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March 17, 2015

Brian Heppelle, P.Eng.  
Senior Technical Advisor  
Office of the Regulator of Oil and Gas Operations  
Government of Northwest Territories  
P.O. Box 1320  
Yellowknife, NT  
X1A 2L9

Dear Mr Heppelle,

Tweed Lake M-47 ( SDL 024 ; WID 1476 ; Operation Authorization # NWT OA-2014-003 )  
Well Operations Report

Please find attached, the well operations report that provides documentation of the re-suspension operation at the subject well during the period February 2 -21, 2015.  
The production tubing string has been removed. The well has been suspended with a permanent bridge & cement to restore regulatory suspension compliance requirements of zero pressure at surface.

Should you require any further information to support this report, please contact Bob Barvir at 403-296-3444 or rbarvir@suncor.com.

Yours truly,

A handwritten signature in blue ink, appearing to read "Reg Senyk", written over a blue horizontal line.

Reg Senyk, P. Eng.  
Production Engineering Team Leader – E&P  
Suncor Energy Inc.



NATIONAL PARTNER



## Completions Department

Report on Re-suspension

at

PCI Tweed Lake M-47

February 2, 2015 to February 21, 2015

Prepared by: John Gunn

Approved by: Bob Barvir March 17, 2015

Bob Barvir

Distribution

Wellfile - 3<sup>rd</sup> Floor SECE  
LiveLink  
OROGO

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## Daily Activity Summary

**Well Name: PCI Canterra Tweed M-47**

UWI <b>300M476700125450</b>		Surface Legal Location		Field Name		License # <b>1476</b>		State/Province <b>N.W.T</b>		Well Configuration Type <b>Vertical</b>		Project Name	
Drilling KB Elevation (m) <b>435.22</b>		Ground Elevation (m) <b>429.10</b>		KB-Grd (m) <b>6.12</b>		KB-CF (m) <b>6.12</b>		KB-TH (m)		PBDT (All) (mKB) Original Hole - <b>1,322.00</b>		Total Depth (All) (mKB) Original Hole - <b>1,418.00</b>	
Job Category <b>Completion/Workover</b>				Primary Job Type <b>Suspensions</b>				Secondary Job Type				Status 1	
AFE Number <b>5039926</b>				Job Start Date <b>2/2/2015</b>				Job End Date <b>2/21/2015</b>				Total AFE Amount (Cost) <b>2,804,461.00</b>	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.													
Summary													
Contractor <b>Nabors Production Services</b>								Rig Number <b>414</b>		Rig Type <b>Service - Vertical</b>			
24 Hr Operations Summary													
Rpt #	Start Date	End Date											
1.0	2/2/2015	2/2/2015	Met with Nabors rig manager and Northridge and HRN personnel. Discussed rig move. Mobilized Lonkar wireline truck. Nabors rig crew and Lonkar crew flew into Norman Wells. Datadrill arrived in Norman Wells with service truck and satellite communications equipment.										
2.0	2/3/2015	2/3/2015	Rig crew started rig and equipment. Repaired rig hydraulics and issues with air system and clutch. Removed the derrick. Loaded equipment. Prepared for move to Colville Lake.										
3.0	2/4/2015	2/4/2015	Moved service rig and some of the equipment from Norman wells to the camp site at Colville Lake. The rig pump and tank and BOP skid did not arrive.										
4.0	2/5/2015	2/5/2015	Spotted rig mats and set the doghouse and boiler on matting. Had problems starting the rig and freezing issues due to cold weather. Rig pump and tank arrived at the camp. The truck hauling the BOP is broke down. Lonkar wireline, Flint pressure truck and tank truck with methanol arrived at camp.										
5.0	2/6/2015	2/6/2015	Re-spotted mats and set up 2 - 64 m3 double walled tanks and spotted the rig tank and pump. Installed the derrick on the rig and spotted the rig on the mats at the well. Fired the boiler and rigged in boiler lines. Tarpred in and began heating the wellhead.										
6.0	2/7/2015	2/7/2015	Rigged in pump lines etc. Attempted to stand derrick. Had problems with air system and clutch. Will stand the derrick tomorrow. The parts to repair the Lonkar wireline truck did not arrive at the airport in Norman Wells. Should arrive tomorrow.										
7.0	2/8/2015	2/8/2015	Rigged in accumulator lines. Attempted to stand the derrick. Top section locking pins would not engage. Removed and serviced the locking pin linkage. Will stand the derrick tomorrow. The parts for the Lonkar wireline truck arrived in Norman Wells but the charter aircraft would not fly due to cold weather. Had mechanic follow a pilot truck and drive to Colville Lake camp with the parts and will repair the wireline truck tomorrow.										
8.0	2/9/2015	2/9/2015	Repaired Lonkar wireline unit. Stood the derrick. Rigged up slickline equipment. Broke the Kobes equalizing sub. Attempted to pull the "G" packoff. Started pulling tight. Line parted at the rope socket. Prepare tools to fish tool string tomorrow.										
9.0	2/10/2015	2/10/2015	Recovered the lost tool string. Pulled the "G" packoff and collar stop. Ran a gauge ring and tagged the "PX" plug in the on/off. Pulled the equalizing prong and pulled the plug mandrel. Ran a nipple brush through the tailpipe. Set a no-go dart on the "XN" profile.										
10.0	2/11/2015	2/11/2015	Bullheaded 2 m3 of 100% methanol followed by 6 m3 of 25% methanol / water down the tubing. Set 2 permanent bridge plugs in the 73 mm tailpipe. The first plug set questionably. Pressure tested plugs to 7 MPa. Pressure tested casing to 7 MPa. Held ok. Perforated the tubing just above the "X" nipple with a mechanical tubing punch. Forward circulated the well with methanol / water to remove frac oil from the annulus. Conducted man down drill. Stump tested BOPs.										
11.0	2/12/2015	2/12/2015	A power cord shorted out at camp overnight causing loss of power in 3 of the camp trailers. Ordered parts and servicemen from Norman Wells. Inspectors from the OROGO, AER, and Workers' Safety of NWT arrived in Colville Lake airport. Provided transportation for them to camp and to the wellsite so they could conduct inspections. Returned them to the airport at 1300 hrs. Changed out two light towers at the wellsite. Two men on boilerwatch during the day. No other work conducted due to camp situation. Repair crew arrived at camp at 0800 hrs. Did not bring the correct size cord. Had to build a replacement from cords on site. Northridge chartered an airplane and flew more parts and electrician to Colville Lake. Arrived at 2200 hrs.										
12.0	2/13/2015	2/13/2015	Removed wellhead and installed BOPs. Released on/off connector. POH w/ 73 mm production string. Spooled injection line onto Halliburton spooler.										
13.0	2/14/2015	2/14/2015	Ran in with a bit and scraper. Circulated clean. POH and laid down tubing. Ran a gauge and then set a 178 mm permanent bridge plug at 1188 mKB.										
14.0	2/15/2015	2/15/2015	Pressure tested bridge plug and casing to 7 MPa for 10 min. Held ok. Dump bailed 8 m cement on top of bridge plug. Removed BOPs and installed the wellhead. Start to rig out rig.										
15.0	2/16/2015	2/16/2015	Rigged out rig and equipment. Emptied tanks, drained boiler. Hauled fluids to Tervita Rainbow Lake.										
16.0	2/17/2015	2/17/2015	Loaded out tubing. Removed derrick. Loaded out rig and equipment. Not enough trucks available to move all equipment. Loads left on lease include matting, catwalk, doghouse, 2 - 64 m3 tanks and garbage bin. The road from Colville Lake to Fort Goodhope was blocked by snow drifts about 80 km from Fort Goodhope. Rig crew returned to camp. Mobilized a cat and grader to get the road cleared.										



## Daily Activity Summary

Well Name: **PCI Canterra Tweed M-47**

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Rpt #	Start Date	End Date	24 Hr Operations Summary			
17.0	2/18/2015	2/18/2015	Road to Fort Goodhope was cleared. Rigged out sat phone system at camp. Rig crew and Datadrill personnel travelled to Norman Wells. HRN moved the Formula Powell truck to town for repairs. Moved 3 more loads of rig and rental equipment off lease and back to Norman Wells.			
18.0	2/19/2015	2/19/2015	Started rigging out camp. Hauled out the sleeper unit, 3 camp shacks and one generator building. Also hauled 2 - 64 m3 tanks from lease to Norman Wells.			
19.0	2/20/2015	2/20/2015	All equipment is off the lease. Finished rigging out camp. Hauled 3 more camp shacks to Norman Wells. Two shacks, generator, mats and sewage tank left to move. Northridge steamer heating frozen sewage tank.			
20.0	2/21/2015	2/21/2015	Turned wellsite over to Logistics for cleanup. Hauled out remaining camp equipment. Continue to heat frozen sewage tank.			
21.0	2/28/2015	2/28/2015	This report is a cost update only.			

