meter Run Temp: 30 °c Choke size: 12.7mm Gas Rate: 92.94 E^3m^3/d Gas to Flare last 6 hrs:22.76E^3m^3 Cumulative Gas to Flare: 442.58E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 3.61 m^3 LFR last 6 hours:21.08m^3 (hourly average last 6 hours =3.51 m^3/hr) TLFR: 1187.32 m^3 TLFLTR: 6732.49 m^3 Oil rec. last hour: 0.21m^3 Oil rec. last 6 hours: 1.14 m^3 Cumulative Oil rec:21.01m^3 Salinity: 52000 ppm PH: 7 Sand: 0 Surface Total = 402.04m^3 Api = 59.9@15.6 C Hrs Flowed = 191 HRS 30 MIN H^2S = 0.10 ppm CO2= 2%
12:00	18:00	6.00	P	18:00 = 197 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 194 hrs FLARE FTP: 6791 kPa SICP: 10773 kPa DHP= 13024.3 kPa Intermediate CSG = TSTM Flow Temp: 43 °c Meter Run Temp: 30 °c Choke size: 12.7mm Gas Rate: 92.84 E^3m^3/d Gas to Flare last 6 hrs:22.85E^3m^3 Cumulative Gas to Flare: 465.43E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 2.93 m^3 LFR last 6 hours:18.43m^3 (hourly average last 6 hours =3.07 m^3/hr) TLFR: 1205.75 m^3 TLFLTR: 6714.06 m^3 Oil rec. last hour: 0.16m^3 Oil rec. last 6 hours: 0.99 m^3 Cumulative Oil rec:22.00m^3 Salinity: 48000 ppm PH: 7 Sand: 0 Surface Total = 396.17m^3 Api = 59.9@15.6 C Hrs Flowed = 191 HRS 30 MIN H^2S = 0.10 ppm CO2= 1.2%
18:00	18:00		P	WSS handover and shift change
18:00	18:30	0.50	P	Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release day crew and continue PJHA meeting with night personnel, discuss hazards associated with flowing / proper purging, LEL monitoring

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 36
Report Date: 3/25/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 203 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 200 hrs FLARE FTP: 6976 kPa SICP: 10704 kPa DHP= 12920 kPa Intermediate CSG = TSTM Flow Temp: 43 °c Meter Run Temp: 29 °c Choke size: 12.7mm Gas Rate: 92.01 E³m³/d Gas to Flare last 6 hrs:22.66E³m³ Cumulative Gas to Flare: 488.09E³m³ ILFTR: 7919.81m³ LFR last hour:3.32 m³ LFR last 6 hours:19.73m³ (hourly average last 6 hours =3.28 m³/hr) TLFR: 1225.48m³ TLFLTR:6694.33 m³ Oil rec. last hour: 0.18m³ Oil rec. last 6 hours: 1.1 m³ Cumulative Oil rec:23.1Xm³ Salinity: 49000 ppm PH: 7 Sand: 0 Surface Total = 417.09m³ Api = 59.8@15.6 C Hrs Flowed = 203 HRS 30 MIN H²S = 0.20 ppm CO2= 1.8%
0	06:00	6.00	P	06:00 = 209 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 206 hrs FLARE FTP: 6977 kPa SICP: 10636kPa DHP= 12843 kPa Intermediate CSG = TSTM Flow Temp: 43 °c Meter Run Temp: 29 °c Choke size: 12.7mm Gas Rate: 90.71 E³m³/d Gas to Flare last 6 hrs:22.82E³m³ Cumulative Gas to Flare: 510.91E³m³ ILFTR: 7919.81m³ LFR last hour: 3.18 m³ LFR last 6 hours:18.91m³ (hourly average last 6 hours =3.15m³/hr) TLFR: 1244.39m³ TLFLTR:6675.42 m³ Oil rec. last hour: 0.19m³ Oil rec. last 6 hours: 1.13 m³ Cumulative Oil rec:24.23m³ Salinity: 49000 ppm PH: 7 Sand: 0 Surface Total = 437.13m³ Api = 59.7@15.6 C Hrs Flowed = 209 HRS 30 MIN H²S = 0.20 ppm CO2= 1.9%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	73.61	0.00	78.14	6,675.42
DUCED OIL			0.00	4.36	-24.23

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 36
Report Date: 3/25/2014
Final Job Status: C
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,030.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,050.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Surface Completion Equipment Rental	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	Q300	215.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,670.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	400.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	Q300	500.00
Surface Completion Equipment Rental	MCCLELLAND OILFIELD RENTALS LTD	T130	1,100.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	Q300	4,351.48
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Completion Fluids & Other Chem	TERVITA CORP	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	G300	4,520.00
		M220	25,163.20

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing

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PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 37
Report Date: 3/26/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/26/2014 06:00	3/27/2014 06:00	848,750.23	17,293,094.66	240.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
6,976	10,704	Clear	-17	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

)0 = 233 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 230 hrs FLARE

FTP:6589 kPaSICP: 10325kPaDHP= 12487 kPaIntermediate CSG = TSTMFlow Temp: 42 °cMeter Run Temp: 28 °cChoke size: 12.7mmGas Rate:94.74 E³m³/dGas to Flare last 6 hrs:23.70E³m³Cumulative Gas to Flare: 603.49E³m³ILFTR: 7919.81m³LFR last hour: 3.18 m³LFR last 6 hours:17.25m³ (hourly average last 6 hours =2.87m³/hr)TLFR:1315.59m³TLFLTR:6604.22 m³Oil rec. last hour: 0.18m³Oil rec. last 6 hours:1.07 m³Cumulative Oil rec:28.57m³Salinity: 56000 ppmPH: 7Sand: 0Surface Total = 388.67m³Api = 60.9@15.6 CHrs Flowed = 233 HRS 30 MINH²S = 0.20 ppmCO2= 1.8%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS Shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 37
Report Date: 3/26/2014
Final Job Status: C
Final Report?

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 215 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 212 hrs FLARE FTP: 6656 kPa SICP: 10563kPa DHP= 12751.9 kPa Intermediate CSG = TSTM Flow Temp: 42 °c Meter Run Temp: 28 °c Choke size: 12.7mm Gas Rate: 91.55 E³m³/d Gas to Flare last 6 hrs:22.73E³m³ Cumulative Gas to Flare: 533.64E³m³ ILFTR: 7919.81m³ LFR last hour: 3.12 m³ LFR last 6 hours:19.06m³ (hourly average last 6 hours =3.15m³/hr) TLFR: 1263.45m³ TLFLTR:6656.36 m³ Oil rec. last hour: 0.20m³ Oil rec. last 6 hours: 1.15 m³ Cumulative Oil rec:25.83m³ Salinity: 53000 ppm PH: 7 Sand: 0 Surface Total = 358.34m³ Api = 61.3@15.6 C Hrs Flowed = 215 HRS 30 MIN H²S = 0.20 ppm CO2= 1.8% Protechnics sample #25 taken @ 12:00.
12:00	18:00	6.00	P	18:00 = 221 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 218 hrs FLARE FTP: 6531 kPa SICP: 10503kPa DHP= 12656.7 kPa Intermediate CSG = TSTM Flow Temp: 42 °c Meter Run Temp: 28 °c Choke size: 12.7mm Gas Rate: 90.40 E³m³/d Gas to Flare last 6 hrs:22.95E³m³ Cumulative Gas to Flare: 556.59E³m³ ILFTR: 7919.81m³ LFR last hour: 2.94 m³ LFR last 6 hours:17.77m³ (hourly average last 6 hours =2.96m³/hr) TLFR: 1281.22m³ TLFLTR:6638.59 m³ Oil rec. last hour: 0.17m³ Oil rec. last 6 hours: 1.03 m³ Cumulative Oil rec:26.41m³ Salinity: 52000 ppm PH: 7 Sand: 0 Surface Total = 352.14m³ Api = 61.0@15.6 C Hrs Flowed = 221 HRS 30 MIN H²S = 0.20 ppm CO2= 2.0%
18:00	18:00			WSS handover and shift change
18:00	18:30	0.50		Conduct Meeting with all personnel (day and night shifts), discuss tight hole operations due to unnecessary chatter around location and camp. Relay the message "don't tell, don't ask" to all services involved with past and present Operations. Release day crew and continue PJHA meeting with night personnel, discuss hazards associated with flowing / proper purging, LEL monitoring

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 37
Report Date: 3/26/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50		00:00 = 227 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 224 hrs FLARE FTP:6455kPa SICP: 10433kPa DHP= 12557 kPa Intermediate CSG = TSTM Flow Temp: 42 °c Meter Run Temp: 29 °c Choke size: 12.7mm Gas Rate:93.45 E³m³/d Gas to Flare last 6 hrs:23.20E³m³ Cumulative Gas to Flare:579.79E³m³ ILFTR: 7919.81m³ LFR last hour: 2.84 m³ LFR last 6 hours:17.12m³ (hourly average last 6 hours =2.85m³/hr) TLFR: 1298.34m³ TLFLTR:6621.47 m³ Oil rec. last hour: 0.19m³ Oil rec. last 6 hours:1.09 m³ Cumulative Oil rec:27.5m³ Salinity: 53000 ppm PH: 7 Sand: 0 Surface Total = 370.35m³ Api = 60.0@15.6 C Hrs Flowed = 227 HRS 30 MIN H²S = 0.20 ppm CO2=1.8%
00:00	06:00	6.00		06:00 = 233 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 230 hrs FLARE FTP:6589 kPa SICP: 10325kPa DHP= 12487 kPa Intermediate CSG = TSTM Flow Temp: 42 °c Meter Run Temp: 28 °c Choke size: 12.7mm Gas Rate:94.74 E³m³/d Gas to Flare last 6 hrs:23.70E³m³ Cumulative Gas to Flare: 603.49E³m³ ILFTR: 7919.81m³ LFR last hour: 3.18 m³ LFR last 6 hours:17.25m³ (hourly average last 6 hours =2.87m³/hr) TLFR:1315.59m³ TLFLTR:6604.22 m³ Oil rec. last hour: 0.18m³ Oil rec. last 6 hours:1.07 m³ Cumulative Oil rec:28.57m³ Salinity: 56000 ppm PH: 7 Sand: 0 Surface Total = 388.67m³ Api = 60.9@15.6 C Hrs Flowed = 233 HRS 30 MIN H²S = 0.20 ppm CO2= 1.8%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	124.00	0.00	71.20	6,604.22
PRODUCED OIL			0.00	4.34	-28.57

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	AGAT LABORATORIES	M220	5,000.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 37
Report Date: 3/26/2014
Final Job Status: C
Final Report? \

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Maintain Road & Location	CANOL OILFIELD SERVICES INC	D230	2,025.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,675.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,307.50
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Surface Completion Equipment Rental	MACKAY RANGE DEVELOPMENT CORP	Q300	500.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Fracture Stimulation Services	SAHTU RCS ENERGY SERVICES LTD	Q300	36,000
Completion Fluids & Other Chem	SCHLUMBERGER CANADA LIMITED	N110	210,175..
Trucking/Hauling/ Hot Shot Services	TERVITA CORP	G300	2,378.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	V D M TRUCKING SERVICE LTD	P100	512,000.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA	M220	26,110.53
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA	M220	7,500.00
	WEATHERFORD CANADA PARTNERSHIP	M220	16,720.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 37
Report Date: 3/26/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 38
Report Date: 3/27/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/27/2014 06:00	3/28/2014 06:00	55,614.00	17,348,708.66	240.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
6,434	10,338	Clear	-24	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

tinue Hauling Load fluid to Tank Farm in CPC YVQ yard.

06:00 = 257 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 254 hrs FLARE

FTP:6313kPaSICP: 10129 kPaDHP=12197.7 kPaIntermediate CSG = TSTMFlow Temp: 41 °cMeter Run Temp: 28 °cChoke size: 12.7mmGas Rate:93.32 E³m³/dGas to Flare last 6 hrs:23.26E³m³Cumulative Gas to Flare:697.00E³m³ILFTR: 7919.81m³LFR last hour: 2.65 m³LFR last 6 hours:16.0m³ (hourly average last 6 hours =2.66m³/hr)TLFR: 1379.27m³TLFLTR:6540.54 m³Oil rec. last hour: 0.18m³Oil rec. last 6 hours: 1.07 m³Cumulative Oil rec:32.78m³Salinity: 56000 ppmPH: 7Sand: 0Surface Total = 303.56m³Api = 61.0@15.6 CHrs Flowed = 251 HRS 30 MINH²S = 0.20 ppmCO2= 1.8%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 38
Report Date: 3/27/2014
Final Job Status: C
Final Report? \

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 239 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 236 hrs FLARE FTP: 6674kPa SICP: 10301 kPa DHP= 12751.9 kPa Intermediate CSG = TSTM Flow Temp: 42 °c Meter Run Temp: 28 °c Choke size: 12.7mm Gas Rate: 89.31 E^3m^3/d Gas to Flare last 6 hrs:23.72E^3m^3 Cumulative Gas to Flare: 627.21E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 2.27 m^3 LFR last 6 hours:16.67m^3 (hourly average last 6 hours =2.78m^3/hr) TLFR: 1332.26m^3 TLFLTR:6587.55 m^3 Oil rec. last hour: 0.16m^3 Oil rec. last 6 hours: 1.10 m^3 Cumulative Oil rec:29.67m^3 Salinity: 54000 ppm PH: 7 Sand: 0 Surface Total = 303.44m^3 Api = 61.0@15.6 C Hrs Flowed = 239 HRS 30 MIN H^2S = 0.20 ppm CO2= 2.0% Protechnics sample #26 taken @ 12:00.
12:00	18:00	6.00	P	18:00 = 245 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 242 hrs FLARE FTP: 6504kPa SICP: 10255 kPa DHP= 12325.9 kPa Intermediate CSG = TSTM Flow Temp: 42 °c Meter Run Temp: 29 °c Choke size: 12.7mm Gas Rate: 92.07 E^3m^3/d Gas to Flare last 6 hrs:23.25E^3m^3 Cumulative Gas to Flare: 650.46E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 2.09 m^3 LFR last 6 hours:14.28m^3 (hourly average last 6 hours =2.38m^3/hr) TLFR: 1346.54m^3 TLFLTR:6573.27 m^3 Oil rec. last hour: 0.14m^3 Oil rec. last 6 hours: 0.94 m^3 Cumulative Oil rec:30.61m^3 Salinity: 55000 ppm PH: 7 Sand: 0 Surface Total = 245.5m^3 Api = 61.0@15.6 C Hrs Flowed = 245 HRS 30 MIN H^2S = 0.20 ppm CO2= 2.0%
18:00	18:00		P	WSS shift change and handover.
18:00	18:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 38
Report Date: 3/27/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 251 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 248 hrs FLARE FTP:6270kPa SICP: 10163 kPa DHP= 12242kPa Intermediate CSG = TSTM Flow Temp: 41 °c Meter Run Temp: 27 °c Choke size: 12.7mm Gas Rate:93.92 E³m³/d Gas to Flare last 6 hrs:23.28E³m³ Cumulative Gas to Flare:673.74E³m³ ILFTR: 7919.81m³ LFR last hour: 2.69 m³ LFR last 6 hours:16.73m³ (hourly average last 6 hours =2.78m³/hr) TLFR: 1363.27m³ TLFLTR:6446.54m³ Oil rec. last hour: 0.20m³ Oil rec. last 6 hours: 1.10 m³ Cumulative Oil rec:31.71m³ Salinity: 56000 ppm PH: 7 Sand: 0 Surface Total = 286.49m³ Api = 60.8@15.6 C Hrs Flowed = 251 HRS 30 MIN H²S = 0.40 ppm CO2= 1.8%
00:00	06:00	6.00	P	06:00 = 257 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 254 hrs FLARE FTP:6313kPa SICP: 10129 kPa DHP=12197.7 kPa Intermediate CSG = TSTM Flow Temp: 41 °c Meter Run Temp: 28 °c Choke size: 12.7mm Gas Rate:93.32 E³m³/d Gas to Flare last 6 hrs:23.26E³m³ Cumulative Gas to Flare:697.00E³m³ ILFTR: 7919.81m³ LFR last hour: 2.65 m³ LFR last 6 hours:16.0m³ (hourly average last 6 hours =2.66m³/hr) TLFR: 1379.27m³ TLFLTR:6540.54 m³ Oil rec. last hour: 0.18m³ Oil rec. last 6 hours: 1.07 m³ Cumulative Oil rec:32.78m³ Salinity: 56000 ppm PH: 7 Sand: 0 Surface Total = 303.56m³ Api = 61.0@15.6 C Hrs Flowed = 251 HRS 30 MIN H²S = 0.20 ppm CO2= 1.8%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
SH WATER	0.00	153.00	0.00	63.68	6,540.54
PRODUCED OIL			0.00	4.21	-32.78

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,275.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 38
Report Date: 3/27/2014
Final Job Status: C
Final Report? \ _

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	2,050.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	7,370.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	450.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	16,720.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 39
Report Date: 3/28/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/28/2014 06:00	3/29/2014 06:00	1,168,341.48	18,517,050.14	228.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
6,313	10,129	Clear	-23	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

tinue Hauling Load fluid to Tank Farm in CPC YVQ yard.

06:00 = 281 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 278 hrs FLARE

FTP:6196kPaSICP: 9922 kPaDHP= 11923.9kPaIntermediate CSG = TSTMFlow Temp: 40 °cMeter Run Temp: 25 °cChoke size: 12.7mmGas Rate: 88.67E³m³/dGas to Flare last 6 hrs:23.15E³m³Cumulative Gas to Flare: 789.41E³m³LFTR: 7919.811m³LFR last hour: 2.39 m³LFR last 6 hours:14.7m³ (hourly average last 6 hours =2.45m³/hr)TLFR:1438.30m³TLFLTR:6481.51 m³Oil rec. last hour: 0.18m³Oil rec. last 6 hours: 1.1 m³Cumulative Oil rec:37.09m³Salinity: 57000 ppmPH: 7Sand: 0Surface Total = 164.9m³Api = 62.3@15.6 CHrs Flowed = 281 HRS 30 MINH²S = 0.40 ppmCO2= 1.8%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00	0.00	P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam.

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DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 263 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 260 hrs FLARE FTP: 6168kPa SICP: 10070 kPa DHP= 12125.6 kPa Intermediate CSG = TSTM Flow Temp: 41 °c Meter Run Temp: 27 °c Choke size: 12.7mm Gas Rate: 98.71 E^3m^3/d Gas to Flare last 6 hrs:23.11E^3m^3 Cumulative Gas to Flare: 720.11E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 2.32 m^3 LFR last 6 hours:14.42m^3 (hourly average last 6 hours =2.40m^3/hr) TLFR: 1393.69m^3 TLFLTR:6526.12 m^3 Oil rec. last hour: 0.17m^3 Oil rec. last 6 hours: 1.00 m^3 Cumulative Oil rec:33.78m^3 Salinity: 59000 ppm PH: 7 Sand: 0 Surface Total = 218.98m^3 Api = 61.0@15.6 C Hrs Flowed = 263 HRS 30 MIN H^2S = 0.40 ppm CO2= 2.0% Protecnics sample # 27 taken @ 12:00.
12:00	18:00	6.00	P	18:00 = 269 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 266 hrs FLARE FTP: 6027kPa SICP: 9998 kPa DHP= 12034.1 kPa Intermediate CSG = TSTM Flow Temp: 40 °c Meter Run Temp: 25 °c Choke size: 12.7mm Gas Rate: 89.74 E^3m^3/d Gas to Flare last 6 hrs:23.14E^3m^3 Cumulative Gas to Flare: 743.25E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 2.43 m^3 LFR last 6 hours:14.78m^3 (hourly average last 6 hours =2.46m^3/hr) TLFR: 1408.47m^3 TLFLTR:6511.34 m^3 Oil rec. last hour: 0.17m^3 Oil rec. last 6 hours: 1.07 m^3 Cumulative Oil rec:34.85m^3 Salinity: 60000 ppm PH: 7 Sand: 0 Surface Total = 132.83m^3 Api = 61.0@15.6 C Hrs Flowed = 269 HRS 30 MIN H^2S = 0.40 ppm CO2= 2.0%
18:00	18:00		P	WSS shift change and handover.
18:00	18:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam.

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DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 275 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 272 hrs FLARE FTP: 6219kPa SICP: 1122kPa DHP= 11992.1 kPa Intermediate CSG = TSTM Flow Temp: 40 °c Meter Run Temp: 26 °c Choke size: 12.7mm Gas Rate:91.68 E³m³/d Gas to Flare last 6 hrs:23.01E³m³ Cumulative Gas to Flare: 766.26E³m³ ILFTR: 7919.81m³ LFR last hour: 2.45 m³ LFR last 6 hours:15.13m³ (hourly average last 6 hours =2.52m³/hr) TLFR: 1423.6m³ TLFLTR:6496.21 m³ Oil rec. last hour: 0.17m³ Oil rec. last 6 hours: 1.14 m³ Cumulative Oil rec:35.99m³ Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 149.1m³ Api = 62.3@15.6 C Hrs Flowed = 275 HRS 30 MIN H²S = 0.40 ppm CO2= 1.9%
0	06:00	6.00	P	06:00 = 281 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 278 hrs FLARE FTP:6196kPa SICP: 9922 kPa DHP= 11923.9kPa Intermediate CSG = TSTM Flow Temp: 40 °c Meter Run Temp: 25 °c Choke size: 12.7mm Gas Rate: 88.67E³m³/d Gas to Flare last 6 hrs:23.15E³m³ Cumulative Gas to Flare: 789.41E³m³ LFTR: 7919.811m³ LFR last hour: 2.39 m³ LFR last 6 hours:14.7m³ (hourly average last 6 hours =2.45m³/hr) TLFR:1438.30m³ TLFLTR:6481.51 m³ Oil rec. last hour: 0.18m³ Oil rec. last 6 hours: 1.1 m³ Cumulative Oil rec:37.09m³ Salinity: 57000 ppm PH: 7 Sand: 0 Surface Total = 164.9m³ Api = 62.3@15.6 C Hrs Flowed = 281 HRS 30 MIN H²S = 0.40 ppm CO2= 1.8%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	202.00	0.00	59.03	6,481.51
DUCED OIL			0.00	4.31	-37.09

Y COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

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DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	1,985.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	14,945.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	14,335.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	22,753.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	970.85
Surface Completion Equipment Rental	RONS AUTO SERVICE LTD	Q300	1,130.45
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	N110	1,062,738.18
Completion Fluids & Other Chem	TERVITA CORP	G300	3,280.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	17,395.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.5

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing

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PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

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Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/29/2014 06:00	3/30/2014 06:00	66,260.00	18,583,310.14	228.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
6,391	9,893	Clear	-24	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

Continue Hauling Load fluid to Tank Farm in CPC YVQ yard

J0 = 305 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 302 hrs FLARE

FTP:6208kPaSICP:9719 kPaDHP=11736.6kPaIntermediate CSG = TSTMFlow Temp: 39 °cMeter Run Temp: 22 °cChoke size: 12.7mmGas Rate:92.13E³m³/dGas to Flare last 6 hrs:22.94E³m³Cumulative Gas to Flare:881.72E³m³ILFTR: 7919.81m³LFR last hour: 2.24 m³LFR last 6 hours:13.70m³ (hourly average last 6 hours =2.28m³/hr)TLFR:1490.45m³TLFLTR:6429.36 m³Oil rec. last hour: 0.18m³Oil rec. last 6 hours:1.05 m³Cumulative Oil rec:41.02m³Salinity: 59000 ppmPH: 7Sand: 0Surface Total =95.1m³Api = 62.9@15.6 CHrs Flowed = 305 HRS 30 MINH²S = 0.40 ppmCO2= 1.8%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.
06:30	06:30		P	Haul 100m³ flowback to CPC YVQ Yard for storage. Haul 25.88m³ produced oil to Imperial Oil facility in Norman Wells. Conduct PJHA meeting with trucking crew regarding lifting 400bbl tanks out of containment, loading onto trailer and hauling to yard in Norman Wells. Remove 4x uninsulated 400bbl Tanks from containment, load up, secure and haul to Hodgson's yard in Norman Wells.

