

ConocoPhillips

DAILY GEOLOGICAL REPORT  
CONOCO PHILLIPS CANADA

ConocoPhillips

WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2	
DATE 23-Mar-13	REPORT 26	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence		CELL PHONE 403-536-6939	RIG PHONE 587-794-4599
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 27	FORMATION Hume		WEATHER CONDITIONS Partial Cloud -23	
06:00 STATUS: Run 177.8mm csg							
0600 DEPTH 2146	LAST REPORT 2146	PROGRESS 0	BIT #	Bit Type	BIT SIZE	TOTAL MTRS	Bit Hrs
DRILLING FLUID Versaclean	DEN (kg/m^3) 990	VISCOSITY 93	WATER LOSS		pH	DAILY DRLG HRS	ROP (m/hr)

## OPERATIONS SUMMARY - PAST 24 HOURS

Log run#4 CMR, log run#5 RST (1st attempt failed) POOH and switch components & re-run RST, run#7 USIT log, POOH, lay down logging tools and rig out Schlumberger, rig in lay down truck and pick-up & run 177.8mm casing.

## OPERATIONS FORECAST - NEXT 24 HOURS

Run casing and cement same.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0	1931.0	1931.0	-1645						
Lower Canol	1927	-1640.0	1966.0	1966.0	-1680						
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-1795.0	2093.5	2093.5	-1807						
TD	2132	-1845.0	2146.0	2146.0	-1859						

## COMMENTS



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<b>ConocoPhillips</b>		<b>DAILY GEOLOGICAL REPORT</b> CONOCO PHILLIPS CANADA				<b>ConocoPhillips</b>	
<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.		<b>RIG #</b> 2	
<b>DATE</b> 22-Mar-13	<b>REPORT</b> 25	<b>REPORTING TO</b> Dave Oakley		<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599	
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 26	<b>FORMATION</b> Hume		<b>WEATHER CONDITIONS</b> Partial Cloud -30	
<b>06:00 STATUS:</b> Log with Schlumberger							
<b>0600 DEPTH</b> 2146	<b>LAST REPORT</b> 2146	<b>PROGRESS</b> 0	<b>BIT #</b>	<b>Bit Type</b>	<b>BIT SIZE</b>	<b>TOTAL MTRS</b>	<b>Bit Hrs</b>
<b>DRILLING FLUID</b> Versaclean		<b>DEN (kg/m^3)</b> 990	<b>VISCOSITY</b> 93	<b>WATER LOSS</b>	<b>pH</b>	<b>DAILY DRLG HRS</b>	<b>ROP (m/hr)</b>

**OPERATIONS SUMMARY - PAST 24 HOURS**  
 Log with Schlumberger, run# 2 OBMI, GPIT, PPC, MISP, PBC, EDTC, then run#3 UBI

**OPERATIONS FORECAST - NEXT 24 HOURS**  
 Log with Schlumberger, run in with Run#4 CMR

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology

FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0	1931.0	1931.0	-1645						
Lower Canol	1927	-1640.0	1966.0	1966.0	-1680						
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-1795.0	2093.5	2093.5	-1807						
TD	2132	-1845.0	2146.0	2146.0	-1859						

**COMMENTS**



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<b>ConocoPhillips</b>		<b>DAILY GEOLOGICAL REPORT CONOCO PHILLIPS CANADA</b>				<b>ConocoPhillips</b>	
<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.		<b>RIG #</b> 2	
<b>DATE</b> 21-Mar-13	<b>REPORT</b> 24	<b>REPORTING TO</b> Dave Oakley		<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599	
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 25	<b>FORMATION</b> Hume		<b>WEATHER CONDITIONS</b> Partial Cloud -37	
<b>06:00 STATUS:</b> Log with Schlumberger							
<b>0600 DEPTH</b> 2146	<b>LAST REPORT</b> 2146	<b>PROGRESS</b> 0	<b>BIT #</b>	<b>Bit Type</b>	<b>BIT SIZE</b>	<b>TOTAL MTRS</b>	<b>Bit Hrs</b>
<b>DRILLING FLUID</b> Versaclean	<b>DEN (kg/m^3)</b> 990	<b>VISCOSITY</b> 93	<b>WATER LOSS</b>	<b>pH</b>	<b>DAILY DRLG HRS</b>	<b>ROP (m/hr)</b>	

**OPERATIONS SUMMARY - PAST 24 HOURS**

POOH sideways, rig out lay down truck, pull wear bushing, lay down kelly & swivel, clean & prepare rig, rig up Schlumberger & log Run#1 AIT, lithoscanner, TLD, HGNS, GR, TLD2, finish run #1.

