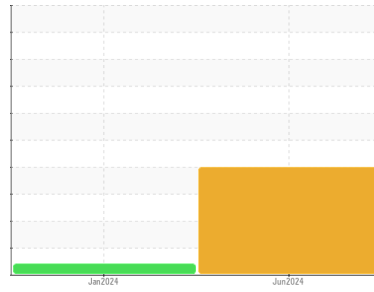




# PROBLEM SUMMARY

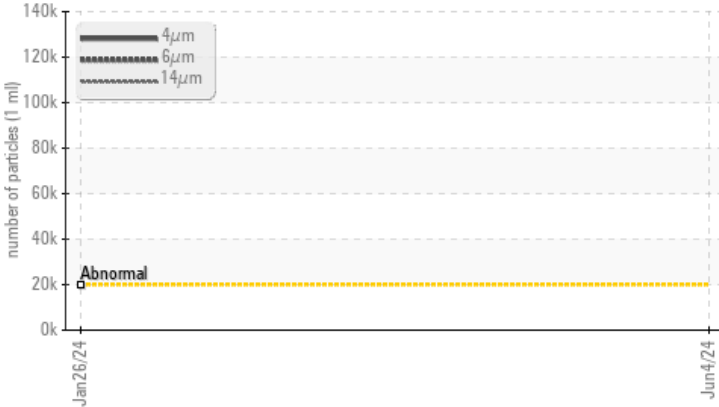
Area  
**Effluent Treatment Plant**  
 Machine Id  
**Secondary Center Clarifier Top Gearbox 21-265-002.02**  
 Component  
**Top Gearbox**  
 Fluid  
**MOBIL SHC 636 (--- GAL)**

## Sample Rating Trend



## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

We advise that you check all areas where contaminants can enter the system. 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. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

## PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ATTENTION	---
Particles >4µm	ASTM D7647	>20000	▲ 123234	---	---
Particles >6µm	ASTM D7647	>5000	▲ 42927	---	---
Particles >14µm	ASTM D7647	>640	▲ 2018	---	---
Particles >21µm	ASTM D7647	>160	▲ 412	---	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 24/23/18	---	---

Customer Id: CASASH  
 Sample No.: WC0776453  
 Lab Number: 06200132  
 Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Wes Davis +1 905-569-8600 x223  
[wesd@wearcheck.ca](mailto:wesd@wearcheck.ca)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## 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.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
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.
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

### VISCOSITY



#### 26 Jan 2024 Diag: Jonathan Hester

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within ISO 460 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

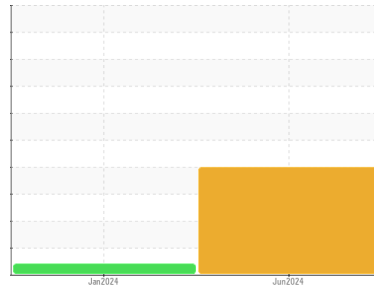
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

## Effluent Treatment Plant

Machine Id

## Secondary Center Clarifier Top Gearbox 21-265-002.02

Component

### Top Gearbox

Fluid

MOBIL SHC 636 (--- GAL)

#### DIAGNOSIS

##### ▲ Recommendation

We advise that you check all areas where contaminants can enter the system. 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. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

##### Wear

All component wear rates are normal.

##### ▲ 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. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>WC0776453</b>	WC0776376	---
Sample Date	Client Info			<b>04 Jun 2024</b>	26 Jan 2024	---
Machine Age	hrs	Client Info		<b>0</b>	0	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed	Client Info			<b>N/A</b>	N/A	---
Sample Status				<b>SEVERE</b>	ATTENTION	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>10</b>	9	---
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	<1	---
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>200	<b>&lt;1</b>	<1	---
Tin	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	---
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>0</b>	0	---
Calcium	ppm	ASTM D5185m		<b>2</b>	2	---
Phosphorus	ppm	ASTM D5185m		<b>470</b>	437	---
Zinc	ppm	ASTM D5185m		<b>0</b>	0	---
Sulfur	ppm	ASTM D5185m		<b>62</b>	59	---

