



# PROBLEM SUMMARY

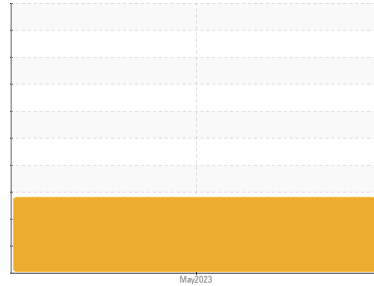
Sample Rating Trend

WEAR



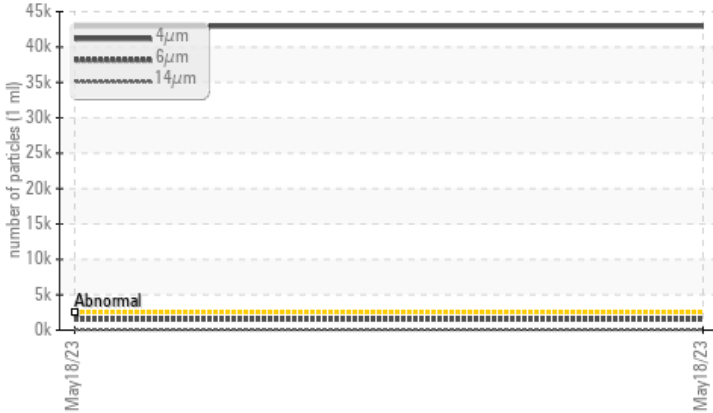
Area  
**LSGS PLANT**  
Machine Id  
**G1 BULKHEAD**

Component  
**Turbine**  
Fluid  
**PETRO CANADA TURBOFLO R&O 100 (60 LTR)**

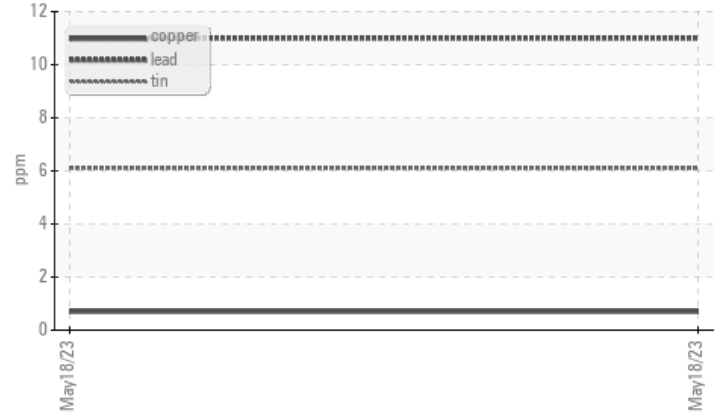


## COMPONENT CONDITION SUMMARY

### Particle Trend



### Non-ferrous Metals



## RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Tin	ppm	ASTM D5185(m)	>5	▲ 6	---	---
Particles >4µm		ASTM D7647	>2500	● 42943	---	---
Particles >6µm		ASTM D7647	>640	▲ 1509	---	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	● 23/18/13	---	---

Customer Id: PET412PET  
Sample No.: WC0801000  
Lab Number: 02560154  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
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To change component or sample information:  
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[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

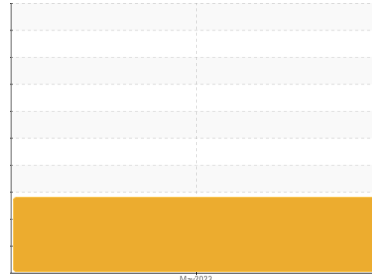
Sample Rating Trend

WEAR



Area  
**LSGS PLANT**  
Machine Id  
**G1 BULKHEAD**

Component  
**Turbine**  
Fluid  
**PETRO CANADA TURBOFLO R&O 100 (60 LTR)**



## DIAGNOSIS

### Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

### Wear

Tin ppm levels are abnormal.

### Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0801000</b>	---	---
Sample Date	Client Info		<b>18 May 2023</b>	---	---
Machine Age	yrs	Client Info	<b>120</b>	---	---
Oil Age	yrs	Client Info	<b>2</b>	---	---
Oil Changed	Client Info		<b>Not Chngd</b>	---	---
Sample Status			<b>SEVERE</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>15	<b>1</b>	---
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	---
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---
Silver	ppm	ASTM D5185(m)		<b>0</b>	---
Aluminum	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	---
Lead	ppm	ASTM D5185(m)		<b>11</b>	---
Copper	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	---
Tin	ppm	ASTM D5185(m)	>5	<b>6</b>	---
Antimony	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>0</b>	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	---
Manganese	ppm	ASTM D5185(m)		<b>0</b>	---
Magnesium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Calcium	ppm	ASTM D5185(m)	0	<b>0</b>	---
Phosphorus	ppm	ASTM D5185(m)	4	<b>5</b>	---
Zinc	ppm	ASTM D5185(m)	0	<b>13</b>	---
Sulfur	ppm	ASTM D5185(m)		<b>143</b>	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---