**OPERATIONS FORECAST - NEXT 24 HOURS**

Log with Schlumberger

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
2108	2146	3.0	110	55	Limestone					

FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0	1931.0	1931.0	-1645						
Lower Canol	1927	-1640.0	1966.0	1966.0	-1680						
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-1795.0	2093.5	2093.5	-1807						
TD	2132	-1845.0	2146.0	2146.0	-1859						

**COMMENTS**



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DAILY GEOLOGICAL REPORT  
CONOCO PHILLIPS CANADA

ConocoPhillips

WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2	
DATE 20-Mar-13	REPORT 23	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence		CELL PHONE 403-536-6939	RIG PHONE 587-794-4599
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 24	FORMATION Hume		WEATHER CONDITIONS Partial Cloud -32	
06:00 STATUS: POOH sideways to log							
0600 DEPTH 2146	LAST REPORT 2108	PROGRESS 38	BIT # 1RR	Bit Type Reed MSR616	BIT SIZE 222	TOTAL MTRS 38	Bit Hrs 12.25
DRILLING FLUID Versaclean		DEN (kg/m^3) 990	VISCOSITY 93	WATER LOSS	pH	DAILY DRLG HRS 12.25	ROP (m/hr) 3.1

## OPERATIONS SUMMARY - PAST 24 HOURS

Pick up drill collars, RIH, drill ahead to TD 2146m, circ btms up. 5 stand wiper trip, circ & cond mud, POOH sideways to log

## OPERATIONS FORECAST - NEXT 24 HOURS

POOH sideways, log with Schlumberger.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
2108	2146	3.0	110	55	Limestone					

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0	1931.0	1931.0	-1645						
Lower Canol	1927	-1640.0	1966.0	1966.0	-1680						
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-1795.0	2093.5	2093.5	-1807						
TD	2132	-1845.0	2146.0	2146.0	-1859						

## COMMENTS



WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2			
DATE 19-Mar-13	REPORT 22	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence		CELL PHONE 403-536-6939	RIG PHONE 587-794-4599		
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 23	FORMATION Hume		WEATHER CONDITIONS Partial Cloud -30			
06:00 STATUS: Pick up 10 drill collars									
0600 DEPTH 2108		LAST REPORT 2108		PROGRESS 0	BIT # 1RR	Bit Type Reed MSR616	BIT SIZE 222	TOTAL MTRS 0	Bit Hrs 0
DRILLING FLUID Versaclean		DEN (kg/m^3) 980	VISCOSITY 78		WATER LOSS		pH	DAILY DRLG HRS 0	ROP (m/hr) 0.0

## OPERATIONS SUMMARY - PAST 24 HOURS

Wireline out and recover core#8, rig in wireline and wireline in with drill rod and attempt to seat, attempt to drill, drill rod did not seat, circ, POOH, lay down drill rod & core bbls, pick up drill bit & drill assembly & drill collars.

## OPERATIONS FORECAST - NEXT 24 HOURS

RIH, drill to TD, circ, wiper trip, POOH sideways to log.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
2081	2108	7.0	225	150	Shale & Limestone					

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0	1931.0	1931.0	-1645						
Lower Canol	1927	-1640.0	1966.0	1966.0	-1680						
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-1795.0	2093.5	2093.5	-1807						
TD	2132	-1845.0									

## COMMENTS

TD will be 2146m.



WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2	
DATE 18-Mar-13	REPORT 21	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence		CELL PHONE 403-536-6939	RIG PHONE 587-794-4599
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 22	FORMATION Hume		WEATHER CONDITIONS Partial Cloud -25	
06:00 STATUS: Wireline out Core # 8							
0600 DEPTH 2108	LAST REPORT 2081	PROGRESS 27	BIT # 2C	Bit Type NOV CEPR5135	BIT SIZE 222	TOTAL MTRS 81	Bit Hrs 11.75
DRILLING FLUID Versaclean		DEN (kg/m^3) 980	VISCOSITY 78	WATER LOSS	pH	DAILY DRLG HRS 3.75	ROP (m/hr) 7.2

## OPERATIONS SUMMARY - PAST 24 HOURS

Wireline out and recover core#7, cut core # 8 and wireline out with same.

## OPERATIONS FORECAST - NEXT 24 HOURS

Wireline out and recover core#8, wireline in drill rod and drill to TD.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
2081	2108	7.0	225	150	Shale & Limestone					

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0	1931.0	1931.0	-1645						
Lower Canol	1927	-1640.0	1966.0	1966.0	-1680						
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-1795.0	2093.5	2093.5	-1807						
TD	2132	-1845.0									

## COMMENTS

Weight of core indicates good recovery.



