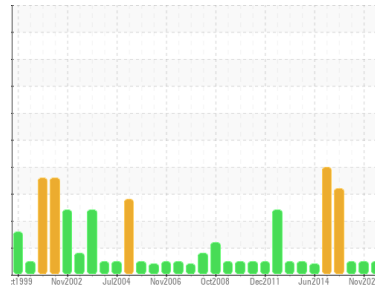




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**CAT - UNIT 1 TURBINE BEARING (S/N 62275)**

Component  
**Bearing**

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

## 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>WC0762255</b>	WC969429	WC792250
Sample Date	Client Info		<b>11 Jul 2023</b>	02 Nov 2021	21 Sep 2018
Machine Age	hrs	Client Info	<b>107946</b>	0	0
Oil Age	hrs	Client Info	<b>107946</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>0</b>	0	13
Iron	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >20	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>0</b>	0	0
Lead	ppm	ASTM D5185(m) >20	<b>2</b>	2	2
Copper	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	0
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

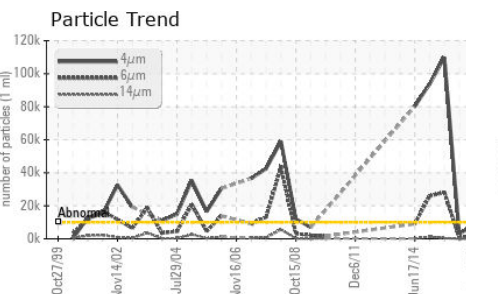
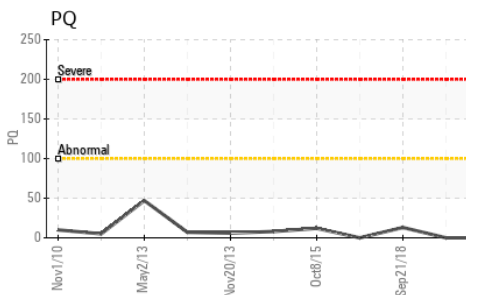
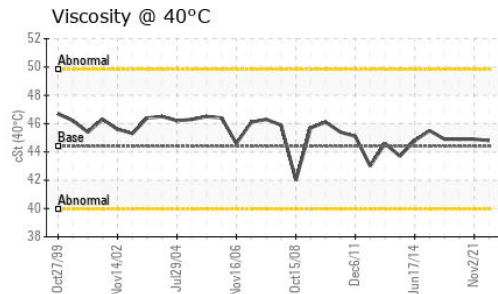
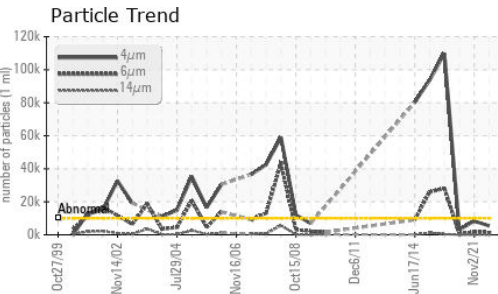
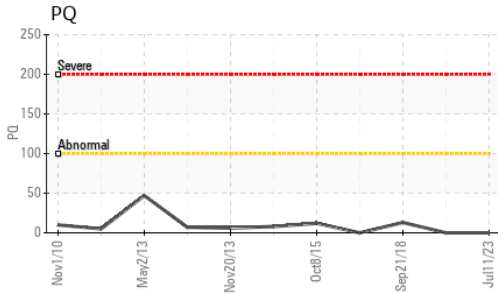
	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	0
Barium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	<b>&lt;1</b>	1	<1
Calcium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	3	<1
Phosphorus	ppm	ASTM D5185(m) 3	<b>4</b>	5	3
Zinc	ppm	ASTM D5185(m) 0	<b>4</b>	4	3
Sulfur	ppm	ASTM D5185(m)	<b>145</b>	145	164
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	0

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>6</b>	7	8
Sodium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>5431</b>	8288	3035
Particles >6µm	ASTM D7647	>2500	<b>1325</b>	1755	571
Particles >14µm	ASTM D7647	>160	<b>96</b>	105	49
Particles >21µm	ASTM D7647	>40	<b>29</b>	21	12
Particles >38µm	ASTM D7647	>10	<b>3</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>1</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<b>20/18/14</b>	20/18/14	19/16/13

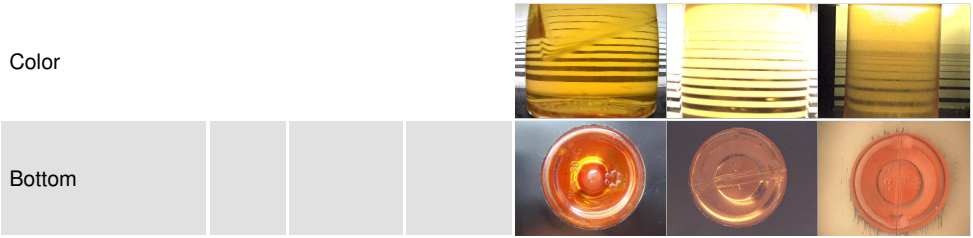


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.12	<b>0.09</b>	0.11	0.02

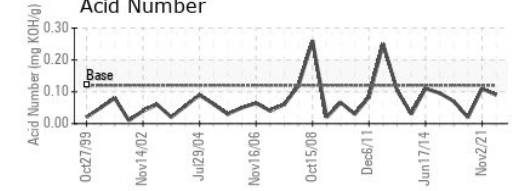
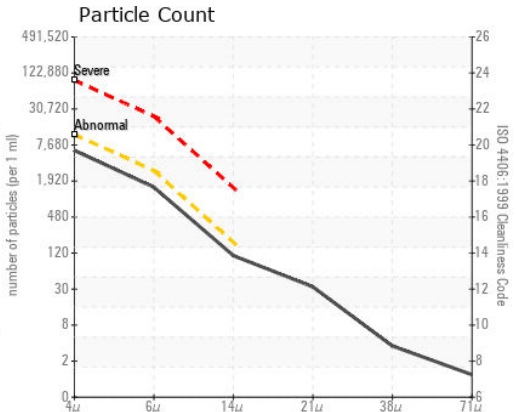
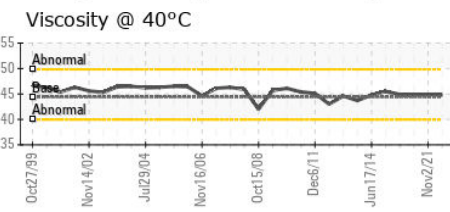
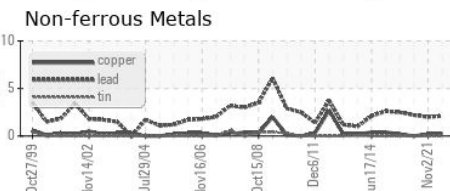
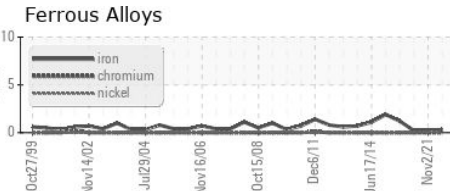
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>VLITE</b>	VLITE	VLITE
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>44.8</b>	44.9	44.9

SAMPLE IMAGES		method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 NEWFOUNDLAND & LABRADOR HYDRO  
**Sample No.** : WC0762255 **Received** : 24 Aug 2023  
**Lab Number** : 02578112 **Diagnosed** : 28 Aug 2023  
**Unique Number** : 5631172 **Diagnostician** : Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: PQ, PrtCount, TAN Man )  
 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.

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