## CONTAMINANTS

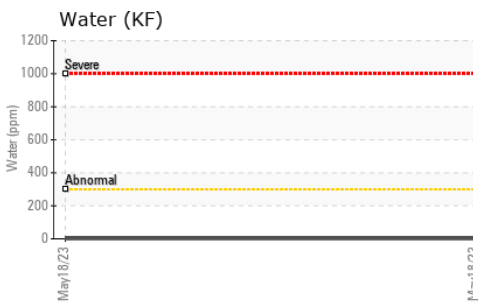
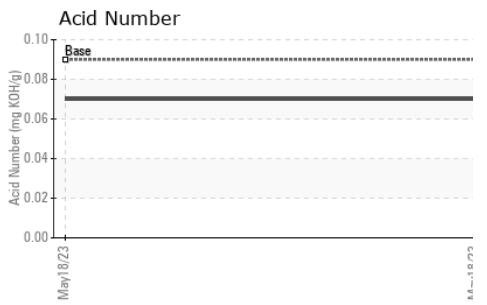
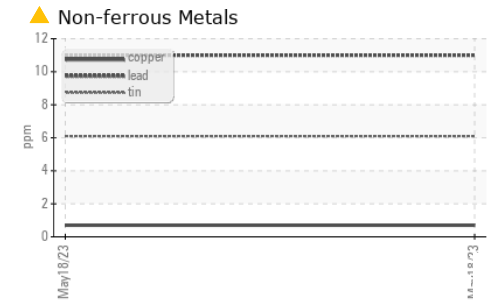
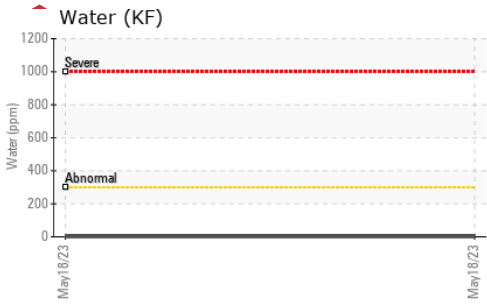
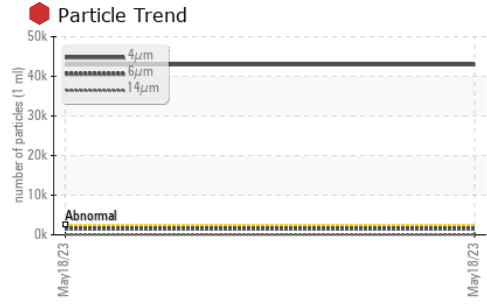
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	---
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	---
Water	%	ASTM D6304*	>0.03	<b>0.001</b>	---
ppm Water	ppm	ASTM D6304*	>300	<b>1.2</b>	---

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	<b>42943</b>	---	---
Particles >6µm	ASTM D7647	>640	<b>1509</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>77</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>27</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>1</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>23/18/13</b>	---	---



# OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.09	<b>0.07</b>	---	---

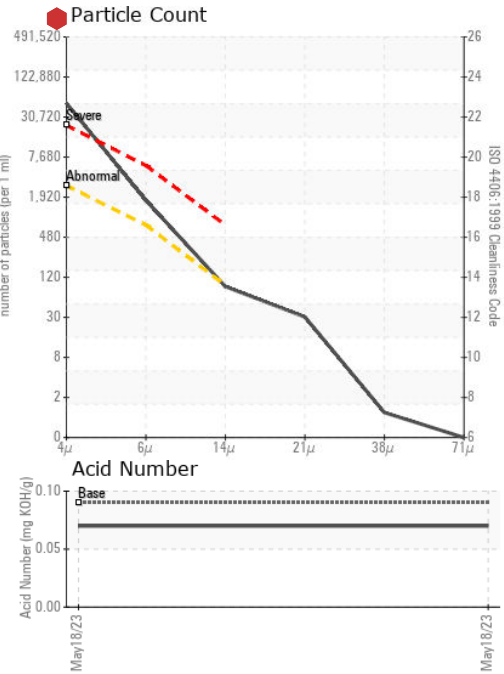
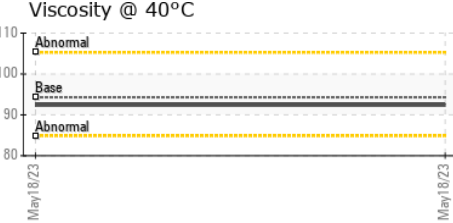
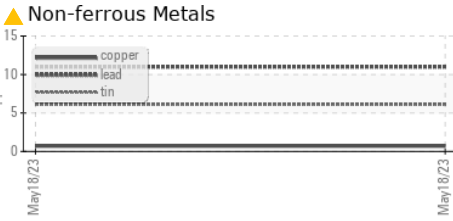
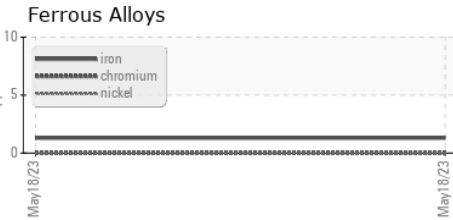
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.03	<b>NEG</b>	---	---
Free Water	scalar	Visual*		<b>NEG</b>	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	94.3	<b>92.4</b>	---	---

### SAMPLE IMAGES

	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0801000 **Received** : 29 May 2023  
**Lab Number** : **02560154** **Tested** : 30 May 2023  
**Unique Number** : 5581194 **Diagnosed** : 30 May 2023 - Kevin Marson  
**Test Package** : IND 2

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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.