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V18

<b>ConocoPhillips</b>		<b>DAILY GEOLOGICAL REPORT CONOCO PHILLIPS CANADA</b>				<b>ConocoPhillips</b>	
<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.		<b>RIG #</b> 2	
<b>DATE</b> 17-Mar-13	<b>REPORT</b> 20	<b>REPORTING TO</b> Dave Oakley		<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599	
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 21	<b>FORMATION</b> Canol		<b>WEATHER CONDITIONS</b> Partial Cloud -23	
<b>06:00 STATUS:</b> Wireline out Core # 7							
<b>0600 DEPTH</b> 2081	<b>LAST REPORT</b> 2054	<b>PROGRESS</b> 27	<b>BIT #</b> 2C	<b>Bit Type</b> NOV CEPR5135	<b>BIT SIZE</b> 222	<b>TOTAL MTRS</b> 54	<b>Bit Hrs</b> 8
<b>DRILLING FLUID</b> Versaclean		<b>DEN (kg/m^3)</b> 980	<b>VISCOSITY</b> 74	<b>WATER LOSS</b>	<b>pH</b>	<b>DAILY DRLG HRS</b> 3	<b>ROP (m/hr)</b> 9.0

**OPERATIONS SUMMARY - PAST 24 HOURS**

Wireline out and recover core#6, cut core # 7 and wireline out with same.

**OPERATIONS FORECAST - NEXT 24 HOURS**

Wireline out and recover core#7, cut core # 8 and wireline out with same.

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
2054	2081	9.0	527	275	Shale					

FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0	1931.0	1931.0	-1645						
Lower Canol	1927	-1640.0	1966.0	1966.0	-1680						
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

**COMMENTS**

Weight of core indicates good recovery.



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V17

<b>ConocoPhillips</b>		<b>DAILY GEOLOGICAL REPORT CONOCO PHILLIPS CANADA</b>				<b>ConocoPhillips</b>	
<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.		<b>RIG #</b> 2	
<b>DATE</b> 16-Mar-13	<b>REPORT</b> 19	<b>REPORTING TO</b> Dave Oakley		<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599	
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 20	<b>FORMATION</b> Canol		<b>WEATHER CONDITIONS</b> Clear -37	
<b>06:00 STATUS:</b> Wireline out Core # 6							
<b>0600 DEPTH</b> 2054	<b>LAST REPORT</b> 2027	<b>PROGRESS</b> 27	<b>BIT #</b> 2C	<b>Bit Type</b> NOV CEPR5135	<b>BIT SIZE</b> 222	<b>TOTAL MTRS</b> 27	<b>Bit Hrs</b> 5
<b>DRILLING FLUID</b> Versaclean		<b>DEN (kg/m^3)</b> 980	<b>VISCOSITY</b> 78	<b>WATER LOSS</b>	<b>pH</b>	<b>DAILY DRLG HRS</b> 5	<b>ROP (m/hr)</b> 5.4

**OPERATIONS SUMMARY - PAST 24 HOURS**

RIH while drifting drill pipe, pick up 21 singles, circ & cond, pull 3 stands, rig in schlumberger and attempt to pull drill rod, pull drill rod on 2nd attempt, run in 3 stands and pump down inner bbls, cut core # 6 from 2027 - 2054m, Cut:27m, circ btms up, rig in Schlumberger and wireline out with Core # 6.

**OPERATIONS FORECAST - NEXT 24 HOURS**

Wireline out and recover core#6, cut core # 7 and wireline out with same.

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
2027	2054	5.4	528	300	Shale					

FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

**COMMENTS**

Weight of core indicates good recovery.



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v16

<b>ConocoPhillips</b>			<b>DAILY GEOLOGICAL REPORT</b> CONOCO PHILLIPS CANADA			<b>ConocoPhillips</b>		
<b>WELL NAME</b> COPRC Mirror Lake N-20			<b>LOCATION / UWI</b> 300N206500126450			<b>CONTRACTOR</b> Beaver Drilling Ltd.		
<b>RIG #</b> 2								
<b>DATE</b> 15-Mar-13	<b>REPORT</b> 18	<b>REPORTING TO</b> Dave Oakley	<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599			
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 19	<b>FORMATION</b> Canol	<b>WEATHER CONDITIONS</b> Clear -37			
<b>06:00 STATUS:</b> RIH while drifting drill pipe								
<b>0600 DEPTH</b> 2027	<b>LAST REPORT</b> 2027	<b>PROGRESS</b> 0	<b>BIT #</b> 1C	<b>Bit Type</b> NOV PR513	<b>BIT SIZE</b> 222	<b>TOTAL MTRS</b> 135.5	<b>Bit Hrs</b> 16	
<b>DRILLING FLUID</b> Versaclean	<b>DEN (kg/m^3)</b> 1010	<b>VISCOSITY</b> 81	<b>WATER LOSS</b>	<b>pH</b>	<b>DAILY DRLG HRS</b>	<b>ROP (m/hr)</b>		

**OPERATIONS SUMMARY - PAST 24 HOURS**

Trip out of hole & recover core#5 from drill pipe and outer core bbls, lay down collars and inspect, make up core BHA and circ clean, pull out of hole and install drill rod, trip in hole while drifting drill pipe. Current trip depth is 1561 meters.