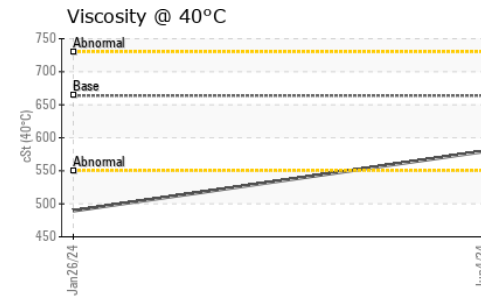
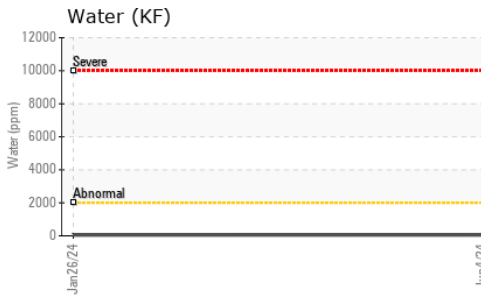
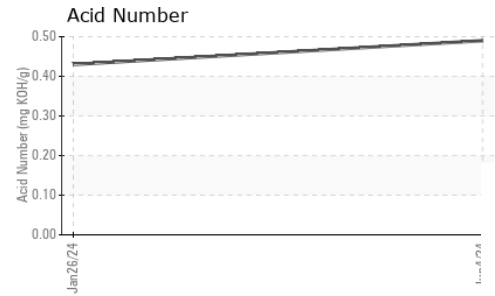
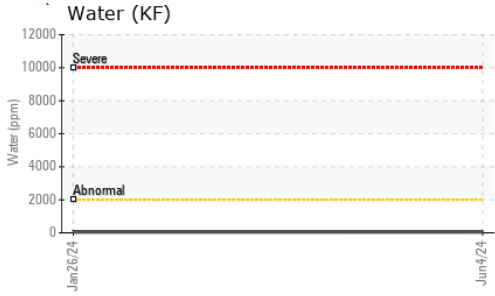
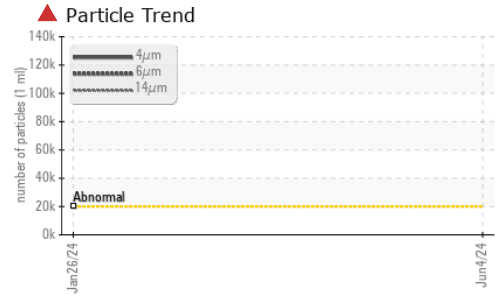
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>21</b>	28	---
Sodium	ppm	ASTM D5185m		<b>0</b>	0	---
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	---
Water	%	ASTM D6304	>0.2	<b>0.004</b>	0.004	---
ppm Water	ppm	ASTM D6304	>2000	<b>49</b>	47	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	<b>▲ 123234</b>	---	---
Particles >6µm		ASTM D7647	>5000	<b>▲ 42927</b>	---	---
Particles >14µm		ASTM D7647	>640	<b>▲ 2018</b>	---	---
Particles >21µm		ASTM D7647	>160	<b>▲ 412</b>	---	---
Particles >38µm		ASTM D7647	>40	<b>8</b>	---	---
Particles >71µm		ASTM D7647	>10	<b>3</b>	---	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>▲ 24/23/18</b>	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.49</b>	0.43	---



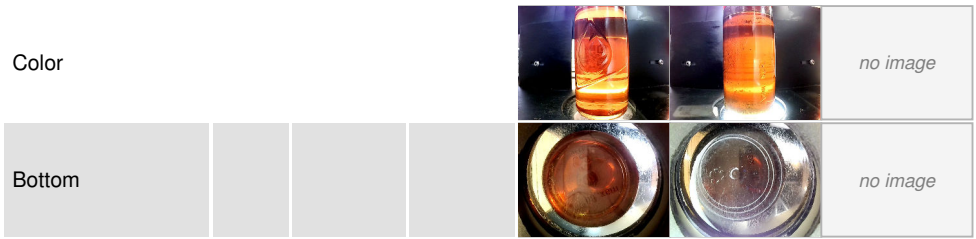
# OIL ANALYSIS REPORT



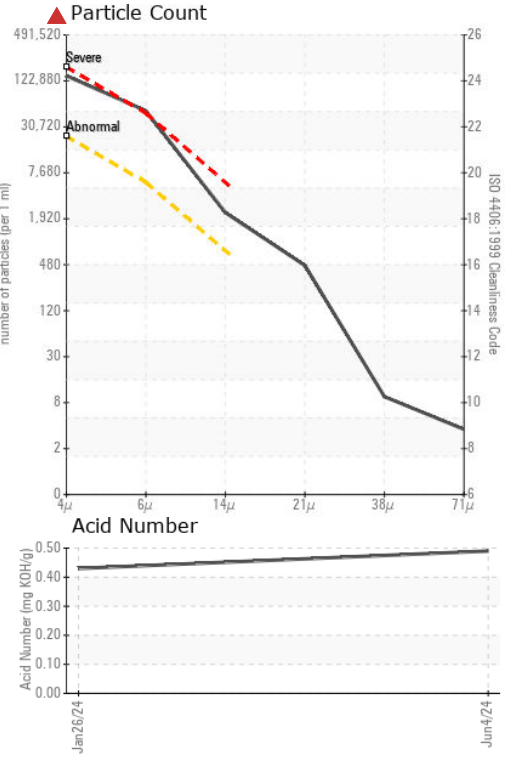
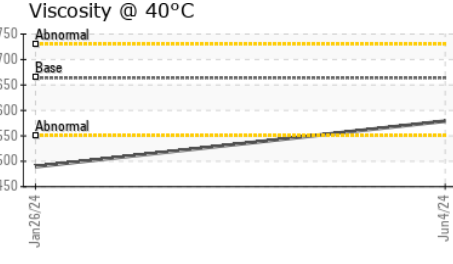
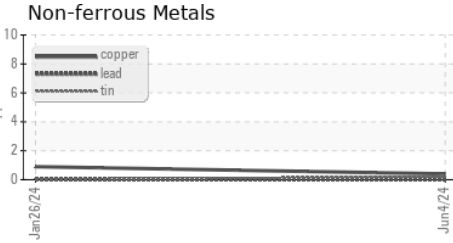
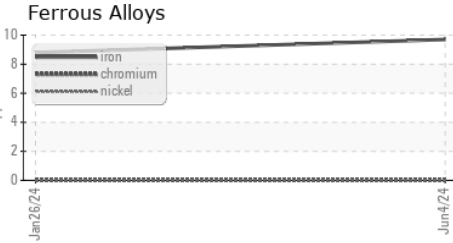
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	MODER	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	663.8	579	489.4

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0776453      **Received** : 05 Jun 2024  
**Lab Number** : 06200132      **Tested** : 06 Jun 2024  
**Unique Number** : 11062255      **Diagnosed** : 06 Jun 2024 - Wes Davis  
**Test Package** : PLANT

CASCADES CONTAINERBOARD PACKAGING - BEARPACK PROJECT  
 10026 OLD RIDGE ROAD  
 ASHLAND, VA 23005  
 Contact: MARC-ANDRE HUBERT  
 marc-andre\_hubert@cascades.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)