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DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 287 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 284 hrs FLARE FTP:6230 kPa SICP: 9879 kPa DHP= 11979.2 kPa Intermediate CSG = TSTM Flow Temp: 40 °c Meter Run Temp: 25 °c Choke size: 12.7mm Gas Rate: 86.96 E^3m^3/d Gas to Flare last 6 hrs:23.16 E^3m^3 Cumulative Gas to Flare: 812.57 E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 2.45 m^3 LFR last 6 hours:15.16 m^3 (hourly average last 6 hours =2.52m^3/hr) TLFR:1453.46m^3 TLFLTR:6466.35m^3 Oil rec. last hour: 0.18m^3 Oil rec. last 6 hours:1.12m^3 Cumulative Oil rec:38.21m^3 Salinity: 58000 ppm PH: 7 Sand: 0 Surface Total = 80.18m^3 Api = 59.7@15.6 C Hrs Flowed = 287 HRS 30 MIN H^2S = 0.40 ppm CO2= 2% Pro Technics sample #28 Taken @ 12:00
12:00	18:00	6.00	P	18:00 = 293 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 290 hrs FLARE FTP:6232kPa SICP: 9800 kPa DHP= 11790kPa Intermediate CSG = TSTM Flow Temp: 39 °c Meter Run Temp: 24 °c Choke size: 12.7mm Gas Rate: 89.95E^3m^3/d Gas to Flare last 6 hrs:23.18E^3m^3 Cumulative Gas to Flare: 835.75E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 1.76 m^3 LFR last 6 hours:9.28m^3 (hourly average last 6 hours =1.55m^3/hr) TLFR:1462.74m^3 TLFLTR:6457.07 m^3 Oil rec. last hour: 0.14m^3 Oil rec. last 6 hours:0.70 m^3 Cumulative Oil rec:38.90m^3 Salinity: 53000 ppm PH: 7 Sand: 0 Surface Total = 65.28m^3 Api = 62.9@15.6 C Hrs Flowed = 293 HRS 30 MIN H^2S = 0.40 ppm CO2= 2%
18:00	18:00		P	WSS shift change and handover.
18:00	18:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

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DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 299 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 296 hrs FLARE FTP:6208kPa SICP:9786 kPa DHP=11817.4kPa Intermediate CSG = TSTM Flow Temp: 39 °c Meter Run Temp: 25 °c Choke size: 12.7mm Gas Rate: 89.36E³m³/d Gas to Flare last 6 hrs:23.03E³m³ Cumulative Gas to Flare:858.78E³m³ ILFTR: 7919.81m³ LFR last hour: 2.23 m³ LFR last 6 hours:14.01m³ (hourly average last 6 hours =2.33m³/hr) TLFR:1476.75m³ TLFLTR:6443.06 m³ Oil rec. last hour: 0.18m³ Oil rec. last 6 hours:0.1.06 m³ Cumulative Oil rec:35.99m³ Salinity: 59000 ppm PH: 7 Sand: 0 Surface Total =80.35m³ Api = 62.15@15.6 C Hrs Flowed = 299 HRS 30 MIN H²S = 0.50 ppm CO2= 1.8%
)0	06:00	6.00	P	06:00 = 305 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 302 hrs FLARE FTP:6208kPa SICP:9719 kPa DHP=11736.6kPa Intermediate CSG = TSTM Flow Temp: 39 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate:92.13E³m³/d Gas to Flare last 6 hrs:22.94E³m³ Cumulative Gas to Flare:881.72E³m³ ILFTR: 7919.81m³ LFR last hour: 2.24 m³ LFR last 6 hours:13.70m³ (hourly average last 6 hours =2.28m³/hr) TLFR:1490.45m³ TLFLTR:6429.36 m³ Oil rec. last hour: 0.18m³ Oil rec. last 6 hours:1.05 m³ Cumulative Oil rec:41.02m³ Salinity: 59000 ppm PH: 7 Sand: 0 Surface Total =95.1m³ Api = 62.9@15.6 C Hrs Flowed = 305 HRS 30 MIN H²S = 0.40 ppm CO2= 1.8%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	100.00	0.00	52.15	6,429.36
DUCED OIL	0.00	25.88	0.00	3.93	-41.02

Y COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

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DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	23,346.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	17,395.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 41
Report Date: 3/30/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/30/2014 06:00	3/31/2014 06:00	44,189.00	18,627,499.14	228.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
6,208	9,719	Clear	-24	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

Continue Hauling Load fluid to Tank Farm in CPC YVQ yard

00:00 = 329 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 326 hrs FLARE

FTP;5410kPaSICP:9500kPaDHP=11525.8kPaIntermediate CSG = TSTMFlow Temp: 38 °cMeter Run Temp: 21 °cChoke size: 12.7mmGas Rate:85.22E³m³/dGas to Flare last 6 hrs:23.07E³m³Cumulative Gas to Flare:973.93E³m³ILFTR: 7919.81m³LFR last hour: 2.18 m³LFR last 6 hours:12.65m³ (hourly average last 6 hours =2.10m³/hr)TLFR:1541.70m³TLFLTR:6378.11 m³Oil rec. last hour: 0.17m³Oil rec. last 6 hours:1.02m³Cumulative Oil rec:45.01m³Salinity:60000 ppmPH: 7Sand: 0Surface Total =100.34m³Api = 62.9@15.6 CHrs Flowed = 329 HRS 30 MINH²S = 0.40 ppmCO2= 1.8%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 41
Report Date: 3/30/2014
Final Job Status: C
Final Report?

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 311 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 308 hrs FLARE FTP:6045 kPa SICP: 9709 kPa DHP= 11979.2 kPa Intermediate CSG = TSTM Flow Temp: 39 °c Meter Run Temp: 25 °c Choke size: 12.7mm Gas Rate: 91.85 E^3m^3/d Gas to Flare last 6 hrs:23.15 E^3m^3 Cumulative Gas to Flare: 904.87 E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 2.05 m^3 LFR last 6 hours:11.64 m^3 (hourly average last 6 hours =1.94m^3/hr) TLFR:1502.09m^3 TLFLTR:6417.72m^3 Oil rec. last hour: 0.16m^3 Oil rec. last 6 hours:0.91m^3 Cumulative Oil rec:41.93m^3 Salinity: 56000 ppm PH: 7 Sand: 0 Surface Total = 57.65m^3 Api = 62.1@15.6 C Hrs Flowed = 311 HRS 30 MIN H^2S = 0.40 ppm CO_2= 2% Weatherford conduct all time lapse and routine samples as per AGAT Schedule, send in time lapse samples through MXL. Pro Technics sample #29 Taken @ 12:00
12:00	18:00	6.00	P	18:00 = 317 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 314 hrs FLARE FTP:5923kPa SICP: 9661 kPa DHP= 11590.6kPa Intermediate CSG = TSTM Flow Temp: 39 °c Meter Run Temp: 25 °c Choke size: 12.7mm Gas Rate: 94.80E^3m^3/d Gas to Flare last 6 hrs:23.03E^3m^3 Cumulative Gas to Flare: 927.90E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 2.12 m^3 LFR last 6 hours:13.04m^3 (hourly average last 6 hours =2.17m^3/hr) TLFR:1462.74m^3 TLFLTR:6404.68 m^3 Oil rec. last hour: 0.16m^3 Oil rec. last 6 hours:1.00 m^3 Cumulative Oil rec:42.93m^3 Salinity: 55000 ppm PH: 7 Sand: 0 Surface Total = 71.69m^3 Api = 62.9@15.6 C Hrs Flowed = 317 HRS 30 MIN H^2S = 0.50 ppm CO_2= 1.5%
18:00	18:00		P	WSS shift change and handover.
18:00	18:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 41
Report Date: 3/30/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 323 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 320 hrs FLARE FTP:5936kPa SICP:9545kPa DHP=11541.2kPa Intermediate CSG = TSTM Flow Temp: 39 °c Meter Run Temp: 25 °c Choke size: 12.7mm Gas Rate:92.66E³m³/d Gas to Flare last 6 hrs:22.96E³m³ Cumulative Gas to Flare:950.86E³m³ ILFTR: 7919.81m³ LFR last hour: 2.20 m³ LFR last 6 hours:13.92m³ (hourly average last 6 hours =2.32m³/hr) TLFR:1529.05m³ TLFLTR:6390.76 m³ Oil rec. last hour: 0.18m³ Oil rec. last 6 hours:0.1.06 m³ Cumulative Oil rec:43.99m³ Salinity: 59500 ppm PH: 7 Sand: 0 Surface Total =86.67m³ Api = 62@15.6 C Hrs Flowed = 323 HRS 30 MIN H²S = 0.30 ppm CO2= 2.0%
00	06:00	6.00	P	06:00 = 329 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 326 hrs FLARE FTP;5410kPa SICP:9500kPa DHP=11525.8kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate:85.22E³m³/d Gas to Flare last 6 hrs:23.07E³m³ Cumulative Gas to Flare:973.93E³m³ ILFTR: 7919.81m³ LFR last hour: 2.18 m³ LFR last 6 hours:12.65m³ (hourly average last 6 hours =2.10m³/hr) TLFR:1541.70m³ TLFLTR:6378.11 m³ Oil rec. last hour: 0.17m³ Oil rec. last 6 hours:1.02m³ Cumulative Oil rec:45.01m³ Salinity:60000 ppm PH: 7 Sand: 0 Surface Total =100.34m³ Api = 62.9@15.6 C Hrs Flowed = 329 HRS 30 MIN H²S = 0.40 ppm CO2= 1.8%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	50.00	0.00	51.25	6,378.11
PRODUCED OIL			0.00	3.99	-45.01

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 41
Report Date: 3/30/2014
Final Job Status: G
Final Report? '

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,200.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	244.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	MARQUIS ALLIANCE ENERGY GROUP INC	T130	1,100.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	16,780.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing

ConocoPhillips
Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 41
Report Date: 3/30/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 42
Report Date: 3/31/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
3/31/2014 06:00	4/1/2014 06:00	501,204.91	19,128,704.05	228.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Donald Williams, 403-352-6925; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
6,391	10,282	Clear	-23	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

.tinue Hauling Load fluid to Tank Farm in CPC YVQ yard

06:00 = 353 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 350 hrs FLARE

FTP:5355 kPaSICP:9340 kPaDHP= 11306kPaIntermediate CSG = TSTMFlow Temp: 38 °cMeter Run Temp: 22 °cChoke size: 12.7mmGas Rate: 88.68E³m³/dGas to Flare last 6 hrs:22.75 E³m³Cumulative Gas to Flare: 1065.30 E³m³ILFTR:7919.81m³LFR last hour:2.03m³LFR last 6 hours:12.47m³ (hourly average last 6 hours =2.07m³/hr)TLFR:1590.79m³TLFLTR:6329.02m³Oil rec. last hour: 0.16m³Oil rec. last 6 hours:1.05m³Cumulative Oil rec:49.28m³Salinity: 60000 ppmPH: 7Sand: 0Surface Total = 103.7m³Api = 62.1@15.6 CHrs Flowed = 353HRS 30 MINH²S = 0.40 ppmCO2= 2.3%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 335 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 332 hrs FLARE FTP:5269 kPa SICP: 9444 kPa DHP= 11449.3 kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 90.97 E³m³/d Gas to Flare last 6 hrs:22.86 E³m³ Cumulative Gas to Flare: 996.79 E³m³ ILFTR: 7919.81m³ LFR last hour: 2.11 m³ LFR last 6 hours:12.51 m³ (hourly average last 6 hours =2.08m³/hr) TLFR:1554.21m³ TLFLTR:6365.60m³ Oil rec. last hour: 0.17m³ Oil rec. last 6 hours:1.12m³ Cumulative Oil rec:46.13m³ Salinity: 60000 ppm PH: 7 Sand: 0 Surface Total = 63.97m³ Api = 62.9@15.6 C Hrs Flowed = 335 HRS 30 MIN H²S = 0.50 ppm CO2= 1.5%
12:00	18:00	6.00	P	18:00 = 341 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 338 hrs FLARE FTP:5511 kPa SICP: 9453 kPa DHP= 11428.9kPa Intermediate CSG = TSTM Flow Temp: 39 °c Meter Run Temp: 23 °c Choke size: 12.7mm Gas Rate: 89.52 E³m³/d Gas to Flare last 6 hrs:22.82 E³m³ Cumulative Gas to Flare: 1019.61 E³m³ ILFTR: 7919.81m³ LFR last hour: 2.01 m³ LFR last 6 hours:12.03 m³ (hourly average last 6 hours =2.01m³/hr) TLFR:1566.24m³ TLFLTR:6353.57m³ Oil rec. last hour: 0.16m³ Oil rec. last 6 hours:1.04m³ Cumulative Oil rec:47.17m³ Salinity: 60000 ppm PH: 7 Sand: 0 Surface Total = 77.04m³ Api = 62.1@15.6 C Hrs Flowed = 341HRS 30 MIN H²S = 0.50 ppm CO2= 1.5%
18:00	18:00		P	WSS shift change and handover.
18:00	18:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 42
Report Date: 3/31/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:30	00:00	5.50	P	00:00 = 347 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 344 hrs FLARE FTP:5677 kPa SICP:9393 kPa DHP=11379kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 23 °c Choke size: 12.7mm Gas Rate: 93.65E³m³/d Gas to Flare last 6 hrs:22.94E³m³ Cumulative Gas to Flare: 1042.55 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.96m³ LFR last 6 hours:12.08m³ (hourly average last 6 hours =2.01m³/hr) TLFR:1578.32m³ TLFLTR:6341.49m³ Oil rec. last hour: 0.18m³ Oil rec. last 6 hours:1.06m³ Cumulative Oil rec:48.23m³ Salinity: 60000 ppm PH: 7 Sand: 0 Surface Total = 90.18m³ Api = 63.5@15.6 C Hrs Flowed = 347HRS 30 MIN H²S = 0.50 ppm CO2= 1.8%
00	06:00	6.00	P	06:00 = 353 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 350 hrs FLARE FTP:5355 kPa SICP:9340 kPa DHP= 11306kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 88.68E³m³/d Gas to Flare last 6 hrs:22.71 E³m³ Cumulative Gas to Flare: 1065.30 E³m³ ILFTR:7919.81m³ LFR last hour:2.03m³ LFR last 6 hours:12.47m³ (hourly average last 6 hours =2.07m³/hr) TLFR:1590.79m³ TLFLTR:6329.02m³ Oil rec. last hour: 0.16m³ Oil rec. last 6 hours:1.05m³ Cumulative Oil rec:49.28m³ Salinity: 60000 ppm PH: 7 Sand: 0 Surface Total = 103.7m³ Api = 62.1@15.6 C Hrs Flowed = 353HRS 30 MIN H²S = 0.40 ppm CO2= 2.3%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	50.00	0.00	49.09	6,329.02
PRODUCED OIL			0.00	4.27	-49.28

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	400.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 42
Report Date: 3/31/2014
Final Job Status: G
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,550.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	665.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	6,122.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	2,974.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	11,000.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	1,700.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HODGSON'S CONTRACTING (2005) LTD	Q300	12,936.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	2,770.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	MYB CONSTRUCTION LTD	Q300	22,080.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Rig Camp	PBN ENERGY SERVICES LTD	E500	14,720.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	15,456.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	9,500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	75,272.50
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	2,850
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	4,500
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	8,400.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	24,320.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	6,750.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	6,750.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	34,500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	1,350.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	2,800.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	7,500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	21,000.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	52,200.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	4,320.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	6,000.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	6,300.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	63,760.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	8,719.83
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	T130	1,595.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	30,535.58

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing

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Report #: 42
Report Date: 3/31/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 43
Report Date: 4/1/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/1/2014 06:00	4/2/2014 06:00	52,323.50	19,181,027.55	216.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
5,521	9,376	Clear	-19	Ice Pad / Snow Covered

Last 24hr Summary

Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

..tinue Hauling Load fluid to Tank Farm in CPC YVQ yard

06:00 = 377 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 374 hrs FLARE

FTP: 5822 kPa
SICP: 9242 kPa
DHP= 11192 kPa
Intermediate CSG = TSTM
Flow Temp: 39 °c
Meter Run Temp: 23 °c
Choke size: 12.7mm
Gas Rate: 87.31 E³m³/d
Gas to Flare last 24 hrs: 90.20 E³m³
Cumulative Gas to Flare: 1155.50 E³m³
ILFTR: 7919.81m³
LFR last hour: 1.59m³
LFR last 24 hours: 46.31m³ (hourly average last 24 hours = 1.93m³/hr)
TLFR: 1637.10m³
TLFLTR: 6282.71m³
Oil rec. last hour: 0.14m³
Oil rec. last 24 hours: 3.98m³
Cumulative Oil rec: 53.26m³
Salinity: 61000 ppm
PH: 7
Sand: 0
Surface Total = 103.99m³
Api = 63.2 @ 15.6°c
H^2S = 0.45 ppm
CO2= 2.0%

24hr Forecast

Continue to flow the well to testers.

DAILY TIME LOG

Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 43
Report Date: 4/1/2014
Final Job Status: C
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 359 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 356 hrs FLARE FTP:5205 kPa SICP:9298 kPa DHP= 11255.9kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 91.27E³m³/d Gas to Flare last 6 hrs: 22.70 E³m³ Cumulative Gas to Flare: 1088.00 E³m³ ILFTR:7919.81m³ LFR last hour:1.90m³ LFR last 6 hours:12.19m³ (hourly average last 6 hours =2.03m³/hr) TLFR:1602.98m³ TLFLTR:6316.83m³ Oil rec. last hour: 0.17m³ Oil rec. last 6 hours:1.05m³ Cumulative Oil rec:50.33m³ Salinity: 60000 ppm PH: 7 Sand: 0 Surface Total = 66.94m³ Api = 62.9@15.6 C Hrs Flowed = 359HRS 30 MIN H²S = 0.50 ppm CO2= 1.8%
12:00	18:00	6.00	P	18:00 = 365 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 362 hrs FLARE FTP:5328 kPa SICP:9289 kPa DHP= 11232.6 kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 23 °c Choke size: 12.7mm Gas Rate: 87.60 E³m³/d Gas to Flare last 6 hrs:22.61 E³m³ Cumulative Gas to Flare: 1110.61 E³m³ ILFTR:7919.81m³ LFR last hour: 2.01m³ LFR last 6 hours:11.70m³ (hourly average last 6 hours =1.95m³/hr) TLFR:1614.68m³ TLFLTR:6305.13m³ Oil rec. last hour: 0.17m³ Oil rec. last 6 hours:1.03m³ Cumulative Oil rec:51.36m³ Salinity: 61000 ppm PH: 7 Sand: 0 Surface Total = 79.67m³ Api = 62.9@15.6 C Hrs Flowed = 365HRS 30 MIN H²S = 0.50 ppm CO2= 1.5%
18:00	19:00	1.00	P	WSS Shift change. Crew shift change. Held a daily safety and operations meeting with all night shift personnel. Reviewed and discussed CPC PJHA regarding night shift operations and all associated hazards. Discussed ERP plan and emergency procedures. All tickets checked and valid. Performed cross shift with day crews.

Report Printed: 4/28/2014

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Report #: 43
Report Date: 4/1/2014
Final Job Status: GAS
Final Report? Yes

LY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
19:00	00:00	5.00	P	00:00 = 371 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 368 hrs FLARE FTP: 5779 kPa SICP: 9270 kPa DHP= 11207 kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 24 °c Choke size: 12.7mm Gas Rate: 89.15 E^3m^3/d Gas to Flare last 6 hrs: 22.48 E^3m^3 Cumulative Gas to Flare: 1133.09 E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 1.95m^3 LFR last 6 hours: 12.02m^3 (hourly average last 6 hours = 2.00m^3/hr) TLFR: 1626.70m^3 TLFLTR: 6293.11m^3 Oil rec. last hour: 0.16m^3 Oil rec. last 6 hours: 1.02m^3 Cumulative Oil rec: 52.38m^3 Salinity: 61000 ppm PH: 7 Sand: 0 Surface Total = 92.71m^3 Api = 63.7 @ 15.6°c Hrs Flowed = 371 Hours 30 Minutes H^2S = 0.50 ppm CO2= 1.9%
00:00	06:00	6.00	P	06:00 = 377 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 374 hrs FLARE FTP: 5822 kPa SICP: 9242 kPa DHP= 11192 kPa Intermediate CSG = TSTM Flow Temp: 39 °c Meter Run Temp: 23 °c Choke size: 12.7mm Gas Rate: 87.31 E^3m^3/d Gas to Flare last 24 hrs: 90.20 E^3m^3 Cumulative Gas to Flare: 1155.50 E^3m^3 ILFTR: 7919.81m^3 LFR last hour: 1.59m^3 LFR last 24 hours: 46.31m^3 (hourly average last 24 hours = 1.93m^3/hr) TLFR: 1637.10m^3 TLFLTR: 6282.71m^3 Oil rec. last hour: 0.14m^3 Oil rec. last 24 hours: 3.98m^3 Cumulative Oil rec: 53.26m^3 Salinity: 61000 ppm PH: 7 Sand: 0 Surface Total = 103.99m^3 Api = 63.2 @ 15.6°c H^2S = 0.45 ppm CO2= 2.0%

FLUID SUMMARY

Fluid	To lease (m^3)	From lease (m^3)	To well (m^3)	From well (m^3)	Left to recover (m^3)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	50.00	0.00	46.31	6,282.71
PRODUCED OIL			0.00	3.98	-53.26

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
ce Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 43
Report Date: 4/1/2014
Final Job Status: GAS
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,290.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	3,900.00
Wellsite Supervision & Engineering	DON WILLIAMS - BIRD DOG	T130	1,595.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	1,670.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	950.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125.00
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	Q300	150.00
Welltesting (Eqprnt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	T130	1,595.00
		M220	17,822.50

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 43
Report Date: 4/1/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 44
Report Date: 4/2/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/2/2014 06:00	4/3/2014 06:00	204,360.88	19,385,388.43	204.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
5,659	9,139	Clear	-30	Ice Pad / Snow Covered

Last 24hr Summary

Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

tinue Hauling Load fluid to Tank Farm in CPC YVQ yard

06:00 = 401 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 398 hrs FLARE

FTP: 5659 kPa
SICP: 9139 kPa
DHP= 11032 kPa
Intermediate CSG = TSTM
Flow Temp: 38 °c
Meter Run Temp: 22 °c
Choke size: 12.7mm
Gas Rate: 87.95 E³m³/d
Gas to Flare last 24 hrs: 89.59 E³m³
Cumulative Gas to Flare: 1245.09 E³m³
ILFTR: 7919.81m³
LFR last hour: 1.55m³
LFR last 24 hours: 43.06m³ (hourly average last 24 hours = 1.79m³/hr)
TLFR: 1680.16m³
TLFLTR: 6239.65m³
Oil rec. last hour: 0.12m³
Oil rec. last 24 hours: 3.73m³
Cumulative Oil rec: 56.99m³
Salinity: 62000 ppm
PH: 7
Sand: 0
Surface Total = 100.78m³
Api = 63.2 @ 15.6°c
H²S = 0.50 ppm
CO2= 1.20%

24hr Forecast

Continue to flow the well to testers.