Well Name: Suncor et al Tweed Lake M-47

Date: Feb 15/15

UWI: 300M476700125450

WA / Licence # 1476

Surface Location: M-47

Latitude: 66° 56' 47.11" N

Longitude: 125° 54' 09.42" W

Elevations										
KB Elevation:	435.22 m				KB-THF	5.52 m		TD	1418.0 mKB	
GL Elevation:	429.10 m				KB-CF:	6.12 m		PBTD	1179.8 mKB	
					KB-GL:	6.12 m				

Wellhead:		Size and Rating									
Manufacturer	mm	x	mm	MPa	x	mm	MPa	x	mm	MPa	
McEvoy / Crown	245	x	279	21	x	179	21	x	65	35	

Casing	Hole	Joints	OD	Wt.	Grade	Thread	Top	Bottom
	mm	#	mm	kg/m				
Conductor:	610	2	508	140	K-55	BT&C	surface	23.0 mKB
Conductor:	445	5	340	101	K-55	BT&C	surface	64.0 mKB
Surface:	311	61	245	60/65	L-80 / SOO95	LT&C	surface	760.0 mKB
Production:	216	109	178	43	N-80 / SOO95	LT&C	surface	1418.0 mKB

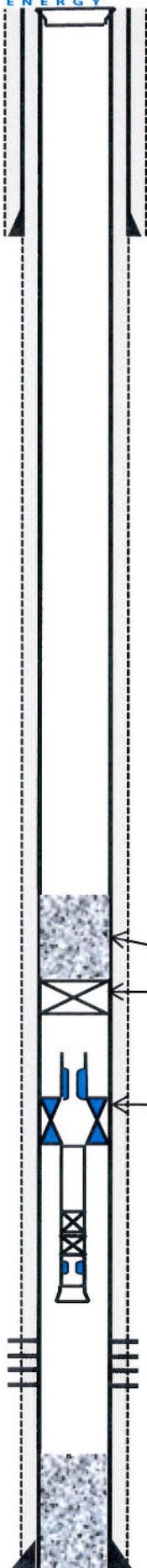
Wellbore Fluid:	
25/75 methanol water w/ 0.8% Halliburton MX794 inhibitor	

Perforations / Open Hole		Top	Bottom	BHP	BHT	H <sub>2</sub> S	CO <sub>2</sub>
Date	Formation	(mKB)	(mKB)	(kPa)	(°C)	(%)	(%)
Mar 3/04	Mount Clark (suspended w/ BP & cement)	1222.5	1233.5	12,500	11.5	0.00	0.00
Perforated with 114 mm ERHSC guns loaded with 38.6 gm Powerjet charges @ 17 spm & 60° phasing							

Bottomhole Equipment Description (from top down) depth in mKB				
Item	Jts	Description	Length	Top
1		179 mm x 73 mm EUE Crown 'CTC-1A-EN' tubing hanger with 9.53 mm control line (plugged) and 63.5 mm BPV prep		
2		8 lineal meter cement cap	8.0	1179.8
3		178 mm 69 MPa permanent bridge plug		1187.8
4		Halliburton 'HD' on/off connector mandrel w/ 58.75 mm 'X' profile		
5		178 mm x 73 mm EUE Halliburton 'Versaset' retrievable packer with 'HNBR' elements	1.90	1196.00
6		3.0 m x 73 mm 9.7 kg/m L-80 EUE pup joint c/w two Owen 69 MPa premium permanent bridge plugs	3.09	
7		73 mm EUE x 58.75 mm Halliburton 'XN' nipple w/ 56.01 mm no-go with 58 mm no-go dart for setting bridge plug	0.39	1200.99
8		98.55 mm OD x 73 mm EUE wireline re-entry guide	0.15	
		Bottom of re-entry guide landed at		1201.53

Remarks	
Wellbore topped with 120 litres diesel for freeze protection.	

Well Status	Prepared by
Suspended gas well.	Bob Barvir





Oil and Gas

# WELLHEAD DIAGRAM AND DETAILS

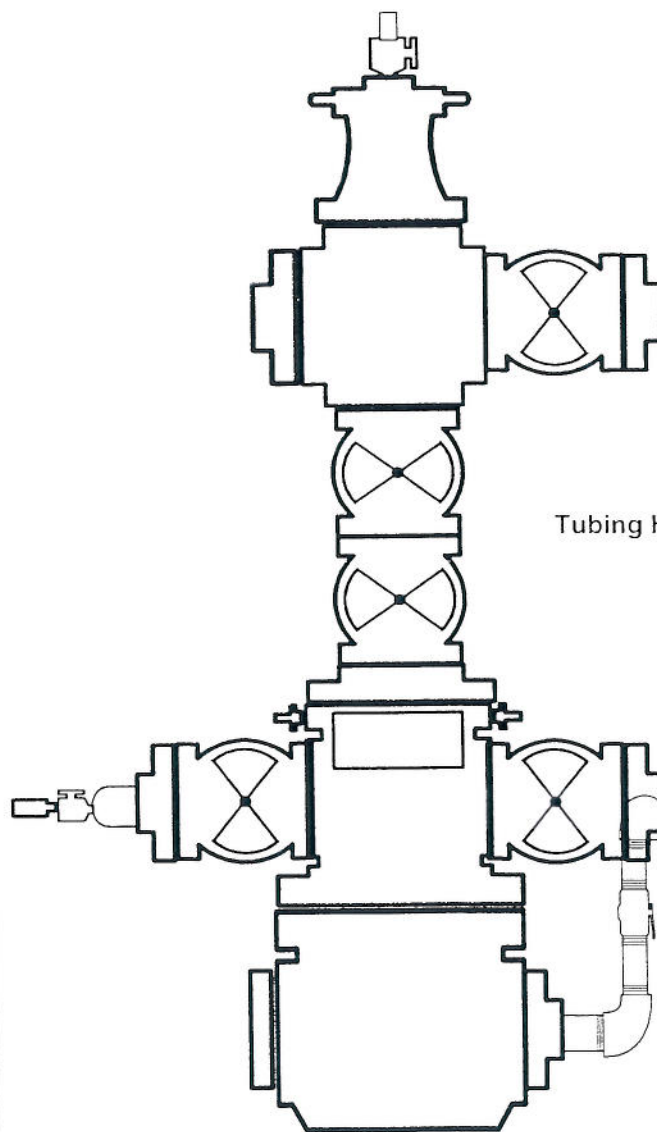
DATE: Feb. 21, 2015

## LOCATION

PCI Tweed Lake M-47

Lease Directions: Longitude W 125° 54' 9.42"  
Latitude N 66° 56' 47.11"

UWI Unit M, Section 47, Grid Area 67° 00'N; 125° 45'W



Gauges	
Needle Valve	12.7 mm 42 MPa
Top Adaptor	65 mm 35 MPa with 73 mm lift threads
Flow-Tee	Galaxy studded cross. 65 mm x 65 mm x 65 mm 35 MPa x 52 mm 21 MPa.
Wing Valve	Crown 52 mm 35 MPa gate valve. Serial # 113269-02
Mastervalves	Crown 65 mm 35 MPa gate valve. Serial # 91745-07 Crown 65 mm 35 MPa gate valve. Serial # 85942-05
Tubing Head Adapter Flange	Crown dual string bonnet. 179 mm 21 MPa x 65 mm 21 MPa. Type 'A-EN' with injection line prep. Serial # 115378-167
Tubing Head	Crown 'CTCM' 279 mm x 179 mm 21 MPa with 2 - 52 mm outlets. Serial # 116678-03 Crown 'CP' reducer for short cut casing
Casing Valves	McEvoy 52 mm 21 MPa gate valve. McEvoy 52 mm 21 MPa gate valve. Serial #'s 115182-27, 110250-22
Casing Head	McEvoy 245 mm x 279 mm 21 MPa. Complete with 52 mm blind flange and 52 mm x 50 mm adaptor flange.
Vent Hanger	PC spec 50 mm vent assembly. Crown 'CTC-1A-EN' 179 mm x 73 mm EUE with 9.53 mm control line and 63.5 mm BPV threads. Serial # 115388-1
Remarks	All valves protected with blind flanges tapped 50 mm with bull plugs and needle valves.