**OPERATIONS FORECAST - NEXT 24 HOURS**

Finish tripping in hole, circ hole clean, wireline out drill rod, cut core#6 and wireline out of hole.

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
2000	2027	7.0	608	400	Shale					

FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

**COMMENTS**

Estimate almost full recovery from Core#5.



697794  
 VIS

<b>ConocoPhillips</b>		<b>DAILY GEOLOGICAL REPORT CONOCO PHILLIPS CANADA</b>				<b>ConocoPhillips</b>	
<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.		<b>RIG #</b> 2	
<b>DATE</b> 14-Mar-13	<b>REPORT</b> 17	<b>REPORTING TO</b> Dave Oakley		<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599	
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 18	<b>FORMATION</b> Canol		<b>WEATHER CONDITIONS</b> Clear -40	
<b>06:00 STATUS:</b> POOH & recover core 5 from drillpipe							
<b>0600 DEPTH</b> 2027	<b>LAST REPORT</b> 2000	<b>PROGRESS</b> 27	<b>BIT #</b> 1C	<b>Bit Type</b> NOV PR513	<b>BIT SIZE</b> 222	<b>TOTAL MTRS</b> 135.5	<b>Bit Hrs</b> 16
<b>DRILLING FLUID</b> Versaclean		<b>DEN (kg/m^3)</b> 1010	<b>VISCOSITY</b> 81	<b>WATER LOSS</b>	<b>pH</b>	<b>DAILY DRLG HRS</b> 3.5	<b>ROP (m/hr)</b> 7.7

**OPERATIONS SUMMARY - PAST 24 HOURS**  
 Circ btms up, make up new bbls and pump down hole, cut core#5 from 2000 - 2027m, circ & cond mud, pull 3 stands, rig in Schlumberger wireline & wireline out with core, at surface no core, trip out of hole and recover core from drill pipe

**OPERATIONS FORECAST - NEXT 24 HOURS**  
 Finish POOH and recover core from drillpipe, trip out.

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
2000	2027	7.0	608	400	Shale					

FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

**COMMENTS**  
 Schlumberger wireline lost 200 lbs at 1500 meters, lost 1200 lbs at 110m.



697794  
V14

<b>ConocoPhillips</b>		<b>DAILY GEOLOGICAL REPORT CONOCO PHILLIPS CANADA</b>				<b>ConocoPhillips</b>	
<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.		<b>RIG #</b> 2	
<b>DATE</b> 13-Mar-13	<b>REPORT</b> 16	<b>REPORTING TO</b> Dave Oakley		<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599	
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 17	<b>FORMATION</b> Canol		<b>WEATHER CONDITIONS</b> Partial Cloud -25	
<b>06:00 STATUS:</b> Recover Core#4							
<b>0600 DEPTH</b> 2000	<b>LAST REPORT</b> 1973	<b>PROGRESS</b> 27	<b>BIT #</b> 1C	<b>Bit Type</b> NOV PR513	<b>BIT SIZE</b> 222	<b>TOTAL MTRS</b> 108.5	<b>Bit Hrs</b> 12.5
<b>DRILLING FLUID</b> Versaclean		<b>DEN (kg/m^3)</b> 970	<b>VISCOSITY</b> 72	<b>WATER LOSS</b>	<b>pH</b>	<b>DAILY DRLG HRS</b> 3.75	<b>ROP (m/hr)</b> 7.2

**OPERATIONS SUMMARY - PAST 24 HOURS**

Lay down Core#3, pull 4 stands, circ btms up, pump down inner bbls, cut core#4 from 1973 - 2000m, circ btms up, pull 3 stands, rig in wireline and wireline core# 4 out of hole and recover same.

**OPERATIONS FORECAST - NEXT 24 HOURS**

Finish recover core#4, pump down inner bbls and cut core#5 and recover same, pump down new inner bbls and cut core# 6

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
1973	2000	7.0	661	400	Shale					

FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

**COMMENTS**

Core weight indicates good recovery



697794 v13

<b>ConocoPhillips</b>		<b>DAILY GEOLOGICAL REPORT CONOCO PHILLIPS CANADA</b>				<b>ConocoPhillips</b>	
<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.		<b>RIG #</b> 2	
<b>DATE</b> 12-Mar-13	<b>REPORT</b> 15	<b>REPORTING TO</b> Dave Oakley		<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599	
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 16	<b>FORMATION</b> Canol		<b>WEATHER CONDITIONS</b> Partial Cloud -23	
<b>06:00 STATUS:</b> Recover Core#3							
<b>0600 DEPTH</b> 1973	<b>LAST REPORT</b> 1946	<b>PROGRESS</b> 27	<b>BIT #</b> 1C	<b>Bit Type</b> NOV PR513	<b>BIT SIZE</b> 222	<b>TOTAL MTRS</b> 81.5	<b>Bit Hrs</b> 8.75
<b>DRILLING FLUID</b> Versaclean		<b>DEN (kg/m^3)</b> 970	<b>VISCOSITY</b> 72	<b>WATER LOSS</b>	<b>pH</b>	<b>DAILY DRLG HRS</b> 2.75	<b>ROP (m/hr)</b> 9.8

**OPERATIONS SUMMARY - PAST 24 HOURS**

Wireline out & recover core # 2, pump down new inner bbls & cut core#3 from 1946 - 1973m, cut 27m, wireline out with core#3 & recover same.