DAILY TIME LOG

Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 44
Report Date: 4/2/2014
Final Job Status: C
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 383 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 380 hrs FLARE FTP:5837 kPa SICP:9214 kPa DHP= 11132.5 kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 23 °c Choke size: 12.7mm Gas Rate: 85.83 E^3m^3/d Gas to Flare last 6 hrs: 22.41 E^3m^3 Cumulative Gas to Flare: 1177.91 E^3m^3 ILFTR:7919.81m^3 LFR last hour:1.89m^3 LFR last 6 hours:10.44m^3 (hourly average last 6 hours =1.74m^3/hr) TLFR:1647.54m^3 TLFLTR:6272.27m^3 Oil rec. last hour: 0.18m^3 Oil rec. last 6 hours:0.96m^3 Cumulative Oil rec:54.22m^3 Salinity: 60000 ppm PH: 7 Sand: 0 Surface Total = 65.39m^3 Api = 62.9@15.6 C Hrs Flowed = 383HRS 30 MIN H^2S = 0.50 ppm CO2= 1.5% Protechnics sample #32 Taken @ 12:00
12:00	18:00	6.00	P	18:00 = 389 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 386 hrs FLARE FTP:5758 kPa SICP:9168 kPa DHP= 11075.9 kPa Intermediate CSG = TSTM Flow Temp: 37 °c Meter Run Temp: 24 °c Choke size: 12.7mm Gas Rate: 89.71 E^3m^3/d Gas to Flare last 6 hrs:22.41 E^3m^3 Cumulative Gas to Flare: 1200.32 E^3m^3 ILFTR:7919.81m^3 LFR last hour: 1.59m^3 LFR last 6 hours:10.60m^3 (hourly average last 6 hours =1.76m^3/hr) TLFR:1658.14m^3 TLFLTR:6261.67m^3 Oil rec. last hour: 0.14m^3 Oil rec. last 6 hours:0.88m^3 Cumulative Oil rec:55.10m^3 Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 76.97m^3 Api = 63.3@15.6 C Hrs Flowed = 389HRS 30 MIN H^2S = 0.50 ppm CO2= 1.0%
18:00	19:00	1.00	P	WSS Shift change. Crew shift change. Held a daily safety and operations meeting with all night shift personnel. Reviewed and discussed CPC PJHA regarding night shift operations and all associated hazards. Discussed ERP plan and emergency procedures. All tickets checked and valid. Performed cross shift with day crews.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 44
Report Date: 4/2/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
19:00	00:00	5.00	P	00:00 = 395 hrs - 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 392 hrs FLARE FTP: 5650 kPa SICP: 9150 kPa DHP= 11054 kPa Intermediate CSG = TSTM Flow Temp: 37 °c Meter Run Temp: 23 °c Choke size: 12.7mm Gas Rate: 91.38 E³m³/d Gas to Flare last 6 hrs: 22.48 E³m³ Cumulative Gas to Flare: 1222.80 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.84m³ LFR last 6 hours: 11.24m³ (hourly average last 6 hours = 1.87m³/hr) TLFR: 1669.38m³ TLFLTR: 6250.43m³ Oil rec. last hour: 0.17m³ Oil rec. last 6 hours: 1.01m³ Cumulative Oil rec: 56.11m³ Salinity: 61000 ppm PH: 7 Sand: 0 Surface Total = 89.12m³ Api = 63.2 @ 15.6°c Hrs Flowed = 395 Hours 30 Minutes H²S = 0.50 ppm CO2= 1.4%
0	06:00	6.00	P	06:00 = 401 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 398 hrs FLARE FTP: 5659 kPa SICP: 9139 kPa DHP= 11032 kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 87.95 E³m³/d Gas to Flare last 24 hrs: 89.59 E³m³ Cumulative Gas to Flare: 1245.09 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.55m³ LFR last 24 hours: 43.06m³ (hourly average last 24 hours = 1.79m³/hr) TLFR: 1680.16m³ TLFLTR: 6239.65m³ Oil rec. last hour: 0.12m³ Oil rec. last 24 hours: 3.73m³ Cumulative Oil rec: 56.99m³ Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 100.78m³ Api = 63.2 @ 15.6°c H²S = 0.50 ppm CO2= 1.20%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
FRESH WATER	0.00	50.00	0.00	43.06	6,239.65
PRODUCED OIL			0.00	3.73	-56.99

Y COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 44
Report Date: 4/2/2014
Final Job Status: C
Final Report? \

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	144,600.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	3,900.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	1,670.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	950.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125.00
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	Q300	150.00
Completion Fluids & Other Chem	TERVITA CORP	T130	1,595
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	G300	7,580.[illegible]
		M220	17,464.88

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 44
Report Date: 4/2/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 45
Report Date: 4/3/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/3/2014 06:00	4/4/2014 06:00	51,496.00	19,436,884.43	204.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
5,563	9,001	Clear	-29	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

ıtinue Hauling Load fluid to Tank Farm in CPC YVQ yard

06:00 = 425 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 422 hrs FLARE

FTP: 5563 kPa
SICP: 9001 kPa
DHP= 10880 kPa
Intermediate CSG = TSTM
Flow Temp: 38 °c
Meter Run Temp: 21 °c
Choke size: 12.7mm
Gas Rate: 84.63 E³m³/d
Gas to Flare last 24 hrs: 88.45 E³m³
Cumulative Gas to Flare: 1333.54 E³m³
ILFTR: 7919.81m³
LFR last hour: 2.11m³
LFR last 24 hours: 44.70m³ (hourly average last 24 hours = 1.86m³/hr)
TLFR: 1724.86m³
TLFLTR: 6194.95m³
Oil rec. last hour: 0.16m³
Oil rec. last 24 hours: 3.71m³
Cumulative Oil rec: 60.70m³
Salinity: 62000 ppm
PH: 7
Sand: 0
Surface Total = 69.34m³
Api = 63.6 @ 15.6°c
H^2S = 0.55 ppm
CO2= 1.00%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Time	End Time	Dur (hr)	Time P-T-X	Operation
,0	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 45
Report Date: 4/3/2014
Final Job Status: G/
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 407 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 404 hrs FLARE FTP:5631 kPa SICP:9075 kPa DHP= 10967.5 kPa Intermediate CSG = TSTM Flow Temp: 37 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 88.51 E^3m^3/d Gas to Flare last 6 hrs: 22.29 E^3m^3 Cumulative Gas to Flare: 1267.38 E^3m^3 ILFTR:7919.81m^3 LFR last hour:1.74m^3 LFR last 6 hours:11.72m^3 (hourly average last 6 hours =1.95m^3/hr) TLFR:1691.88m^3 TLFLTR:6227.93m^3 Oil rec. last hour: 0.16m^3 Oil rec. last 6 hours:1.04m^3 Cumulative Oil rec:58.03m^3 Salinity: 61000 ppm PH: 7 Sand: 0 Surface Total = 65.39m^3 Api = 62.9@15.6 C Hrs Flowed = 407HRS 30 MIN H^2S = 0.50 ppm CO2= 1.0%
12:00	18:00	6.00	P	18:00 = 413 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 410 hrs FLARE FTP:5504 kPa SICP:9072 kPa DHP= 10922.1 kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 23 °c Choke size: 12.7mm Gas Rate: 89.33 E^3m^3/d Gas to Flare last 6 hrs:22.27 E^3m^3 Cumulative Gas to Flare: 1289.65 E^3m^3 ILFTR:7919.81m^3 LFR last hour: 1.89m^3 LFR last 6 hours:11.10m^3 (hourly average last 6 hours =1.85m^3/hr) TLFR:1702.98m^3 TLFLTR:6216.83m^3 Oil rec. last hour: 0.16m^3 Oil rec. last 6 hours:0.97m^3 Cumulative Oil rec:59.00m^3 Salinity: 60000 ppm PH: 7 Sand: 0 Surface Total = 45.67m^3 Api = 63.5@15.6 C Hrs Flowed = 413HRS 30 MIN H^2S = 0.50 ppm CO2= 1.0%
18:00	19:00	1.00	P	WSS Shift change. Crew shift change. Held a daily safety and operations meeting with all night shift personnel. Reviewed and discussed CPC PJHA regarding night shift operations and all associated hazards. Discussed ERP plan and emergency procedures. All tickets checked and valid. Performed cross shift with day crews.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 45
Report Date: 4/3/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
19:00	00:00	5.00	P	00:00 = 419 hrs - 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 416 hrs FLARE FTP: 5422 kPa SICP: 9036 kPa DHP= 10885 kPa Intermediate CSG = TSTM Flow Temp: 37 °c Meter Run Temp: 19 °c Choke size: 12.7mm Gas Rate: 89.55 E³m³/d Gas to Flare last 6 hrs: 21.93 E³m³ Cumulative Gas to Flare: 1311.58 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.76m³ LFR last 6 hours: 10.67m³ (hourly average last 6 hours = 1.78m³/hr) TLFR: 1713.65m³ TLFLTR: 6206.16m³ Oil rec. last hour: 0.15m³ Oil rec. last 6 hours: 0.77m³ Cumulative Oil rec: 59.77m³ Salinity: 61000 ppm PH: 7 Sand: 0 Surface Total = 57.11m³ Api = 63.2 @ 15.6°c Hrs Flowed = 419 Hours 30 Minutes H²S = 0.50 ppm CO2= 1.2%
)0	06:00	6.00	P	06:00 = 425 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 422 hrs FLARE FTP: 5563 kPa SICP: 9001 kPa DHP= 10880 kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 84.63 E³m³/d Gas to Flare last 24 hrs: 88.45 E³m³ Cumulative Gas to Flare: 1333.54 E³m³ ILFTR: 7919.81m³ LFR last hour: 2.11m³ LFR last 24 hours: 44.70m³ (hourly average last 24 hours = 1.86m³/hr) TLFR: 1724.86m³ TLFLTR: 6194.95m³ Oil rec. last hour: 0.16m³ Oil rec. last 24 hours: 3.71m³ Cumulative Oil rec: 60.70m³ Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 69.34m³ Api = 63.6 @ 15.6°c H²S = 0.55 ppm CO2= 1.00%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	55.76	0.00	44.70	6,194.95
PRODUCED OIL	0.00	24.09	0.00	3.71	-60.70

LY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 45
Report Date: 4/3/2014
Final Job Status: C
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	3,900.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	1,670.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	950.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125.00
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	T130	150.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	1,595.00
			16,780

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 45
Report Date: 4/3/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 46
Report Date: 4/4/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/4/2014 06:00	4/5/2014 06:00	54,121.63	19,491,006.06	204.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
5,454	8,903	Clear	-28	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

...itinue Hauling Load fluid to Tank Farm in CPC YVQ yard

06:00 = 449 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 446 hrs FLARE

FTP: 5454 kPa
SICP: 8903 kPa
DHP= 10724 kPa
Intermediate CSG = TSTM
Flow Temp: 37 °c
Meter Run Temp: 22 °c
Choke size: 12.7mm
Gas Rate: 87.60 E³m³/d
Gas to Flare last 24 hrs: 88.02 E³m³
Cumulative Gas to Flare: 1421.56 E³m³
ILFTR: 7919.81m³
LFR last hour: 1.71m³
LFR last 24 hours: 40.74m³ (hourly average last 24 hours = 1.70m³/hr)
TLFR: 1765.33m³
TLFLTR: 6154.48m³
Oil rec. last hour: 0.16m³
Oil rec. last 24 hours: 3.67m³
Cumulative Oil rec: 64.37m³
Salinity: 62000 ppm
PH: 7
Sand: 0
Surface Total = 63.48m³
Api = 63.7 @ 15.6°c
H^2S = 0.55 ppm
CO2= 1.10%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 46
Report Date: 4/4/2014
Final Job Status: C
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 431 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 428 hrs FLARE FTP:5002 kPa SICP:8965 kPa DHP= 110821.7 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 89.96 E^3m^3/d Gas to Flare last 6 hrs: 22.09 E^3m^3 Cumulative Gas to Flare: 1355.63 E^3m^3 ILFTR:7919.81m^3 LFR last hour:1.59m^3 LFR last 6 hours:9.78m^3 (hourly average last 6 hours =1.63m^3/hr) TLFR:1734.64m^3 TLFLTR:6185.17m^3 Oil rec. last hour: 0.15m^3 Oil rec. last 6 hours:0.95m^3 Cumulative Oil rec:60.65m^3 Salinity: 63000 ppm PH: 7 Sand: 0 Surface Total = 30.07m^3 Api = 63.9@15.6 C Hrs Flowed = 431HRS 30 MIN H^2S = 0.50 ppm CO2= 1.0% Weatherford conducted all time lapse and Protechnics Sample #34 @ 12:00
12:00	18:00	6.00	P	18:00 = 437 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 434 hrs FLARE FTP:5041 kPa SICP:8948 kPa DHP= 110803.7 kPa Intermediate CSG = TSTM Flow Temp: 37 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 84.59 E^3m^3/d Gas to Flare last 6 hrs:21.89 E^3m^3 Cumulative Gas to Flare: 1377.52 E^3m^3 ILFTR:7919.81m^3 LFR last hour: 1.76m^3 LFR last 6 hours:10.28m^3 (hourly average last 6 hours =1.71m^3/hr) TLFR:1744.92m^3 TLFLTR:6174.89m^3 Oil rec. last hour: 0.15m^3 Oil rec. last 6 hours:0.89m^3 Cumulative Oil rec:62.54m^3 Salinity: 63000 ppm PH: 7 Sand: 0 Surface Total = 41.24m^3 Api = 63.5@15.6 C Hrs Flowed = 437HRS 30 MIN H^2S = 0.50 ppm CO2= 1.5%
18:00	19:00	1.00	P	WSS Shift change. Crew shift change. Held a daily safety and operations meeting with all night shift personnel. Reviewed and discussed CPC PJHA regarding night shift operations and all associated hazards. Discussed ERP plan and emergency procedures. All tickets checked and valid. Performed cross shift with day crews.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 46
Report Date: 4/4/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
19:00	00:00	5.00	P	00:00 = 443 hrs - 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 440 hrs FLARE FTP: 5314 kPa SICP: 8895 kPa DHP= 10885 kPa Intermediate CSG = TSTM Flow Temp: 37 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 88.04 E³m³/d Gas to Flare last 6 hrs: 22.19 E³m³ Cumulative Gas to Flare: 1399.71 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.80m³ LFR last 6 hours: 10.46m³ (hourly average last 6 hours = 1.74m³/hr) TLFR: 1755.38m³ TLFLTR: 6164.43m³ Oil rec. last hour: 0.14m³ Oil rec. last 6 hours: 0.91m³ Cumulative Oil rec: 63.45m³ Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 52.61m³ Api = 63.2 @ 15.6°c Hrs Flowed = 443 Hours 30 Minutes H²S = 0.50 ppm CO2= 1.2%
0	06:00	6.00	P	06:00 = 449 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 446 hrs FLARE FTP: 5454 kPa SICP: 8903 kPa DHP= 10724 kPa Intermediate CSG = TSTM Flow Temp: 37 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 87.60 E³m³/d Gas to Flare last 24 hrs: 88.02 E³m³ Cumulative Gas to Flare: 1421.56 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.71m³ LFR last 24 hours: 40.74m³ (hourly average last 24 hours = 1.70m³/hr) TLFR: 1765.33m³ TLFLTR: 6154.48m³ Oil rec. last hour: 0.16m³ Oil rec. last 24 hours: 3.67m³ Cumulative Oil rec: 64.37m³ Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 63.48m³ Api = 63.7 @ 15.6°c H²S = 0.55 ppm CO2= 1.10%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	50.00	0.00	40.47	6,154.48
PRODUCED OIL			0.00	3.67	-64.37

Y COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 46
Report Date: 4/4/2014
Final Job Status: C
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	CORE LABORATORIES CANADA LTD	M220	2,525.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	3,900.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	1,670.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	950.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125.00
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	T130	150.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	1,595
			16,880.

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing

RFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 47
Report Date: 4/5/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/5/2014 06:00	4/6/2014 06:00	51,496.00	19,542,502.06	204.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
5,327	8,800	Clear	-20	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

Continue Hauling Load fluid to Tank Farm in CPC YVQ yard

06:00 = 473 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 470 hrs FLARE

FTP: 5327 kPa
SICP: 8800 kPa
DHP= 10643 kPa
Intermediate CSG = TSTM
Flow Temp: 36 °c
Meter Run Temp: 21 °c
Choke size: 12.7mm
Gas Rate: 84.84 E³m³/d
Gas to Flare last 24 hrs: 87.38 E³m³
Cumulative Gas to Flare: 1508.94 E³m³
ILFTR: 7919.81m³
LFR last hour: 1.66m³
LFR last 24 hours: 39.66m³ (hourly average last 24 hours = 1.65m³/hr)
TLFR: 1804.99m³
TLFLTR: 6114.82m³
Oil rec. last hour: 0.15m³
Oil rec. last 24 hours: 3.78m³
Cumulative Oil rec: 68.15m³
Salinity: 65000 ppm
PH: 7
Sand: 0
Surface Total = 62.92m³
Api = 64.5 @ 15.6°c
H^2S = 0.50 ppm
CO_2= 1.0%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 47
Report Date: 4/5/2014
Final Job Status: C
Final Report? [illegible]

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 455 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 452 hrs FLARE FTP:5554 kPa SICP:8879 kPa DHP= 10703.7 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 88.69 E^3m^3/d Gas to Flare last 6 hrs: 21.95 E^3m^3 Cumulative Gas to Flare: 1443.51 E^3m^3 ILFTR:7919.81m^3 LFR last hour:1.77m^3 LFR last 6 hours:10.15m^3 (hourly average last 6 hours =1.63m^3/hr) TLFR:1775.48m^3 TLFLTR:6144.33m^3 Oil rec. last hour: 0.17m^3 Oil rec. last 6 hours:0.95m^3 Cumulative Oil rec:65.32m^3 Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 30.58m^3 Api = 63.2@15.6 C Hrs Flowed = 431HRS 30 MIN H^2S = 0.50 ppm CO2= 1.0% Protechnics Sample #34 taken @ 12:00
12:00	18:00	6.00	P	18:00 = 461 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 458 hrs FLARE FTP:5326 kPa SICP:8847 kPa DHP= 10677.4 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 86.13 E^3m^3/d Gas to Flare last 6 hrs:21.88 E^3m^3 Cumulative Gas to Flare: 1465.39 E^3m^3 ILFTR:7919.81m^3 LFR last hour: 1.69m^3 LFR last 6 hours:9.84m^3 (hourly average last 6 hours =1.64m^3/hr) TLFR:1744.92m^3 TLFLTR:6174.89m^3 Oil rec. last hour: 0.15m^3 Oil rec. last 6 hours:0.93m^3 Cumulative Oil rec:66.25m^3 Salinity: 63000 ppm PH: 7 Sand: 0 Surface Total = 41.35m^3 Api = 63.8@15.6 C Hrs Flowed = 461HRS 30 MIN H^2S = 0.50 ppm CO2= 1.0%
18:00	19:00	1.00	P	WSS Shift change. Crew shift change. Held a daily safety and operations meeting with all night shift personnel. Reviewed and discussed CPC PJHA regarding night shift operations and all associated hazards. Discussed ERP plan and emergency procedures. All tickets checked and valid. Performed cross shift with day crews.

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 47
Report Date: 4/5/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
19:00	00:00	5.00	P	00:00 = 467 hrs - 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 464 hrs FLARE FTP: 5342 kPa SICP: 8816 kPa DHP= 10648 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 87.96 E³m³/d Gas to Flare last 6 hrs: 21.87 E³m³ Cumulative Gas to Flare: 1487.26 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.77m³ LFR last 6 hours: 10.18m³ (hourly average last 6 hours = 1.70m³/hr) TLFR: 1795.50m³ TLFLTR: 6124.31m³ Oil rec. last hour: 0.16m³ Oil rec. last 6 hours: 0.97m³ Cumulative Oil rec: 67.22m³ Salinity: 65000 ppm PH: 7 Sand: 0 Surface Total = 52.50m³ Api = 63.8 @ 15.6°c Hrs Flowed = 467 Hours 30 Minutes H²S = 0.50 ppm CO2= 1.0%
0	06:00	6.00	P	06:00 = 473 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 470 hrs FLARE FTP: 5327 kPa SICP: 8800 kPa DHP= 10643 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 84.84 E³m³/d Gas to Flare last 24 hrs: 87.38 E³m³ Cumulative Gas to Flare: 1508.94 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.66m³ LFR last 24 hours: 39.66m³ (hourly average last 24 hours = 1.65m³/hr) TLFR: 1804.99m³ TLFLTR: 6114.82m³ Oil rec. last hour: 0.15m³ Oil rec. last 24 hours: 3.78m³ Cumulative Oil rec: 68.15m³ Salinity: 65000 ppm PH: 7 Sand: 0 Surface Total = 62.92m³ Api = 64.5 @ 15.6°c H²S = 0.50 ppm CO2= 1.0%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	44.00	0.00	39.66	6,114.82
PRODUCED OIL			0.00	3.78	-68.15

Y COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 47
Report Date: 4/5/2014
Final Job Status: C
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	3,900.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	1,670.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	950.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125.00
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	T130	150.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	1,595.00
			16,780

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
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3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
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3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 47
Report Date: 4/5/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 48
Report Date: 4/6/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/6/2014 06:00	4/7/2014 06:00	53,835.00	19,596,337.06	204.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
5,304	8,767	Clear	-23	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB).

ıtinue Hauling Load fluid to Tank Farm in CPC YVQ yard

06:00 = 497 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 494 hrs FLARE

FTP: 5304 kPa
SICP: 8767 kPa
DHP= 10504 kPa
Intermediate CSG = TSTM
Flow Temp: 36 °c
Meter Run Temp: 21 °c
Choke size: 12.7mm
Gas Rate: 86.22 E³m³/d
Gas to Flare last 24 hrs: 86.32 E³m³
Cumulative Gas to Flare: 1595.26 E³m³
ILFTR: 7919.81m³
LFR last hour: 1.53m³
LFR last 24 hours: 37.96m³ (hourly average last 24 hours = 1.58m³/hr)
TLFR: 1842.95m³
TLFLTR: 6076.86m³
Oil rec. last hour: 0.16m³
Oil rec. last 24 hours: 3.64m³
Cumulative Oil rec: 71.79m³
Salinity: 64000 ppm
PH: 7
Sand: 0
Surface Total = 65.52m³
Api = 63.7 @ 15.6°c
H^2S = 0.25 ppm
CO2= 1.0%

24hr Forecast
Continue to flow the well to testers.