Prepared by John Gunn





## Well Fluids Summary

Well Name: PCI Canterra Tweed M-47

UWI	Surface Legal Location	License #	Well Configuration Type	Ground Elevation (m)	Drilling KB Elevation (m)	KB-Ground Distance (m)	KB-Casing Flange Distance (m)	KB-TH (m)
300M476700125450		1476	Vertical	429.10	435.22	6.12	6.12	

### Jobs

Job Category	Primary Job Type	Job Start Date	Job End Date
Completion/Workover	Suspensions	2/2/2015	2/21/2015

### Job Fluids Summary

Fluid Type	To well (m³)	From well (m³)	From well (m³)
Frac Fluid		0.00	19.00
Fresh Water		0.00	0.00
methanol		0.00	0.00
Other		0.00	0.00
Water		27.00	0.00

### Well Fluids

Start Date	Fluid	To (m³)	From (m³)	Dens (kg/m³)	BS&W (%)	Non-recov (m³)	Zone	Note
2/11/2015	Water	27.00					<zonenumber>, Original Hole	
2/11/2015	Frac Fluid		19.00					frac oil from annulus



## Fluids & Waste Hauling Summary

Well Name: PCI Canterra Tweed M-47

UWI	Surface Legal Location	License #	Well Configuration Type	Ground Elevation (m)	Drilling KB Elevation (m)	KB-Ground Distance (m)	KB-Casing Flange Distance (m)	KB-TH (m)
300M476700125450		1476	Vertical	429.10	435.22	6.12	6.12	

Jobs			
Job Category	Primary Job Type	Job Start Date	Job End Date
Completion/Workover	Suspensions	2/2/2015	2/21/2015

### Job Fluids & Action Summary

Fluid Type	To lease (m³)	From lease (m³)	
Frac Fluid		0.00	20.00
Fresh Water		36.00	0.00
methanol		15.00	0.00
Other		0.00	35.00
Water		0.00	0.00

### Fluids and Waste Hauling

Start Date	Carrier	Ref #	Fluid	To Lease (m³)	From Lease (m³)	Source	Dest	Note
2/7/2015	Bera Gutone Tue Enterprises		Fresh Water	17.00		Colville Lake	Tweed Lake M-47	fresh water to 64 m3 tanks
2/10/2015	Bera Gutone Tue Enterprises		Fresh Water	19.00		Colville Lake	Tweed Lake M-47	fresh water for rig tanks
2/10/2015	Formula Powell (through Canol in Norman Wells)		methanol	15.00		Formula Powell High Level	Tweed Lake M-47	methanol for methanol/water mix fluid
2/11/2015	Formula Powell	2071473	Frac Fluid		20.00	Tweed Lake M-47 annulus	Tervita Rainbow Lake 16-32-110-05 W6	Manifest # NT08276-7
2/16/2015	Formula Powell	2097220	Other		18.00	Tweed Lake M-47 rig tanks and boiler	Tervita Rainbow Lake 16-32-110-05 W6	methanol / water -Manifest NT08279-1
2/16/2015	Formula Powell	2094488	Other		17.00	Tweed Lake M-47 rig tanks and boiler	Tervita Rainbow Lake 16-32-110-05 W6	methanol / water -Manifest NT08280-9



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 1.0, Report Date: 2/2/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 24,500.00		Cum Field Est To Date (Cost) 24,500.00	Personnel Total Hours (hr)	Cum Pers Reg Hr (hr)
<b>Morning Readings</b>						
Weather clear		Temperature (°C) -31	Road Condition		Tubing Pressure (kPa)	Casing Pressure (kPa)
Hole Section Summary						
24 Hr Operations Summary Met with Nabors rig manager and Northridge and HRN personnel. Discussed rig move. Mobilized Lonkar wireline truck. Nabors rig crew and Lonkar crew flew into Norman Wells. Datadrill arrived in Norman Wells with service truck and satellite communications equipment.						
24 Hr HSE Summary						
Next 24 Hr Forecast Remove the derrick from Nabors rig # 414 and load the derrick and carrier onto lowboys. Load rig equipment onto trucks and prepare to move on Feb. 4						
Fuel Used (m³)			Water Used (m³)			
<b>Daily Contacts</b>						
Job Contact			Mobile			
Barvir, Bob, Completions			403-540-4506			
Gunn, John, Supervisor			403-540-5989			
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
07:00	17:00	10.00	General Operations	P	Jan. 29 - Feb. 1 : Travelled to Norman Wells. Feb. 2 - Met with Nabors rig manager and Northridge and HRN personnel. Reviewed rental equipment requirements and rig move plans. Mobilized Lonkar wireline truck to be hauled to Norman Wells on a lowboy by Service Side Trucking. Nabors crew and Lonkar crew flew into Norman Wells. Datadrill also arrived in Norman Wells with service truck and satellite communications equipment.	
<b>Gas Volumes</b>						
Type	Zone			Volume (E3m³)	Duration (hr)	
<b>Report Fluids Summary</b>						
Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 2.0, Report Date: 2/3/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 12,500.00		Cum Field Est To Date (Cost) 37,000.00	Personnel Total Hours (hr) 108.00	Cum Pers Reg Hr (hr) 108.00
<b>Morning Readings</b>						
Weather clear		Temperature (°C) -28	Road Condition		Tubing Pressure (kPa)	Casing Pressure (kPa)
Hole Section Summary No incidents.						
24 Hr Operations Summary Rig crew started rig and equipment. Repaired rig hydraulics and issues with air system and clutch. Removed the derrick. Loaded equipment. Prepared for move to Colville Lake.						
24 Hr HSE Summary						
Next 24 Hr Forecast Move rig and equipment from Norman Wells to Colville Lake.						
Fuel Used (m³)			Water Used (m³)			
<b>Daily Contacts</b>						
Job Contact			Mobile			
Barvir, Bob, Completions			403-540-4506			
Gunn, John, Supervisor			403-540-5989			
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
07:00	14:00	7.00	General Operations	P	Nabors rig crew worked on the rig in Nabors yard in Norman Wells. Started the rig and equipment. Repaired rig hydraulics and frozen air system and clutch. Prepared to remove the derrick for transporting to Colville Lake.	
14:00	15:00	1.00	Safety Meeting	P	Held a safety meeting with Nabors rig crew and Northridge Contracting personnel. Identified hazards and discussed procedures for removing the derrick and loading out rig and equipment. Also discussed plans for rig move tomorrow to Colville Lake and reviewed journey management. Conducted Suncor orientations with Nabors and Northridge personnel.	
15:00	19:00	4.00	Move In / Move Out	P	Removed the derrick and loaded the derrick and rig carrier onto trucks for moving to Colville Lake. Loaded the rest of the rig equipment onto Northridge trucks and prepared to move to Colville Lake in the morning.	
<b>Gas Volumes</b>						
Type	Zone			Volume (E3m³)	Duration (hr)	
<b>Report Fluids Summary</b>						
Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
<b>Safety Checks, Indicators and Drills</b>						
Time	Des	Type	Com			
14:00	Pre-job safety meeting. Suncor orientations	Safety Meetings(pre-tour/weekly) /Toolbox Talks	Discussed hazards and procedures for removing the derrick and loading out rig and equipment. Also discussed rig move plans.			



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 3.0, Report Date: 2/4/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 159,580.00		Cum Field Est To Date (Cost) 196,580.00	Personnel Total Hours (hr) 154.00	Cum Pers Reg Hr (hr) 262.00

### Morning Readings

Weather clear	Temperature (°C) -21	Road Condition	Tubing Pressure (kPa)	Casing Pressure (kPa)
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### Hole Section Summary

No incidents.

### 24 Hr Operations Summary

Moved service rig and some of the equipment from Norman wells to the camp site at Colville Lake. The rig pump and tank and BOP skid did not arrive.

### 24 Hr HSE Summary

### Next 24 Hr Forecast

Spot equipment. Put the derrick back on the rig.

Fuel Used (m³)	Water Used (m³)
----------------	-----------------

### Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

### Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

### Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
07:00	23:00	16.00	Move In / Move Out	P	Northridge Contracting moved Nabors rig 414 and related equipment from Norman Wells to the Suncor campsite at Colville Lake. HRN hauled 2 - 64 m3 double walled tanks, one waste bin and heated toilet from Norman Wells and staged them at the campsite as well. Winter roads in very rough condition in some places. Datadrill attempted to set up satellite communications at the camp but had some equipment problems. Northridge trucks arrived at the campsite at 0100 hrs with rig and equipment. (almost 17 hours from the time they left). Parked trucks at the camp and plugged in the rig. The rig pump, tank and BOP skid did not arrive. Lonkar's wireline unit arrived in Norman Wells on Service Side Trucking. The trailer that the wireline truck was being transported on developed a problem with a wheel bearing and repairs will take a couple of days. Unloaded Lonkar wireline unit and Lonkar crew will drive it from Norman Wells to Colville Lake.

### Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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### Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
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## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 4.0, Report Date: 2/5/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 22,950.00		Cum Field Est To Date (Cost) 219,530.00	Personnel Total Hours (hr) 166.00	Cum Pers Reg Hr (hr) 428.00

### Morning Readings

Weather clear	Temperature (°C) -35	Road Condition	Tubing Pressure (kPa)	Casing Pressure (kPa)
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### Hole Section Summary

No incidents.

### 24 Hr Operations Summary

Spotted rig mats and set the doghouse and boiler on matting. Had problems starting the rig and freezing issues due to cold weather. Rig pump and tank arrived at the camp. The truck hauling the BOP is broke down. Lonkar wireline, Flint pressure truck and tank truck with methanol arrived at camp.

### 24 Hr HSE Summary

### Next 24 Hr Forecast

Put the derrick on the rig. Finish spotting equipment and rig up the rig. Fire up the boiler and begin heating the wellhead.

Fuel Used (m³)	Water Used (m³)
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### Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

### Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings 1	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

### Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
10:00	10:30	0.50	Safety Meeting	P	Held a safety meeting in camp with Nabors rig crew, Northridge trucking, Suncor logistics, wildlife monitor and camp staff. Identified hazards and discussed spotting equipment, road use procedures, wildlife and working in cold weather.
10:30	20:00	9.50	Spot Equipment	P	Found the rig engine circulating heater had failed overnight and rig would not start. Shuffled loads around at camp and worked on starting the rig and light plant. The light plant started but could not start the rig. Moved rig and equipment from the camp site to M-47 wellsite. Continued to work on starting the rig. Spotted rig mats. Spotted the doghouse and boiler on matting. Very slow progress due to cold weather. Finally started the rig and offloaded it from the lowboy trailer. Had fuel delivered for the lightplant and boiler from Colville Lake. Datadrill set up sat phone and internet communication at camp and began to set up a sat dish on the wellsite. Put a Herman Nelson heater in the boiler to warm it up overnight before trying to fill it with water. Rig pump and tank arrived at the camp. The truck hauling the BOP is broke down. Lonkar wireline, Flint pressure truck and tank truck with methanol arrived at camp. Shut down for night at 2000 hrs. Boilerman on location overnight to monitor equipment.

### Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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### Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 5.0, Report Date: 2/6/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00		Daily Field Est Total (Cost) 412,702.00		Cum Field Est To Date (Cost) 632,232.00	Personnel Total Hours (hr) 203.00 Cum Pers Reg Hr (hr) 631.00
<b>Morning Readings</b>						
Weather clear - (forecast low -42, high -38 for tomorrow)		Temperature (°C) -41	Road Condition winter access		Tubing Pressure (kPa)	Casing Pressure (kPa)
Hole Section Summary No incidents.						
24 Hr Operations Summary Re-spotted mats and set up 2 - 64 m3 double walled tanks and spotted the rig tank and pump. Installed the derrick on the rig and spotted the rig on the mats at the well. Fired the boiler and rigged in boiler lines. Tarped in and began heating the wellhead.						
24 Hr HSE Summary						
Next 24 Hr Forecast Stand the derrick and finish rigging in the rig. Repair the hydraulic pump on Lonkar wireline truck.						
Fuel Used (m³)			Water Used (m³)			
<b>Daily Contacts</b>						
Job Contact			Mobile			
Barvir, Bob, Completions			403-540-4506			
Gunn, John, Supervisor			403-540-5989			
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings 1	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement 1	Hazard Hunts	WFLHA
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with Nabors rig crew, Frontier medic and Northwell/Northridge Trucking. Identified hazards and discussed Suncor Journey to Zero, cold weather operations and procedures for installing the derrick.	
07:30	19:30	12.00	Rig Up/Down	P	Continued to warm the boiler with a Herman Nelson heater and also heated the picker truck to get the hydraulics working properly. Spotted 2 - 64 m3 double walled tanks, rig tank and rig pump, all on 8 x 40' mats. Installed the derrick and spotted the rig on the mats at the well. Spotted catwalk and pipe racks and 3 light towers. Fired the boiler and ran steam lines. Tarped in and began heating the wellhead. Lonkar brought the wireline truck to location. Noted the hydraulic pump seal leaking. Investigated the leak and it kept getting worse. Ordered out a mechanic and parts. May have to be flown up from Edmonton. Shut down for night at 1930 hours. Two boilermen on location overnight to heat wellhead and monitor equipment.	
<b>Gas Volumes</b>						
Type	Zone			Volume (E3m³)	Duration (hr)	
<b>Report Fluids Summary</b>						
Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 6.0, Report Date: 2/7/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 43,775.00		Cum Field Est To Date (Cost) 676,007.00	Personnel Total Hours (hr) 151.00	Cum Pers Reg Hr (hr) 782.00
<b>Morning Readings</b>						
Weather clear - forecast very cold wind chills to -50		Temperature (°C) -37	Road Condition winter access		Tubing Pressure (kPa)	Casing Pressure (kPa)
Hole Section Summary No incidents						
24 Hr Operations Summary Rigged in pump lines etc. Attempted to stand derrick. Had problems with air system and clutch. Will stand the derrick tomorrow. The parts to repair the Lonkar wireline truck did not arrive at the airport in Norman Wells. Should arrive tomorrow.						
24 Hr HSE Summary						
Next 24 Hr Forecast Stand the derrick. Finish rigging up rig floor etc. Repair Lonkar wireline truck.						
Fuel Used (m³)			Water Used (m³)			
<b>Daily Contacts</b>						
Job Contact			Mobile			
Barvir, Bob, Completions			403-540-4506			
Gunn, John, Supervisor			403-540-5989			
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings 1	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with Nabors rig crew, Frontier medic and wildlife monitor. Identified hazards and reviewed operational plans for the day. Discussed cold weather and frost bite.	
07:30	18:30	11.00	Rig Up/Down	P	Rigged in pump lines etc. Performed a 10 minute bubble test on the surface casing vent. No bubbles. Waited for daylight to stand rig derrick. Raised the bottom section of the derrick. Had problems with air system, no air getting to the clutch. Repaired the air system. Laid the bottom section of the derrick back down. Will stand it in the morning at daylight. Berah Gutone Tue water truck hauled in 17 m3 of fresh water. The parts for repairing the Lonkar wireline truck did not show up on the plane in Norman Wells. They should arrive tomorrow about noon. If they arrive they will be delivered by a mechanic on a charter aircraft tomorrow afternoon. Shut down for night at 18:00 hours. Two boilermen on location overnight to monitor equipment and maintain heat on wellhead and tanks.	
<b>Gas Volumes</b>						
Type	Zone			Volume (E3m³)	Duration (hr)	
<b>Report Fluids Summary</b>						
Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Fresh Water						



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 7.0, Report Date: 2/8/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 57,580.00		Cum Field Est To Date (Cost) 733,587.00	Personnel Total Hours (hr) 165.00	Cum Pers Reg Hr (hr) 947.00

### Morning Readings

Weather clear - forecast tomorrow -33 wind chill to - 43	Temperature (°C) -40	Road Condition winter access	Tubing Pressure (kPa) 11,300	Casing Pressure (kPa) 0
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### Hole Section Summary

No incidents.

### 24 Hr Operations Summary

Rigged in accumulator lines. Attempted to stand the derrick. Top section locking pins would not engage. Removed and serviced the locking pin linkage. Will stand the derrick tomorrow.

The parts for the Lonkar wireline truck arrived in Norman Wells but the charter aircraft would not fly due to cold weather. Had mechanic follow a pilot truck and drive to Colville Lake camp with the parts and will repair the wireline truck tomorrow.

### 24 Hr HSE Summary

### Next 24 Hr Forecast

Repair Lonkar wireline truck. Stand the derrick.

Fuel Used (m³)	Water Used (m³)
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### Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

### Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

### Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Identified hazards and discussed cold weather and using drip trays.
07:30	18:30	11.00	Rig Up/Down	P	Conducted walk around lease inspection. Recorded pressures - SITP = 11,300 kPa; SICP = 0 Rigged in accumulator lines and prepared to stand the derrick. Attempted to haul in more water to the tanks but the tank truck was still having pump problems. Stood the derrick and scoped out the top section. The locking pins would not engage. Lowered the top section. Cleaned and lubricated the pins. Made several more attempts but pins would not engage. Lowered the derrick. Removed and serviced all the locking pin linkage and cleaned all the pin holes. All seems to be ok. Will stand the derrick tomorrow. Very cold operations. Crew taking lots of breaks to warm up as needed. The parts for the Lonkar wireline truck arrived in Norman Wells but the charter aircraft would not fly due to cold weather. Had mechanic follow a pilot truck and drive to Colville Lake camp with the parts and will repair the wireline truck tomorrow. Shut down for night at 1830 hours. Two boilermen on location overnight to monitor equipment and maintain heat on wellhead, BOPs and tanks.

### Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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### Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Fresh Water	0.00		0.00		0.00	



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 8.0, Report Date: 2/9/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00		Daily Field Est Total (Cost) 106,780.00		Cum Field Est To Date (Cost) 840,367.00	Personnel Total Hours (hr) 221.00
					Cum Pers Reg Hr (hr) 1,168.00	

## Morning Readings

Weather clear - forecast tomorrow - high of -32, low -37	Temperature (°C) -34	Road Condition winter access	Tubing Pressure (kPa) 11,300	Casing Pressure (kPa) 0
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## Hole Section Summary

No incidents.

## 24 Hr Operations Summary

Repaired Lonkar wireline unit. Stood the derrick. Rigged up slickline equipment. Broke the Kobes equalizing sub. Attempted to pull the "G" packoff. Started pulling tight. Line parted at the rope socket. Prepare tools to fish tool string tomorrow.

## 24 Hr HSE Summary

## Next 24 Hr Forecast

Fish tool string. Recover the "G" packoff. Continue slickline operations to pull the collar stop and the "PX" plug from the on/off connector.

