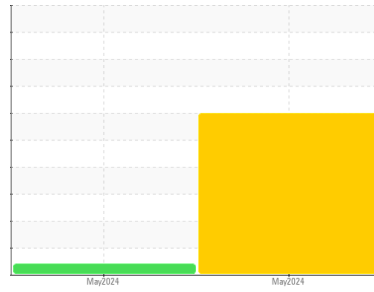




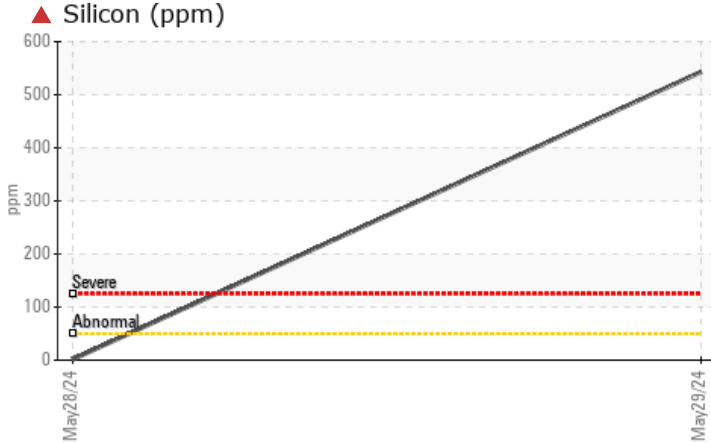
PROBLEM SUMMARY

Machine Id
HOMO 2
 Component
Gearbox
 Fluid
GEAR OIL FG ISO 220 (--- GAL)

Sample Rating Trend



COMPONENT CONDITION SUMMARY



RECOMMENDATION

This is a baseline read-out on the submitted sample.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ATTENTION	---
Silicon	ppm	ASTM D5185m	>50	▲ 543	1	---
Silt	scalar	*Visual	NONE	▲ MODER	NONE	---
Debris	scalar	*Visual	NONE	▲ HEAVY	NONE	---
Emulsified Water	scalar	*Visual	>0.2	▲ 0.2%	0.2%	---

Customer Id: CARLAKMI
 Sample No.: USP0012861
 Lab Number: 06194566
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

VISCOSITY



28 May 2024 Diag: Doug Bogart

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 amount and size of particulates present in the system are acceptable. The oil viscosity is lower than normal. Confirmed. The AN level is acceptable for this fluid.

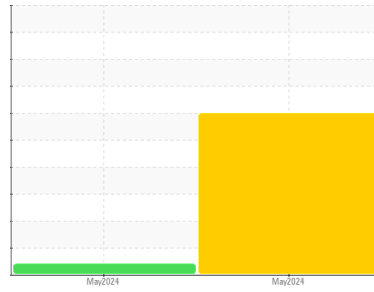
view report





OIL ANALYSIS REPORT

Sample Rating Trend



DIRT



Machine Id
HOMO 2
 Component
Gearbox
 Fluid
GEAR OIL FG ISO 220 (--- GAL)

DIAGNOSIS

▲ Recommendation

This is a baseline read-out on the submitted sample.

Wear

All component wear rates are normal.

▲ Contamination

High concentration of visible dirt/debris present in the oil. There is a moderate amount of visible silt present in the sample. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition

The oil is no longer serviceable.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USP0012861	USP0012862	---
Sample Date	Client Info		29 May 2024	28 May 2024	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			SEVERE	ATTENTION	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>200	60	7	---
Chromium	ppm	ASTM D5185m	>15	<1	0	---
Nickel	ppm	ASTM D5185m	>15	<1	0	---
Titanium	ppm	ASTM D5185m		0	<1	---
Silver	ppm	ASTM D5185m		0	<1	---
Aluminum	ppm	ASTM D5185m	>25	<1	<1	---
Lead	ppm	ASTM D5185m	>100	0	<1	---
Copper	ppm	ASTM D5185m	>200	<1	<1	---
Tin	ppm	ASTM D5185m	>25	<1	<1	---
Vanadium	ppm	ASTM D5185m		0	<1	---
Cadmium	ppm	ASTM D5185m		<1	<1	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	5	11	0	---
Barium	ppm	ASTM D5185m	5	<1	<1	---
Molybdenum	ppm	ASTM D5185m	5	0	0	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m	5	<1	<1	---
Calcium	ppm	ASTM D5185m	12	<1	0	---
Phosphorus	ppm	ASTM D5185m	400	342	568	---
Zinc	ppm	ASTM D5185m	12	29	0	---
Sulfur	ppm	ASTM D5185m	750	339	678	---
Lithium	ppm	ASTM D5185m		6	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>50	▲ 543	1	---
Sodium	ppm	ASTM D5185m		10	2	---
Potassium	ppm	ASTM D5185m	>20	3	2	---
Water	%	ASTM D6304	>0.2	NEG	0.119	---
ppm Water	ppm	ASTM D6304	>2000	---	1190	---