DAILY TIME LOG

Time	End Time	Dur (hr)	Time P-T-X	Operation
00:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 48
Report Date: 4/6/2014
Final Job Status: C
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	06:30		P	07:45 - Shut in tbg and csg valves to Scada, change out Flange on casing from 2" LP to 1/2" NPT. (Clear out grease plug from Scada Control). 8:25 - 8:40 - Pressure test flange on Tbg flow Tee to 1.8MPa (Low). Good Test. 8:42 - 8:57 - Pressure test flange on Tbg flow Tee to 21MPa (High). Good Test. Reconfigure test equipment from Tbg Flow Tee to Casing flange. 9:15 - 9:30 - Pressure test casing flange to 1.8MPa (Low) Good Test. 9:32 - 9:47 - Pressure test casing flange to 21MPa (High). Good test. 9:55 - Open up Tbg and Casing to surface Boxes. (Scada).
06:30	12:00	5.50	P	12:00 = 479 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 476 hrs FLARE FTP:5359 kPa SICP:8823 kPa DHP= 10580.5 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 85.50 E^3m^3/d Gas to Flare last 6 hrs: 21.53 E^3m^3 Cumulative Gas to Flare: 1530.47 E^3m^3 ILFTR:7919.81m^3 LFR last hour:1.56m^3 LFR last 6 hours:9.08m^3 (hourly average last 6 hours =1.51m^3/hr) TLFR:1814.07m^3 TLFLTR:6105.74m^3 Oil rec. last hour: 0.15m^3 Oil rec. last 6 hours:0.92m^3 Cumulative Oil rec:69.07m^3 Salinity: 63000 ppm PH: 7 Sand: 0 Surface Total = 33.92m^3 Api = 64.7@15.6 C Hrs Flowed = 479HRS 30 MIN H^2S = 0.50 ppm CO2= 1.0% Protechnics sample #36 taken. (last Protechnics taken as per program).
12:00	18:00	6.00	P	18:00 = 485 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 482 hrs FLARE FTP:5449 kPa SICP:8811 kPa DHP= 10534.3 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 86.93 E^3m^3/d Gas to Flare last 6 hrs: 21.85 E^3m^3 Cumulative Gas to Flare: 1552.32 E^3m^3 ILFTR:7919.81m^3 LFR last hour:1.58m^3 LFR last 6 hours:10.08m^3 (hourly average last 6 hours =1.68m^3/hr) TLFR:1824.15m^3 TLFLTR:6095.66m^3 Oil rec. last hour: 0.15m^3 Oil rec. last 6 hours:0.98m^3 Cumulative Oil rec:70.05m^3 Salinity: 64000 ppm PH: 7 Sand: 0 Surface Total = 44.98m^3 Api = 63.8@15.6 C Hrs Flowed = 485HRS 30 MIN H^2S = 0.50 ppm CO2= 1.0%

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 48
Report Date: 4/6/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:00	19:00	1.00	P	WSS Shift change. Crew shift change. Held a daily safety and operations meeting with all night shift personnel. Reviewed and discussed CPC PJHA regarding night shift operations and all associated hazards. Discussed ERP plan and emergency procedures. All tickets checked and valid. Performed cross shift with day crews.
19:00	00:00	5.00	P	00:00 = 491 hrs - 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 488 hrs FLARE FTP: 5385 kPa SICP: 8802 kPa DHP= 10525 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 87.76 E³m³/d Gas to Flare last 6 hrs: 21.49 E³m³ Cumulative Gas to Flare: 1573.81 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.58m³ LFR last 6 hours: 9.57m³ (hourly average last 6 hours = 1.60m³/hr) TLFR: 1833.72m³ TLFLTR: 6086.09m³ Oil rec. last hour: 0.15m³ Oil rec. last 6 hours: 0.84m³ Cumulative Oil rec: 70.89m³ Salinity: 64000 ppm PH: 7 Sand: 0 Surface Total = 55.39m³ Api = 64.1 @ 15.6°c Hrs Flowed = 491 Hours 30 Minutes H²S = 0.50 ppm CO2= 1.1%
00:00	06:00	6.00	P	06:00 = 497 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 494 hrs FLARE FTP: 5304 kPa SICP: 8767 kPa DHP= 10504 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 86.22 E³m³/d Gas to Flare last 24 hrs: 86.32 E³m³ Cumulative Gas to Flare: 1595.26 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.53m³ LFR last 24 hours: 37.96m³ (hourly average last 24 hours = 1.58m³/hr) TLFR: 1842.95m³ TLFLTR: 6076.86m³ Oil rec. last hour: 0.16m³ Oil rec. last 24 hours: 3.64m³ Cumulative Oil rec: 71.79m³ Salinity: 64000 ppm PH: 7 Sand: 0 Surface Total = 65.52m³ Api = 63.7 @ 15.6°c H²S = 0.25 ppm CO2= 1.0%

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	39.00	0.00	37.96	6,076.86
PRODUCED OIL			0.00	3.64	-71.79

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 48
Report Date: 4/6/2014
Final Job Status: C
Final Report? Y

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	CANOL OILFIELD SERVICES INC	E120	2,000.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	3,900.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	1,670.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	150.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	Q300	950.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	T130	1,595.00
		M220	19,119.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 49
Report Date: 4/7/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/7/2014 06:00	4/8/2014 06:00	65,824.43	19,662,161.49	240.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
10,264	10,421	Clear	-18	Ice Pad / Snow Covered

Last 24hr Summary
Continue to Flow well to Weatherford testers. 15:00 Shut in the well.

J0 = 506 Hrs - 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 503 Hrs FLARE
FTP: 5235 kPa
SICP:8705 kPa
DHP= 10451.4 kPa
Intermediate CSG = TSTM
Flow Temp: 36 °c
Meter Run Temp: 22 °c
Choke size: 12.7mm
Gas Rate: 88.57 E³m³/d
Gas to Flare last 3 hrs: 10.65 E³m³
Cumulative Gas to Flare: 1627.51 E³m³
ILFTR:7919.81m³
LFR last hour:1.64m³
LFR last 3 hours:4.45m³ (hourly average last 3 hours =1.48m³/hr)
TLFR:1857.04m³
TLFLTR:6062.77m³
Oil rec. last hour: 0.15m³
Oil rec. last 3 hours:0.43m³
Cumulative Oil rec:73.16m³
Salinity: 63000 ppm
PH: 7
Sand: 0
Surface Total = 48.98 m³
Api = N/A
Total Hrs Flowed = 506HRS 30 MIN
H^2S = 0.30 ppm
CO2= 1.0%

Cleaned out P-tank and started to rig out all Weatherford test equipment.
06:00 SITP: 10624 kPa, SICP: 10421 kPa, BHP: 12830 kPa

24hr Forecast
Finish rig out of test equipment. Haul out 400bbl tanks.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with flowing well, loading and offloading fluids, sampling and working with steam. Check all personnel's safety tickets. All Valid.

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 49
Report Date: 4/7/2014
Final Job Status: C
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:30	12:00	5.50	P	12:00 = 503 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 500 hrs FLARE FTP:5326 kPa SICP:8704 kPa DHP= 10477.8 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 85.61 E^3m^3/d Gas to Flare last 6 hrs: 21.60 E^3m^3 Cumulative Gas to Flare: 1616.86 E^3m^3 ILFTR:7919.81m^3 LFR last hour:1.59m^3 LFR last 6 hours:9.64m^3 (hourly average last 6 hours =1.60m^3/hr) TLFR:1852.59m^3 TLFLTR:6067.22m^3 Oil rec. last hour: 0.15m^3 Oil rec. last 6 hours:0.94m^3 Cumulative Oil rec:72.73m^3 Salinity: 63000 ppm PH: 7 Sand: 0 Surface Total = 44.10m^3 Api = 63.7@15.6 C Hrs Flowed = 503HRS 30 MIN H^2S = 0.20 ppm CO2= 1.0% Complete set of samples taken. (Time lapse and routine), sent in through MXL.
12:00	15:00	3.00	P	15:00 Shut in well and took meter out of service. 15:00 = 506 Hrs - 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 503 Hrs FLARE FTP: 5235 kPa SICP:8705 kPa DHP= 10451.4 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 88.57 E^3m^3/d Gas to Flare last 3 hrs: 10.65 E^3m^3 Cumulative Gas to Flare: 1627.51 E^3m^3 ILFTR:7919.81m^3 LFR last hour:1.64m^3 LFR last 3 hours:4.45m^3 (hourly average last 3 hours =1.48m^3/hr) TLFR:1857.04m^3 TLFLTR:6062.77m^3 Oil rec. last hour: 0.15m^3 Oil rec. last 3 hours:0.43m^3 Cumulative Oil rec:73.16m^3 Salinity: 63000 ppm PH: 7 Sand: 0 Surface Total = 48.98 m^3 Api = N/A Total Hrs Flowed = 506HRS 30 MIN H^2S = 0.30 ppm CO2= 1.0%

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 49
Report Date: 4/7/2014
Final Job Status: GAS
Final Report? Yes

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
15:00	18:00	3.00	P	Started to rig out test equipment and boiler. Read and record build up pressures as follows:
18:00	18:30	0.50	P	WSS Shift change.
18:30	20:00	1.50	P	Waited for night shift test crew to arrive. Crew is now traveling from Norman wells and can only work a 10 hour shift on site to stay within NWT maximum 12 hour work day.
20:00	20:30	0.50	P	Held a daily safety and operations meeting with night shift test crew. Reviewed and discussed CPC PJHA regarding rig out of test equipment and all associated hazards.
20:30	06:00	9.50	P	Continued to rig out all Weatherford test equipment and obtain pressure build ups. Rigged out all hoses and fittings from tank farm. Racked all flow, flare and POP lines.

Time	Downhole Pressure (KPa)	SITP (KPa)	SITP (SCADA) (KPa)	SICP (KPa)	SICP(SCADA) (KPa)
15:05	10848.3	8611	8639	9034	8984
15:10	11003.7	8800	8770	9119	9053
15:15	11121.5	8835	8832	9161	9081
15:30	11252.8	8993	8991	9233	9129
15:45	11351.8	9126	9136	9289	9191
16:00	11428.8	9250	9294	9328	9246
16:05	Note: Change out casing sensor and needle valve due to leaking threads.				
16:15	11497.3	9349		9165	
16:30	11571.1	9426	9453	9417	9363
16:45	11634.0	9476		9495	
17:00	11685.8	9522	9536	9577	9508
17:15	11744.4	9522		9629	
17:30	11773.0	9589		9685	
17:45	11826.4	9635		9730	
18:00	11882.5	9682	9715	9765	9687

Pressure build ups:

Time	DH Pressure	SITP	SITP(SCADA)	SICP	SICP(SCADA)
18:30	11956 kPa	9372 kPa		9819 kPa	
19:00	12014 kPa	9776 kPa	9805 kPa	9872 kPa	9756 kPa
19:30	12085 kPa	9808 kPa		9907 kPa	
20:00	12141 kPa	9846 kPa	9880 kPa	9947 kPa	9894 kPa
20:30	12213 kPa	9872 kPa		9988 kPa	
21:00	12243 kPa	9917 kPa	9942 kPa	10020 kPa	9949 kPa
21:30	12302 kPa	9944 kPa		10064 kPa	
22:00	12352 kPa	9973 kPa	10025 kPa	10086 kPa	10018 kPa
22:30	12382 kPa	10002 kPa		10117 kPa	
23:00	12411 kPa	10021 kPa	10066 kPa	10147 kPa	10087 kPa
23:30	12473 kPa	10030 kPa		10176 kPa	
00:00	12513 kPa	10056 kPa	10135 kPa	10192 kPa	10128 kPa
00:30	12546 kPa	10080 kPa		10214 kPa	
01:00	12580 kPa	10114 kPa	10170 kPa	10240 kPa	10183 kPa
01:30	12616 kPa	10133 kPa		10264 kPa	
02:00	12629 kPa	10152 kPa	10225 kPa	10283 kPa	10255 kPa
02:30	12671 kPa	10178 kPa		10309 kPa	
03:00	12698 kPa	10185 kPa	10252 kPa	10318 kPa	10294 kPa
03:30	12710 kPa	10205 kPa		10344 kPa	
04:00	12748 kPa	10222 kPa	10294 kPa	10361 kPa	10308 kPa
04:30	12768 kPa	10236 kPa		10381 kPa	
05:00	12797 kPa	10256 kPa	10321 kPa	10389 kPa	10342 kPa
05:30	12811 kPa	10260 kPa		10407 kPa	
06:00	12830 kPa	10264 kPa	10349 kPa	10421 kPa	10377 kPa

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	68.81	0.00	14.09	6,062.77
DUCED OIL	0.00	23.19	0.00	1.37	-73.16

LY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,322.50
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 49
Report Date: 4/7/2014
Final Job Status: C
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	1,168.75
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	3,900.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	1,670.00
Safety Equipment & Services	HODGSON'S CONTRACTING (2005) LTD	T430	8,910.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	2,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Completion Fluids & Other Chem	PBN ENERGY SERVICES LTD	G300	1,980.00
Pressure Truck/Hot Oiler	PBN ENERGY SERVICES LTD	S990	1,980.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	150.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	Q300	950.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	T130	1,595.00
		M220	18,717.18

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 49
Report Date: 4/7/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 50
Report Date: 4/8/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/8/2014 06:00	4/9/2014 06:00	102,753.00	19,764,914.49	264.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
10,668	10,924	Light Snow	-12	Ice Pad / Snow Covered

Last 24hr Summary

Continue to rig out Weatherford test equipment, Boiler and tank farm, Haul equipment to CPC YVQ yard and/or appropriate Vendor. Continue to read and record build up pressures. Erected chain link fence around wellhead.
,0 BHP: 13083 kPa, SITP: 10402 kPa, SICP: 10593 kPa
18:00 BHP: 13276 kPa, SITP: 10514 kPa, SICP: 10707 kPa
00:00 BHP: 13439 kPa, SITP: 10592 kPa, SICP: 10822 kPa
06:00 BHP: 13576 kPa, SITP: 10668 kPa, SICP: 10924 kPa

24hr Forecast

Lease clean up.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with rigging out equipment, moving equipment, pinch / crush points, use of spotter and load securement. Check all personnel's safety tickets. All Valid.
06:30	12:00	5.50	P	Continue to rig out Weatherford test equipment, stack matting and haul out 400bbl tanks from flow back tank farm to CPC YVQ yard. Pressure build ups: Time DH Pressure SITP SITP(SCADA) SICP SICP(SCADA) 06:00 12830.7 10264 10349 10421 10377 07:00 12899.9 10279 10455 08:00 12927.2 10311 10483 09:00 12977.7 10331 10467 10514 10439 10:00 13029.1 10344 10474 10540 10480 11:00 13045.6 10386 10487 10566 10515 12:00 13083.4 10402 10515 10593 10529
12:00	18:00	6.00	P	Load up and haul out all Weatherford testing equipment, 400bbl tanks, and matting. Rcs crew dismantle flow back farm containment, cut up liner and geo in 1m² pieces, load up in c-can for disposal. Continue to read and record build up pressures as follows: Pressure build ups: Time DH Pressure SITP SITP(SCADA) SICP SICP(SCADA) 13:00 13112.1 10416 10542 10615 10556 14:00 13137.1 10427 10563 10642 10570 15:00 13192.8 10455 10590 10661 10604 16:00 13218.2 10482 10611 10682 10584 17:00 13250.1 10513 10625 10700 10652 18:00 13276.6 10514 10653 10707 10667

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 50
Report Date: 4/8/2014
Final Job Status: C
Final Report? Y

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
18:00	06:00	12.00	P	20:00 Held a daily safety and operations meeting with night shift test crew. Reviewed and discussed CPC PJHA regarding night time operations and all associated hazards. Erected chain link fence around the wellhead. Pressure build ups:

Time	DH Pressure	SITP	SITP(SCADA)	SICP	SICP(SCADA)
19:00	13309	10526	10666	10730	10680
20:00	13323	10535	10756	10753	10735
21:00	13341	10546	10707	10781	10707
22:00	13389	10563	10714	10802	10721
23:00	13428	10569	10718	10809	10725
00:00	13439	10592	10776	10822	10790
01:00	13474	10608	10784	10850	10777
02:00	13489	10619	10790	10865	10818
03:00	13514	10627	10845	10878	10832
04:00	13556	10647	10845	10899	10832
05:00	13558	10657	10847	10914	10836
06:00	13576	10668	10866	10924	10873

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	0.00	0.00	0.00	6,062.77
PRODUCED OIL	0.00	0.00	0.00	0.00	-73.16

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,340
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	940.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	4,790.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,030.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,810.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,960.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,960.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	2,810.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	3,110.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	5,140.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	P100	4,930.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	3,430.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	G300	3,430.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	E120	3,900.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	T130	1,670.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	Q300	400.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	2,000.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	T130	1,595.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	15
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	150.00

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 50
Report Date: 4/8/2014
Final Job Status: GAS
Final Report? Yes

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	950.00
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	T130	1,595.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	25,827.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 50
Report Date: 4/8/2014
Final Job Status: C
Final Report?

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 51
Report Date: 4/9/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective
New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/9/2014 06:00	4/10/2014 06:00	139,390.34	19,904,304.83	216.00

Daily Contacts
WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig
RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
10,747	10,987	Clear	-13	Ice Pad / Snow Covered

Last 24hr Summary
Finish cutting up and disposing of liner and geo, haul out remaining matting and containment, continue to read and record build up pressures. Cleaned, winterized and readied command center to be hauled out.

Forecast
Haul out remaining equipment. Final lease clean up.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	06:00		P	WSS shift change and handover.
06:00	06:30	0.50	P	Conduct Pre-job safety meeting with all personnel, review PJHA and discuss hazards associated with cutting up liner and geo, moving equipment, pinch / crush points, use of spotter and load securement. Check all personnel's safety tickets. All Valid.
06:30	14:00	7.50	P	Continue to cut up liner and geo, haul out remaining matting and light towers to CPC YVQ and Hodgson's yard. Pressure build ups: Time / DH Pressure / SITP / SITP(SCADA) / SICP / SICP(SCADA) 06:00 13576.9 10668 10866 10924 10873 07:00 13605.4 10675 10936 08:00 13647.2 10699 10900 10952 10914 09:00 13655.2 10711 10915 10968 10853 10:00 13685.9 10747 10922 10987 10929 Clean up location and prep Navigator shack to return. Wait for Blair Gifford with Weatherford to arrive to recalibrate Weatherford Real Time monitoring / transmitter system.
14:00	18:00	4.00	P	Weatherford Real Time technician on location (Blair Gifford). Plug in laptop and install software update, Wait for technicians in Houston to run scenarios to trouble shoot potential issues. Wait for confirmation to confirm system is functioning properly.
18:00	06:00	12.00	P	WSS shift change and handover. Shredded all field notes and tight hole non essential paperwork from job. Cleaned out command center. Drained plumbing and winterized command center.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	0.00	0.00	0.00	6,062.77
PRODUCED OIL	0.00	0.00	0.00	0.00	-73.16

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	480.00

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 51
Report Date: 4/9/2014
Final Job Status: C
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	1,410.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	850.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,130.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,440.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,440.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,440.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	27,500.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	27,500.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	27,500.00
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	3,900.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	2,000.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	2,000.00
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	1,950.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	150
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300.00
Wellsite Supervision & Engineering	TECTONIC ENERGY CONSULTING INC	T130	950.00
Welltesting (Eqpmt,Srvcs,PTA,Gov't Subs)	WEATHERFORD CANADA PARTNERSHIP	M220	3,000.00
			26,634.34

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
		2,730.00	2,731.00	10.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 51
Report Date: 4/9/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 52
Report Date: 4/10/2014
Final Job Status: GAS
Final Report? Yes

WELL HEADER INFORMATION

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Surface Legal Location	API / UWI	License No.
P-20 65-00 126-45	200/D-020/L094P1699	EL 470

Orig KB/RT (m)	Ground Elevation (m)	KB-Grd (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)	PBTD (All) (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00	Original Hole - 3,129.60

JOB INFORMATION

Job Category	Primary Job Type	Secondary Job Type	Total Field Estimate (Cost)
COMPLETIONS	INITIAL COMPLETION	RIGLESS	20,251,383.86

Objective: New Ventures HZ Canol Formation completion

Actual Start Date	End Date	Abandon Date	Responsible Grp 1	Responsible Grp 2	Responsible Grp 3
2/18/2014 07:30	4/11/2014 06:00		coved	lagartn	Chris Kendall

AFE COST SUMMARY

AFE / RFE / Maint.#	Total AFE Amount (Cost)	Total AFE + Supp Amount (Cost)	Total Field Estimate (Cost)	AFE-Field Estimate (Cost)
10351862	923,600.00	923,600.00	380,182.50	543,417.50
10359334	17,880,000.00	17,880,000.00	19,871,201.36	-1,991,201.36

DAILY INFORMATION

Report Start Date	Report End Date	Daily Cost Total (Cost)	Cumulative Cost (Cost)	Personnel Regular Hours (hr)
4/10/2014 06:00	4/11/2014 06:00	347,079.03	20,251,383.86	48.00

Daily Contacts: WS Superintendent, Derrick Cove, 780-831-1314; Completion Engineer, Theorn LaGarde, 403-710-9753; WS Supervisor, Justin Minault, 403 391-0714; On-site Sat Phone, 403-648-9024; WS Supervisor, Chris Kendall, 780-518-3284; WS Supervisor, Myles Hahn, 780-402-

Rig: RIGLESS, RIGLESS 1

Tubing Pressure (kPa)	Casing Pressure (kPa)	Weather	Temperature (°C)	Lease Condition
		Clear	-16	Ice Pad / Snow Covered

Last 24hr Summary
Haul out remaining equipment, clean up lease. Weatherford Real Time Technician (Blair Gifford) on location trouble shooting, repairing and monitoring equipment.

Forecast
Well secured and opened to surface recorder equipment.

DAILY TIME LOG

Start Time	End Time	Dur (hr)	Time P-T-X	Operation
06:00	08:00	2.00	P	Pre-job safety meeting with Black Opal and Northridge Septic vac Personnel, discuss hazards associated with electrical shock, handling waste, and load securement. Clean up Navigator Command Center, pack up all completions equipment into crate to be sent to Grande Prairie via MXL, wrap up RCS Gen-set, drain up and rig out Black Opal septic system. Ensure all loads prepped for Transport.
08:00	12:00	4.00	P	Canol trucking on location, conduct PJHA meeting and discuss hazards associated with loading / unloading, load securement and transport on ice road. Load up and haul out remaining equipment, rack Navigator Command center, RCS Sahtu Gen-set, and Black Opal septic system in CPC YVQ yard, haul remaining matting to Hodgson's yard. Conduct final sweep of location to ensure all garbage picked up, wellhead secure and locked, and proper signage in place.
12:00	13:00	1.00	P	Weatherford Data Technician (Blair Gifford) on location recording build up pressure's to calibrate sending equipment with surface pressure's, discuss PJHA for working alone, implimented plan for Blair to contact CPC WSS Chris Kendall ever 2 Hours while on location alone.

