



OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Machine Id
4535-4
 Component
4 Gearbox

Fluid
CASTROL OPTIGEAR SYNTHETIC RO 150 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Please note that this is a corrected copy for diagnostic comment updates per supplied limits.

Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The AN level is above the recommended limit.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0920080	---	---
Sample Date	Client Info		22 Apr 2024	---	---
Machine Age	mls	Client Info	78488	---	---
Oil Age	mls	Client Info	28488	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	91	---
Chromium	ppm	ASTM D5185m	>10	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	---
Titanium	ppm	ASTM D5185m		<1	---
Silver	ppm	ASTM D5185m		0	---
Aluminum	ppm	ASTM D5185m	>25	12	---
Lead	ppm	ASTM D5185m	>50	4	---
Copper	ppm	ASTM D5185m	>200	▲ 107	---
Tin	ppm	ASTM D5185m	>10	<1	---
Vanadium	ppm	ASTM D5185m		<1	---
Cadmium	ppm	ASTM D5185m		<1	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		3	---
Barium	ppm	ASTM D5185m		46	---
Molybdenum	ppm	ASTM D5185m		1008	---
Manganese	ppm	ASTM D5185m		2	---
Magnesium	ppm	ASTM D5185m		20	---
Calcium	ppm	ASTM D5185m		91	---
Phosphorus	ppm	ASTM D5185m		2086	---
Zinc	ppm	ASTM D5185m		579	---
Sulfur	ppm	ASTM D5185m		22632	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	13	---
Sodium	ppm	ASTM D5185m		4	---
Potassium	ppm	ASTM D5185m	>20	3	---

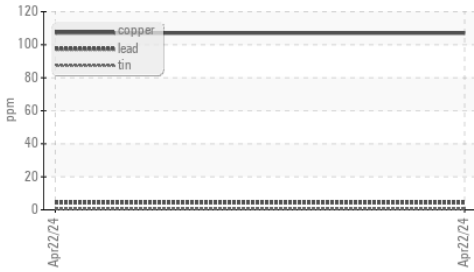
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		▲ 2.44	---

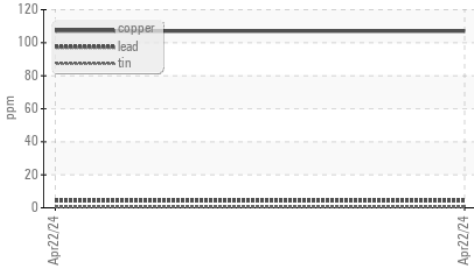


OIL ANALYSIS REPORT

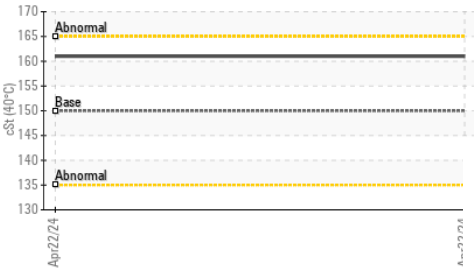
▲ Non-ferrous Metals



▲ Non-ferrous Metals



Viscosity @ 40°C



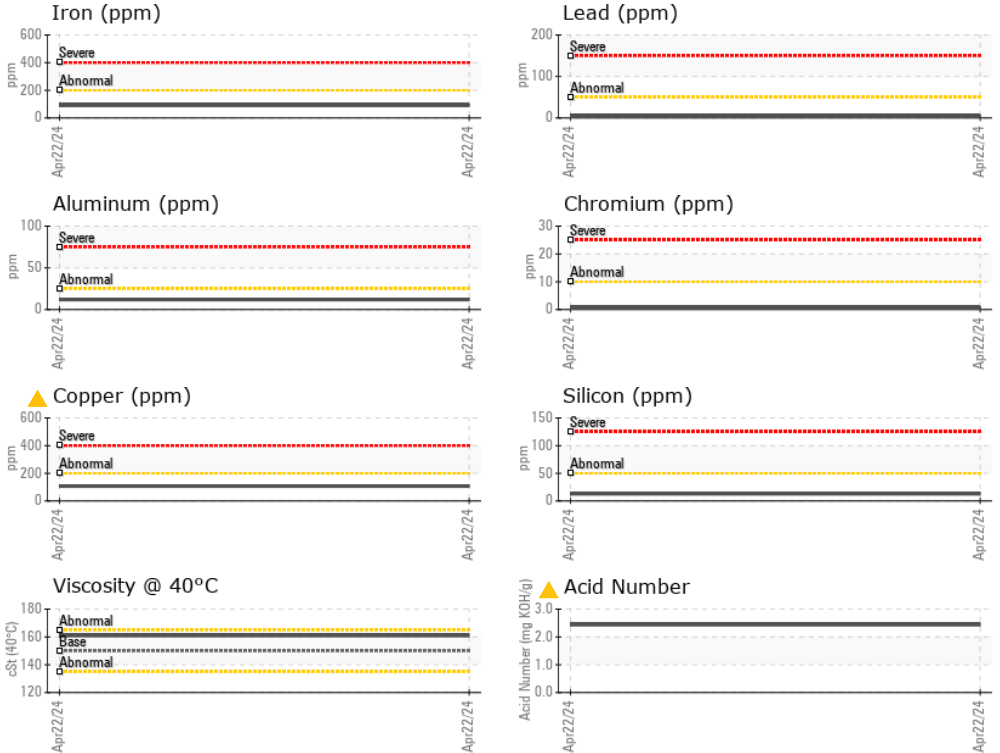
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	LIGHT	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	150	161	---

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0920080

Lab Number : 06178973

Unique Number : 11030299

Test Package : MOB 2

Received : 14 May 2024

Tested : 05 Jun 2024

Diagnosed : 20 Jun 2024 - Doug Bogart

ALSTOM C/O NEW JERSEY TRANSIT

1148 NEWARK TURNPIKE

KEARNY, NJ

US 07032

Contact: DAVE GILBERT

david.gilbert@alstomgroup.com

T:

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)

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