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## Well Inspection Report

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### Instructions

- Complete all pages.
- Sign and submit electronically within 30 days of the well inspection to [orogo@gov.nt.ca](mailto:orogo@gov.nt.ca).
- If you wish to submit a hard copy, please use the courier address at [www.orogo.gov.nt.ca/contact-us](http://www.orogo.gov.nt.ca/contact-us).
- Refer to the [Well Suspension and Abandonment Guidelines and Interpretation Notes](#) (May 2022) for details on well inspection requirements.
- Report in metric units.

#### Required attachments:

- Photos of wellhead and well site (*Include descriptions*)  
# of photos attached: 4
- Wellhead schematic
- Wellbore schematic

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### Well Information

Well name: PCI Canterra Tweed M-47

4 digit WID: 1476

OROGO risk level: Level 1

Wellhead?  Yes  No

Pressure rating of all wellhead components: See attachment

Pumpjack?  Yes  No

Operator: Suncor Energy

Well status: Suspended

Coordinates (*In decimal degrees; verified onsite*)

Datum:  NAD 27  NAD 83  Unknown

Lat: 66° 56' 47.11" N

Long: 125° 54' 9.42" W

Completed in H<sub>2</sub>S zone? No

Estimated % of H<sub>2</sub>S: [Click or tap here to enter text.](#) or

Measured % of H<sub>2</sub>S: 0

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### Inspection Date and Contact Information

Date of inspection: 2024-06-02

Date of previous inspection: 2013-09-18

Inspection conducted by:

Name: Marc Lambert

Company: Suncor

Phone: (403) 391-6600

Email: [marclambert@suncor.com](mailto:marclambert@suncor.com)

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### Environmental or Safety Concerns

(Report all incidents as required under section 75 of the Oil and Gas Drilling and Production Regulations)

Environmental or safety concerns?  Yes  No

If yes, provide details: [Click or tap here to enter text.](#)

## Inspection Results

### Site

Well site accessible for inspection and monitoring?  Yes  No

Equipment or debris on site?  Yes  No

Additional clean up required?  Yes  No

Brush cleared 25 m around wellhead?  Yes  No

Wind indicator present and functional?  Yes  No

Provide details of all site accessibility concerns: Fly in access. Some small vegetation (small trees, scrub brush, knee high or less) within 25 m of wellhead.

### Wellhead

Wellhead accessible for inspection and monitoring?  Yes  No

Valves chained and locked?  Yes  No

Valves operate freely?  Yes  No

Pressure test well head seal assembly?  Yes  No

*(If yes, provide details in comments section with supporting documentation)*

Surface casing vent open, operable and accessible in all seasons?  Yes  No

Pumpjack secure?  Yes  No  N/A

Visible marker or fence in place?  Yes  No  
4-digit Well ID, operator and contact information up to date?  Yes  No

Date of previous well head seal assembly pressure test: [Click or tap to enter a date.](#)

### Surface Casing Vent Flow (SCVF) / Gas Migration (GM) testing

Evidence of SCVF?  Yes  No

SCVF test conducted?  Yes  No  
*(If yes, provide details in comments section with supporting documentation)*

Signs of GM?  Yes  No

GM test conducted?  Yes  No  
*(If yes, provide details in comments section with supporting documentation)*

Gas samples taken?  Yes  No  
*(If yes, provide details in comments section identifying location and anticipated date of submission of analysis to OROGO)*

### Shut-in pressures

Production casing pressure (kPa):  
0 kPa

Intermediate casing pressure (kPa):  
0 kPa

Production tubing pressures (kPa):  
N/A

Any other readings taken:  
[Click or tap here to enter text.](#)

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## Comments

- Details of:  SCVF/ GM testing (*Include source: SCV, wellbore or soil vapour*)  
 Shut-in pressures (*Include equipment used, results, any changes from previous inspections and previous inspection dates*)  
 Seal assembly testing (*Include maximum pressure tested and duration of test*)  
 Other comments

17MPa for 10 minutes on the wellhead seals.