Fuel Used (m³)	Water Used (m³)
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## Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

## Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
		2		2		
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

## Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Identified hazards and discussed cold weather, raising the derrick and repairing Lonkar wireline unit.
07:30	11:30	4.00	Repair	P	Repaired Lonkars' wireline unit. Waited for daylight to stand the derrick. Stood the derrick and lock pins engaged no problem.
11:30	13:00	1.50	Rig Up/Down	P	Rigged up the rig floor and prepared for wireline operations. Spotted AE-com (Flint's) pressure truck.
13:00	13:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Discussed slickline operations, high pressure lines and flammable fluids.
13:30	17:00	3.50	Slickline Operation	P	SITP = 11,300 kPa Removed the wellhead top adapter and installed wireline flange and BOPs. Rigged up Lonkar with 0.125" DSL line. Rigged in the lubricator. Purged with N2 and pressure tested to 1000 kPa low and the 18,000 kPa high for 10 minutes with methanol. Held ok. Ran in with sucker rod assy and broke the Kobes sub in the "G" packoff at 40 mCF. No change in tubing pressure. Ran in with "GS" pulling tool and latched onto the "G" packoff. Hand jarred the plug free. Started to POH. Pulled tight, but overpull would gradually bleed down and continued to pull up the hole. Line broke and appeared to have come apart at the rope socket. Found that the weight indicator was leaking and may have been reading incorrectly. Shut in and secure the well. Laid down the lubricator. Installed a night cap on the BOPs. Prepared tools to fish lost tool string tomorrow. Lost tool string consists of 0.35 m rope socket, 0.4 m x 38.1 mm OD crossover, 0.25 m x 38.1 mm OD crossover, 3 x 1.5 m x 38.1 mm OD weight bars, 0.65 m x 38.1 mm OD hydraulic jars, 1.6 m x 38.1 mm OD spang jars (open), 0.4 m x 63.5 mm "GS" pulling tool.
17:00	18:00	1.00	General Operations	P	Cleaned up the lease. Secured the well. Shut down for night at 1800 hours. Two boilermen on location overnight to monitor equipment and maintain heat on the wellhead, BOPs and tanks.

## Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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## Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Fresh Water	0.00		0.00		0.00	



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 9.0, Report Date: 2/10/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 57,450.00		Cum Field Est To Date (Cost) 897,817.00	Personnel Total Hours (hr) 216.00	Cum Pers Reg Hr (hr) 1,384.00
<b>Morning Readings</b>						
Weather clear		Temperature (°C) -40	Road Condition winter access		Tubing Pressure (kPa) 11,006	Casing Pressure (kPa) 0
Hole Section Summary No incidents.						
24 Hr Operations Summary Recovered the lost tool string. Pulled the "G" packoff and collar stop. Ran a gauge ring and tagged the "PX" plug in the on/off. Pulled the equalizing prong and pulled the plug mandrel. Ran a nipple brush through the tailpipe. Set a no-go dart on the "XN" profile.						
24 Hr HSE Summary						
Next 24 Hr Forecast Fill tubing with methanol/water. Set a permanent bridge plug in the tailpipe. Punch a hole in the tubing. Forward circulate the well to remove frac oil from the annulus. Remove wellhead and install BOPs.						
Fuel Used (m³)			Water Used (m³)			
<b>Daily Contacts</b>						
Job Contact			Mobile			
Barvir, Bob, Completions			403-540-4506			
Gunn, John, Supervisor			403-540-5989			
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
		2		1		
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Identified hazards and discussed wireline operations.	
07:30	10:30	3.00	Slickline Operation	P	Picked up the lubricator. Purged with N2 each run and pressure tested to 18 MPa with methanol. Held ok. Ran in with a 47 mm OD impression block. Tagged lost tool string at 17 mCF. Jarred down. POH. The impression block showed a clean impression of the top of the rope socket. No sign of wire. Ran in with a 50.8 mm blind box. Tagged at 17 mCF. Jarred down for 30 minutes to ensure pulling tool was sheared out of the "G" packoff. Added extra lubricator. Ran in with a 50.8 mm JDC pulling tool and latched on to the tool string at 17 mCF. POH and laid down fished tool string. Laid down extra lubricator.	
10:30	12:30	2.00	Slickline Operation	P	Ran in with a 59.6 mm OD gauge ring. Tagged the "G" packoff plug at 23 mCF. No sign of any pieces of wire above the tool. POH. Ran in with a 63.5 mm JDC pulling tool. Latched on to the "G" packoff at 23 mCF. POH and recovered the plug. The plug was missing about 60% of its packoff rubber. Ran in with a pulling tool. Tagged the collar stop at 35 mCF. Jarred down several times but could not latch on. POH. Tool was not sheared. Redressed the tool and ran back in. Tagged at 35 mCF. Jarred down several times and latched on to the collar stop. POH and recovered the collar stop and found pieces of "G" packoff rubber in the pulling tool.	
12:30	16:30	4.00	Slickline Operation	P	Ran in with a 59.6 mm OD gauge ring and tagged the "PX" plug at 1185 mCF. POH. SITP = 10,700 kPa Ran in with a 50.8 mm SB pulling tool to 1185 mCF and latched on to the equalizing prong. POH and recovered the prong. Ran in with 63.5 mm GS pulling tool to 1185 mCF and latched onto the PX plug body. POH and recovered the plug. Plug and prong both in good condition. No change in tubing pressure. Ran in with a 73 mm nipple brush and brushed through the tailpipe down to 1205 mCF. Noted the wireline re-entry guide at 1191 mCF and the "X" profile at 1186 mCF by slickline depth counter (3 - 4m high). Brushed through the tailpipe several times. POH. Ran in with a 58 mm no-go dart and set it on top of the "XN" profile at 1191 mCF. POH.	
16:30	18:00	1.50	General Operations	P	Laid down the lubricator. Shut in and secured the well. Shut down for night at 1800 hours. Two boilermen on location overnight to monitor equipment and maintain heat on the wellhead, BOPs and tanks	



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 9.0, Report Date: 2/10/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00

### Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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### Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Fresh Water						
methanol						



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 10.0, Report Date: 2/11/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 128,341.00		Cum Field Est To Date (Cost) 1,026,158.00	Personnel Total Hours (hr) 211.00	Cum Pers Reg Hr (hr) 1,595.00
<b>Morning Readings</b>						
Weather clear		Temperature (°C) -41	Road Condition winter access		Tubing Pressure (kPa) 11,000	Casing Pressure (kPa) 0
Hole Section Summary No incidents.						
24 Hr Operations Summary Bullheaded 2 m3 of 100% methanol followed by 6 m3 of 25% methanol / water down the tubing. Set 2 permanent bridge plugs in the 73 mm tailpipe. The first plug set questionably. Pressure tested plugs to 7 MPa. Pressure tested casing to 7 MPa. Held ok. Perforated the tubing just above the "X" nipple with a mechanical tubing punch. Forward circulated the well with methanol / water to remove frac oil from the annulus. Conducted man down drill. Stump tested BOPs.						
24 Hr HSE Summary						
Next 24 Hr Forecast Remove wellhead and install BOPs. Release on/off tool. POH w/ 73 mm tubing string.						
Fuel Used (m³)			Water Used (m³)			
<b>Daily Contacts</b>						
Job Contact			Mobile			
Barvir, Bob, Completions			403-540-4506			
Gunn, John, Supervisor			403-540-5989			
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
		2		3		
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA
1						
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Identified hazards and discussed fluid pumping and wireline operations.	
07:30	09:00	1.50	Kill Well	P	Conducted walk around rig inspection. Riggd in AE-comm (Flint) pressure truck line to the tubing. Pressure tested lines to 18 MPa. Held ok. Spearheaded 2 m3 of 100% methanol down the tubing. The tubing pressure dropped from 11 MPa to 6 MPa. Pumped 6 m3 of 25% methanol / water mix inhibited with 0.8% Halliburton MX794 inhibitor. Final injection rate was 0.4 m3/min at 3 MPa. Stopped pumping and the SITP was 1.2 MPa.	
09:00	11:30	2.50	Slickline Operation	P	Made up lubricator. Purged with N2 and pressure tested to 10 MPa with methanol. Ran in with a 73 mm Owen bridge plug and mechanical setting tool. Tagged the dart on top of the "XN" at 1191 mCF. Jarred down to activate setting tool. Pulled up 50 lbs over string weight and plug seemed to set after 2 minutes. Shear stud did not shear completely and had to jar up several times to finish shearing the stud. POH. Inspected tools and seemed to be okay. Decided to set a second plug. Ran in with a second bridge plug and set it on top of the first plug at 1191 mCF. Plug set in 30 seconds and was completely sheared. POH.	
11:30	12:30	1.00	Pressure Test	P	Pressure tested the tubing and plug 7 MPa with the casing side open for 10 minutes. Good test. Pressure tested the casing to 7 MPa with the tubing side open for 10 minutes. Good test.	
12:30	14:00	1.50	Slickline Operation	P	Ran in with a mechanical tubing knife perforator and tagged the "X" profile in the on/off tool at 1186 mCF. SITP when tools reached bottom was 3850 kPa. Jarred down to activate tool and then jarred up and cut the hole in the pup joint just above the "X" nipple. The tubing pressure dropped to 85 kPa and casing pressure increased to 1800 kPa after the hole was cut. POH. Riggd out slickline.	
14:00	15:30	1.50	Circulate	P	Pressure tested pump lines to 10 MPa. Held ok. Forward circulated the well with 19 m3 of 25% methanol/water mix inhibited with 0.8% Halliburton MX 794 inhibitor returning the frac oil from the annulus to a 64 m3 tank. Circulated until returns were clean. No gas in fluid. Stopped pumping and well was dead.	



