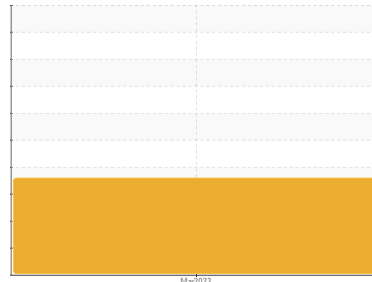




OIL ANALYSIS REPORT

Sample Rating Trend

WEAR PARTICLES



Machine Id
GOULDS 332 - EFFECT 2 LIQUOR TRANSFER

Component
Pump
Fluid
MOBIL SHC 626 (1 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component (as applicable). It is suggested to investigate the source of contamination and repair if possible. We recommend an early resample to monitor this condition. Analytical Ferrography: Results show abnormal amounts of external contamination. There are small amounts of ferrous cutting wear, likely as a result of the contamination. Minor amounts of ferrous rubbing wear and ferrous sliding wear are also present.

Wear

All other component wear rates are normal.

Contaminants

There is a high amount of particulates present in the oil.

Oil 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		WC0783642	---	---
Sample Date	Client Info		24 Mar 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		6	---	---
Iron	ppm	ASTM D5185m >90	<1	---	---
Chromium	ppm	ASTM D5185m >5	0	---	---
Nickel	ppm	ASTM D5185m >5	0	---	---
Titanium	ppm	ASTM D5185m >3	0	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >7	<1	---	---
Lead	ppm	ASTM D5185m >12	0	---	---
Copper	ppm	ASTM D5185m >30	0	---	---
Tin	ppm	ASTM D5185m >9	0	---	---
Vanadium	ppm	ASTM D5185m	0	---	---
Cadmium	ppm	ASTM D5185m	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	---	---
Barium	ppm	ASTM D5185m	0	---	---
Molybdenum	ppm	ASTM D5185m	0	---	---
Manganese	ppm	ASTM D5185m	1	---	---
Magnesium	ppm	ASTM D5185m	0	---	---
Calcium	ppm	ASTM D5185m	0	---	---
Phosphorus	ppm	ASTM D5185m	410	---	---
Zinc	ppm	ASTM D5185m	0	---	---
Sulfur	ppm	ASTM D5185m	0	---	---

CONTAMINANTS

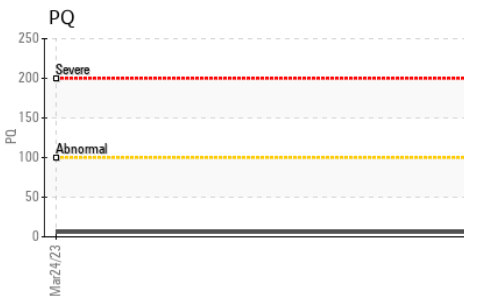
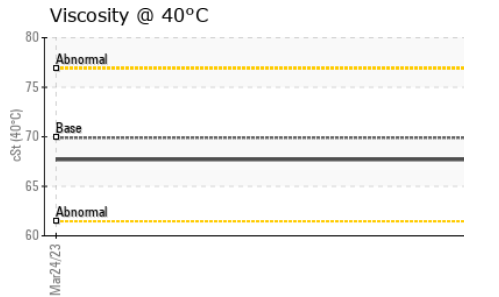
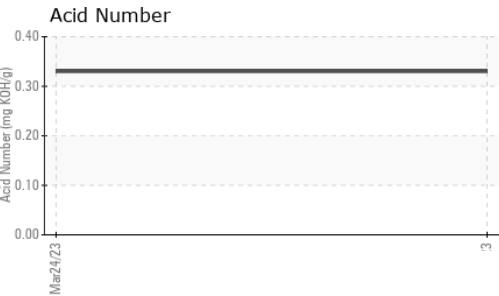
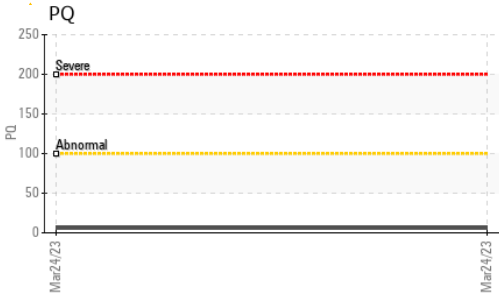
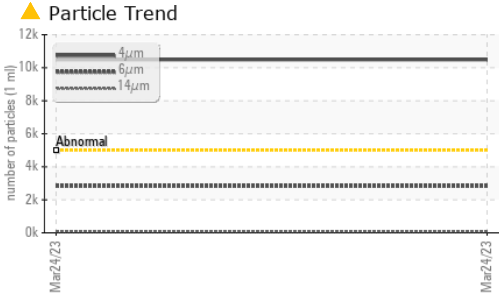
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	3	---	---
Sodium	ppm	ASTM D5185m	3	---	---
Potassium	ppm	ASTM D5185m >20	0	---	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 10490	---	---
Particles >6µm	ASTM D7647	>1300	▲ 2833	---	---
Particles >14µm	ASTM D7647	>160	88	---	---
Particles >21µm	ASTM D7647	>40	18	---	---
Particles >38µm	ASTM D7647	>10	2	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/19/14	---	---



OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.33	---	---

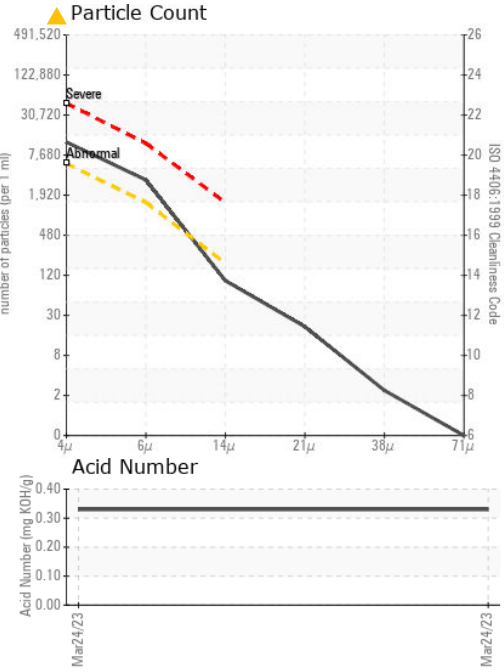
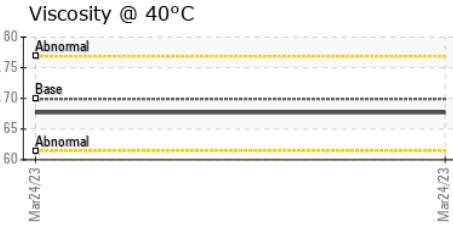
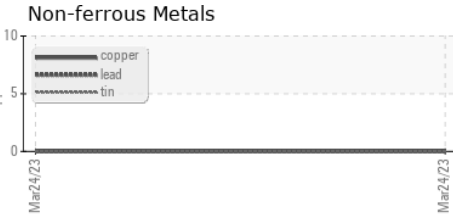
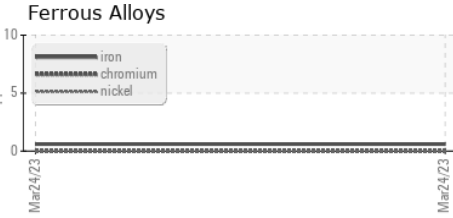
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	69.9	67.7	---	---

