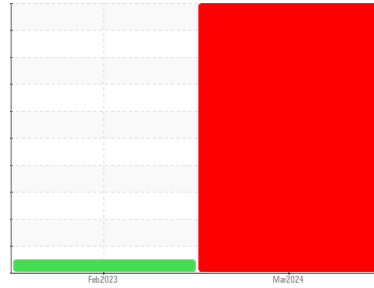




PROBLEM SUMMARY

Sample Rating Trend



WEAR



Machine Id

HC2227

Component

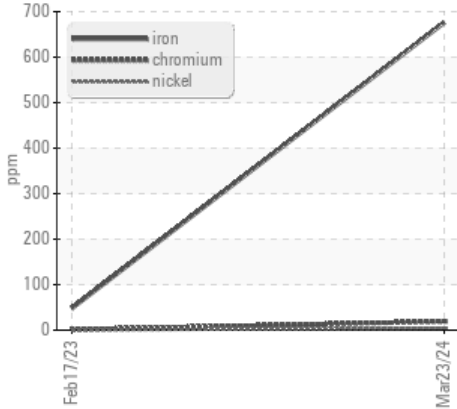
1 Winch

Fluid

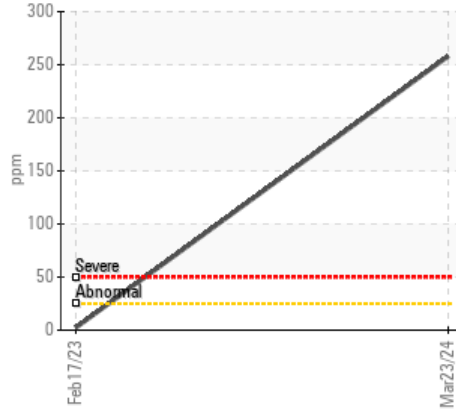
GEAR OIL ISO 220 (--- GAL)

COMPONENT CONDITION SUMMARY

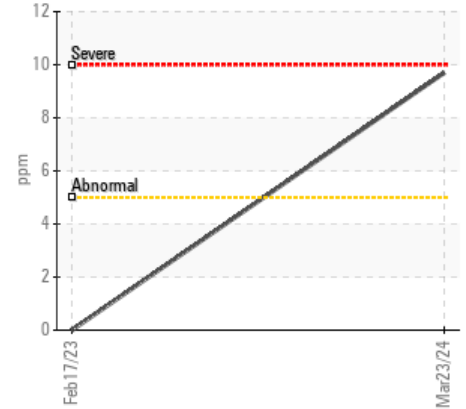
▲ Ferrous Alloys



▲ Silicon (ppm)



● Aluminum (ppm)



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	---
Iron	ppm	ASTM D5185m	>150	▲ 676	48	---
Chromium	ppm	ASTM D5185m	>10	▲ 19	1	---
Silicon	ppm	ASTM D5185m	>25	▲ 258	2	---

Customer Id: BUCGRA

Sample No.: WC0873513

Lab Number: 06134216

Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:

Sean Felton +1 919-379-4092

sfelton@wearcheckusa.com

To change component or sample information:

Customer Service +1 1-800-237-1369

customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS

NORMAL



17 Feb 2023 Diag: Don Baldrige

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

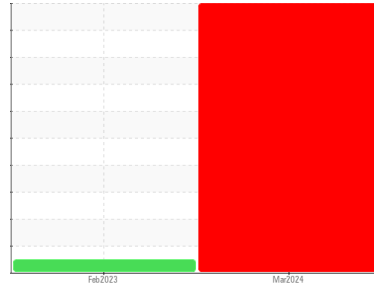
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
HC2227
 Component
1 Winch
 Fluid
GEAR OIL ISO 220 (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check all areas where dirt can enter the system. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

▲ Wear

Gear wear is indicated.

▲ Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0873513	WC0761762	---
Sample Date	Client Info		23 Mar 2024	17 Feb 2023	---
Machine Age	hrs	Client Info	1834	1506	---
Oil Age	hrs	Client Info	1000	1000	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			SEVERE	NORMAL	---

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	▲ 676	48	---
Chromium	ppm	ASTM D5185m >10	▲ 19	1	---
Nickel	ppm	ASTM D5185m >10	● 5	0	---
Titanium	ppm	ASTM D5185m	2	0	---
Silver	ppm	ASTM D5185m	0	0	---
Aluminum	ppm	ASTM D5185m >5	● 10	0	---
Lead	ppm	ASTM D5185m >15	<1	0	---
Copper	ppm	ASTM D5185m >80	4	<1	---
Tin	ppm	ASTM D5185m	0	0	---
Vanadium	ppm	ASTM D5185m	<1	0	---
Cadmium	ppm	ASTM D5185m	<1	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	11	8	---
Barium	ppm	ASTM D5185m 15	2	0	---
Molybdenum	ppm	ASTM D5185m 15	1	<1	---
Manganese	ppm	ASTM D5185m	8	<1	---
Magnesium	ppm	ASTM D5185m 50	4	<1	---
Calcium	ppm	ASTM D5185m 50	92	5	---
Phosphorus	ppm	ASTM D5185m 350	582	34	---
Zinc	ppm	ASTM D5185m 100	166	14	---
Sulfur	ppm	ASTM D5185m 12500	7212	2082	---