**OPERATIONS FORECAST - NEXT 24 HOURS**

Finish recover core#3, pump down inner bbls and cut core#4 and recover same, pump down new inner bbls and cut core# 5

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
1946	1973	9.8	393	275	Shale					

FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

**COMMENTS**

Core weight indicates good recovery



WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2	
DATE 11-Mar-13	REPORT 14	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence	CELL PHONE 403-536-6939	RIG PHONE 587-794-4599	
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 15	FORMATION Canol		WEATHER CONDITIONS Light snow -17	
06:00 STATUS: Wireline out Core#2							
0600 DEPTH 1946	LAST REPORT 1919	PROGRESS 27	BIT # 1C	Bit Type NOV PR513	BIT SIZE 222	TOTAL MTRS 54.5	Bit Hrs 6
DRILLING FLUID Versaclean		DEN (kg/m^3) 970	VISCOSITY 72	WATER LOSS	pH	DAILY DRLG HRS 3	ROP (m/hr) 9.0

## OPERATIONS SUMMARY - PAST 24 HOURS

Wireline out & recover core # 1, pump down new inner bbls & cut core#2 from 1919 - 1927m, cut 27m, wireline out with core#2.

## OPERATIONS FORECAST - NEXT 24 HOURS

Finish wireline out with core#2 and recover same, pump down new inner sleeves and cut core#3 and recover same.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
1919	1946	9.0	379	300	Shale	1919	1919	554		Trip gas

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

## COMMENTS

Core weight indicates good recovery



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DAILY GEOLOGICAL REPORT  
CONOCO PHILLIPS CANADA

ConocoPhillips

WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2	
DATE 10-Mar-13	REPORT 13	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence		CELL PHONE 403-536-6939	RIG PHONE 587-794-4599
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 14	FORMATION Imperial		WEATHER CONDITIONS Partial Cloud -12	
06:00 STATUS: Wireline out Core#1							
0600 DEPTH 1919	LAST REPORT 1891.5	PROGRESS 27	BIT # 1C	Bit Type NOV PR513	BIT SIZE 222	TOTAL MTRS 27	Bit Hrs 2.5
DRILLING FLUID Versaclean		DEN (kg/m^3) 970	VISCOSITY 72	WATER LOSS	pH	DAILY DRLG HRS 2.5	ROP (m/hr) 10.0

## OPERATIONS SUMMARY - PAST 24 HOURS

Pick up core BHA anf RIH with same, tag bottom, 1.5m depth correction to 1891.5, retrieve drill rod with wireline, pump down inner sleeves, cut core#1, from 1891.5-1919m, cut 27.5m, circ btms up, rig in wireline & wireline out with core#1.

## OPERATIONS FORECAST - NEXT 24 HOURS

Finish wireline out with core#1 and recover same, pump down new inner sleeves and cut core#2 anf recover same.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
1891.5	1919	10.0	250	180	Shale	1905	1906	304	150	Shale

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

## COMMENTS

Core weight indicates good recovery



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DAILY GEOLOGICAL REPORT  
CONOCO PHILLIPS CANADA

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V10

WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2	
DATE 09-Mar-13	REPORT 12	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence		CELL PHONE 403-536-6939	RIG PHONE 587-794-4599
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 13	FORMATION Imperial		WEATHER CONDITIONS Partial Cloud -22	
06:00 STATUS: Pick up core BHA							
0600 DEPTH 1890	LAST REPORT 1775	PROGRESS 115	BIT # 1	Bit Type Reed MSR616M	BIT SIZE 222	TOTAL MTRS 1289	Bit Hrs 83.5
DRILLING FLUID Versaclean		DEN (kg/m^3) 970	VISCOSITY 72	WATER LOSS	pH	DAILY DRLG HRS 8	ROP (m/hr) 14.4

## OPERATIONS SUMMARY - PAST 24 HOURS

Drill ahead & survey as required to corepoint 1890 meters, circ btms up, POOH, lay down directional tools, prepare to & pick up core bbls & BHA.