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

GRAPHS



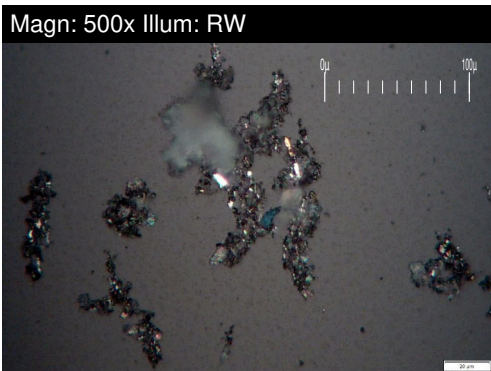
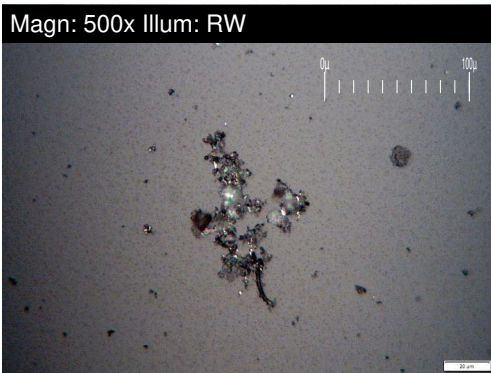
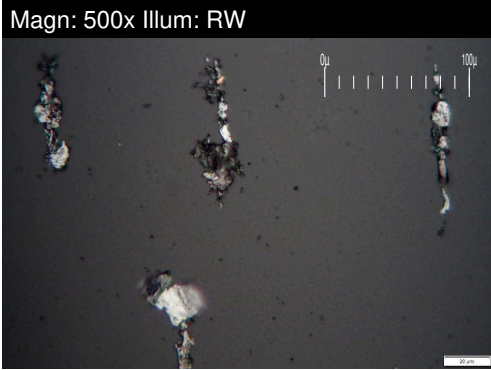
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0783642 **Received** : 28 Mar 2023
Lab Number : **05803841** **Diagnosed** : 31 Mar 2023
Unique Number : 10401370 **Diagnostician** : Aaron Black
Test Package : PLANT (Additional Tests: A-FERR)

GRAPHIC PACKAGING INTERNATIONAL
 100 GRAPHIC PACKAGING INTERNATIONAL
 MACON, GA
 US 31206
 Contact: DARYL SPRINGER
 daryl.springer@graphicpkg.com
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 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)

FERROGRAPHY REPORT

Machine Id
GOULDS 332 - EFFECT 2 LIQUOR TRANSFER
 Component
Pump
 Fluid
MOBIL SHC 626 (1 GAL)



FERROGRAPHY	method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10 *ASTM D7684		■ 2		
Ferrous Sliding	Scale 0-10 *ASTM D7684		■ 2		
Ferrous Cutting	Scale 0-10 *ASTM D7684		▲ ■ 2		
Ferrous Rolling	Scale 0-10 *ASTM D7684				
Ferrous Break-in	Scale 0-10 *ASTM D7684				
Ferrous Spheres	Scale 0-10 *ASTM D7684				
Ferrous Black Oxides	Scale 0-10 *ASTM D7684				
Ferrous Red Oxides	Scale 0-10 *ASTM D7684				
Ferrous Corrosive	Scale 0-10 *ASTM D7684				
Ferrous Other	Scale 0-10 *ASTM D7684				
Nonferrous Rubbing	Scale 0-10 *ASTM D7684				
Nonferrous Sliding	Scale 0-10 *ASTM D7684				
Nonferrous Cutting	Scale 0-10 *ASTM D7684				
Nonferrous Rolling	Scale 0-10 *ASTM D7684				
Nonferrous Other	Scale 0-10 *ASTM D7684				
Carbonaceous Material	Scale 0-10 *ASTM D7684				
Lubricant Degradation	Scale 0-10 *ASTM D7684				
Sand/Dirt	Scale 0-10 *ASTM D7684				
Fibres	Scale 0-10 *ASTM D7684				
Spheres	Scale 0-10 *ASTM D7684				
Other	Scale 0-10 *ASTM D7684		▲ ■ 4		

WEAR

All other component wear rates are normal.

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