FLUID SUMMARY

Fluid	To lease (m³)	From lease (m³)	To well (m³)	From well (m³)	Left to recover (m³)
	0.00	0.00	0.00	0.00	
FRESH WATER	0.00	0.00	0.00	0.00	6,062.77
PRODUCED OIL	0.00	0.00	0.00	0.00	-73.16

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Surface Completion Equipment Rental	BOREALIS COMMUNICATIONS INC	Q300	5,311.00
Surface Completion Equipment Rental	CANOL OILFIELD SERVICES INC	Q300	2,300.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,200.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,200.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,200.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,200.00
Trucking/Hauling/ Hot Shot Services	CANOL OILFIELD SERVICES INC	P100	1,950.00
Completion Fluids & Other Chem	CANOL OILFIELD SERVICES INC	G300	13,533.38

Report Printed: 4/28/2014

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 52
Report Date: 4/10/2014
Final Job Status: C
Final Report?

DAILY COST

BU Desc	Vendor	Activity Code	Amount (Cost)
Service Rig	CORNERSTONE OILFIELD SERVICES LTD	E120	3,900.00
Wellsite Supervision & Engineering	DEN JAR CONSULTING LTD	T130	7,000.00
Surface Completion Equipment Rental	HRN CONTRACTING LTD	Q300	400.00
Wellsite Supervision & Engineering	M HAHN CONSULTING INC	T130	3,000.00
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,225.02
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	116,154.50
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	192.66
Tubing	MCKAY EXPEDITING AND LOGISTICS LTD	A210	32,382.59
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	3,141.93
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	1,681.62
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	2,445.22
Trucking/Hauling/ Hot Shot Services	MCKAY EXPEDITING AND LOGISTICS LTD	P100	2,186.11
Wellsite Supervision & Engineering	MINAULT ENERGY SERVICES LTD	T130	63,734.00
Surface Completion Equipment Rental	MYB CONSTRUCTION LTD	Q300	3,000.00
Surface Completion Equipment Rental	NAVIGATOR ENERGY SERVICES LTD	Q300	17,940.00
Surface Completion Equipment Rental	PBN ENERGY SERVICES LTD	Q300	600.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	1,000.00
Surface Completion Equipment Rental	RIGSAT COMMUNICATIONS INC	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	15.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	3,686.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	225.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	10.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	550
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	150
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	125.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	120.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	70.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	500.00
Surface Completion Equipment Rental	SAHTU RCS ENERGY SERVICES LTD	Q300	300.00
Fracture Stimulation Services	SCHLUMBERGER CANADA LIMITED	N110	5,175.00
Trucking/Hauling/ Hot Shot Services	V D M TRUCKING SERVICE LTD	P100	19,900.00
Trucking/Hauling/ Hot Shot Services	V D M TRUCKING SERVICE LTD	P100	26,910.00

CUMULATIVE JOB FLARED GAS BY ZONE

Zone	Volume Gas Total (E3m³)
CANOL, Original Hole	1,627.510

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/4/2014	CANOL, Original Hole	3,118.00	3,119.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,098.00	3,099.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,079.00	3,080.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,059.00	3,060.00	6.0	Open - Flowing
3/4/2014	CANOL, Original Hole	3,040.00	3,041.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,021.00	3,022.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	3,001.00	3,002.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,982.00	2,983.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,962.00	2,963.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,943.00	2,944.00	6.0	Open - Flowing
3/7/2014	CANOL, Original Hole	2,924.00	2,925.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,904.00	2,905.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,885.00	2,886.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,866.00	2,867.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,846.00	2,847.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,827.00	2,828.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,807.00	2,808.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,788.00	2,789.00	6.0	Open - Flowing
3/8/2014	CANOL, Original Hole	2,769.00	2,770.00	6.0	Open - Flowing

ConocoPhillips Canada

Daily Morning Report
COPRC MIRROR LAKE P-20 65-00 126-45

Report #: 52
Report Date: 4/10/2014
Final Job Status: GAS
Final Report? Yes

PERFORATIONS

Date	Zone	Top (mKB)	Btm (mKB)	Shot Dens (shots/m)	Current Status
3/8/2014	CANOL, Original Hole	2,749.00	2,750.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,730.00	2,731.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,710.00	2,711.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,691.00	2,692.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,672.00	2,673.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,652.00	2,653.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,633.00	2,634.00	10.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,613.00	2,614.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,594.00	2,595.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,575.00	2,576.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,555.00	2,556.00	6.0	Open - Flowing
3/9/2014	CANOL, Original Hole	2,536.00	2,537.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,516.00	2,517.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,497.00	2,498.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,478.00	2,479.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,458.00	2,459.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,439.00	2,440.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,419.00	2,420.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,400.00	2,401.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,381.00	2,382.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,361.00	2,362.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,342.00	2,343.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,322.00	2,323.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,303.00	2,304.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,284.00	2,285.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,264.00	2,265.00	6.0	Open - Flowing
3/10/2014	CANOL, Original Hole	2,245.00	2,246.00	6.0	Open - Flowing

Report Printed: 4/28/2014

XIII. Completion Daily Activity and Cost Summary

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Daily Activity and Cost Summary
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Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
COMPLETIONS	INITIAL COMPLETION	RIGLESS	2/18/2014 07:30	4/11/2014 06:00
AFE / RFE / Maint.#	**Total Job AFE Amount (Cost)**	**AFE+Supp Amt (Cost)**	**Total Field Estimate (Cost)**	**AFE-Field Estimate (Cost)**
10351862;10359334	18,803,600.00	18,803,600.00	20,251,383.86	-1,447,783.86

Objective
New Ventures HZ Canol Formation completion

Contractor	Rig Name/No	Rig Type
RIGLESS	RIGLESS 1	

DAILY ACTIVITY & COST SUMMARY

Report No.	Start Date	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
1	2/18/2014 07:30	952,031.70	952,031.70	MIRU Temporary Office Trailer / Light Tower / Portable flameless heater / Recycle Trailer / Spot 12 8 x 40 sheets matting / Offload Geo Tech / Offload Liner
2	2/19/2014 07:30	265,012.50	1,217,044.20	Rig in 10m x 32m flow back containment / Offload 5 x dirty 400 bbl tanks for flow back farm / Spot 24 sheets of swamp matting and stand 4 x clean 400 bbl tanks.
3	2/20/2014 07:30	473,237.50	1,690,281.70	Set in 14 x 400 bbls in containment / Haul in and stand remaining clean 400 bbl tanks / Begin hauling water from E-76 location to clean tank farm
4	2/21/2014 07:30	175,372.00	1,865,653.70	Continue hauling in clean warm water from E76 / Offload 84 m³ Methanol / Begin rig out of tank farm on E-76 and staging equipment to km 45
5	2/22/2014 07:30	205,168.50	2,070,822.20	Continue staging tanks / matting at km 45 staging area / transferring water from E-76 / Haul in water from water source 5 / Move in small rentals
6	2/23/2014 07:30	109,937.50	2,180,759.70	Continue staging in 8 x 40 matting / miscellaneous loads / ground anchors
7	2/24/2014 07:30	204,851.55	2,385,611.25	Begin setting in matting for second clean tank farm / Offload 60 m³ Lake Water / Offload m³ methanol
8	2/25/2014 07:30	212,387.35	2,597,998.60	Complete setting in matting for main frac tank farm / preheat liner - geo textile
9	2/26/2014 07:30	144,130.00	2,742,128.60	Install frac tank berm system / installing 18 frac tanks in berming system / reposition shacks, septic, power from E76 location / Crib in wellhead area and back fill with snow and water in.
10	2/27/2014 06:30	485,781.00	3,227,909.60	Spot WFT test equipment / MIRU HD boiler / Split and rig in frac manifold to tank farm A / B
11	2/28/2014 06:30	653,541.86	3,881,451.46	Continue rig in WFT Test equipment / Rig in frac head / Rig in dual stage work platform / Rig in HD boiler / Complete rig in of water management / continue hauling water to tank farm
12	3/1/2014 07:30	116,714.00	3,998,165.46	Continue rig in WFT Test equipment / Heat wellhead / spot sand chiefs and hopper / rig in Hurricane Dustless System
13	3/2/2014 06:00	392,923.13	4,391,088.59	Moved in Coil tbg unit, Positioned anchors, Applied heat to Coil BOP stack Continue rigging in test equipment, SCVF /no vent flow indicated. Rolled meth tank for Coil TBG use, install heat tracer and insulate all surface lines and complete boiler rig in.
14	3/3/2014 06:00	251,896.52	4,642,985.11	Rigged in and pressure tested Coil TBG BOP equipment, Run in hole c/w 98mm mill and clean out to PBTD (3129 mKB). Pull out of the hole, winterize coil and surface lines.
15	3/4/2014 06:00	349,037.09	4,992,022.20	Perforate toe interval cluster #1 from 3118 - 3119 / 3089 - 3090 / 3069 - 3070 / 3059 - 3060 / 3040 - 3041 mKB / Cycle out with coil and purge w/ N². Begin MIRU Frac Equipment / Begin MIRU Schlumberger E-Line
16	3/5/2014 06:00	670,929.34	5,662,951.54	Prep all equipment for frac / heat water / open water holes / heat frac equipment Perform frac on Interval #1 @ 3040 - 3119mKB - Opening well Pressure=0.5MPa - Pump 15% HCl acid @ 0.6m³/min - 22.5MPa, start Pad #1 Slickwater for 15.5m³ @ 0.7m³/min - 22.8MPa - Shut down pumps, ISIP=21.9MPa - Continue pad #1 / Acid Squeeze, pump 18.0m³ @ 0.3m³/min - 14.1MPa - Shut down Pumps, ISIP=11.0MPa - Continue Pad #1, pump 191.3m³ @ 0.90m³/min - 8.2MPa - Start Pad #2 (WF130), pump 317.1m³ @ 8.6m³/min - 34.5MPa - Start Pad #3 (YF130 Flex) - pump 34m³ -Start sand 40/70 @ 50 kgPA @ 8m³/min - 31.5MPa for 33.5m³, 75 kgPA @ 8m³ - 32.1MPa for 33.5m³, 100kgPA @ 8.2m³/min - 31.7MPa for 75.7m³ PCM unit overheating due to fan clutch issues, go to flush immediately. - Pump 32.8m³ WF130 followed with 33.9m³ Slickwater. Shut down all pumps. - ISIP=12.5MPa Breakdown = 26.0MPa Max pressure= 33.2 MPa Ave pressure = 31.5 MPa Max rate = 8.4m³/min Avg rate = 8.1m³/min Proppant pumped = 7840 KG 40/70 Max concentration = 100 kg/m3 Total water pumped = 770.9 m3 Total 15% HCL pumped = 10.8 m3 Post frac ISIP = 12.5MPa

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DAILY ACTIVITY & COST SUMMARY

Report No.	Start Date	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
17	3/6/2014 06:00	900,157.48	6,563,109.02	Waiting on parts for frac unit to be flown in on chartered flight,parts arrive, repair and function test PCM, repairs successful. While circulating pumps over to warm up equipment Dresser sleeve on Blender began to leak, apply steam, warm up Dresser sleeve, torque down compression cap to enhance seal, and re-attempt pumping through Blender. Leak remained constant. Discuss with Frac Sup and Mechanic, decision is made that swapping out blender with spare unit is quickest route to commence fraccing operations. Swap out blender, apply heat to warm up blender, function test hydraulics. o.k. Air actuated valves frozen in closed position, apply heat to thaw out valves.
18	3/7/2014 06:00	220,175.35	6,783,284.37	frac on Interval #1 - 3040.0 - 3119.0 mKB Set B.P @ 3031mKB, Perforate Stage #2 Interval - 2943.0 - 2944.0mKB - conduct selective breakdown, perforate following intervals: 2962.0 - 2963.0mKB, 2982.0 - 2983.0mKB, 3001.0 - 3002.0mKB, 3021.0 - 3022.0mKB Frac Interval #2 - 2943.0 - 3022.0 mKB Set B.P @ 2931.0mKB, Perforate Stage #3 Intervals - 2846.0 - 2847.0mKB - conduct selective breakdown, perforate following intervals: 2866.0 - 2867.0mKB, 2885.0 - 2886.0mKB, 2904.0 - 2905.0mKB, 2924.0 - 2925.0mKB Frac Interval #3 - 2924.0 - 2847.0mKB
19	3/8/2014 06:00	1,429,496.94	8,212,781.31	Run in hole with E-line and set B.P @ 2834mKB C.E, Perforate Stage #4 as follows: - 2749.0 - 2750.0mKB - 2769.0 - 2770.0mKB - 2807.0 - 2808.0mKB - 2827.0 - 2828.0mKB Frac Interval #4 Perform frac on Interval #4 - 2749.0 - 2828.0 mKB: Hole Fill = Full Initial Pressure - 6.4 mPa Break Down - 24.8MPa Min Pressure - 14.4mPa Avg Pressure - 34.6mPa Max Pressure - 39.0mPa Min Rate - 4.3m³/min Avg Rate - 9.2 m³/min Max Rate - 9.7m³/min Sand Pumped 19 - T 40/70 66- T 30/50 22- T 30/50 PR6000 Max BHC -600 kg/m³ Acid Placed - 10.0m³ Water Pumped - 689.2 m³ Post Frac ISIP - 16.6 mPa Run in hole with E-line and set B.P @ 2741.9mKB, Perforate Stage #5 as follows: - 2691.0 - 2692.0mKB - 2710.0 - 2711.0mKB - 2730.0 - 2731.0mKB IES grease and service all valves on Frac head.

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DAILY ACTIVITY & COST SUMMARY

Report No.	Start Date	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
20	3/9/2014 06:00	950,518.09	9,163,299.40	Perform frac on Interval #5 - 2691.0- 2731.0 -Set B.P @ 2682.0mKB C.E, Perforate Cluster #1 on Interval #6 @ 2633.0 - 2633.0mKB. Preform selective breakdown: 0.3m³/min - 24.0MPa, 1.5m³/min - 28.0MPa 1.00m³/min - 26.0MPa. ISIP - 17.2MPa. Perforate cluster's 2 thru 3 @ 2652.0 - 2652.0mKB, 2633.0 - 2634.0mKB. -Perform frac on Interval #6 - 2633.0 - 2673.0 mKB -Set B.P @ 2624.0mKB C.E, perforate cluster #1 on Interval #7 @ 2613.0 - 2614.0mKB, perform selective breakdown: 0.3m³/min - 22.2MPa, 1.37m³/min - 34.1MPa, 1.00m³ - 30.6m³/min - 30.6m³. ISIP - 17.4MPa, 5 min - 14.0MPa. Perforate cluster's 2 thru 5 @ 2594.0 - 2595.0mKB, 2575.0 - 2576.0mKB, 2555.0 - 2556.0mKB, 2536.0 - 2537.0mKB -Perform frac on Interval #7 - 2536.0 - 2614.0 mKB -Set B.P @ 2525.0mKB C.E, Perforate Cluster #1 on interval #7 @ 2516.0 - 2517.0mKB, perform selective breakdown: 0.5m³ - 28.7MPa, 1.45m³ - 32.1MPa, 1m³ - 25.3MPa. ISIP-23.2MPa, 5min ISIP - 9.2MPa Perforate cluster's 2 thru 5 @ 2497.0 - 2498.0mKB, 2478.0 - 2479.0mKB, 2458.0 - 2459.0mKB, 2439.0 - 2440.0mKB -Perform frac on interval #8
21	3/10/2014 06:00	1,976,515.83	11,139,815.23	Perform frac on Interval #8 - 2439.0- 2517.0 -Set B.P @ 2527.0mKB C.E, Perforate Cluster #1 on Interval #9 @ 2342.0 - 2420.0mKB. Preform selective breakdown: 0.3m³/min -30.2MPa, 1.07m³/min - 50.5MPa 0.7m³/min -36.3MPa. ISIP - 24.7MPa. Perforate cluster's 2 thru 5 @ 2400 - 2401.0mKB, 2381.0 - 2382.0mKB, 2361 - 2362mKB , 2342 - 2343mkB -Perform frac on Interval #9 - 2342.0 - 2420.0 mKB -Set B.P @2333.0mKB C.E, perforate cluster #1 on Interval #10 @ 2322.0 - 2323.0mKB, perform selective breakdown: 0.3m³/min -36.9MPa, 1.54m³/min -39.7MPa, -1.05m³/min - 39.7m³. ISIP -21.0MPa, 5 min -29.0MPa. Perforate cluster's 2 thru 5 @2303.0 - 2304.0mKB, 2284.0 - 2285.0mKB, 2264.0 - 2265.0mKB, 2245.0 - 2246.0mKB -Perform frac on Interval #10 - 2245.0 - 2323.0 mKB
22	3/11/2014 06:00	1,528,513.13	12,668,328.36	Pressure test coil tbg, run in and drill out isolation Bridge Plugs
23	3/12/2014 06:00	319,775.19	12,988,103.55	Pull out of hole with coil tbg, displace with N^2 and prep coil for transport, rig in E-line, Run in hole with 96.5mm guage ring
24	3/13/2014 06:00	388,565.57	13,376,669.12	MIRU Service Rig & Supporting Equipment.
25	3/14/2014 06:00	245,585.40	13,622,254.52	Made up Bha, Installed guages in guage carriers, tie in TEC lines, pressure test and perform function tests. Good tests. Run in the hole with tbg, Securing cables with Canon Guards and stainless strapping.
26	3/15/2014 06:00	1,100,596.83	14,722,851.35	Continue running in hole with 60.3mm tbg c/w TEC cable, installing straps, Canon Guards and testing as per Weatherford Tech's on way in, spaced out tbg, stripped TEC cables through tbg hanger (installing ferrule's), land tbg hanger with 7,000daN compression. Pressure test On/off and tbg hanger to 30,000KPa for 15min. Good Test. Rig out work floor and auxiliary equipment, strip off Bop's.
27	3/16/2014 06:00	119,267.45	14,842,118.80	Rigged on Weatherford wellhead outlet assembly for real time down hole gauges. Rigged in slickline. Ran 48.3mm GR to top of sliding sleeve at 2001.71mKB. Opened sliding sleeve. Rig on and pressure test service rig pump line to tubing. Pressure up tubing and pump off PPMP plug on bottom of tubing. (22MPa to shear).RIH slickline with 47.63mm X-lock c/w instument hanger, shock absorber and bombwell. Bombwell containing 2- weatherford 10K gauges. Set in 47.63mm X profile nipple below gauge carriers @ 2014.29mKB. Rig out Slickline. Prepare to swab well with service rig.

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28	3/17/2014 06:00	162,912.96	15,005,031.76	Worked on SCADA and Weatherford real time data acquisition equipment until data communication was confirmed. Open well @ 11:45a.m. on 12.70mm choke. 06:00 - 18 HRS 15 MIN - FLOWING HZ CANOL FOR CLEAN UP / EVALUATION - 9 HRS 30 MIN FLARE FTP: 2150 kPa,SICP: 306 kPa,DHP= 18965 kPa,Intermediate CSG = TSTM,Flow Temp: 41 ° c,Meter Run Temp: 43 °c,Choke size: 12.7 mm,Gas Rate: 2.70 E³m³/d,Gas to Flare last 6 hrs: 1.22 E³m³,Cumulative Gas to Flare: 5.17 E³m³,LFTR: 7919.81m³,LFR last hour: 8.94 m³,LFR last 6 hours: 50.90 m³ (hourly average last 6, hours = 8.48 m³/hr),LFR: 144.97 m³,TLFLTR: 7774.74m³,Oil rec. last hour: 0.00m³,Oil rec. last 6 hours: 0.00m³,Cumulative Oil rec: 00.00m³,Salinity: 18000 ppm,PH: 7,sand: Trace,Surface Total = 94.61 m³,Api = N/A,Hrs Flowed = 18 HRS 15 MIN,H²S = 0.0 ppm
29	3/18/2014 06:00	467,177.72	15,472,209.48	Flowed TBG to testers, Rigged out service rig, Continued flowing to testers 06:00 = 41hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 38 hrs 30 min FLARE FTP: 3721 kPa, SICP:1349 kPa, DHP=18029 kPa, Intermediate CSG = TSTM kPa, Flow Temp: 29 °c, Meter Run Temp: 41 °c Choke size: 12.7 mm, Gas Rate: 15.20 E³m³/d, Gas to Flare last 6 hrs: 3.30 E³m³, Cumulative Gas to Flare:13.11E³m³ LFTR: 7919.81m³, LFR last hour: 8.57 m³, LFR last 6 hours: 55.72 m³ (hourly average last 6 hours = 9.28 m³/hr), TLFR: 349.34 m³ TLFLTR: 7570.47 m³, Oil rec. last hour: 0.00m³, Oil rec. last 6 hours: 0.00m³, Cumulative Oil rec: 00.00m³, Salinity: 22000 ppm PH: 7, Sand: Trace, Surface Total = 65.05 m³, Api = N/A, Hrs Flowed = 41 HRS 30 MIN, H²S = 0.0 ppm
30	3/19/2014 06:00	98,655.99	15,570,865.47	Continued flowing the well to the testers. 06:00 = 65hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 62 hrs FLARE FTP: 5780 kPa, SICP: 5879 kPa, DHP=16979 kPa, Intermediate CSG = TSTM, Flow Temp:53 °c, Meter Run Temp: 48 °c, Choke size: 12.7 mm, Gas Rate: 33.28³m³/d, Gas to Flare last 6 hrs: 7.82 E³m³, Cumulative Gas to Flare: 35.86E³m³, LFTR: 7919.81m³, LFR last hour: 8.02 m³, LFR last 6 hours: 47.71 m³ (hourly average last , 6hours = 7.95 m³/hr), TLFR: 555.01 m³, TLFLTR: 7364.80 m³, Oil rec. last hour: 0.00m³, Oil rec. last 6 hours: 0.14m³, Cumulative Oil rec: 00.65m³, Salinity: 28000 ppm, PH: 7, Sand: Trace, Surface Total =232.17 m³, Api = 58.8@15.6 C, Hrs Flowed = 65 HRS 30 MIN, H²S = 0.0 ppm
31	3/20/2014 06:00	311,010.32	15,881,875.79	Continued flowing the well to the testers. 06:00 = 89 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 86 hrs FLARE FTP: 6527 kPa,SICP:11563 kPa, DHP= 16012 kPa, Intermediate CSG = TSTM, Flow Temp: 49 °c, Meter Run Temp: 42 °c, Choke size: 12.70 mm, Gas Rate: 60.70 , E³m³/d, Gas to Flare last 6 hrs: 14.63 E³m³, Cumulative Gas to Flare: 85.25E³m³, LFTR: 7919.81m³, LFR last hour: 11.49 m³, LFR last 6 hours: 45.02 m³ (hourly , verage last 6 hours = 7.50 m³/hr), TLFR: 734.43 m³,TLFLTR: 7185.38 m³, Oil rec. last hour: 0.17m³, Oil rec. last 6 hours: 0.85m³, Cumulative Oil rec: 2.69m³, Salinity: ,36000 ppm, PH: 7, Sand: Trace, Surface Total = 0 m³, Api = 60.1@15.6 C, Hrs Flowed = 89 HRS 30 MIN, H²S = 0.0 ppm
32	3/21/2014 06:00	101,449.00	15,983,324.79	Continued to flow the well to the testers. 18:00 = 113 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 110 hrs FLARE, , FTP: 7177 kPa, SICP: 12395 kPa, DHP= 15067 kPa,Intermediate CSG = TSTM, Flow Temp: 47 °c, Meter Run Temp: 37 °c, Choke size: 12.70 mm, Gas Rate: 77.58 E³m³/d, Gas to Flare last 6 hrs: 19.07 E³m³, cumulative Gas to Flare:156.08 E³m³, LFTR: 7919.81m³, ,LFR last hour: 4.56 m³, LFR last 6 hours: 29.81 m³ (hourly average last 6 hours = 4.96m³/hr), TLFR: 858.17M3, TLFLTR: 7061.64 m³, Oil rec. last hour: 0.16m³, Oil rec. last 6 hours: 0.95 m³, Cumulative Oil rec: 6.25 m³, Salinity: 42000 ppm, PH: 7, Sand: Trace, Surface Total = 344.56m³, Api = 59.8@15 C, Hrs Flowed = 113 HRS 30 MIN, H²S = 0.0 ppm, CO2= 1.8
33	3/22/2014 06:00	82,106.00	16,065,430.79	Continued to flow the well to the testers. 18:00 = 137 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 134 hrs FLARE,FTP: 7320 kPa, SICP: 11726 kPa, DHP= 14240 kPa, Intermediate CSG = TSTM, Flow Temp: 45 °c, Meter Run Temp: 33 °c, Choke size: 12.7mm, Gas Rate:90.02 E³m³/d, Gas to Flare last 6 hrs: 22.03 E³m³, Cumulative Gas to Flare:240.13E³m³, LFTR: 7919.81m³, LFR last hour: 4.53m³, LFR last 6 hours: 26.94 m³ (hourly average last 6 hours = 4.49m³/hr), TLFR:975.5 m³, TLFLTR:6944.31 m³, Oil rec. last hour: 0.18m³, Oil rec. last 6 hours:1.17 m³, Cumulative Oil rec:10.80m³, Salinity: 45000 ppm, PH: 7, Sand: Trace, Surface Total = 405.5m³, Api = 60.3@15.6 C, Hrs Flowed = 137 HRS 30 MIN, H²S = 0.0 ppm, CO2= 2.0%

