



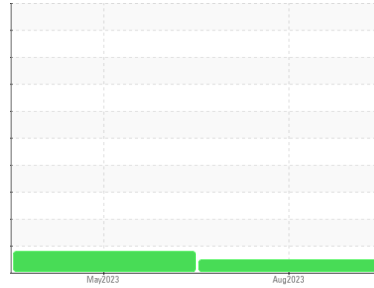
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Paper Machine**  
 Machine Id  
**Vacuum Pump #5 Gearbox**  
 Component  
**Gearbox**  
 Fluid  
**MOBIL MOBILGEAR SHC 220 (35 GAL)**



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are 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>WC0776545</b>	WC0776637	---
Sample Date	Client Info			<b>11 Aug 2023</b>	26 May 2023	---
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>NORMAL</b>	ATTENTION	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>6</b>	5	---
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m		<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>25	<b>&lt;1</b>	0	---
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>0</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>9</b>	6	---
Barium	ppm	ASTM D5185m		<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m		<b>3</b>	<1	---
Calcium	ppm	ASTM D5185m		<b>4</b>	4	---
Phosphorus	ppm	ASTM D5185m		<b>453</b>	450	---
Zinc	ppm	ASTM D5185m		<b>0</b>	2	---
Sulfur	ppm	ASTM D5185m		<b>3833</b>	3970	---

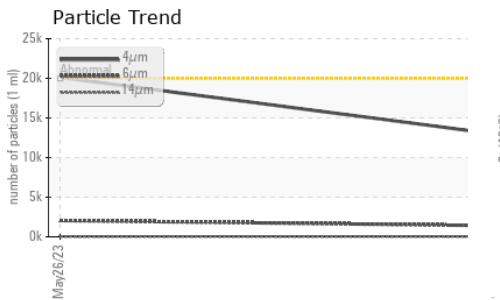
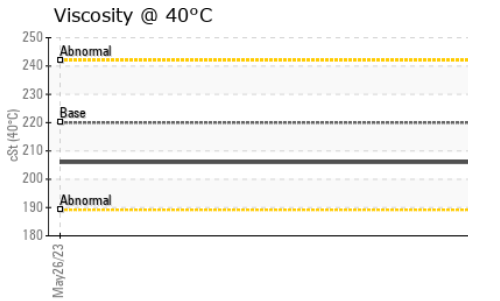
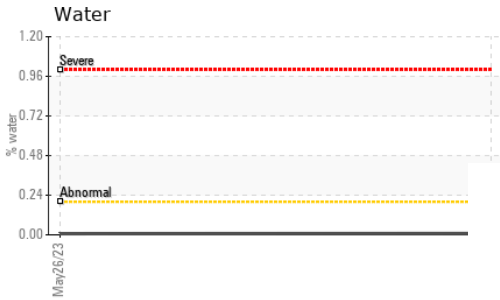
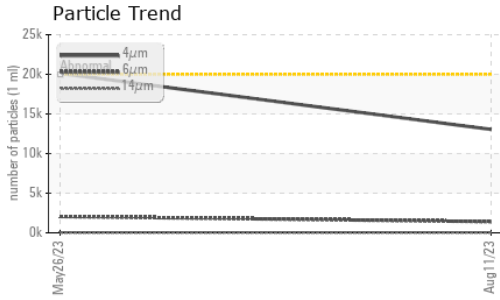
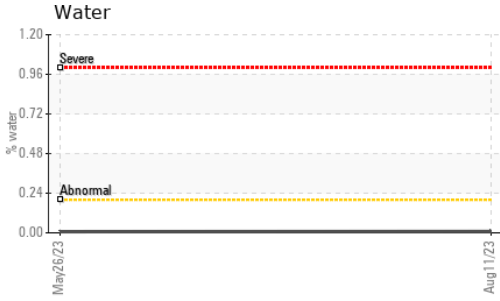
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>16</b>	19	---
Sodium	ppm	ASTM D5185m		<b>3</b>	2	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	---
Water	%	ASTM D6304	>0.2	<b>0.008</b>	0.007	---
ppm Water	ppm	ASTM D6304	>2000	<b>87.3</b>	79.4	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	<b>13047</b>	▲ 20113	---
Particles >6µm		ASTM D7647	>5000	<b>1407</b>	2058	---
Particles >14µm		ASTM D7647	>640	<b>32</b>	28	---
Particles >21µm		ASTM D7647	>160	<b>7</b>	5	---
Particles >38µm		ASTM D7647	>40	<b>2</b>	1	---
Particles >71µm		ASTM D7647	>10	<b>1</b>	1	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>21/18/12</b>	▲ 22/18/12	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.90</b>	0.90	---