FLUID CLEANLINESS

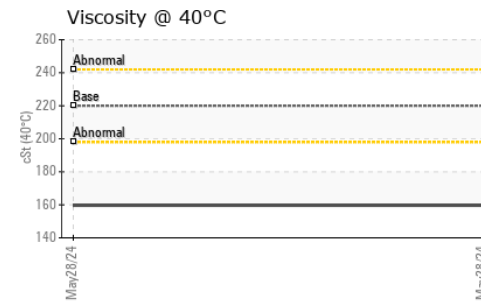
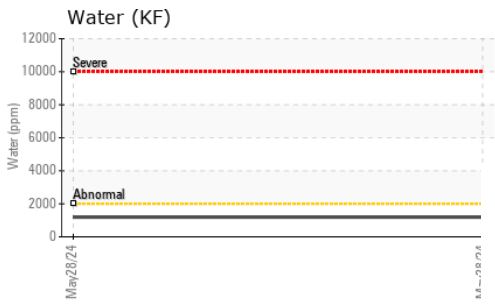
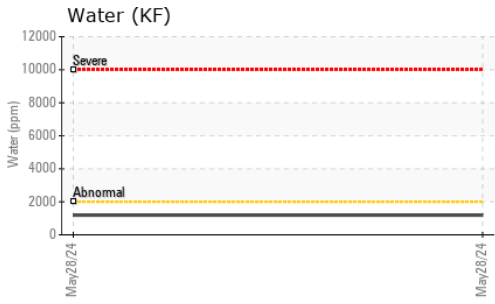
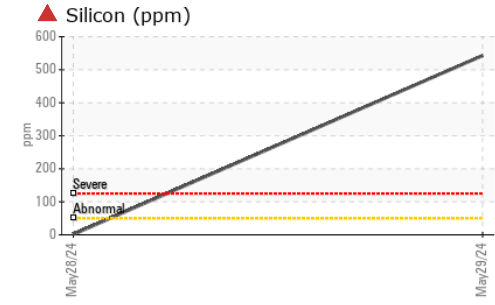
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	---	722	---
Particles >6µm	ASTM D7647	>5000	---	393	---
Particles >14µm	ASTM D7647	>640	---	67	---
Particles >21µm	ASTM D7647	>160	---	23	---
Particles >38µm	ASTM D7647	>40	---	3	---
Particles >71µm	ASTM D7647	>10	---	0	---
Oil Cleanliness	ISO 4406 (c)	>21/19/16	---	17/16/13	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.05	---	0.33	---



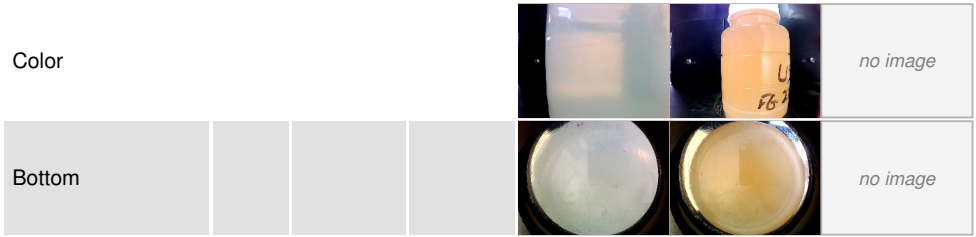
OIL ANALYSIS REPORT



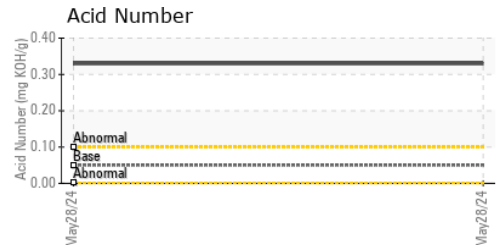
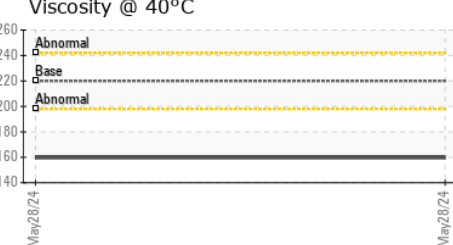
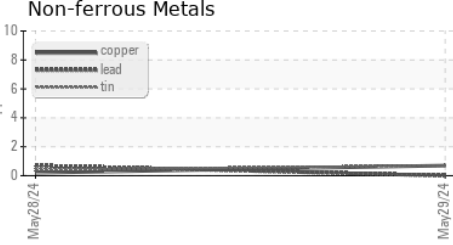
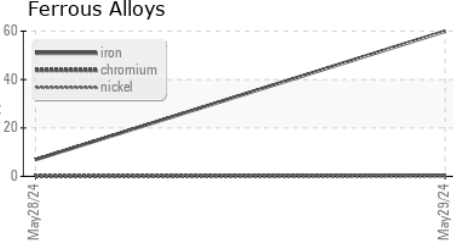
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	▲ MODER	NONE	---
Debris	scalar	*Visual	▲ HEAVY	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 220	---	● 159.7	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0012861 **Received** : 29 May 2024
Lab Number : 06194566 **Tested** : 12 Jun 2024
Unique Number : 11056689 **Diagnosed** : 12 Jun 2024 - Doug Bogart
Test Package : IND 2

CARGILL
 3100 BONAZA RD
 LAKE ODESSA, MI
 US 48849
 Contact: Service Manager

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)