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 10.0, Report Date: 2/11/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00

## Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
15:30	16:30	1.00	BOP / Mandown Drill	P	Held a man down drill with a worker simulating a broken leg. Held a post drill meeting with all personnel. Discussed the emergency response procedures. Performed a communication check by calling Suncor primary and alternate on call personnel. Both calls were answered immediately. The medic contacted the Praxes MCP Dispatch service that would be used to initiate / co-ordinate air ambulance and any other medical support required.
16:30	18:30	2.00	Pressure Test BOP's	P	Function tested the accumulator. Stump tested blind rams, 73 mm pipe rams and stabbing valves to 1 MPa low and 20 MPa high for 10 minutes each. All tests satisfactory. Pressure tested the annular to 1 MPa low and 7 MPa high for 10 minutes. Good tests. Formula Powell (Canol) loaded 20 m3 of frac oil returns from the annulus and hauled to camp for the night and will haul fluid to Tervita Rainbow Lake.
18:30	19:00	0.50	General Operations	P	Rigged out rig floor. Tarped in BOPs and wellhead. Shut in and secured the well. Shut down for night at 1900 hours. Two boilermen on location overnight to monitor equipment and maintain heat on the wellhead, BOPs and tanks

## Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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## Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	19.00	19.00		
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Water	27.00	27.00	0.00	0.00		



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 11.0, Report Date: 2/12/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00		Daily Field Est Total (Cost) 245,170.00		Cum Field Est To Date (Cost) 1,271,328.00	Personnel Total Hours (hr) 185.00
						Cum Pers Reg Hr (hr) 1,780.00

## Morning Readings

Weather clear	Temperature (°C) -36	Road Condition winter access	Tubing Pressure (kPa) 0	Casing Pressure (kPa) 0
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## Hole Section Summary

Shorted out power cord in camp generator building.

## 24 Hr Operations Summary

A power cord shorted out at camp overnight causing loss of power in 3 of the camp trailers. Ordered parts and servicemen from Norman Wells. Inspectors from the OROGO, AER, and Workers' Safety of NWT arrived in Colville Lake airport. Provided transportation for them to camp and to the wellsite so they could conduct inspections. Returned them to the airport at 1300 hrs.  
Changed out two light towers at the wellsite. Two men on boilerwatch during the day. No other work conducted due to camp situation.  
Repair crew arrived at camp at 0800 hrs. Did not bring the correct size cord. Had to build a replacement from cords on site. Northridge chartered an airplane and flew more parts and electrician to Colville Lake. Arrived at 2200 hrs.

## 24 Hr HSE Summary

## Next 24 Hr Forecast

Remove wellhead and install BOPs. Release on/off tool. POH w/ 73 mm tubing string.

Fuel Used (m³)	Water Used (m³)
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## Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

## Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections 2
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

## Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
07:00	19:00	12.00	General Operations	P	A power cord shorted out at camp overnight causing loss of power in 3 of the camp trailers. Ordered parts and servicemen from Norman Wells. Inspectors from the OROGO, AER, and Workers' Safety of NWT arrived in Colville Lake airport. Provided transportation for them to camp. Conducted Suncor orientations with the inspectors. The camp was given an inspection and then travelled to the wellsite and inspected the rig. Inspections went okay. No issues were raised about the rig or the camp. Returned inspectors to the airport at 1300 hrs. Changed out two light towers at the wellsite. Two men on boilerwatch during the day. No other work conducted due to camp situation. Repair crew arrived at camp at 0800 hrs. Did not bring the correct size cord. Had to build a replacement from cords on site. Worked on it all day. Unable to make it work.
19:00	21:00	2.00	Repair	P	Service tech continued to work on camp situation. The water truck was able to put water into the other set of water tanks in the part of the camp with heat and water and toilets were restored to part of the camp. Moved personnel around to put everyone in a heated bed room. Wellsite supervisor and medic moved to the Colville Lake B&B. Northridge organized more parts and another electrician from Norman Wells and chartered an airplane. Arrived Coleville Lake at 2200 hrs. Northridge personnel continued to work on repairs.

## Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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## Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Water	0.00	27.00	0.00	0.00	0.00	



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 11.0, Report Date: 2/12/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00

### Other in Hole Run (Bridge Plugs, etc)

Run Time	Des	OD (mm)	Top (mKB)	Btm (mKB)
12:00	Bridge Plug - Permanent	62.0	1,200.69	1,200.99
12:00	Bridge Plug - Permanent	62.0	1,200.39	1,200.69



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 12.0, Report Date: 2/13/2015

UWI 300M476700125450		Surface Legal Location		Field Name		License # 1476		State/Province N.W.T		Well Configuration Type Vertical		Project Name	
Drilling KB Elevation (m) 435.22		Ground Elevation (m) 429.10		KB-Grd (m) 6.12		KB-CF (m) 6.12		KB-TH (m)		PBDT (All) (mKB) Original Hole - 1,322.00		Total Depth (All) (mKB) Original Hole - 1,418.00	
Primary Job Type Suspensions								Job Start Date 2/2/2015		Job End Date 2/21/2015			
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.													
Contractor Nabors Production Services				Rig Number 414		Rig Type Service - Vertical		Rig Start Date 2/2/2015		Rig Release Date 2/17/2015			
AFE Number 5039926		Total AFE + Supp Amount (Cost) 2,804,461.00		Daily Field Est Total (Cost) 41,270.00		Cum Field Est To Date (Cost) 1,312,598.00		Personnel Total Hours (hr) 185.00		Cum Pers Reg Hr (hr) 1,965.00			
<b>Morning Readings</b>													
Weather overcast - tomorrow cloudy -26 15 km/hr wind				Temperature (°C) -31		Road Condition winter access		Tubing Pressure (kPa) 0		Casing Pressure (kPa) 0			
Hole Section Summary No incidents.													
24 Hr Operations Summary Removed wellhead and installed BOPs. Released on/off connector. POH w/ 73 mm production string. Spooled injection line onto Halliburton spooler.													
24 Hr HSE Summary													
Next 24 Hr Forecast RIH bit and scraper. Circulate clean. POH and lay down tubing.													
Fuel Used (m³)						Water Used (m³)							
<b>Daily Contacts</b>													
Job Contact						Mobile							
Barvir, Bob, Completions						403-540-4506							
Gunn, John, Supervisor						403-540-5989							
<b>Leading Indicators</b>													
Hazard ID's		Near Miss Reports		JSA Reviews/Pre-job Hazar...		White Board JSA's		Safety Meetings		Job Observations		Inspections	
Emergency Response Drills...		Audits		Safe Work Permits		Intervention Cards		Continuous Improvement		Hazard Hunts		WFLHA	
<b>Time Log</b>													
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com								
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Identified hazards and discussed removing the wellhead, installing BOPs and tripping tubing.								
07:30	12:30	5.00	Install/Remove BOPs	P	SITP = 0; SICP = 0 Performed a walk around rig inspection. Removed the wellhead. Installed a 9.5 mm threaded plug in the injection line port on the extended neck of the tubing hanger. Installed 179 mm 21 MPa Class III BOP stack. Pressure tested pipe rams and ring gasket connection to 1 MPa low and 20 MPa high for 10 minutes. Held ok. Rigged up rig floor to pull tubing. Completed rig inspection.								
12:30	18:30	6.00	Pull Out Of Hole	P	Picked up on the tubing string and worked in left hand torque and released the on/off connector. Rigged in spooling equipment for the injection line. Pulled out of the hole with: - 179 mm x 73 EUE Crown CTC-1A-EN tubing hanger. - 1 joint of 73 mm 9.7 kg/m L80 EUE tubing. - 3 - 73 mm L80 EUE pup joints (1.25, 2.44 & 3.03 m long) - 121 joints of 73 mm 9.7 kg/m L80 EUE tubing. - 73 mm EUE Halliburton injection sub. - 3.0 m x 73 mm L80 EUE pup joint. (perforated by slickline knife tubing punch) - Halliburton on/off overshot. Removed Cannon clamps from every connection and spooled the injection line onto a spool.								
18:30	19:00	0.50	Shut Down For Night	P	Shut in and secured the well. Two boilermen on location overnight to monitor equipment and maintain heat on the wellhead, BOPs and tanks								
<b>Gas Volumes</b>													
Type		Zone						Volume (E3m³)		Duration (hr)			
<b>Report Fluids Summary</b>													
Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)							
Frac Fluid	0.00	0.00	0.00	19.00	0.00								
Fresh Water	0.00		0.00		0.00								
methanol	0.00		0.00		0.00								
Water	0.00	27.00	0.00	0.00	0.00								