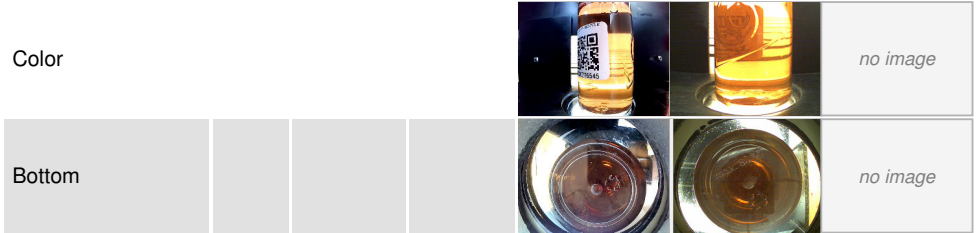
# OIL ANALYSIS REPORT



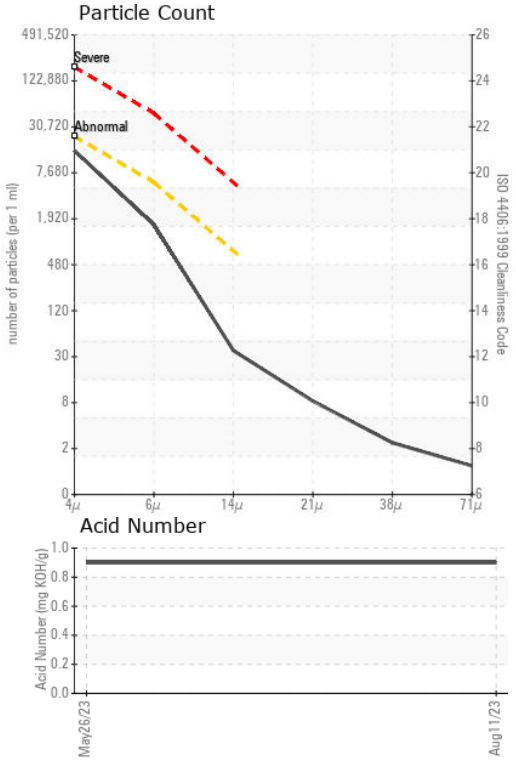
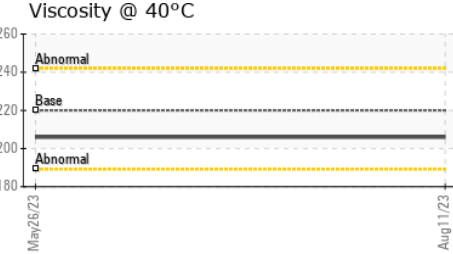
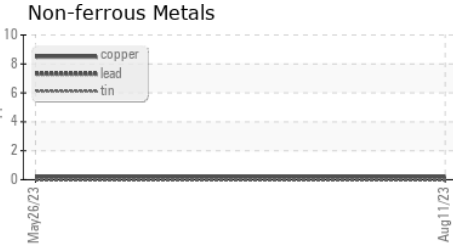
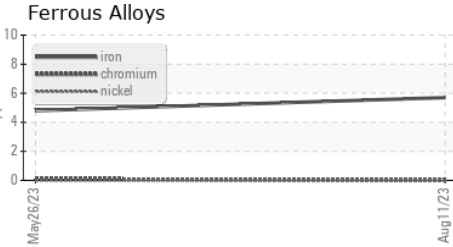
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	206	---

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0776545 **Received** : 17 Aug 2023  
**Lab Number** : 05927252 **Diagnosed** : 18 Aug 2023  
**Unique Number** : 10607199 **Diagnostician** : Doug Bogart  
**Test Package** : PLANT

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

Certificate L2367  
 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)