CONTAMINANTS

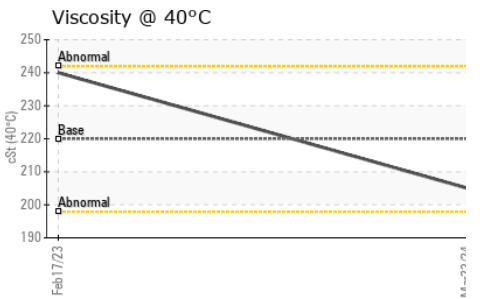
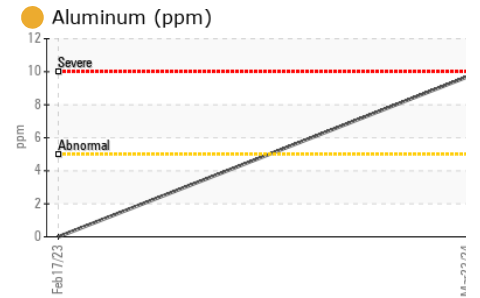
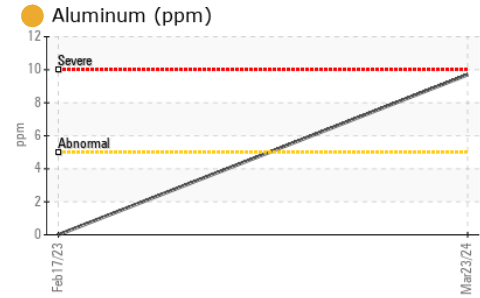
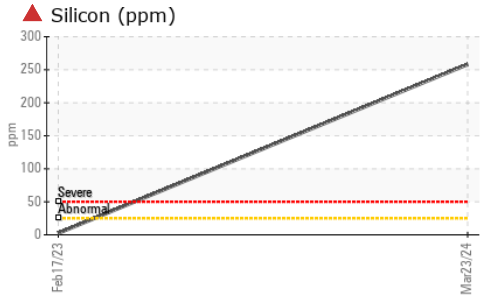
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	▲ 258	2	---
Sodium	ppm	ASTM D5185m	10	7	---
Potassium	ppm	ASTM D5185m >20	8	3	---

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	NORML	NORML	---
Odor	scalar	*Visual NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual >0.2	NEG	NEG	---
Free Water	scalar	*Visual	NEG	NEG	---



OIL ANALYSIS REPORT

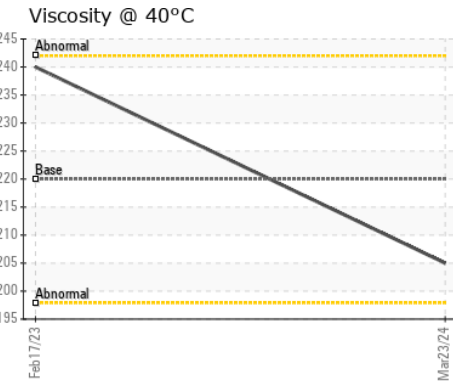
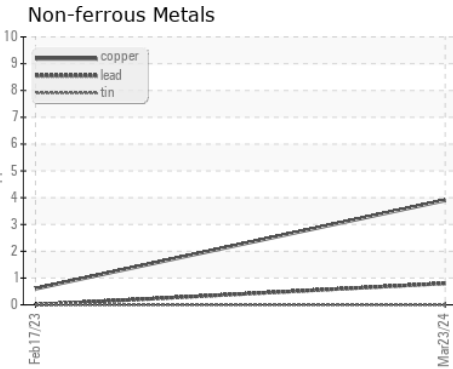
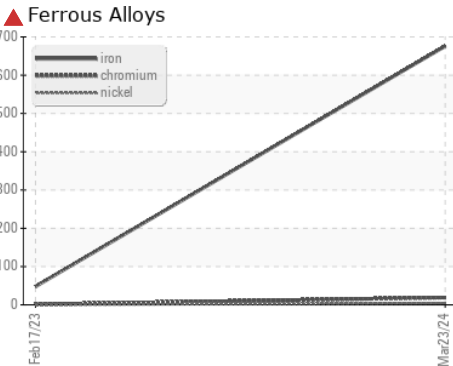


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 220	205	240	---

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. : WC0873513
Lab Number : 06134216
Unique Number : 10953681
Test Package : CONST

Received : 29 Mar 2024
Tested : 01 Apr 2024
Diagnosed : 03 Apr 2024 - Sean Felton

BUCKNER HEAVY LIFT
 4732 NC 54 EAST
 GRAHAM, NC
 US 27253-9215

Contact: MICHAEL LAWSON
 michael@bucknercompanies.com
 T: (336)376-8888
 F: (336)376-4090

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)