Additional supporting documentation attached?  Yes  No

If yes, list attached documentation: [Click or tap here to enter text.](#)

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

Responsible Officer:

Date: 2024-06-03

Name: Greg Heffel  
Title: Suncor Wells - Specialist Engineer -  
Complemins  
Operator: Suncor Energy

Signature:



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## Daily Completion and Workover

Report # 1.0, Report Date: 5/29/2024

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

UWI 300M476700125450	Surface Legal Location	Field Name Tweedie	License # 01476	State/Province N.W.T	Well Configuration Type Vertical
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Ground Distance (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) Original Hole - 1,322.00
					Total Depth (All) Original Hole - 1,418.00

Primary Job Type <b>Diagnostic</b>	Completions Project 2024 NWT ARO	Job Start Date 5/29/2024	Job End Date 5/30/2024
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**Objective**  
The objective is to pressure test the wellbore, obtain a wellbore fluid sample and service the wellhead on the lease.

Well Site Supervisor Lambert, Marc	Superintendent Koteles, Jonathan	Engineer Heffel, Greg
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Primary Contractor Matrix Solutions Inc.	Regulatory Reportable Event No
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AFE Number 11600174	Total AFE + Supp Amount (Cost) 87,951.65	Daily Field Est Total (Cost) 17,719.11	Cum Field Est To Date (Cost) 17,719.11
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**Morning Readings**

Weather Partly Cloudy	Temperature (°C) 14	Road Condition N/A (fly in)
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24 Hr Operations Summary  
HSE Concerns: None.  
NPT Concerns: None.  
Service Concerns: StreamFlo and N2 shipments did not arrive as scheduled.  
OROGO Reportable: None.  
Operations: Obtained Matrix equipment from cargo depot and delivered to helo hanger. Began tracking N2 and StreamFlo deliveries.  
Forecast: Helo to site, obtain water samples.

**Daily Pressures**

Type	P (kPa)
Casing	0

**Daily Fluids Summary**

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

**Job Time Log**

Start Time	End Time	Dur (hr)	Code 2	Com
08:00	13:00	5.00	Move Rig and Auxiliary Equipment - Site to Site	Traveled from Edmonton to Norman Wells.
13:00	17:00	4.00	Move Rig and Auxiliary Equipment - Site to Site	Obtained vehicle from Sahtu Helicopters. Picked up Matrix Solutions testing equipment and delivered to Sahtu hanger. Began tracking down missing StreamFlo equipment and N2 bottles. Checked into lodging.

**Gas Volumes**

Date	Type	Zone	Volume (E3m³)	Duration (hr)
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**NPT Interval Problems**

Problem Type	Problem Subtype	Dur (Gross) (hr)	Total Problem Hours (hr)
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## Daily Completion and Workover

Report # 2.0, Report Date: 5/30/2024

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

UWI 300M476700125450	Surface Legal Location	Field Name Tweedie	License # 01476	State/Province N.W.T	Well Configuration Type Vertical
Drilling KB Elevation (m) 435.22	Ground Elevation (m) 429.10	KB-Ground Distance (m) 6.12	KB-CF (m) 6.12	KB-TH (m)	PBTD (All) Original Hole - 1,322.00
					Total Depth (All) Original Hole - 1,418.00

Primary Job Type <b>Diagnostic</b>	Completions Project 2024 NWT ARO	Job Start Date 5/29/2024	Job End Date 5/30/2024
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**Objective**  
The objective is to pressure test the wellbore, obtain a wellbore fluid sample and service the wellhead on the lease.

Well Site Supervisor Lambert, Marc	Superintendent Koteles, Jonathan	Engineer Heffel, Greg
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Primary Contractor Matrix Solutions Inc.	Regulatory Reportable Event Yes
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AFE Number 11600174	Total AFE + Supp Amount (Cost) 87,951.65	Daily Field Est Total (Cost) 23,041.10	Cum Field Est To Date (Cost) 40,760.21
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**Morning Readings**

Weather Partly Cloudy	Temperature (°C) 15	Road Condition N/A (fly in)
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24 Hr Operations Summary  
HSE Concerns: None.  
NPT Concerns: None.  
Service Concerns: N2 shipments still did not arrive.  
OROGO Reportable: SCV bubble test - NEGATIVE  
Operations: Helo'd to site and set up equipment. Obtained Matrix samples, performed SCV test and took photos of well site.  
Forecast: Service wellhead, pressure test casing and wellhead.

Addendum - June 1, 2024. Landed with 1 full bottle of N2. Equalized into wellbore and pressure tested to 4,050kPa - good test.