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 13.0, Report Date: 2/14/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 69,830.00		Cum Field Est To Date (Cost) 1,382,428.00	Personnel Total Hours (hr) 185.00	Cum Pers Reg Hr (hr) 2,150.00
<b>Morning Readings</b>						
Weather overcast - tomorrow sunny -28, 15 km/hr wind		Temperature (°C) -27	Road Condition winter access		Tubing Pressure (kPa)	Casing Pressure (kPa) 0
Hole Section Summary No incidents.						
24 Hr Operations Summary Ran in with a bit and scraper. Circulated clean. POH and laid down tubing. Ran a gauge and then set a 178 mm permanent bridge plug at 1188 mKB.						
24 Hr HSE Summary						
Next 24 Hr Forecast Pressure test bridge plug and casing to 7 MPa. Dump bail 8 m of cement on top of the bridge plug at 1188 mKB. Remove BOPs and install wellhead.						
Fuel Used (m³)			Water Used (m³)			
<b>Daily Contacts</b>						
Job Contact			Mobile			
Barvir, Bob, Completions			403-540-4506			
Gunn, John, Supervisor			403-540-5989			
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Identified hazards and discussed tripping tubing.	
07:30	11:30	4.00	Run In Hole	P	Performed walk around rig inspection. Ran in the hole with: - 152.4 mm OD tooth bit. - 178 mm casing scraper. - 2 crossover subs. - 2.44 m x 73 mm EUE pup joint. - 122 joints of 73 mm 9.7 kg/m L80 EUE tubing. - 4 x 73 mm EUE pup joints. Tagged the top of the packer at 1196 mKB. Worked the scraper from 1182 to 1196 mKB.	
11:30	13:00	1.50	Circulate	P	Rigged up circulatng equipment. Reverse circulated with 5 m3 of inhibited 25% methanol / water mix. Circulated until returns were clean.	
13:00	15:30	2.50	Pull Out Of Hole	P	Pulled out of the hole and laid down the tubing string. Installed thread protectors on box and pin ends. Laid down the bit and scraper.	
15:30	15:45	0.25	Safety Meeting	P	Held a safety meeting with all personnel. Discussed wireline operations.	
15:45	19:00	3.25	E-Line Operation	P	Rigged in Lonkar wireline equipment. Ran in the hole with a 146 mm OD gauge ring and junk basket to 1191 mKB. POH. Ran in with a 178 mm 10 k permanent bridge plug. Correlated to the casing collars of the Schlumberger cement bond log of March 2, 2004 and set the top of the bridge plug at 1187.8 mKB (COE @ 1188.0 mKB). POH with setting tools. Shut in and secured the well. Shut down for night at 1900 hours. Two boilermen on location overnight to monitor equipment and maintain heat on the wellhead, BOPs and tanks	
<b>Gas Volumes</b>						
Type	Zone			Volume (E3m³)	Duration (hr)	
<b>Report Fluids Summary</b>						
Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Water	0.00	27.00	0.00	0.00	0.00	



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 13.0, Report Date: 2/14/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00

### Other in Hole Run (Bridge Plugs, etc)

Run Time	Des	OD (mm)	Top (mKB)	Btm (mKB)
18:00	Bridge Plug - Permanent	161.0	1,187.80	1,188.30

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 133,556.00		Cum Field Est To Date (Cost) 1,515,984.00	Personnel Total Hours (hr) 156.00	Cum Pers Reg Hr (hr) 2,306.00
<b>Morning Readings</b>						
Weather partial cloud - tomorrow Sunny, -23 15 km/hr wind		Temperature (°C) -29	Road Condition winter access		Tubing Pressure (kPa)	Casing Pressure (kPa) 0
Hole Section Summary No incidents.						
24 Hr Operations Summary Pressure tested bridge plug and casing to 7 MPa for 10 min. Held ok. Dump bailed 8 m cement on top of bridge plug. Removed BOPs and installed the wellhead. Start to rig out rig.						
24 Hr HSE Summary						
Next 24 Hr Forecast Empty tanks, drain boiler. Haul fluids to Tervita Rainbow Lake. Rig out rig and equipment.						
Fuel Used (m³)			Water Used (m³)			
<b>Daily Contacts</b>						
Job Contact			Mobile			
Barvir, Bob, Completions			403-540-4506			
Gunn, John, Supervisor			403-540-5989			
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Identified hazards and discussed wireline operations, cold weather and removing BOPs.	
07:30	08:30	1.00	Pressure Test	P	Performed walk around rig inspection. Hooked up pump lines. Filled the hole and pressure tested the casing and bridge plug to 7 MPa for 10 minutes. Held ok. Bled off pressure.	
08:30	10:30	2.00	E-Line Operation	P	Rigged in Lonkar equipment. Ran in with a dump bailer and dump bailed 8 m of Class "G" cement on top of the bridge plug at 1188 mKB. POH. Rigged out and released Lonkar.	
10:30	11:30	1.00	General Operations	P	Picked up and ran in 3 joints of plugged off tubing to displace some fluid from the wellbore. Pulled and laid down the tubing. Drained pump lines.	
11:30	14:30	3.00	Install/Remove BOPs	P	Rigged out the rig floor. Removed the BOPs. Topped up the casing with +/- 120 liters of diesel. Installed Crown CTC-1A-EN 179 mm x 73 mm EUE extended neck tubing hanger c/w 9.5 mm plug in the injection line port of the extended neck. Installed the wellhead top section. Pressure tested the ring gasket and hanger seals to 15 MPa for 10 minutes. Good test. Bled off the pressure. Closed top master, wing valve and casing valves and chained and locked wellhead. (combination # 0246)	
14:30	17:00	2.50	Rig Up/Down	P	Rigged out pump lines and accumulator lines. Cleaned up lease. Shut down for night at 1700 hours. Two boilermen on location overnight to monitor equipment and maintain heat on the wellhead and tanks.	
<b>Gas Volumes</b>						
Type	Zone			Volume (E3m³)	Duration (hr)	
<b>Report Fluids Summary</b>						
Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Water	0.00	27.00	0.00	0.00	0.00	
<b>Other in Hole Run (Bridge Plugs, etc)</b>						
Run Time	Des	OD (mm)	Top (mKB)	Btm (mKB)		
09:00	Cement	161.0	1,179.80	1,187.80		



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 15.0, Report Date: 2/16/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 51,655.00		Cum Field Est To Date (Cost) 1,567,639.00	Personnel Total Hours (hr) 172.00	Cum Pers Reg Hr (hr) 2,478.00

### Morning Readings

Weather partial cloud - tomorrow snow -18, 30 km/hr wind	Temperature (°C) -33	Road Condition winter access	Tubing Pressure (kPa)	Casing Pressure (kPa)
Hole Section Summary No incidents.				

### 24 Hr Operations Summary

Rigged out rig and equipment. Emptied tanks, drained boiler. Hauled fluids to Tervita Rainbow Lake.

### 24 Hr HSE Summary

### Next 24 Hr Forecast

Remove derrick from the carrier. Load out rig and equipment and move to Norman Wells.

Fuel Used (m³)	Water Used (m³)
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### Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

### Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings 1	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

### Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Discussed rigging out and laying down the derrick.
07:30	19:00	11.50	Rig Up/Down	P	Rigged out the rig. Laid down the derrick. Cleaned up the lease. Moved in two Formula Powell tank trucks and Northridge vac truck. Emptied 26 m3 of methanol/water from tanks. Waited for the boiler to cool down and emptied 10 m3 water from the boiler. Hauled fluids to Tervita Rainbow Lake. Shut down for night at 1900 hours.

### Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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### Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Other						
Water	0.00	27.00	0.00	0.00	0.00	

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00		Daily Field Est Total (Cost) 72,749.00		Cum Field Est To Date (Cost) 1,640,388.00	Personnel Total Hours (hr) 209.00
						Cum Pers Reg Hr (hr) 2,687.00
<b>Morning Readings</b>						
Weather light snow - tomorrow overcast -15, 15 km/hr wind		Temperature (°C) -18	Road Condition winter access		Tubing Pressure (kPa)	Casing Pressure (kPa)
Hole Section Summary No incidents.						
24 Hr Operations Summary Loaded out tubing. Removed derrick. Loaded out rig and equipment. Not enough trucks available to move all equipment. Loads left on lease include matting, catwalk, doghouse, 2 - 64 m3 tanks and garbage bin. The road from Colville Lake to Fort Goodhope was blocked by snow drifts about 80 km from Fort Goodhope. Rig crew returned to camp. Mobilized a cat and grader to get the road cleared.						
24 Hr HSE Summary						
Next 24 Hr Forecast If the road is cleared, rig crew will travel to Norman Wells. Will haul out remaining rig and rental equipment. Repair the picker truck. Haul broken down Formula Powell truck to Norman Wells.						
Fuel Used (m³)			Water Used (m³)			
<b>Daily Contacts</b>						
Job Contact			Mobile			
Barvir, Bob, Completions			403-540-4506			
Gunn, John, Supervisor			403-540-5989			
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
		1		1		
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
07:00	07:30	0.50	Safety Meeting	P	Held a safety meeting with all personnel. Identified hazards and discussed removing the derrick and loading out equipment.	
07:30	13:00	5.50	Move In / Move Out	P	Loaded out 122 joints of 73 mm tubing, pup joints, injection line spool and cannon clamps to be hauled to PeBen in Dimsdale, Alberta. Loaded rig equipment to move to Norman Wells. Removed the derrick from the rig carrier. Loaded the derrick onto the picker and loaded the rig carrier onto a lowboy. Loaded mats and light towers etc. Did not have enough trucks available to haul all equipment today. Loads left on the lease include matting, catwalk, doghouse, 2 - 64 m3 tanks and garbage bin. Trucks and personnel off location by 1300 hrs.	
13:00	20:30	7.50	Move In / Move Out	P	The road was blocked by snow drifts about 80 km from Fort Goodhope (about half way between Colville Lake and Fort Goodhope). Rig crew and trucks hauling rig equipment could not get through. Had rig crew return to camp. Rig crew picked up Formula Powell tank truck drivers (two trucks are travelling together for safety) whose truck broken down about 70 km from Colville Lake camp, and brought them back to camp for the night as well. Mobilized a D6 cat from the Fort Goodhope side and a grader from the Colville lake side to get the blockage cleared and get trucks moving again. Trucks broke down on the road are one Formula Powell tank truck with a broken "U" joint and yoke and one Northridge picker with alternator problems. The tank truck is approx. 70 km from camp and the picker is 32 km from camp. The tank truck drivers were brought back to camp, the picker operator is travelling in another Northridge truck.	
<b>Gas Volumes</b>						
Type	Zone			Volume (E3m³)	Duration (hr)	
<b>Report Fluids Summary</b>						
Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Other	0.00		0.00		0.00	



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 16.0, Report Date: 2/17/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBDT (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00

### Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Water	0.00	27.00	0.00	0.00	0.00	



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 17.0, Report Date: 2/18/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 44,960.00		Cum Field Est To Date (Cost) 1,685,348.00	Personnel Total Hours (hr) 166.00	Cum Pers Reg Hr (hr) 2,853.00

## Morning Readings

Weather clear - tomorrow	Temperature (°C) -17	Road Condition winter access	Tubing Pressure (kPa)	Casing Pressure (kPa)
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## Hole Section Summary

No incidents.