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34	3/23/2014 06:00	146,991.14	16,212,421.93	Continued to flow the well to the testers. 06:00 = 161 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 158 hrs FLARE,FTP: 7277 kPa, SICP: 11290 kPa, DHP= 13690 kPa, Intermediate CSG = TSTM, Flow Temp: 45 °c, Meter Run Temp: 32 °c, Choke size: 12.7mm, Gas Rate: 90.05 ,E³m³/d, Gas to Flare last 6 hrs: 22.40E³m³, Cumulative Gas to Flare: 329.49E³m³, LFTR: 7919.81m³, LFR last hour: 5.09 m³, LFR last 6 hours: 23.29m³ (hourly average last 6 hours = 3.88 m³/hr), TLFR: 1078.71 m³, TLFLTR: 6841.10 m³, Oil rec. last hour: 0.25m³, Oil rec. last 6 hours: 1.08 m³, Cumulative Oil rec: 15.35m³, Salinity: 48000 ppm, PH: 7, Sand: Trace, Surface Total = 438.26m³, Api = 60.5@15.6 C, Hrs Flowed = 161 HRS 30 MIN, H²S = 0.0 ppm, CO2= 2.0%
35	3/24/2014 06:00	163,368.82	16,375,790.75	Continued to flow the well to the testers. 06:00 = 185 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 182 hrs FLARE,FTP: 6879 kPa, SICP: 10944 kPa, DHP= 13216 kPa, Intermediate CSG = TSTM, Flow Temp: 44 °c, Meter Run Temp: 30 °c, Choke size: 12.7mm, Gas Rate: 92.07 E³m³/d, Gas to Flare last 6 hrs:22.59 E³m³, Cumulative Gas to Flare:419.82 E³m³, LFTR:7919.81m³LFR, LFR last hour:3.45 m³, LFR last 6 hours:20.68 m³ (hourly average last 6 hours =3.44 m³/hr), TLFR: 1166.24 m³, TLFLTR:6753.57 m³, Oil rec. last hour: 0.19m³, Oil rec. last 6 hours: 1.20 m³, Cumulative Oil rec:19.87 m³, Salinity: 50000 ppm, PH: 7, Sand: Trace, Surface Total = 428.23 m³, Api = 59.5@15.6 C, Hrs Flowed = 185 HRS 30 MIN, H²S = 0.10 ppm, CO2= 2%
36	3/25/2014 06:00	68,553.68	16,444,344.43	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Take water/gas/oil sample as per schedule by AGAT, send time sensitive samples in via MXL. Take Protecnics tracer sample at 12:00 (taken by Weatherford). 06:00 = 209 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 206 hrs FLARE FTP: 6977 kPaSICP: 10636kPaDHP= 12843 kPaIntermediate CSG = TSTMFlow Temp: 43 °cMeter Run Temp: 29 °cChoke size: 12.7mmGas Rate: 90.71 E³m³/dGas to Flare last 6 hrs:22.82E³m³Cumulative Gas to Flare: 510.91E³m³ILFTR: 7919.81m³LFR last hour: 3.18 m³LFR last 6 hours:18.91m³ (hourly average last 6 hours =3.15m³/hr)TLFR: 1244.39m³TLFLTR:6675.42 m³Oil rec. last hour: 0.19m³Oil rec. last 6 hours: 1.13 m³Cumulative Oil rec:24.23m³Salinity: 49000 ppmPH: 7Sand: 0Surface Total = 437.13m³Api = 59.7@15.6 CHrs Flowed = 209 HRS 30 MINH²S = 0.20 ppmCO2= 1.9%
37	3/26/2014 06:00	848,750.23	17,293,094.66	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). 06:00 = 233 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 230 hrs FLARE FTP:6589 kPaSICP: 10325kPaDHP= 12487 kPaIntermediate CSG = TSTMFlow Temp: 42 °cMeter Run Temp: 28 °cChoke size: 12.7mmGas Rate:94.74 E³m³/dGas to Flare last 6 hrs:23.70E³m³Cumulative Gas to Flare: 603.49E³m³ILFTR: 7919.81m³LFR last hour: 3.18 m³LFR last 6 hours:17.25m³ (hourly average last 6 hours =2.87m³/hr)TLFR:1315.59m³TLFLTR:6604.22 m³Oil rec. last hour: 0.18m³Oil rec. last 6 hours:1.07 m³Cumulative Oil rec:28.57m³Salinity: 56000 ppmPH: 7Sand: 0Surface Total = 388.67m³Api = 60.9@15.6 CHrs Flowed = 233 HRS 30 MINH²S = 0.20 ppmCO2= 1.8%
38	3/27/2014 06:00	55,614.00	17,348,708.66	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard. 06:00 = 257 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 254 hrs FLARE FTP:6313kPaSICP: 10129 kPaDHP=12197.7 kPaIntermediate CSG = TSTMFlow Temp: 41 °cMeter Run Temp: 28 °cChoke size: 12.7mmGas Rate:93.32 E³m³/dGas to Flare last 6 hrs:23.26E³m³Cumulative Gas to Flare:697.00E³m³ILFTR: 7919.81m³LFR last hour: 2.65 m³LFR last 6 hours:16.0m³ (hourly average last 6 hours =2.66m³/hr)TLFR: 1379.27m³TLFLTR:6540.54 m³Oil rec. last hour: 0.18m³Oil rec. last 6 hours: 1.07 m³Cumulative Oil rec:32.78m³Salinity: 56000 ppmPH: 7Sand: 0Surface Total = 303.56m³Api = 61.0@15.6 CHrs Flowed = 251 HRS 30 MINH²S = 0.20 ppmCO2= 1.8%

ConocoPhillips Canada

Daily Activity and Cost Summary
COPRC MIRROR LAKE P-20 65-00 126-45

DAILY ACTIVITY & COST SUMMARY

Report No.	Start Date	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
39	3/28/2014 06:00	1,168,341.48	18,517,050.14	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard. 06:00 = 281 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 278 hrs FLARE FTP:6196kPaSICP: 9922 kPaDHP= 11923.9kPaIntermediate CSG = TSTMFlow Temp: 40 °cMeter Run Temp: 25 °cChoke size: 12.7mmGas Rate: 88.67E³m³/dGas to Flare last 6 hrs:23.15E³m³Cumulative Gas to Flare: 789.41E³m³LFTR: 7919.811m³LFR last hour: 2.39 m³LFR last 6 hours:14.7m³ (hourly average last 6 hours =2.45m³/hr)TLFR:1438.30m³TLFLTR:6481.51 m³Oil rec. last hour: 0.18m³Oil rec. last 6 hours: 1.1 m³Cumulative Oil rec:37.09m³Salinity: 57000 ppmPH: 7Sand: 0Surface Total = 164.9m³Api = 62.3@15.6 CHrs Flowed = 281 HRS 30 MINH²S = 0.40 ppmCO2= 1.8%
40	3/29/2014 06:00	66,260.00	18,583,310.14	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard 06:00 = 305 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 302 hrs FLARE FTP:6208kPaSICP:9719 kPaDHP=11736.6kPaIntermediate CSG = TSTMFlow Temp: 39 °cMeter Run Temp: 22 °cChoke size: 12.7mmGas Rate:92.13E³m³/dGas to Flare last 6 hrs:22.94E³m³Cumulative Gas to Flare:881.72E³m³ILFTR: 7919.81m³LFR last hour: 2.24 m³LFR last 6 hours:13.70m³ (hourly average last 6 hours =2.28m³/hr)TLFR:1490.45m³TLFLTR:6429.36 m³Oil rec. last hour: 0.18m³Oil rec. last 6 hours:1.05 m³Cumulative Oil rec:41.02m³Salinity: 59000 ppmPH: 7Sand: 0Surface Total =95.1m³Api = 62.9@15.6 CHrs Flowed = 305 HRS 30 MINH²S = 0.40 ppmCO2= 1.8%
41	3/30/2014 06:00	44,189.00	18,627,499.14	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard 06:00 = 329 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 326 hrs FLARE FTP;5410kPaSICP:9500kPaDHP=11525.8kPaIntermediate CSG = TSTMFlow Temp: 38 °cMeter Run Temp: 21 °cChoke size: 12.7mmGas Rate:85.22E³m³/dGas to Flare last 6 hrs:23.07E³m³Cumulative Gas to Flare:973.93E³m³ILFTR: 7919.81m³LFR last hour: 2.18 m³LFR last 6 hours:12.65m³ (hourly average last 6 hours =2.10m³/hr)TLFR:1541.70m³TLFLTR:6378.11 m³Oil rec. last hour: 0.17m³Oil rec. last 6 hours:1.02m³Cumulative Oil rec:45.01m³Salinity:60000 ppmPH: 7Sand: 0Surface Total =100.34m³Api = 62.9@15.6 CHrs Flowed = 329 HRS 30 MINH²S = 0.40 ppmCO2= 1.8%
42	3/31/2014 06:00	501,204.91	19,128,704.05	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard 06:00 = 353 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 350 hrs FLARE FTP:5355 kPaSICP:9340 kPaDHP= 11306kPaIntermediate CSG = TSTMFlow Temp: 38 °cMeter Run Temp: 22 °cChoke size: 12.7mmGas Rate: 88.68E³m³/dGas to Flare last 6 hrs:22.75 E³m³Cumulative Gas to Flare: 1065.30 E³m³ILFTR:7919.81m³LFR last hour:2.03m³LFR last 6 hours:12.47m³ (hourly average last 6 hours =2.07m³/hr)TLFR:1590.79m³TLFLTR:6329.02m³Oil rec. last hour: 0.16m³Oil rec. last 6 hours:1.05m³Cumulative Oil rec:49.28m³Salinity: 60000 ppmPH: 7Sand: 0Surface Total = 103.7m³Api = 62.1@15.6 CHrs Flowed = 353HRS 30 MINH²S = 0.40 ppmCO2= 2.3%

ConocoPhillips Canada

Daily Activity and Cost Summary
COPRC MIRROR LAKE P-20 65-00 126-45

DAILY ACTIVITY & COST SUMMARY

Report No.	Start Date	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
43	4/1/2014 06:00	52,323.50	19,181,027.55	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard 06:00 = 377 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 374 hrs FLARE FTP: 5822 kPa SICP: 9242 kPa DHP= 11192 kPa Intermediate CSG = TSTM Flow Temp: 39 °c Meter Run Temp: 23 °c Choke size: 12.7mm Gas Rate: 87.31 E³m³/d Gas to Flare last 24 hrs: 90.20 E³m³ Cumulative Gas to Flare: 1155.50 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.59m³ LFR last 24 hours: 46.31m³ (hourly average last 24 hours = 1.93m³/hr) TLFR: 1637.10m³ TLFLTR: 6282.71m³ Oil rec. last hour: 0.14m³ Oil rec. last 24 hours: 3.98m³ Cumulative Oil rec: 53.26m³ Salinity: 61000 ppm PH: 7 Sand: 0 Surface Total = 103.99m³ Api = 63.2 @ 15.6°c H²S = 0.45 ppm CO2= 2.0%
44	4/2/2014 06:00	204,360.88	19,385,388.43	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard 06:00 = 401 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 398 hrs FLARE FTP: 5659 kPa SICP: 9139 kPa DHP= 11032 kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 87.95 E³m³/d Gas to Flare last 24 hrs: 89.59 E³m³ Cumulative Gas to Flare: 1245.09 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.55m³ LFR last 24 hours: 43.06m³ (hourly average last 24 hours = 1.79m³/hr) TLFR: 1680.16m³ TLFLTR: 6239.65m³ Oil rec. last hour: 0.12m³ Oil rec. last 24 hours: 3.73m³ Cumulative Oil rec: 56.99m³ Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 100.78m³ Api = 63.2 @ 15.6°c H²S = 0.50 ppm CO2= 1.20%

ConocoPhillips Canada

Daily Activity and Cost Summary
COPRC MIRROR LAKE P-20 65-00 126-45

DAILY ACTIVITY & COST SUMMARY

Report No.	Start Date	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
45	4/3/2014 06:00	51,496.00	19,436,884.43	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard 06:00 = 425 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 422 hrs FLARE FTP: 5563 kPa SICP: 9001 kPa DHP= 10880 kPa Intermediate CSG = TSTM Flow Temp: 38 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 84.63 E³m³/d Gas to Flare last 24 hrs: 88.45 E³m³ Cumulative Gas to Flare: 1333.54 E³m³ ILFTR: 7919.81m³ LFR last hour: 2.11m³ LFR last 24 hours: 44.70m³ (hourly average last 24 hours = 1.86m³/hr) TLFR: 1724.86m³ TLFLTR: 6194.95m³ Oil rec. last hour: 0.16m³ Oil rec. last 24 hours: 3.71m³ Cumulative Oil rec: 60.70m³ Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 69.34m³ Api = 63.6 @ 15.6°c H²S = 0.55 ppm CO2= 1.00%
46	4/4/2014 06:00	54,121.63	19,491,006.06	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard 06:00 = 449 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 446 hrs FLARE FTP: 5454 kPa SICP: 8903 kPa DHP= 10724 kPa Intermediate CSG = TSTM Flow Temp: 37 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 87.60 E³m³/d Gas to Flare last 24 hrs: 88.02 E³m³ Cumulative Gas to Flare: 1421.56 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.71m³ LFR last 24 hours: 40.74m³ (hourly average last 24 hours = 1.70m³/hr) TLFR: 1765.33m³ TLFLTR: 6154.48m³ Oil rec. last hour: 0.16m³ Oil rec. last 24 hours: 3.67m³ Cumulative Oil rec: 64.37m³ Salinity: 62000 ppm PH: 7 Sand: 0 Surface Total = 63.48m³ Api = 63.7 @ 15.6°c H²S = 0.55 ppm CO2= 1.10%

ConocoPhillips Canada

Daily Activity and Cost Summary
COPRC MIRROR LAKE P-20 65-00 126-45

DAILY ACTIVITY & COST SUMMARY

Report No.	Start Date	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
47	4/5/2014 06:00	51,496.00	19,542,502.06	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard 06:00 = 473 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 470 hrs FLARE FTP: 5327 kPa SICP: 8800 kPa DHP= 10643 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 84.84 E³m³/d Gas to Flare last 24 hrs: 87.38 E³m³ Cumulative Gas to Flare: 1508.94 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.66m³ LFR last 24 hours: 39.66m³ (hourly average last 24 hours = 1.65m³/hr) TLFR: 1804.99m³ TLFLTR: 6114.82m³ Oil rec. last hour: 0.15m³ Oil rec. last 24 hours: 3.78m³ Cumulative Oil rec: 68.15m³ Salinity: 65000 ppm PH: 7 Sand: 0 Surface Total = 62.92m³ Api = 64.5 @ 15.6°c H²S = 0.50 ppm CO2= 1.0%
48	4/6/2014 06:00	53,835.00	19,596,337.06	Continue to Flow well to Weatherford testers. Well flowing on a 12.70mm choke, monitoring gas rates ensuring not to exceed 283e³m³/d gas rate (as per NEB). Continue Hauling Load fluid to Tank Farm in CPC YVQ yard 06:00 = 497 hrs- 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 494 hrs FLARE FTP: 5304 kPa SICP: 8767 kPa DHP= 10504 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 21 °c Choke size: 12.7mm Gas Rate: 86.22 E³m³/d Gas to Flare last 24 hrs: 86.32 E³m³ Cumulative Gas to Flare: 1595.26 E³m³ ILFTR: 7919.81m³ LFR last hour: 1.53m³ LFR last 24 hours: 37.96m³ (hourly average last 24 hours = 1.58m³/hr) TLFR: 1842.95m³ TLFLTR: 6076.86m³ Oil rec. last hour: 0.16m³ Oil rec. last 24 hours: 3.64m³ Cumulative Oil rec: 71.79m³ Salinity: 64000 ppm PH: 7 Sand: 0 Surface Total = 65.52m³ Api = 63.7 @ 15.6°c H²S = 0.25 ppm CO2= 1.0%

ConocoPhillips Canada

Daily Activity and Cost Summary
COPRC MIRROR LAKE P-20 65-00 126-45

DAILY ACTIVITY & COST SUMMARY

Report No.	Start Date	Daily Cost Total (Cost)	Cum Cost (Cost)	Last 24hr Sum
49	4/7/2014 06:00	65,824.43	19,662,161.49	Continue to Flow well to Weatherford testers. 15:00 Shut in the well. 15:00 = 506 Hrs - 30min FLOWING HZ CANOL FOR CLEAN UP / EVALUATION = 503 Hrs FLARE FTP: 5235 kPa SICP:8705 kPa DHP= 10451.4 kPa Intermediate CSG = TSTM Flow Temp: 36 °c Meter Run Temp: 22 °c Choke size: 12.7mm Gas Rate: 88.57 E^3m^3/d Gas to Flare last 3 hrs: 10.65 E^3m^3 Cumulative Gas to Flare: 1627.51 E^3m^3 ILFTR:7919.81m^3 LFR last hour:1.64m^3 LFR last 3 hours:4.45m^3 (hourly average last 3 hours =1.48m^3/hr) TLFR:1857.04m^3 TLFLTR:6062.77m^3 Oil rec. last hour: 0.15m^3 Oil rec. last 3 hours:0.43m^3 Cumulative Oil rec:73.16m^3 Salinity: 63000 ppm PH: 7 Sand: 0 Surface Total = 48.98 m^3 Api = N/A Total Hrs Flowed = 506HRS 30 MIN H^2S = 0.30 ppm CO2= 1.0% Cleaned out P-tank and started to rig out all Weatherford test equipment. 06:00 SITP: 10624 kPa, SICP: 10421 kPa, BHP: 12830 kPa
50	4/8/2014 06:00	102,753.00	19,764,914.49	Continue to rig out Weatherford test equipment, Boiler and tank farm, Haul equipment to CPC YVQ yard and/or appropriate Vendor. Continue to read and record shut build up pressures. Erected chain link fence around wellhead. 12:00 BHP: 13083 kPa, SITP: 10402 kPa, SICP: 10593 kPa 18:00 BHP: 13276 kPa, SITP: 10514 kPa, SICP: 10707 kPa 00:00 BHP: 13439 kPa, SITP: 10592 kPa, SICP: 10822 kPa 06:00 BHP: 13576 kPa, SITP: 10668 kPa, SICP: 10924 kPa
51	4/9/2014 06:00	139,390.34	19,904,304.83	Finish cutting up and disposing of liner and geo, haul out remaining matting and containment, continue to read and record build up pressures. Cleaned, winterized and readied command center to be hauled out.
52	4/10/2014 06:00	347,079.03	20,251,383.86	Haul out remaining equipment, clean up lease. Weatherford Real Time Technician (Blair Gifford) on location trouble shooting, repairing and monitoring equipment.