**Daily Pressures**

Type	P (kPa)
Casing	0

**Daily Fluids Summary**

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

**Job Time Log**

Start Time	End Time	Dur (hr)	Code 2	Com
10:30	12:00	1.50	Move Rig and Auxiliary Equipment - Site to Site	Met at Sahtu hanger, received safety briefing from pilot. Loaded gear and prepared to take off. Flew to location, circled area to sweep for wildlife before landing.
12:00	19:00	7.00	Well Checks - Other (Details)	Offloaded all equipment. Obtained SICP = slight blow, bled off in 2-3 seconds. Performed SCV test with no bubbles noted in 10 minutes. Opened master valves and obtained fluid levels. Diesel level at 0.25mCF, water level at 7.17mCF. Rigged in Matrix plastic tubing and pump, obtain samples from 50m, 100m and 200m. Rigged out all equipment.
19:00	21:00	2.00	Move Rig and Auxiliary Equipment - Site to Site	Loaded equipment, flew to A-67, offloaded equipment and tarped for the night.  Returned to base.  Addendum: May 31 - StreamFlo greased and cycled all valves. Pressure tested casing head flange connection and seals to 17MPa - OK. Note: Casing bowl flange is an 11" x 3000 psi R-53  Addendum - June 1, 2024. Landed with 1 full bottle of N2. Pressured to 1,400 kPa for 3-4 minutes, no external leaks, no bleed off. Opened bottle fully and equalized into wellbore and pressure tested to 4,050kPa for 15 minutes - good test. Bled off N2, closed and chained all wellhead valves with combo lock (code - 2019). Lease was photographed and clean of all equipment and debris.

**Gas Volumes**

Date	Type	Zone	Volume (E3m³)	Duration (hr)
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**NPT Interval Problems**

Problem Type	Problem Subtype	Dur (Gross) (hr)	Total Problem Hours (hr)
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Oil and Gas

**WELLHEAD DIAGRAM AND DETAILS**

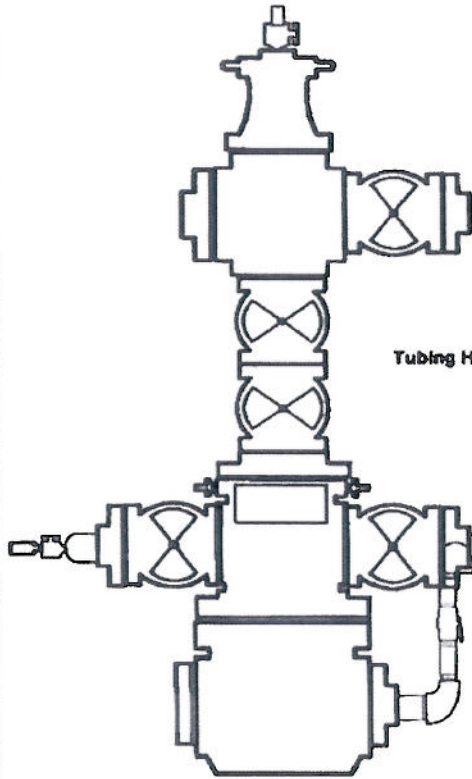
DATE: March 16, 2004

**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	None left on wellhead.
Needle Valve	12.7 mm 42 MPa. All plugged
Top Adaptor Flow-Tee	65 mm 35 MPa with 73 mm lift threads 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
Master valves	Crown 65 mm 35 MPa gate valve. Serial # 91746-07 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. Completa with 52 mm blind flange and 62 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 Jim Messervy

**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			
<b>KB Elevation:</b>	435.22 m	<b>KB-THF</b> 5.52 m	<b>TD</b> 1418.0 mKB
<b>GL Elevation:</b>	429.10 m	<b>KB-CF:</b> 6.12 m	<b>PBTD</b> 1179.8 mKB
		<b>KB-GL:</b> 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	<b>1179.8</b>
3		178 mm 69 MPa permanent bridge plug		<b>1187.8</b>
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	<b>1196.00</b>
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	<b>1200.99</b>
8		98.55 mm OD x 73 mm EUE wireline re-entry guide	0.15	
		Bottom of re-entry guide landed at		<b>1201.53</b>

**Remarks** Wellbore topped with 120 litres diesel for freeze protection.

**Well Status** Suspended gas well. **Prepared by** Bob Barvir

