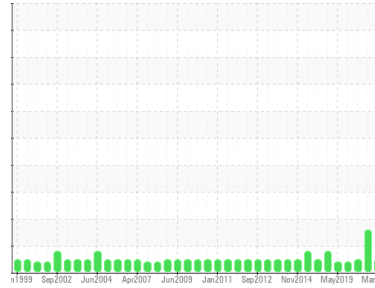




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**BDE - UNIT 3 TURBINE BEARING (S/N 59286)**

Component  
**Bearing**

Fluid  
**PETRO CANADA TURBOFLO R&O 46 (--- LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.  
NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0863076</b>	WC0524856	WC941257
Sample Date	Client Info		<b>18 Mar 2024</b>	14 Mar 2022	29 Mar 2021
Machine Age	hrs	Client Info	<b>131702</b>	0	0
Oil Age	hrs	Client Info	<b>131702</b>	0	0
Oil Changed		Client Info	<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>0</b>	0	0
Iron	ppm	ASTM D5185(m) >20	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >20	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m) >20	<b>0</b>	0	<1
Lead	ppm	ASTM D5185(m) >20	<b>0</b>	<1	1
Copper	ppm	ASTM D5185(m) >20	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

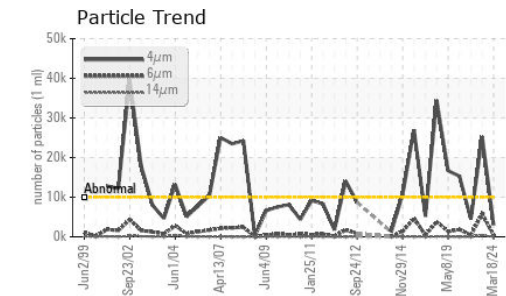
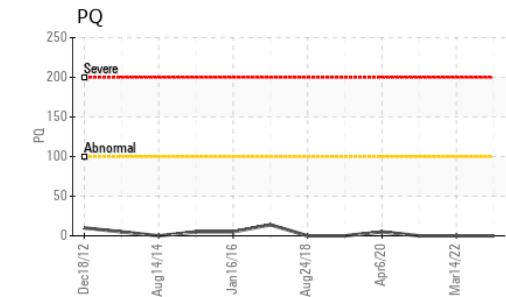
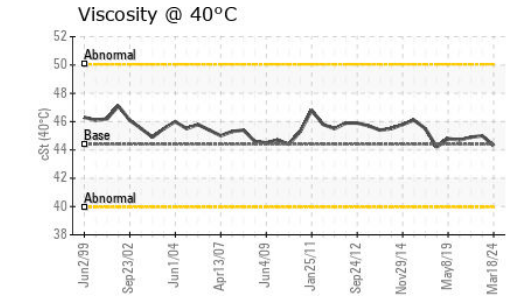
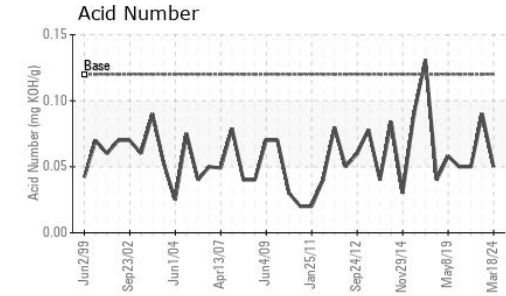
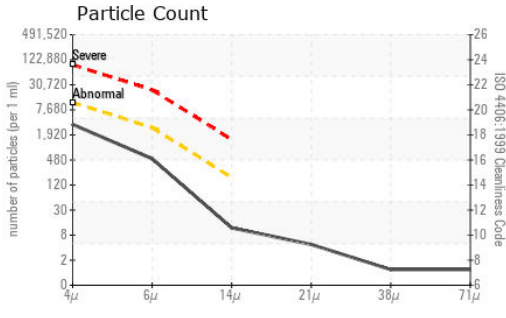
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Phosphorus	ppm	ASTM D5185(m) 3	<b>4</b>	3	4
Zinc	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	<1	<1
Sulfur	ppm	ASTM D5185(m)	<b>169</b>	135	151
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>2</b>	4	5
Sodium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	1
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1



# OIL ANALYSIS REPORT



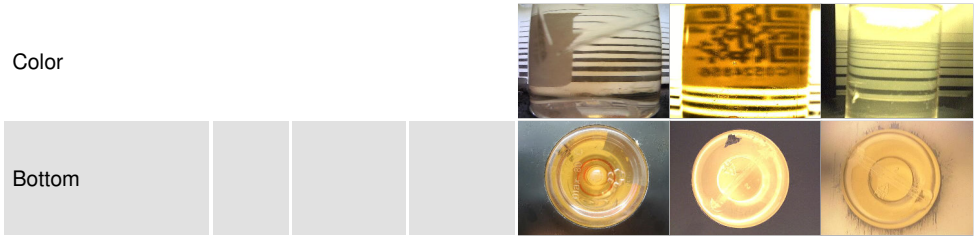
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>2998</b>	▲ 25278	4477
Particles >6µm	ASTM D7647	>2500	<b>452</b>	▲ 5754	445
Particles >14µm	ASTM D7647	>160	<b>10</b>	▲ 351	11
Particles >21µm	ASTM D7647	>40	<b>4</b>	● 73	2
Particles >38µm	ASTM D7647	>10	<b>1</b>	4	0
Particles >71µm	ASTM D7647	>3	<b>1</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<b>19/16/10</b>	▲ 22/20/16	19/16/11

FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.12	<b>0.05</b>	0.09	0.05

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	44.4	<b>44.3</b>	45.0	44.9

## SAMPLE IMAGES



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0863076  
**Lab Number** : **02625295**  
**Unique Number** : 5750414  
**Test Package** : IND 2 ( Additional Tests: PQ, PrtCount, TAN Man )  
**Received** : 28 Mar 2024  
**Tested** : 02 Apr 2024  
**Diagnosed** : 02 Apr 2024 - Wes Davis

**NEWFOUNDLAND & LABRADOR HYDRO**  
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 Contact: Matthew Lambert  
 matthewlambert@nlh.nl.ca  
 T: (709)882-3126  
 F: (709)882-3161

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.