



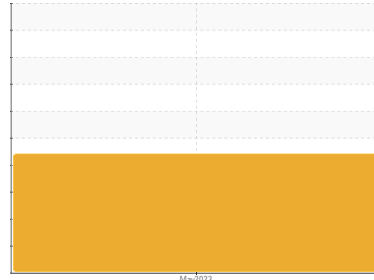
# PROBLEM SUMMARY

Sample Rating Trend

VISUAL METAL

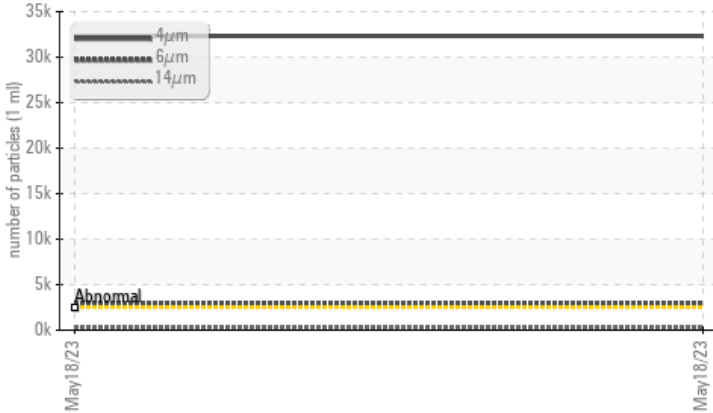
Area  
**LSGS PLANT**  
Machine Id  
**G1 DOWN STREAM**

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



## COMPONENT CONDITION SUMMARY

### Particle Trend



## RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. We advise that you check for visible metal particles in the oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Particles >4µm	ASTM D7647	>2500	32331	---	---	---
Particles >6µm	ASTM D7647	>640	2874	---	---	---
Particles >14µm	ASTM D7647	>80	260	---	---	---
Particles >21µm	ASTM D7647	>20	106	---	---	---
Particles >38µm	ASTM D7647	>4	9	---	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	22/19/15	---	---	---
White Metal	scalar	Visual*	NONE	LIGHT	---	---
PrtFilter					no image	no image

Customer Id: PET412PET  
Sample No.: WC0801002  
Lab Number: 02560152  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
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Gloria Gonzalez +1 (289)291-4643 x4643  
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## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.
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 Dirt Access	---	---	?	We advise that you check all areas where contaminants can enter the system.
Check For Visual Metal	---	---	?	We advise that you check for visible metal particles in the oil.
Filter Fluid	---	---	?	We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid.

## HISTORICAL DIAGNOSIS



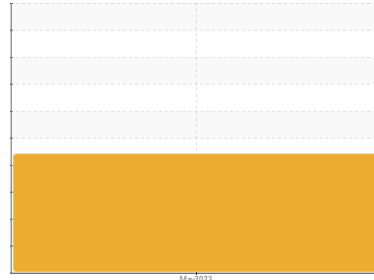
# OIL ANALYSIS REPORT

Sample Rating Trend

VISUAL METAL

Area  
**LSGS PLANT**  
Machine Id  
**G1 DOWN STREAM**

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



## DIAGNOSIS

### Recommendation

We advise that you check all areas where contaminants can enter the system. We advise that you check for visible metal particles in the oil. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. 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. Resample in 30-45 days to monitor this situation.

### Wear

Light concentration of visible metal present.

### Contamination

There is a high amount of particulates (2 to 100 microns in size) present in the oil. The water content is negligible.

### Fluid Condition

The AN level is acceptable for this fluid.



## SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		<b>WC0801002</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	history 1	history 2
Iron	ppm	ASTM D5185(m) >15	<b>&lt;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>&lt;1</b>	---	---
Copper	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185(m) >5	<b>5</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	history 1	history 2
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>0</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>2</b>	---	---
Sulfur	ppm	ASTM D5185(m)	<b>147</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

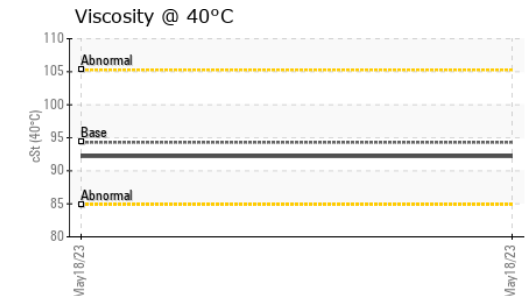
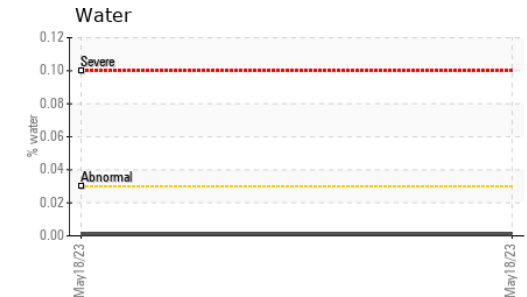
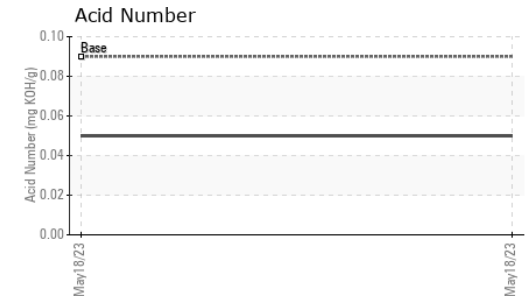
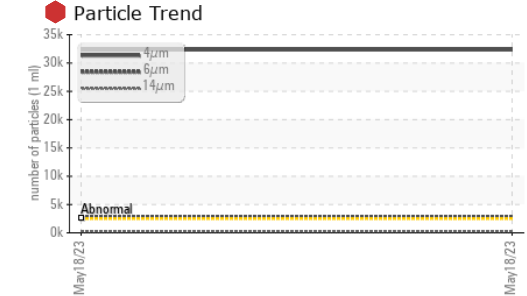
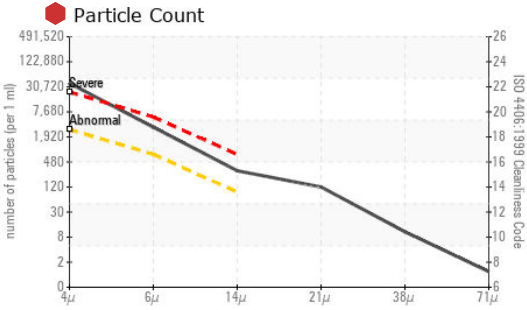
	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m) >15	<b>0</b>	---	---
Sodium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---	---
Water	%	ASTM D6304* >0.03	<b>0.001</b>	---	---
ppm Water	ppm	ASTM D6304* >300	<b>14.0</b>	---	---

## FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647	>2500	<b>32331</b>	---	---
Particles >6µm	ASTM D7647	>640	<b>2874</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>260</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>106</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>9</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>1</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	<b>22/19/15</b>	---	---



# OIL ANALYSIS REPORT



### FLUID DEGRADATION

	method	limit/base	current	history 1	history 2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.09	<b>0.05</b>	---	---

### VISUAL

	method	limit/base	current	history 1	history 2	
White Metal	scalar	Visual*	NONE	▲ <b>LIGHT</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>VLITE</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	history 1	history 2	
Visc @ 40°C	cSt	ASTM D7279(m)	94.3	<b>92.2</b>	---	---

### SAMPLE IMAGES

	method	limit/base	current	history 1	history 2
Color					
Bottom					
PrtFilter					



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0801002  
**Lab Number** : **02560152**  
**Unique Number** : 5581192  
**Test Package** : IND 2 ( Additional Tests: BottomAnalysis, FILTERPATCH, PrtFilter )

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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.