## OPERATIONS FORECAST - NEXT 24 HOURS

Pick up core BHA, RIH, cut core#1 & recover same.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
1780	1890	14.0	145	90	Shale					

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1138.0	1138.0	-852						
Imperial	1112	-825.0	1172.5	1172.5	-886						
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

## COMMENTS

Last survey @ 1875.34m was 2.59 degrees, 38.89 AZ



WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2	
DATE 06-Mar-13	REPORT 9	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence		CELL PHONE 403-536-6939	RIG PHONE 587-794-4599
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 10	FORMATION Martin House		WEATHER CONDITIONS Partial Cloud -31	
06:00 STATUS: Drilling 222mm hole							
0600 DEPTH 1145	LAST REPORT 820	PROGRESS 325	BIT # 1	Bit Type Reed MSR616M	BIT SIZE 222	TOTAL MTRS 544	Bit Hrs 33.25
DRILLING FLUID Versaclean		DEN (kg/m^3) 990	VISCOSITY 62	WATER LOSS	pH	DAILY DRLG HRS 19.5	ROP (m/hr) 17.0

## OPERATIONS SUMMARY - PAST 24 HOURS

Drill ahead &amp; survey as required

## OPERATIONS FORECAST - NEXT 24 HOURS

Drill ahead &amp; survey as required.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
800	1140	17.0	74	40	Shale					

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505	829.0	829.0	-543						
Sans Sault	962	-675	988.0	988.0	-702						
Martin House	1037	-750.0	1103.0	1103.0	-818						
Imperial	1112	-825.0									
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

## COMMENTS

Last survey @ 1131.2m was 1.71 degrees, 79.41 AZ







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DAILY GEOLOGICAL REPORT  
CONOCO PHILLIPS CANADA

ConocoPhillips

<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.		<b>RIG #</b> 2	
<b>DATE</b> 04-Mar-13	<b>REPORT</b> 7	<b>REPORTING TO</b> Dave Oakley		<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599	
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 8	<b>FORMATION</b> Slater River		<b>WEATHER CONDITIONS</b> Partial Cloud -23	
<b>06:00 STATUS:</b> Pick up dir tools							
<b>0600 DEPTH</b> 601	<b>LAST REPORT</b> 601	<b>PROGRESS</b> 0	<b>BIT #</b>	<b>Bit Type</b>	<b>BIT SIZE</b>	<b>TOTAL MTRS</b>	<b>Bit Hrs</b>
<b>DRILLING FLUID</b>		<b>DEN (kg/m<sup>3</sup>)</b>	<b>VISCOSITY</b>	<b>WATER LOSS</b>	<b>pH</b>	<b>DAILY DRLG HRS</b>	<b>ROP (m/hr)</b>

## OPERATIONS SUMMARY - PAST 24 HOURS

WOC, nipple down diverter, nipple up &amp; pressure test, slip &amp; cut 30m drill line, pick up directional tools.

## OPERATIONS FORECAST - NEXT 24 HOURS

Pick up directional tools, RIH, drill out, drill ahead.

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505									
Sans Sault	962	-675									
Martin House	1037	-750.0									
Imperial	1112	-825.0									
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

## COMMENTS

Mudlogging gear rigged up and running OK.



WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2	
DATE 03-Mar-13	REPORT 6	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence		CELL PHONE 403-536-6939	RIG PHONE 587-794-4599
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 7	FORMATION Slater River		WEATHER CONDITIONS Partial Cloud -18	
06:00 STATUS: WOC							
0600 DEPTH 601	LAST REPORT 601	PROGRESS 0	BIT # 1A	Bit Type Varel HE04JMRS\	BIT SIZE 311	TOTAL MTRS 601	Bit Hrs 54.5
DRILLING FLUID Gel Chem		DEN (kg/m^3) 1100	VISCOSITY 73	WATER LOSS	pH 8	DAILY DRLG HRS 0	ROP (m/hr) 0.0

## OPERATIONS SUMMARY - PAST 24 HOURS

POOH to log, lay down 9 inch drill collars, rig in Schlumberger and log AIT-DSI-PPC-GPIT, inspection by NEB, rig out schlumberger, rig to and run 244.5mm surface casing and cement same, WOC

## OPERATIONS FORECAST - NEXT 24 HOURS

Nipple down diverter & nipple up BOPs & pressure test.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
						601	601	170	50	Casing trip gas

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505									
Sans Sault	962	-675									
Martin House	1037	-750.0									
Imperial	1112	-825.0									
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

## COMMENTS

Logging run#2 cancelled over hole concerns.