XV Final Completions Schematic

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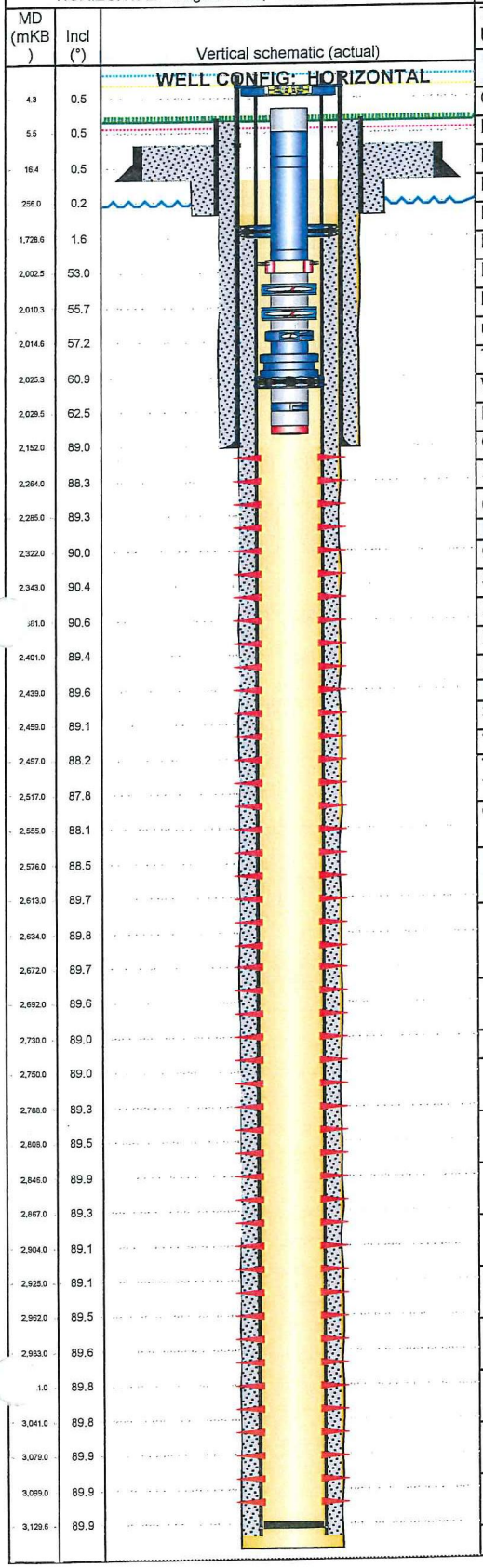
Current Schematic
COPRC MIRROR LAKE P-20 65-00 126-45

Surface Legal Location	API / UWI	License No.
-20 65-00 126-45	200/D-020/L094P1699	EL 470

Country	State/Province	Region / Division	District	Field Name	Field Code
CANADA	N.W.T.	WCBU	NEW VENTURES	Mirror Lake	

Orig KB/RT (m)	Ground Elevation (m)	KB-Ground Distance (m)	KB-CF (m)	KB-TF (m)	Total Depth (mKB)
289.35	284.15	5.20	5.40	4.10	3,152.00

HORIZONTAL - Original Hole, 4/28/2014 1:23:24 PM



WELLHEADS

Type: UHWB Split System — **Install Date:** 2/6/2014

Des	Make	Model	WP (kPa)	Top Ring Gasket	Bore Min (mm)
Cap installed until drilling rig is off...	STREAM FLO...				
Left Csg valve	STREAM FLO...	Gate Valve	69,000	BX152	52.4
Right CSG valve	STREAM FLO...	Gate Valve	69,000	bx152	52.4
Left intermediate casing valve	STREAM FLO...	Gate Valve	34,500	R24	52.4
Right intermediate casing valve	STREAM FLO...	Gate Valve	34,000	R24	52.4
Right wing valve	STREAM FLO...	Gate Valve	69,000	bx152	52.4
Left wing valve	STREAM FLO...	Gate Valve	69,000	bx152	52.4
lower master valve	STREAM FLO...	Gate Valve	69,000	bx152	52.4
upper master valve	STREAM FLO...	Gate Valve	69,000	bx152	52.4
Tubing Head	STREAM FLO...		69,000	bx156	52.4
Well head adaptor	STREAM FLO...		69,000	bx152	52.4
Flow Tee	STREAM FLO...		69,000	bx152	52.4
Casing Bowl	STREAM FLO...	CC-22	34,500	RX-54	215.0
Intermediate spool	STREAM FLO...	FBD100	34,500	RX-54	215.0

CASING STRINGS

Csg Des	OD (mm)	Wt/Len (kg/m)	Grade	Top Thread	Set Depth (mKB)
Conductor	508.0	197.926	K-55		20.00
Surface	244.5	53.574	J-55	LTC	602.00
Intermediate	177.8	38.692	P-110	LTC	2,152.00
Production	114.3	17.263	P-110	LTC	3,148.70

PBTDs

Date	Type	Depth (mKB)	KO MD (mKB)	TD (max) (mKB)
3/6/2014	Float Collar	3,129.60		3,152.00

TUBING STRING

Tubing Description	Run Date	Pull Date	String Length (m)	Set Depth (mKB)
Tubing - Production	3/14/2014		2,021.20	2,025.30

Comment

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Make	Model	Len (m)	Top (mKB)
1	Extended neckTubing Hanger c/w 2-1/2" ports	179.0	50.7			streamflo	PSL-2	0.16	4.10
1	Depth Correction - compression	60.3						-0.82	4.26
1	Depth Correction	60.3						1.66	3.44
2	Tubing Pup Joint (spacer nipple)	60.3	50.7	6.994	J-55		T&C Upset	0.38	5.10
1	Tubing	60.3	50.7	6.994	J-55		T&C Upset	9.65	5.48
1	Tubing Pup Joint (4')	60.3	50.7	6.994	J-55		T&C Upset	1.23	15.13
207	Tubing	60.3	50.7	6.994	J-55		T&C Upset	1,984.06	16.36
1	Tubing	60.3	50.7	6.994	J-55		T&C Upset	1.24	2,000.42
1	Sliding Sleeve	79.2	47.6					0.86	2,001.66
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	3.11	2,002.52
1	Pressure / Temperature Sensor	90.7	50.7					1.56	2,005.63
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	3.07	2,007.19

Report Printed: 4/28/2014

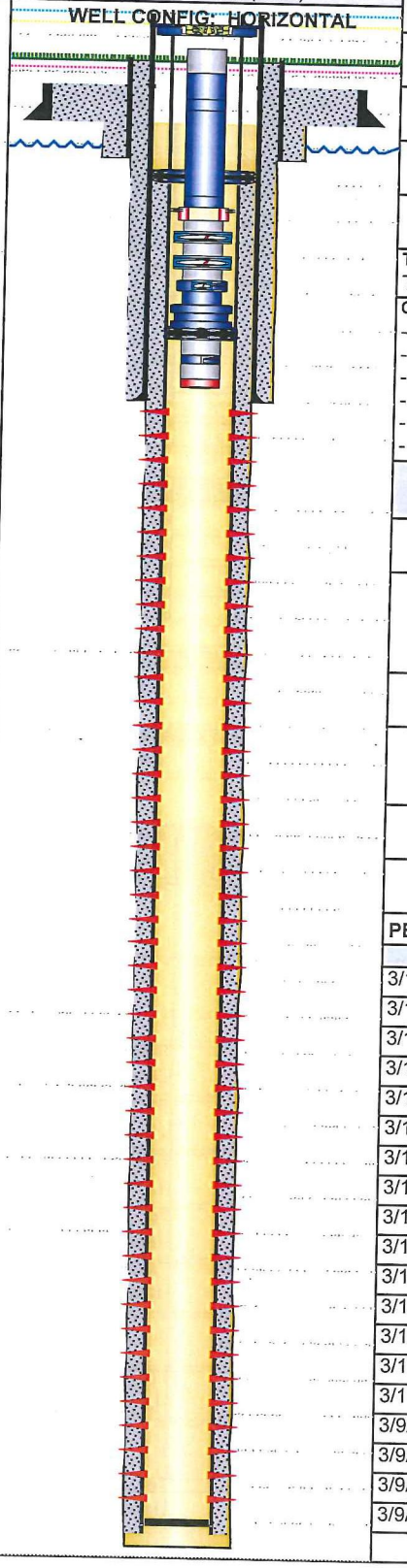
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Current Schematic
COPRC MIRROR LAKE P-20 65-00 126-45

HORIZONTAL - Original Hole, 4/28/2014 1:23:24 PM

MD (mKB)	Incl (°)
4.3	0.5
5.5	0.5
16.4	0.5
256.0	0.2
1,728.6	1.6
2,002.5	53.0
2,010.3	55.7
2,014.6	57.2
2,025.3	60.9
2,029.5	62.5
2,152.0	89.0
2,264.0	88.3
2,285.0	89.3
2,322.0	90.0
2,343.0	90.4
2,381.0	90.6
2,401.0	89.4
2,439.0	89.6
2,459.0	89.1
2,497.0	88.2
2,517.0	87.8
2,555.0	88.1
2,576.0	88.5
2,613.0	89.7
2,634.0	89.8
2,672.0	89.7
2,692.0	89.6
2,730.0	89.0
2,750.0	89.0
2,788.0	89.3
2,808.0	89.5
2,846.0	89.9
2,867.0	89.3
2,904.0	89.1
2,925.0	89.1
2,962.0	89.5
2,983.0	89.6
3,021.0	89.8
3,041.0	89.8
3,079.0	89.9
3,099.0	89.9
3,129.6	89.9

Vertical schematic (actual)



Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Make	Model	Len (m)	Top (mKB)
1	Gauge Carrier	90.7	50.7					1.56	2,010.26
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	2.47	2,011.82
1	47.63mm X Profile Nipple	77.7	47.6					0.29	2,014.29
1	Tubing	60.3	50.7	6.994	J-55		T&C Upset	9.61	2,014.58
1	Extended no-jay NFT on/ off tool	95.3	50.7					1.11	2,024.19

Tubing Description	Run Date	Pull Date	String Length (m)	Set Depth (mKB)
Tubing - Production	3/12/2014		5.10	2,030.23

Comment

- 60.3mm PPMP Pump out plug (Dressed for 21.0MPa differential)
- 60.3mm J-55 6.99 kg/m EUE Pup Jt - 0.65m (2')
- 47.63mm XN - No-Go Profile Nipple. 45.49mm No-Go.
- 60.3mm J-55 6.99 kg/m EUE Pup Jt - 2.46m (8')
- WDH 114mm WL Set Packer Retrievable Double Grip Packer. 69.0MPa. O.D = 95.3mm (3.771")
- 47.63mm Extended Slick Joint

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Make	Model	Len (m)	Top (mKB)
1	Slick Joint c/w 47.63mm x profile	60.3	47.6	6.994	J-55		T&C Upset	0.17	2,025.13
1	Weatherford WDH double grip packer (69MPa rated)	114.3	50.7			Weatherford WDH114 WL	T&C Upset	1.38	2,025
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	2.46	2,026.68
1	XN no-go profile nipple 45.49mm no go	60.3	45.5		L-80		T&C Upset	0.32	2,029.14
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	0.65	2,029.46
1	PPMP Pump out plug	60.3	50.7		L-80		T&C Upset	0.12	2,030.11

PERFORATIONS

Date	Top (mKB)	Btm (mKB)	Zone	Type	Current Status
3/10/2014	2,245.00	2,246.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,264.00	2,265.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,284.00	2,285.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,303.00	2,304.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,322.00	2,323.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,342.00	2,343.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,361.00	2,362.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,381.00	2,382.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,400.00	2,401.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,419.00	2,420.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,439.00	2,440.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,458.00	2,459.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,478.00	2,479.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,497.00	2,498.00	CANOL, Orig...	Perforated	Open - Flowing
3/10/2014	2,516.00	2,517.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,536.00	2,537.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,555.00	2,556.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,575.00	2,576.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,594.00	2,595.00	CANOL, Orig...	Perforated	Open - Flowing

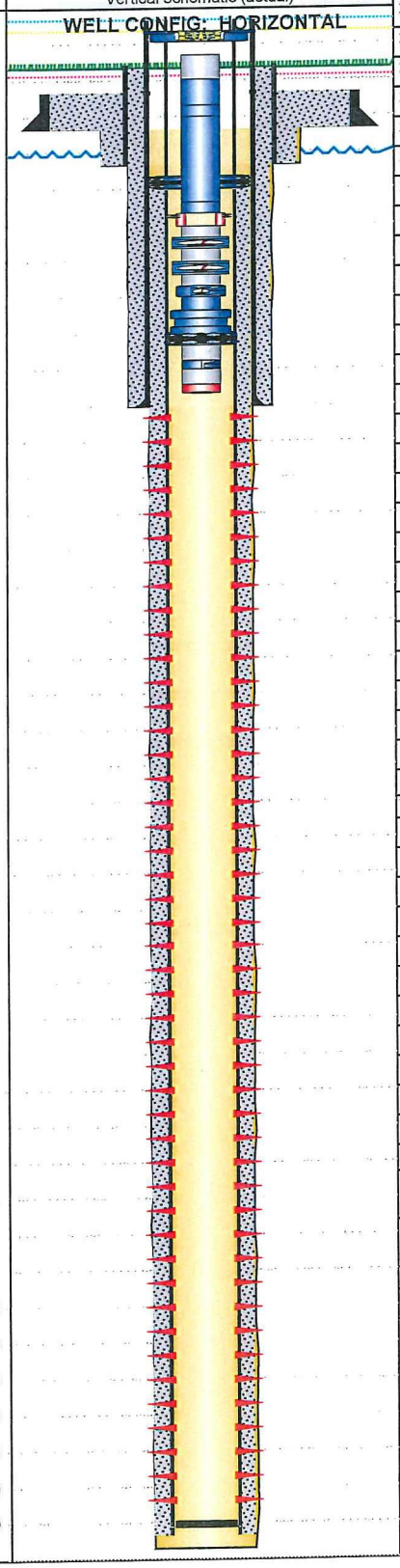
Report Printed: 4/28/2014

ConocoPhillips Canada

Current Schematic
COPRC MIRROR LAKE P-20 65-00 126-45

HORIZONTAL - Original Hole, 4/28/2014 1:23:25 PM

MD (mKB)	Incl (°)
4.3	0.5
5.5	0.5
16.4	0.5
256.0	0.2
1,728.6	1.6
2,002.5	53.0
2,010.3	55.7
2,014.6	57.2
2,025.3	60.9
2,029.5	62.5
2,152.0	89.0
2,264.0	88.3
2,285.0	89.3
2,322.0	90.0
2,343.0	90.4
,1.0	90.6
2,401.0	89.4
2,439.0	89.6
2,459.0	89.1
2,497.0	88.2
2,517.0	87.8
2,555.0	88.1
2,576.0	88.5
2,613.0	89.7
2,634.0	89.8
2,672.0	89.7
2,692.0	89.6
2,730.0	89.0
2,750.0	89.0
2,788.0	89.3
2,808.0	89.5
2,846.0	89.9
2,867.0	89.3
2,904.0	89.1
2,925.0	89.1
2,962.0	89.5
,3.0	89.6
.0	89.8
3,041.0	89.8
3,079.0	89.9
3,099.0	89.9
3,129.6	89.9



PERFORATIONS

Date	Top (mKB)	Btm (mKB)	Zone	Type	Current Status
3/9/2014	2,613.00	2,614.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,633.00	2,634.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,652.00	2,653.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,672.00	2,673.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,691.00	2,692.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,710.00	2,711.00	CANOL, Orig...	Perforated	Open - Flowing
3/9/2014	2,730.00	2,731.00	CANOL, Orig...	Perforated	Open - Flowing
3/8/2014	2,749.00	2,750.00	CANOL, Orig...	Perforated	Open - Flowing
3/8/2014	2,769.00	2,770.00	CANOL, Orig...	Perforated	Open - Flowing
3/8/2014	2,788.00	2,789.00	CANOL, Orig...	Perforated	Open - Flowing
3/8/2014	2,807.00	2,808.00	CANOL, Orig...	Perforated	Open - Flowing
3/8/2014	2,827.00	2,828.00	CANOL, Orig...	Perforated	Open - Flowing
3/8/2014	2,846.00	2,847.00	CANOL, Orig...	Perforated	Open - Flowing
3/8/2014	2,866.00	2,867.00	CANOL, Orig...	Perforated	Open - Flowing
3/8/2014	2,885.00	2,886.00	CANOL, Orig...	Perforated	Open - Flowing
3/8/2014	2,904.00	2,905.00	CANOL, Orig...	Perforated	Open - Flowing
3/7/2014	2,924.00	2,925.00	CANOL, Orig...	Perforated	Open - Flowing
3/7/2014	2,943.00	2,944.00	CANOL, Orig...	Perforated	Open - Flowing
3/7/2014	2,962.00	2,963.00	CANOL, Orig...	Perforated	Open - Flowing
3/7/2014	2,982.00	2,983.00	CANOL, Orig...	Perforated	Open - Flowing
3/7/2014	3,001.00	3,002.00	CANOL, Orig...	Perforated	Open - Flowing
3/7/2014	3,021.00	3,022.00	CANOL, Orig...	Perforated	Open - Flowing
3/4/2014	3,040.00	3,041.00	CANOL, Orig...	Perforated	Open - Flowing
3/4/2014	3,059.00	3,060.00	CANOL, Orig...	Perforated	Open - Flowing
3/4/2014	3,079.00	3,080.00	CANOL, Orig...	Perforated	Open - Flowing
3/4/2014	3,098.00	3,099.00	CANOL, Orig...	Perforated	Open - Flowing
3/4/2014	3,118.00	3,119.00	CANOL, Orig...	Perforated	Open - Flowing

STIMULATION & TREATMENTS

Date	Zone	Type	Proppant Design (kg)	Proppant Frm (kg)
3/10/2014	CANOL, Original Hole		100,000.0	108,526.0
3/10/2014	CANOL, Original Hole	X-Link	100,000.0	102,853.0
3/10/2014	CANOL, Original Hole	X-Link	100,000.0	106,505.0
3/10/2014	CANOL, Original Hole	X-Link	100,000.0	106,992.0
3/9/2014	CANOL, Original Hole	X-Link	100,000.0	104,701.0
3/9/2014	CANOL, Original Hole	X-Link	100,000.0	113,824.0
3/8/2014	CANOL, Original Hole	X-Link	100,000.0	107,699.0
3/8/2014	CANOL, Original Hole	X-Link	100,000.0	100,000.0
3/7/2014	CANOL, Original Hole	X-Link	100,000.0	101,046.0
3/7/2014	CANOL, Original Hole	X-Link	100,000.0	92,100.0
3/6/2014	CANOL, Original Hole	X-Link	100,000.0	7,840.0

OTHER STRINGS

String Description	Run Date	Pull Date	String Length (m)	Set Depth (mKB)

Comment

Jts	Item Des	OD (mm)	ID (mm)	Wt (kg/m)	Make	Model	Len (m)	Top (mKB)

Report Printed: 4/28/2014

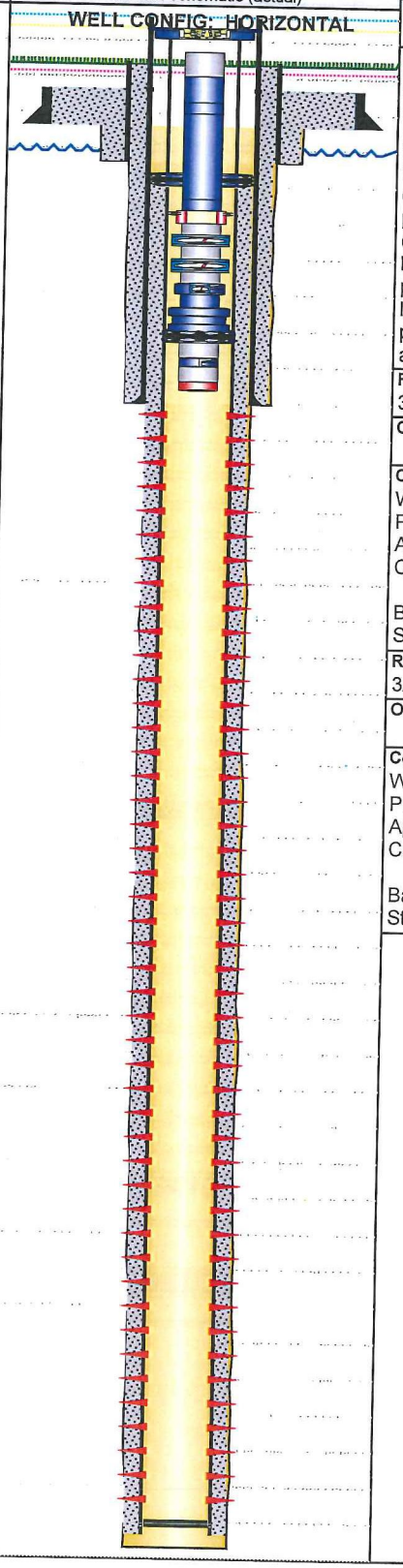
ConocoPhillips Canada

Current Schematic
COPRC MIRROR LAKE P-20 65-00 126-45

HORIZONTAL - Original Hole, 4/28/2014 1:23:25 PM

MD (mKB)	Incl (°)
4.3	0.5
5.5	0.5
16.4	0.5
256.0	0.2
1,728.6	1.6
2,002.5	53.0
2,010.3	55.7
2,014.6	57.2
2,025.3	60.9
2,029.5	62.5
2,152.0	89.0
2,264.0	88.3
2,285.0	89.3
2,322.0	90.0
2,343.0	90.4
2,381.0	90.6
2,401.0	89.4
2,439.0	89.6
2,459.0	89.1
2,497.0	88.2
2,517.0	87.8
2,555.0	88.1
2,576.0	88.5
2,613.0	89.7
2,634.0	89.8
2,672.0	89.7
2,692.0	89.6
2,730.0	89.0
2,750.0	89.0
2,788.0	89.3
2,808.0	89.5
2,846.0	89.9
2,867.0	89.3
2,904.0	89.1
2,925.0	89.1
2,962.0	89.5
2,983.0	89.6
3,021.0	89.8
3,041.0	89.8
3,079.0	89.9
3,099.0	89.9
3,129.6	89.9

Vertical schematic (actual)



OTHER IN HOLE

Run Date	Description	Top Depth (mKB)	Bottom Depth (mKB)
2/21/2014	Barrier - Packer	1,727.49	1,728.60
OD (mm)	**ID (mm)**	**Make**	**Model**
153.7	120.7	Weatherford	'NTD' Liner Top Packer

Comment
Rig up Hallmark power tongs, make up 1-114.3mm float shoe, 1-joint of 114.3mm, 17.26kg/m, P-110, LTC production liner and 1-114.3mm float collar and then run 100-joints of 114.3mm, 17.26kg/m, P-110, LTC production liner from 3148.70m to 1727.49m. Run 101 x Volant Hydroform centralizers from 1729m to 3148m, fill every 20 joints and break circulation every 600m, tag bottom at 3152mMD, circulate bottoms up and clean hole, rig up cementers, cement liner at 3148.70mMD up to liner top, drop dart and displace with fresh water, bump plug 3,500kPA over final circulating pressure, bleed off, check floats, pressure up to 28,000kPA and set liner with liner top packer at 1727.49, circulate out pre-flush and 2m3 of excess cement out, displace hole with fresh water, rig out cementers, flowcheck, rig up laydown truck, laydown drill pipe and heavy weight drill pipe, run in the rest of the drill pipe in the derrick, laydown drill pipe, rig up and run USIT log and pressure pass USIT log, rig up power tongs, run 114.3mm tie-back liner, space out, land liner hanger seal assembly with 19,000dan compression and tie into top of liner top packer, remove landing joint, pressure test packoff seal assembly, pressure test 114.3mm x 177.8mm annulus to 15,000kPA with Schlumberger cementers.

