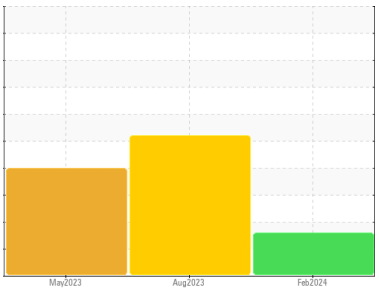
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
Paper Machine
Machine Id
#3 Dryer Section Drive Gearbox
Component
Gearbox
Fluid
MOBIL MOBILGEAR SHC 320 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Wear

All component wear rates are normal.

Contamination

There is a moderate concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0776356**	WC0776566	WC0776585
Sample Date		Client Info		**22 Feb 2024**	11 Aug 2023	26 May 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**25**	---	---
Iron	ppm	ASTM D5185m	>200	**13**	14	12
Chromium	ppm	ASTM D5185m	>15	**<1**	<1	0
Nickel	ppm	ASTM D5185m	>15	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	0
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>25	**<1**	<1	0
Lead	ppm	ASTM D5185m	>100	**<1**	<1	0
Copper	ppm	ASTM D5185m	>200	**2**	1	2
Tin	ppm	ASTM D5185m	>25	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**47**	55	65
Barium	ppm	ASTM D5185m		**6**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	<1	<1
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**<1**	2	1
Calcium	ppm	ASTM D5185m		**2**	2	2
Phosphorus	ppm	ASTM D5185m		**307**	402	477
Zinc	ppm	ASTM D5185m		**9**	0	4
Sulfur	ppm	ASTM D5185m		**2292**	2937	3206

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**10**	11	19
Sodium	ppm	ASTM D5185m		**25**	28	29
Potassium	ppm	ASTM D5185m	>20	**3**	7	4
Water	%	ASTM D6304	>0.2	▲ **0.747**	▲ 0.376	0.014
ppm Water	ppm	ASTM D6304	>2000	▲ **7470**	▲ 3760	143.7

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	**---**	▲ 57887	⬢ 187448
Particles >6µm		ASTM D7647	>5000	**---**	▲ 31535	⬢ 114918
Particles >14µm		ASTM D7647	>640	**---**	▲ 5367	▲ 3834
Particles >21µm		ASTM D7647	>160	**---**	▲ 1808	81
Particles >38µm		ASTM D7647	>40	**---**	▲ 279	0
Particles >71µm		ASTM D7647	>10	**---**	▲ 28	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**---**	▲ 23/22/20	⬢ 25/24/19

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.81**	0.73	0.76

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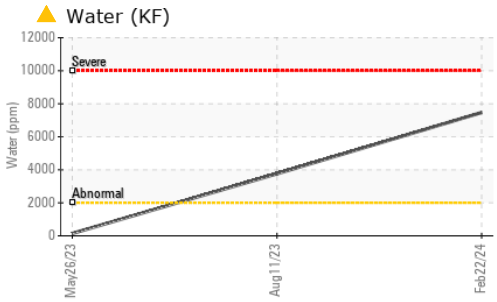
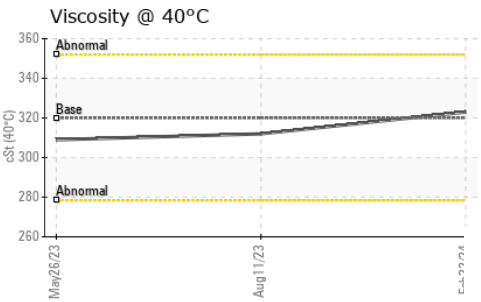


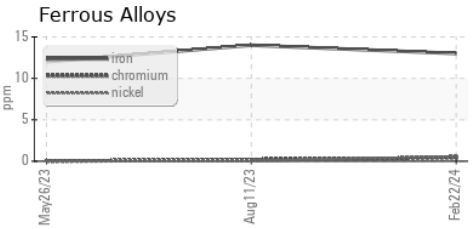


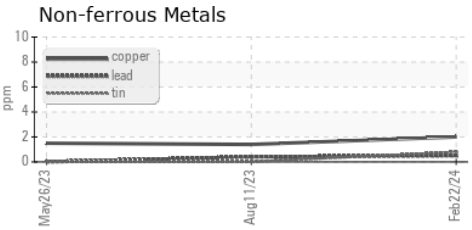
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

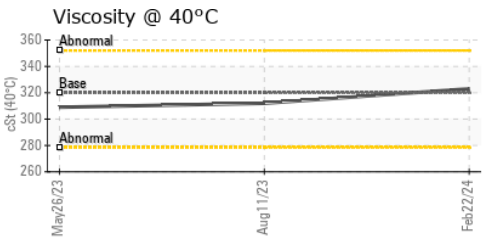
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	320	**323**	312	309

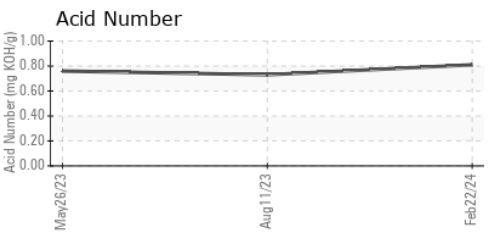
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0776356
Lab Number : 06099273
Unique Number : 10897503
Test Package : PLANT

Received : 23 Feb 2024
Tested : 27 Feb 2024
Diagnosed : 27 Feb 2024 - Don Baldridge

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

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)