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ConocoPhillips		DAILY GEOLOGICAL REPORT CONOCO PHILLIPS CANADA		ConocoPhillips							
WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2					
DATE 02-Mar-13	REPORT 5	REPORTING TO Dave Oakley	WELLSITE GEOLOGIST Dave Lawrence	CELL PHONE 403-536-6939	RIG PHONE 587-794-4599						
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 6	FORMATION Slater River	WEATHER CONDITIONS Cloudy -22						
06:00 STATUS: POOH to log											
0600 DEPTH 601	LAST REPORT 529	PROGRESS 72	BIT # 1A	Bit Type Varel HE04JMRS\	BIT SIZE 311	TOTAL MTRS 601	Bit Hrs 54.5				
DRILLING FLUID Gel Chem	DEN (kg/m^3) 1100	VISCOSITY 73	WATER LOSS	pH 8	DAILY DRLG HRS 7.75	ROP (m/hr) 9.3					
OPERATIONS SUMMARY - PAST 24 HOURS											
Drill ahead to 532m, mix pill for lost circ, build volume & work pipe, drill ahead and survey as required to 601m (surface TD), circ & cond mud & build volume, wiper trip to collars, RIH, hit bridge @ 469m, ream & clean to 540m, RIH, clean from 585 - 601m, circ & cond mud, POOH to log.											
OPERATIONS FORECAST - NEXT 24 HOURS											
POOH, rig to & log with Schlumberger, run casing											
BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)					
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology	
525	601	9.0	125	105	Shale						
FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505									
Sans Sault	962	-675									
Martin House	1037	-750.0									
Imperial	1112	-825.0									
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									
COMMENTS											
Last survey @ 547m was 0.1 degrees											



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v4

ConocoPhillips		DAILY GEOLOGICAL REPORT CONOCO PHILLIPS CANADA		ConocoPhillips	
<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.	
<b>RIG #</b> 2					
<b>DATE</b> 01-Mar-13	<b>REPORT</b> 4	<b>REPORTING TO</b> Dave Oakley	<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 5	<b>FORMATION</b> Slater River	<b>WEATHER CONDITIONS</b> Clear -30
<b>06:00 STATUS:</b> Drilling 311mm hole					
<b>0600 DEPTH</b> 529	<b>LAST REPORT</b> 368	<b>PROGRESS</b> 161	<b>BIT #</b> 1A	<b>Bit Type</b> Varel HE04JMRSV	<b>BIT SIZE</b> 311
<b>TOTAL MTRS</b> 529		<b>Bit Hrs</b> 46.75			
<b>DRILLING FLUID</b> Gel Chem	<b>DEN (kg/m^3)</b> 1100	<b>VISCOSITY</b> 73	<b>WATER LOSS</b>	<b>pH</b> 8	<b>DAILY DRLG HRS</b> 13.75
<b>ROP (m/hr)</b> 11.7					
<b>OPERATIONS SUMMARY - PAST 24 HOURS</b>					
Drill ahead & survey as required to 444m, circ btms up, wiper trip to surface, check bit, bit OK, change out kelly spinner, RIH, clean up hole from 267 - 301m, RIH, drill ahead & survey as required					
<b>OPERATIONS FORECAST - NEXT 24 HOURS</b>					
Drill ahead to 9m prior to casing point, wiper trip, drill to surface TD, POOH, rig to & log surface hole with Schlumberger					
<b>BACKGROUND TOTAL GAS (Units, 100 Units = 1%)</b>					
<b>From</b>	<b>To</b>	<b>ROP</b>	<b>Max</b>	<b>Avg</b>	<b>Gross Lith.</b>
365	525	12.0	160	100	Shale
<b>GAS SHOWS (Units, 100 Units = 1%)</b>					
<b>From</b>	<b>To</b>	<b>Max</b>	<b>Prev.</b>	<b>Lithology</b>	
502	504	372	100	Sand	
<b>FORMATION / MARKER TOPS</b>					
<b>FORMATION</b>	<b>PROGNOSIS</b>	<b>SAMPLE</b>		<b>FORMATION</b>	<b>PROGNOSIS</b>
<b>MARKER TOPS</b>	<b>TVD</b>	<b>SS</b>	<b>MD</b>	<b>MARKER TOPS</b>	<b>TVD</b>
Quaternary	5	281			
Little Bear	22	265	20.0	20.0	265
Slater River	217	70	241.0	241.0	46
Artic Red	792	-505			
Sans Sault	962	-675			
Martin House	1037	-750.0			
Imperial	1112	-825.0			
Upper Canol	1892	-1605.0			
Lower Canol	1927	-1640.0			
Hare Indian	2037	-1750.0			
Bluefish Member	2062	-1775.0			
Hume	2082	-17995.0			
TD	2132	-1845.0			
<b>COMMENTS</b>					
Last survey @ 509m was 0 degrees					