Run Date	Description	Top Depth (mKB)	Bottom Depth (mKB)
3/16/2014	Pressure / Temperatur...	2,014.29	2,014.58
OD (mm)	**ID (mm)**	**Make**	**Model**
31.8		Weatherford	SN 8954 (Top gauge)

Comment
Weatherford 10,000PSI Secondary Memory Gauge
Primary gauge SN# 8954
Approximate Start Time programmed to tool - 03/14/14 - 11:56:43 a.m.
Calibration Date - 03/03/14

Battery - M22091 - Load 3.43
Start: 12:00 P.M 3/14/14

Run Date	Description	Top Depth (mKB)	Bottom Depth (mKB)
3/16/2014	Pressure / Temperatur...	2,014.29	2,014.59
OD (mm)	**ID (mm)**	**Make**	**Model**
31.8		Weatherford	SN 8955 (bottom gauge)

Comment
Weatherford 10,000PSI Primary Memory Gauge
Primary gauge SN# 8955
Approximate Start Time programmed to tool - 03/14/14 - 11:52:10 a.m.
Calibration Date - 03/03/14

Battery - M22090 - Load 3.45
Start: 12:00 P.M 3/14/14

Report Printed: 4/28/2014

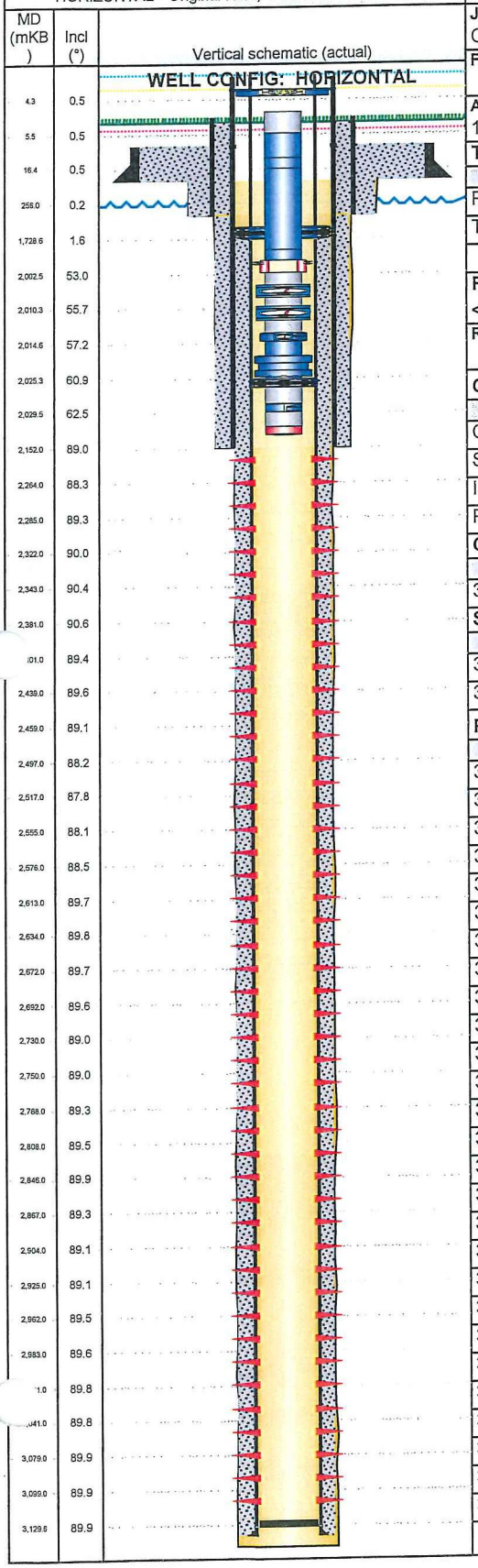
XVI Completions End of Job QC Summary

ConocoPhillips Canada

End Of Job QC Summary
COPRC MIRROR LAKE P-20 65-00 126-45

egion / Division	District	Field Name	API / UWI	License No.
VCBU	NEW VENTURES	Mirror Lake	200/D-020/L094P1699	EL 470
Original KB/RT Elevation (m)	**Ground Elevation (m)**	**KB-Ground Distance (m)**	**KB-Casing Flange Distance (m)**	**KB-Tubing Hanger Distance (m)**
289.35	284.15	5.20	5.40	4.10

HORIZONTAL - Original Hole, 4/11/2014 6:00:00 AM



JOB INFORMATION

Job Category	Primary Job Type	Actual Start Date	End Date
COMPLETIONS	INITIAL COMPLETION	2/18/2014 07:30	4/11/2014 06:00
Final Report?	**Final Job Status**	**Responsible Grp 1**	**Responsible Grp 2**
Yes	GAS	coved	lagartn
AFE / RFE / Maint.#	**AFE+Supp Amt (Cost)**	**Total Field Estimate (Cost)**	**AFE-Field Estimate (Cost)**
10351862;10359334	18,803,600.00	20,251,383.86	-1,447,783.86

TIME LOG SUMMARY SUMMARIZED BY P-N-T

Time P-T-X	Dur (hr)	% Total Time (%)
P	1,043.00	95.64
T	33.50	3.07
	14.00	1.28

RIG INFORMATION

<contractor>, <rigno>

Rig Accept Date	Rig Release Date

CASING STRINGS

Csg Des	OD (mm)	Wt/Len (kg/m)	Grade	Top Thread	Set Depth (mKB)
Conductor	508.0	197.926	K-55		20.00
Surface	244.5	53.574	J-55	LTC	602.00
Intermediate	177.8	38.692	P-110	LTC	2,152.00
Production	114.3	17.263	P-110	LTC	3,148.70

CURRENT PBTD

Date	Type	Depth (mKB)
3/6/2014 15:00	Float Collar	3,129.60

SCVF (SURFACE CASING VENT FLOW)

Date	Typ	Detection
3/2/2014 18:00	SCVF	No
3/14/2014 19:15	SCVF	No

PERFORATIONS

Date	Top (mKB)	Btm (mKB)	Zone	Type	Current Status
3/10/2014	2,245.00	2,246.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,264.00	2,265.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,284.00	2,285.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,303.00	2,304.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,322.00	2,323.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,342.00	2,343.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,361.00	2,362.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,381.00	2,382.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,400.00	2,401.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,419.00	2,420.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,439.00	2,440.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,458.00	2,459.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,478.00	2,479.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,497.00	2,498.00	CANOL, Origina...	Perforated	Open - Flowing
3/10/2014	2,516.00	2,517.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,536.00	2,537.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,555.00	2,556.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,575.00	2,576.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,594.00	2,595.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,613.00	2,614.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,633.00	2,634.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,652.00	2,653.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,672.00	2,673.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,691.00	2,692.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,710.00	2,711.00	CANOL, Origina...	Perforated	Open - Flowing
3/9/2014	2,730.00	2,731.00	CANOL, Origina...	Perforated	Open - Flowing
3/8/2014	2,749.00	2,750.00	CANOL, Origina...	Perforated	Open - Flowing

Report Printed: 4/28/2014

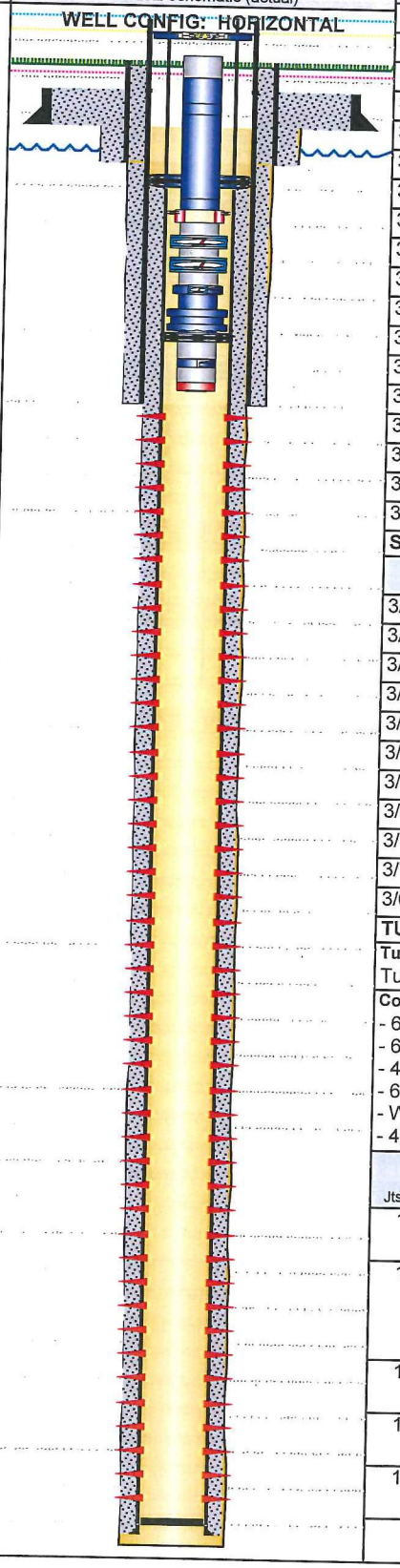
ConocoPhillips Canada

End Of Job QC Summary
COPRC MIRROR LAKE P-20 65-00 126-45

HORIZONTAL - Original Hole, 4/11/2014 6:00:00 AM

MD (mKB)	Incl (°)
4.3	0.5
5.5	0.5
16.4	0.5
256.0	0.2
1,728.6	1.6
2,002.5	53.0
2,010.3	55.7
2,014.6	57.2
2,025.3	60.9
2,029.5	62.5
2,152.0	89.0
2,264.0	88.3
2,285.0	89.3
2,322.0	90.0
2,343.0	90.4
2,381.0	90.6
2,401.0	89.4
2,439.0	89.6
2,459.0	89.1
2,497.0	88.2
2,517.0	87.8
2,555.0	88.1
2,576.0	88.5
2,613.0	89.7
2,634.0	89.8
2,672.0	89.7
2,692.0	89.6
2,730.0	89.0
2,750.0	89.0
2,788.0	89.3
2,808.0	89.5
2,846.0	89.9
2,867.0	89.3
2,904.0	89.1
2,925.0	89.1
2,962.0	89.5
2,983.0	89.6
3,021.0	89.8
3,041.0	89.8
3,079.0	89.9
3,099.0	89.9
3,129.6	89.9

Vertical schematic (actual)



PERFORATIONS

Date	Top (mKB)	Btm (mKB)	Zone	Type	Current Status
3/8/2014	2,769.00	2,770.00	CANOL, Origina...	Perforated	Open - Flowing
3/8/2014	2,788.00	2,789.00	CANOL, Origina...	Perforated	Open - Flowing
3/8/2014	2,807.00	2,808.00	CANOL, Origina...	Perforated	Open - Flowing
3/8/2014	2,827.00	2,828.00	CANOL, Origina...	Perforated	Open - Flowing
3/8/2014	2,846.00	2,847.00	CANOL, Origina...	Perforated	Open - Flowing
3/8/2014	2,866.00	2,867.00	CANOL, Origina...	Perforated	Open - Flowing
3/8/2014	2,885.00	2,886.00	CANOL, Origina...	Perforated	Open - Flowing
3/8/2014	2,904.00	2,905.00	CANOL, Origina...	Perforated	Open - Flowing
3/7/2014	2,924.00	2,925.00	CANOL, Origina...	Perforated	Open - Flowing
3/7/2014	2,943.00	2,944.00	CANOL, Origina...	Perforated	Open - Flowing
3/7/2014	2,962.00	2,963.00	CANOL, Origina...	Perforated	Open - Flowing
3/7/2014	2,982.00	2,983.00	CANOL, Origina...	Perforated	Open - Flowing
3/7/2014	3,001.00	3,002.00	CANOL, Origina...	Perforated	Open - Flowing
3/7/2014	3,021.00	3,022.00	CANOL, Origina...	Perforated	Open - Flowing
3/4/2014	3,040.00	3,041.00	CANOL, Origina...	Perforated	Open - Flowing
3/4/2014	3,059.00	3,060.00	CANOL, Origina...	Perforated	Open - Flowing
3/4/2014	3,079.00	3,080.00	CANOL, Origina...	Perforated	Open - Flowing
3/4/2014	3,098.00	3,099.00	CANOL, Origina...	Perforated	Open - Flowing
3/4/2014	3,118.00	3,119.00	CANOL, Origina...	Perforated	Open - Flowing

STIMULATION AND TREATMENTS

Date	Stim Treat Co	Type	Proppant Design (kg)	Proppant Frm (kg)	Zone
3/10/2014			100,000.0	108,526.0	CANOL, Original Hole
3/10/2014	Schlumberger	X-Link	100,000.0	102,853.0	CANOL, Original Hole
3/10/2014	Schlumberger	X-Link	100,000.0	106,505.0	CANOL, Original Hole
3/10/2014	Schlumberger	X-Link	100,000.0	106,992.0	CANOL, Original Hole
3/9/2014	Schlumberger	X-Link	100,000.0	104,701.0	CANOL, Original Hole
3/9/2014	Schlumberger	X-Link	100,000.0	113,824.0	CANOL, Original Hole
3/8/2014	Schlumberger	X-Link	100,000.0	107,699.0	CANOL, Original Hole
3/8/2014	Schlumberger	X-Link	100,000.0	100,000.0	CANOL, Original Hole
3/7/2014	Schlumberger	X-Link	100,000.0	101,046.0	CANOL, Original Hole
3/7/2014	Schlumberger	X-Link	100,000.0	92,100.0	CANOL, Original Hole
3/6/2014	Schlumberger	X-Link	100,000.0	7,840.0	CANOL, Original Hole

TUBING STRING

Tubing Description	Run Date	Pull Date	String Length (m)	Set Depth (mKB)
Tubing - Production	3/12/2014 22:00		5.10	2,030.23

Comment

- 60.3mm PPMP Pump out plug (Dressed for 21.0MPa differential)
- 60.3mm J-55 6.99 kg/m EUE Pup Jt - 0.65m (2')
- 47.63mm XN - No-Go Profile Nipple. 45.49mm No-Go.
- 60.3mm J-55 6.99 kg/m EUE Pup Jt - 2.46m (8')
- WDH 114mm WL Set Packer Retrievable Double Grip Packer. 69.0MPa. O.D = 95.3mm (3.771")
- 47.63mm Extended Slick Joint

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Make	Model	Len (m)	Top (mKB)
1	Slick Joint c/w 47.63mm x profile	60.3	47.6	6.994	J-55		T&C Upset	0.17	2,025.13
1	Weatherford WDH double grip packer (69MPa rated)	114.3	50.7			Weatherford WDH114 WL	T&C Upset	1.38	2,025.30
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	2.46	2,026.68
1	XN no-go profile nipple 45.49mm no go	60.3	45.5		L-80		T&C Upset	0.32	2,029.14
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	0.65	2,029.46

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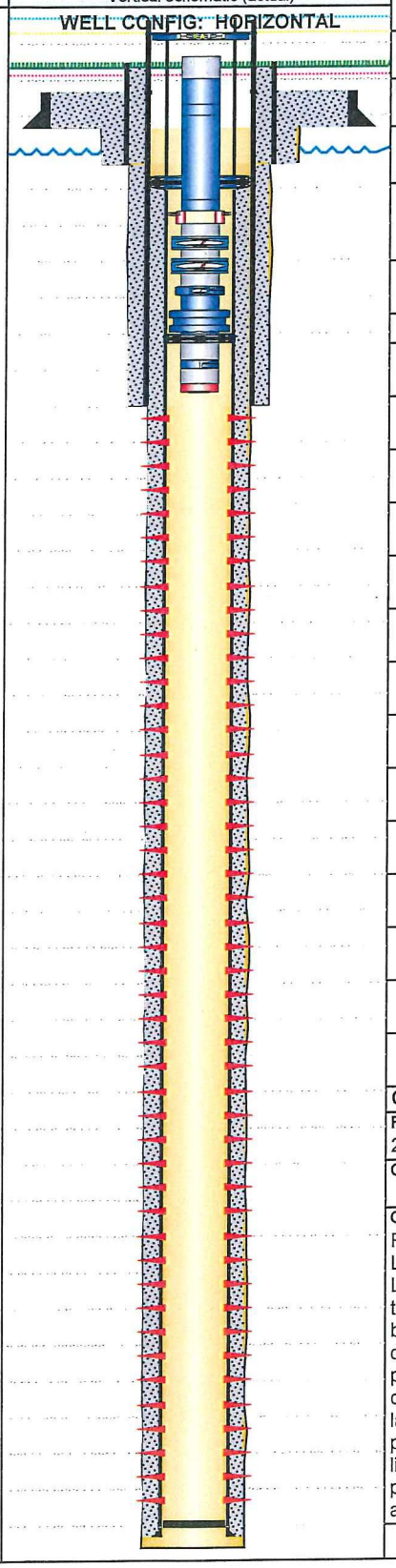
ConocoPhillips Canada

End Of Job QC Summary
COPRC MIRROR LAKE P-20 65-00 126-45

HORIZONTAL - Original Hole, 4/11/2014 6:00:00 AM

MD (mKB)	Incl (°)
4.3	0.5
5.5	0.5
16.4	0.5
256.0	0.2
1,728.6	1.6
2,002.5	53.0
2,010.3	55.7
2,014.6	57.2
2,025.3	60.9
2,029.5	62.5
2,152.0	89.0
2,264.0	88.3
2,285.0	89.3
2,322.0	90.0
2,343.0	90.4
2,381.0	90.6
,401.0	89.4
2,439.0	89.6
2,459.0	89.1
2,497.0	88.2
2,517.0	87.8
2,555.0	88.1
2,576.0	88.5
2,613.0	89.7
2,634.0	89.8
2,672.0	89.7
2,692.0	89.6
2,730.0	89.0
2,750.0	89.0
2,788.0	89.3
2,808.0	89.5
2,846.0	89.9
2,867.0	89.3
2,904.0	89.1
2,925.0	89.1
2,962.0	89.5
2,983.0	89.6
,1.0	89.8
,041.0	89.8
3,079.0	89.9
3,099.0	89.9
3,129.6	89.9

Vertical schematic (actual)



Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Make	Model	Len (m)	Top (mKB)
1	PPMP Pump out plug	60.3	50.7		L-80		T&C Upset	0.12	2,030.11

Tubing Description	Run Date	Pull Date	String Length (m)	Set Depth (mKB)
Tubing - Production	3/14/2014 06:00		2,021.20	2,025.30

Comment

Jts	Item Des	OD Nominal (mm)	Nominal ID (mm)	Wt (kg/m)	Grade	Make	Model	Len (m)	Top (mKB)
1	Extended neckTubing Hanger c/w 2-1/2" ports	179.0	50.7			streamflo	PSL-2	0.16	4.10
1	Depth Correction - compression	60.3						-0.82	4.26
1	Depth Correction	60.3						1.66	3.44
2	Tubing Pup Joint (spacer nipple)	60.3	50.7	6.994	J-55		T&C Upset	0.38	5.10
1	Tubing	60.3	50.7	6.994	J-55		T&C Upset	9.65	5.48
1	Tubing Pup Joint (4')	60.3	50.7	6.994	J-55		T&C Upset	1.23	15.13
207	Tubing	60.3	50.7	6.994	J-55		T&C Upset	1,984.06	16.36
1	Tubing	60.3	50.7	6.994	J-55		T&C Upset	1.24	2,000.42
1	Sliding Sleeve	79.2	47.6					0.86	2,001.66
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	3.11	2,002.52
1	Pressure / Temperature Sensor	90.7	50.7					1.56	2,005.63
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	3.07	2,007.19
1	Gauge Carrier	90.7	50.7					1.56	2,010.26
1	Tubing Pup Joint	60.3	50.7	6.994	J-55		T&C Upset	2.47	2,011.82
1	47.63mm X Profile Nipple	77.7	47.6					0.29	2,014.29
1	Tubing	60.3	50.7	6.994	J-55		T&C Upset	9.61	2,014.58
1	Extended no-jay NFT on/ off tool	95.3	50.7					1.11	2,024.19

OTHER IN HOLE

Run Date	Description	Top Depth (mKB)	Bottom Depth (mKB)
2/21/2014	Barrier - Packer	1,727.49	1,728.60
OD (mm)	**ID (mm)**	**Make**	**Model**
153.7	120.7	Weatherford	'NTD' Liner Top Packer

Comment

Rig up Hallmark power tongs, make up 1-114.3mm float shoe, 1-joint of 114.3mm, 17.26kg/m, P-110, LTC production liner and 1-114.3mm float collar and then run 100-joints of 114.3mm, 17.26kg/m, P-110, LTC production liner from 3148.70m to 1727.49m. Run 101 x Volant Hydroform centralizers from 1729m to 3148m, fill every 20 joints and break circulation every 600m, tag bottom at 3152mMD, circulate bottoms up and clean hole, rig up cementers, cement liner at 3148.70mMD up to liner top, drop dart and displace with fresh water, bump plug 3,500kPA over final circulating pressure, bleed off, check floats, pressure up to 28,000kPA and set liner with liner top packer at 1727.49, circulate out pre-flush and 2m3 of excess cement out, displace hole with fresh water, rig out cementers, flowcheck, rig up laydown truck, laydown drill pipe and heavy weight drill pipe, run in the rest of the drill pipe in the derrick, laydown drill pipe, rig up and run USIT log and pressure pass USIT log, rig up power tongs, run 114.3mm tie-back liner, space out, land liner hanger seal assembly with 19,000dan compression and tie into top of liner top packer, remove landing joint, pressure test packoff seal assembly, pressure test 114.3mm x 177.8mm annulus to 15,000kPA with Schlumberger cementers.

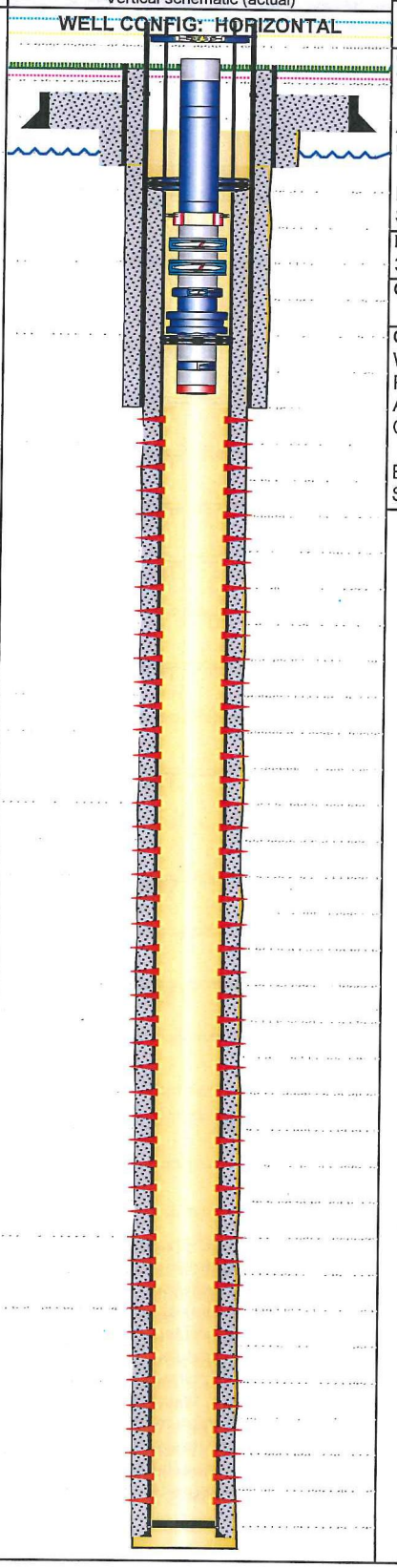
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ConocoPhillips Canada

End Of Job QC Summary
COPRC MIRROR LAKE P-20 65-00 126-45

HORIZONTAL - Original Hole, 4/11/2014 6:00:00 AM

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2,634.0	89.8
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2,692.0	89.6
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2,750.0	89.0
2,788.0	89.3
2,808.0	89.5
2,846.0	89.9
2,867.0	89.3
2,904.0	89.1
2,925.0	89.1
2,962.0	89.5
2,983.0	89.6
3,021.0	89.8
3,041.0	89.8
3,079.0	89.9
3,099.0	89.9
3,129.6	89.9



OTHER IN HOLE

Run Date	Description	Top Depth (mKB)	Bottom Depth (mKB)
3/16/2014	Pressure / Temperatur...	2,014.29	2,014.58
OD (mm)	**ID (mm)**	**Make**	**Model**
31.8		Weatherford	SN 8954 (Top gauge)

Comment
Weatherford 10,000PSI Secondary Memory Gauge
Primary gauge SN# 8954
Approximate Start Time programmed to tool - 03/14/14 - 11:56:43 a.m.
Calibration Date - 03/03/14

Battery - M22091 - Load 3.43
Start: 12:00 P.M 3/14/14

Run Date	Description	Top Depth (mKB)	Bottom Depth (mKB)
3/16/2014	Pressure / Temperatur...	2,014.29	2,014.59
OD (mm)	**ID (mm)**	**Make**	**Model**
31.8		Weatherford	SN 8955 (bottom gauge)

Comment
Weatherford 10,000PSI Primary Memory Gauge
Primary gauge SN# 8955
Approximate Start Time programmed to tool - 03/14/14 - 11:52:10 a.m.
Calibration Date - 03/03/14

Battery - M22090 - Load 3.45
Start: 12:00 P.M 3/14/14

Report Printed: 4/28/2014

XVII Electric Logs