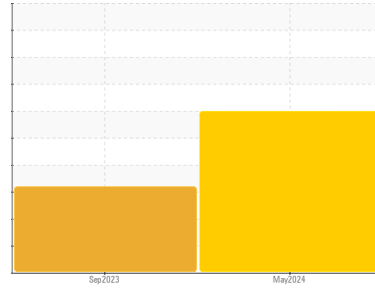




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
HC2208

Component
2 Winch

Fluid
GEAR OIL ISO 220 (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

▲ Wear

Gear wear is indicated.

▲ Contamination

Appearance is hazy. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a high concentration of water present in the oil.

▲ Fluid Condition

The oil viscosity is higher than normal.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0823593	WC0810464	---
Sample Date	Client Info		08 May 2024	09 Sep 2023	---
Machine Age	hrs	Client Info	9859	9039	---
Oil Age	hrs	Client Info	2392	0	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			ABNORMAL	SEVERE	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	▲ 471	20	---
Chromium	ppm	ASTM D5185m >10	4	0	---
Nickel	ppm	ASTM D5185m >10	< 1	<1	---
Titanium	ppm	ASTM D5185m	1	<1	---
Silver	ppm	ASTM D5185m	< 1	0	---
Aluminum	ppm	ASTM D5185m >5	● 8	<1	---
Lead	ppm	ASTM D5185m >15	< 1	0	---
Copper	ppm	ASTM D5185m >80	2	2	---
Tin	ppm	ASTM D5185m	0	<1	---
Vanadium	ppm	ASTM D5185m	< 1	<1	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	5	5	---
Barium	ppm	ASTM D5185m 15	0	0	---
Molybdenum	ppm	ASTM D5185m 15	< 1	0	---
Manganese	ppm	ASTM D5185m	7	<1	---
Magnesium	ppm	ASTM D5185m 50	2	0	---
Calcium	ppm	ASTM D5185m 50	11	3	---
Phosphorus	ppm	ASTM D5185m 350	392	90	---
Zinc	ppm	ASTM D5185m 100	99	0	---
Sulfur	ppm	ASTM D5185m 12500	6368	1874	---

CONTAMINANTS

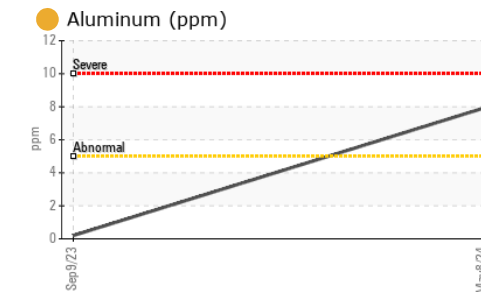
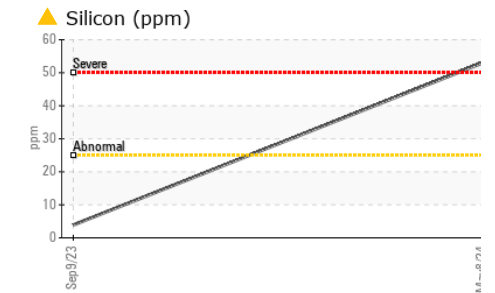
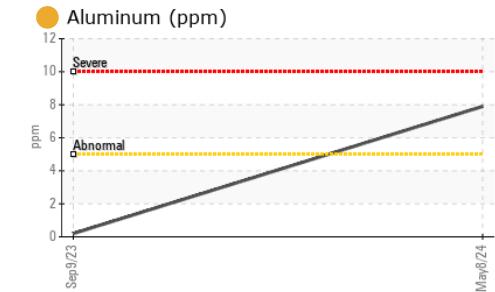
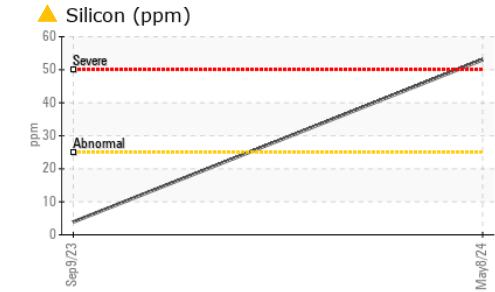
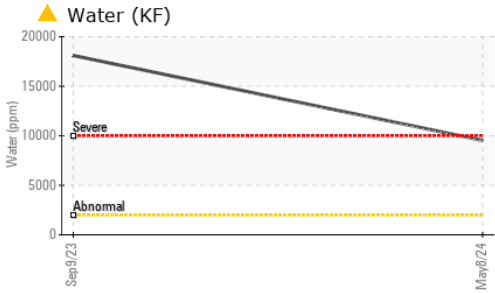
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	▲ 53	4	---
Sodium	ppm	ASTM D5185m	4	<1	---
Potassium	ppm	ASTM D5185m >20	4	2	---
Water	%	ASTM D6304 >0.2	▲ 0.953	▲ 1.81	---
ppm Water	ppm	ASTM D6304 >2000	▲ 9530	▲ 18100	---

VISUAL

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



OIL ANALYSIS REPORT

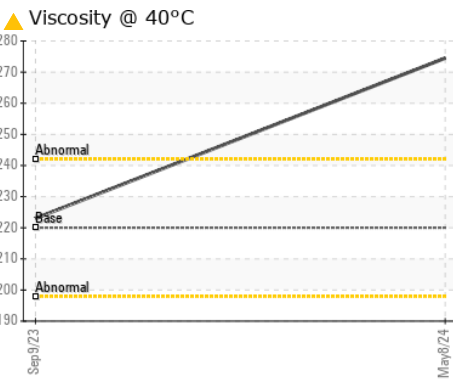
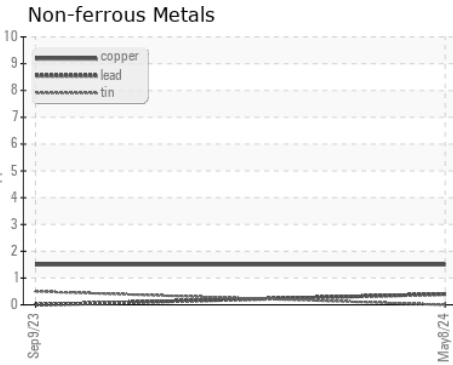
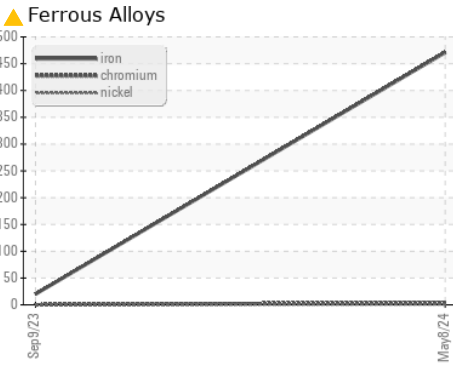


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 220	▲ 274.5	223	---

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. : WC0823593 **Received** : 20 May 2024
Lab Number : 06185295 **Tested** : 29 May 2024
Unique Number : 11036621 **Diagnosed** : 29 May 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: KF)

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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