## 24 Hr Operations Summary

Road to Fort Goodhope was cleared. Rigged out sat phone system at camp. Rig crew and Datadrill personnel travelled to Norman Wells. HRN moved the Formula Powell truck to town for repairs. Moved 3 more loads of rig and rental equipment off lease and back to Norman Wells.

## 24 Hr HSE Summary

## Next 24 Hr Forecast

Start to rig out camp.

Fuel Used (m³)	Water Used (m³)
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## Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

## Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

## Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
07:00	19:00	12.00	Move In / Move Out	P	Road to Fort Goodhope was cleared. Rigged out sat phone system at camp. Rig crew and Datadrill personnel travelled to Norman Wells. Trucks hauling rig equipment made it Norman Wells. HRN moved the Formula Powell truck to town for repairs. Moved 3 more loads of rig and rental equipment off lease and back to Norman Wells. Equipment left on location is 2 - 64 m3 tanks and garbage bin. The rig junk box is still at Colville Lake camp and will get moved when camp trailers are moved.

## Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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## Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Other	0.00		0.00		0.00	
Water	0.00	27.00	0.00	0.00	0.00	



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 18.0, Report Date: 2/19/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00		Daily Field Est Total (Cost) 17,320.00		Cum Field Est To Date (Cost) 1,702,668.00	Personnel Total Hours (hr) 90.00 Cum Pers Reg Hr (hr) 2,943.00

## Morning Readings

Weather overcast	Temperature (°C) -16	Road Condition winter access	Tubing Pressure (kPa)	Casing Pressure (kPa)
Hole Section Summary No incidents.				
24 Hr Operations Summary Started rigging out camp. Hauled out the sleeper unit, 3 camp shacks and one generator building. Also hauled 2 - 64 m3 tanks from lease to Norman Wells.				
24 Hr HSE Summary				
Next 24 Hr Forecast Continue to rig out camp.				
Fuel Used (m³)		Water Used (m³)		

## Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

## Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

## Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
07:00	17:00	10.00	Move In / Move Out	P	Started rigging out camp. Hauled out the sleeper unit, 3 camp shacks and one generator building. Also hauled 2 - 64 m3 tanks from lease to Norman Wells.

## Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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## Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Other	0.00		0.00		0.00	
Water	0.00	27.00	0.00	0.00	0.00	



# Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 19.0, Report Date: 2/20/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00

Primary Job Type Suspensions	Job Start Date 2/2/2015	Job End Date 2/21/2015
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Objective  
To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.

Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical	Rig Start Date 2/2/2015	Rig Release Date 2/17/2015	
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 37,658.00		Cum Field Est To Date (Cost) 1,740,326.00	Personnel Total Hours (hr) 126.00	Cum Pers Reg Hr (hr) 3,069.00

## Morning Readings

Weather overcast	Temperature (°C) -15	Road Condition winter access	Tubing Pressure (kPa)	Casing Pressure (kPa)
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Hole Section Summary  
No incidents.

24 Hr Operations Summary  
All equipment is off the lease. Finished rigging out camp. Hauled 3 more camp shacks to Norman Wells. Two shacks, generator, mats and sewage tank left to move. Northridge steamer heating frozen sewage tank.

24 Hr HSE Summary

Next 24 Hr Forecast  
Haul out remaining camp shacks and equipment. Continue to heat sewage tank until sewage can be hauled to disposal facility.  
Turn lease over to Logistics.

Fuel Used (m³)	Water Used (m³)
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## Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

## Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

## Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
07:00	17:00	10.00	Move In / Move Out	P	All equipment is off the lease. Finished rigging out camp. Northridge hauled out 3 more camp shacks back to Norman Wells. Loads left to move include 2 camp shacks, generator, matting, camp waste bin and sewage tank. Northridge steamer heating frozen sewage tank overnight.

## Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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## Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Other	0.00		0.00		0.00	
Water	0.00	27.00	0.00	0.00	0.00	



## Daily Completion and Workover

Well Name: PCI Canterra Tweed M-47

Report # 20.0, Report Date: 2/21/2015

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical		Rig Start Date 2/2/2015	Rig Release Date 2/17/2015
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 81,785.00		Cum Field Est To Date (Cost) 1,822,111.00	Personnel Total Hours (hr) 118.00	Cum Pers Reg Hr (hr) 3,187.00

### Morning Readings

Weather partly sunny	Temperature (°C) -25	Road Condition winter access	Tubing Pressure (kPa)	Casing Pressure (kPa)
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### Hole Section Summary

### 24 Hr Operations Summary

Turned wellsite over to Logistics for cleanup..  
Hauled out remaining camp equipment. Continue to heat frozen sewage tank.

### 24 Hr HSE Summary

### Next 24 Hr Forecast

Continue to heat frozen sewage tank.

Fuel Used (m³)	Water Used (m³)
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### Daily Contacts

Job Contact	Mobile
Barvir, Bob, Completions	403-540-4506
Gunn, John, Supervisor	403-540-5989

### Leading Indicators

Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA

### Time Log

Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com
00:00	00:00	24.00	Move In / Move Out	P	Turned wellsite over to Logistics for cleanup.. Hauled out remaining camp equipment. Continue to heat frozen sewage tank.

### Gas Volumes

Type	Zone	Volume (E3m³)	Duration (hr)
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### Report Fluids Summary

Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Other	0.00		0.00		0.00	
Water	0.00	27.00	0.00	0.00	0.00	



## Daily Completion and Workover

Report # 21.0, Report Date: 2/28/2015

Well Name: PCI Canterra Tweed M-47

UWI 300M476700125450	Surface Legal Location	Field Name	License # 1476	State/Province N.W.T	Well Configuration Type Vertical	Project Name
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Grd (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) (mKB) Original Hole - 1,322.00	Total Depth (All) (mKB) Original Hole - 1,418.00
Primary Job Type Suspensions				Job Start Date 2/2/2015	Job End Date 2/21/2015	
Objective To remove the tubing string and re-suspend the well with a permanent bridge plug and cement to restore regulatory suspension compliance of zero pressure at surface.						
Contractor Nabors Production Services		Rig Number 414	Rig Type Service - Vertical	Rig Start Date 2/2/2015	Rig Release Date 2/17/2015	
AFE Number 5039926	Total AFE + Supp Amount (Cost) 2,804,461.00	Daily Field Est Total (Cost) 490,363.00	Cum Field Est To Date (Cost) 2,312,474.00	Personnel Total Hours (hr)	Cum Pers Reg Hr (hr) 3,187.00	
<b>Morning Readings</b>						
Weather		Temperature (°C)	Road Condition winter access	Tubing Pressure (kPa)	Casing Pressure (kPa)	
Hole Section Summary						
24 Hr Operations Summary This report is a cost update only.						
24 Hr HSE Summary						
Next 24 Hr Forecast						
Fuel Used (m³)				Water Used (m³)		
<b>Daily Contacts</b>						
Job Contact				Mobile		
Barvir, Bob, Completions				403-540-4506		
Gunn, John, Supervisor				403-540-5989		
<b>Leading Indicators</b>						
Hazard ID's	Near Miss Reports	JSA Reviews/Pre-job Hazar...	White Board JSA's	Safety Meetings	Job Observations	Inspections
Emergency Response Drills...	Audits	Safe Work Permits	Intervention Cards	Continuous Improvement	Hazard Hunts	WFLHA
<b>Time Log</b>						
Start Time	End Time	Dur (hr)	Code 2	Ops Category	Com	
<b>Gas Volumes</b>						
Type	Zone			Volume (E3m³)	Duration (hr)	
<b>Report Fluids Summary</b>						
Fluid	To well (m³)	Cum to Well (m³)	From well (m³)	Cum from Well (m³)	Non-recov (m³)	Cum Non-recov (m³)
Frac Fluid	0.00	0.00	0.00	19.00	0.00	
Fresh Water	0.00		0.00		0.00	
methanol	0.00		0.00		0.00	
Other	0.00		0.00		0.00	
Water	0.00	27.00	0.00	0.00	0.00	