ConocoPhillips

DAILY GEOLOGICAL REPORT  
CONOCO PHILLIPS CANADA

ConocoPhillips

WELL NAME COPRC Mirror Lake N-20		LOCATION / UWI 300N206500126450		CONTRACTOR Beaver Drilling Ltd.		RIG # 2	
DATE 28-Feb-13	REPORT 3	REPORTING TO Dave Oakley		WELLSITE GEOLOGIST Dave Lawrence	CELL PHONE 403-536-6939	RIG PHONE 587-794-4599	
KB (m) 286.5	GL (m) 281.3	SPUD DATE 2/25/13	DAY No. 4	FORMATION Slater River		WEATHER CONDITIONS Partial Cloud -22	
06:00 STATUS: Drilling 311mm hole							
0600 DEPTH 368	LAST REPORT 300	PROGRESS 68	BIT # 1A	Bit Type Varel HE04JMRS\	BIT SIZE 311	TOTAL MTRS 300	Bit Hrs 33
DRILLING FLUID Gel Chem		DEN (kg/m^3) 1050	VISCOSITY 78	WATER LOSS	pH 9	DAILY DRLG HRS 5	ROP (m/hr) 13.6

## OPERATIONS SUMMARY - PAST 24 HOURS

Work tite hole & stuck pipe @ 153m, free pipe and pull to 112m, stuck pipe, pick up surface jars and jar free, back ream and pull tite hole to 60m / partial lost circ, POOH, inspect bit, laydown jars, RIH to 151m, ream & clean to btm, drill ahead.

## OPERATIONS FORECAST - NEXT 24 HOURS

Drill ahead.

## BACKGROUND TOTAL GAS (Units, 100 Units = 1%)

## GAS SHOWS (Units, 100 Units = 1%)

From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
300	365	13.0	67	55	Shale					

## FORMATION / MARKER TOPS

FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505									
Sans Sault	962	-675									
Martin House	1037	-750.0									
Imperial	1112	-825.0									
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

## COMMENTS

Last survey @ 355m was 0.9 degrees



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v2

<b>ConocoPhillips</b>		<b>DAILY GEOLOGICAL REPORT</b> CONOCO PHILLIPS CANADA				<b>ConocoPhillips</b>	
<b>WELL NAME</b> COPRC Mirror Lake N-20		<b>LOCATION / UWI</b> 300N206500126450		<b>CONTRACTOR</b> Beaver Drilling Ltd.		<b>RIG #</b> 2	
<b>DATE</b> 27-Feb-13	<b>REPORT</b> 2	<b>REPORTING TO</b> Dave Oakley		<b>WELLSITE GEOLOGIST</b> Dave Lawrence	<b>CELL PHONE</b> 403-536-6939	<b>RIG PHONE</b> 587-794-4599	
<b>KB (m)</b> 286.5	<b>GL (m)</b> 281.3	<b>SPUD DATE</b> 2/25/13	<b>DAY No.</b> 3	<b>FORMATION</b> Slater River		<b>WEATHER CONDITIONS</b> Ice Fog -25	
<b>06:00 STATUS:</b> Work tite hole @ 153m							
<b>0600 DEPTH</b> 300	<b>LAST REPORT</b> 135	<b>PROGRESS</b> 165	<b>BIT #</b> 1A	<b>Bit Type</b> Varel HE04JMRS\	<b>BIT SIZE</b> 311	<b>TOTAL MTRS</b> 300	<b>Bit Hrs</b> 28
<b>DRILLING FLUID</b> Spud Mud		<b>DEN (kg/m^3)</b> 1040	<b>VISCOSITY</b> 54	<b>WATER LOSS</b>	<b>pH</b> 9.5	<b>DAILY DRLG HRS</b> 15.5	<b>ROP (m/hr)</b> 10.6

**OPERATIONS SUMMARY - PAST 24 HOURS**

Drill ahead and survey as required to 300m, wiper trip out of hole to 111m, work tite hole @ 153m.

**OPERATIONS FORECAST - NEXT 24 HOURS**

Work tite hole, finish wiper trip, drill ahead

BACKGROUND TOTAL GAS (Units, 100 Units = 1%)						GAS SHOWS (Units, 100 Units = 1%)				
From	To	ROP	Max	Avg	Gross Lith.	From	To	Max	Prev.	Lithology
135	300	11.0	51	45	Shale					

FORMATION / MARKER TOPS											
FORMATION	PROGNOSIS		SAMPLE			FORMATION	PROGNOSIS		SAMPLE		
MARKER TOPS	TVD	SS	MD	TVD	SS	MARKER TOPS	TVD	SS	MD	TVD	SS
Quaternary	5	281									
Little Bear	22	265	20.0	20.0	265						
Slater River	217	70	241.0	241.0	46						
Artic Red	792	-505									
Sans Sault	962	-675									
Martin House	1037	-750.0									
Imperial	1112	-825.0									
Upper Canol	1892	-1605.0									
Lower Canol	1927	-1640.0									
Hare Indian	2037	-1750.0									
Bluefish Member	2062	-1775.0									
Hume	2082	-17995.0									
TD	2132	-1845.0									

**COMMENTS**

Last survey @ 287m was 0.1 degrees



WID  
2079

Last survey @ 92m was 0.4 degrees