



OIL ANALYSIS REPORT

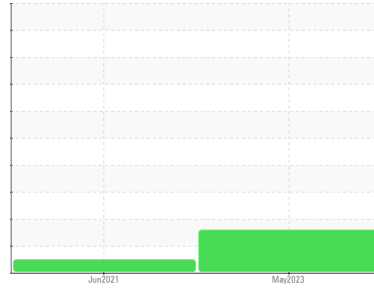
Sample Rating Trend

VISUAL METAL

Machine Id
940572

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)



DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0778173	WC0585226	---
Sample Date	Client Info		31 May 2023	29 Jun 2021	---
Machine Age	hrs	Client Info	0	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		Not Changed	Not Changed	---
Sample Status			ABNORMAL	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	17	15	---
Chromium	ppm	ASTM D5185m >10	2	1	---
Nickel	ppm	ASTM D5185m >10	<1	<1	---
Titanium	ppm	ASTM D5185m	0	<1	---
Silver	ppm	ASTM D5185m	0	<1	---
Aluminum	ppm	ASTM D5185m >10	2	3	---
Lead	ppm	ASTM D5185m >10	0	0	---
Copper	ppm	ASTM D5185m >75	17	17	---
Tin	ppm	ASTM D5185m >10	<1	<1	---
Antimony	ppm	ASTM D5185m	---	0	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	2	6	---
Barium	ppm	ASTM D5185m 5	0	0	---
Molybdenum	ppm	ASTM D5185m 5	0	2	---
Manganese	ppm	ASTM D5185m	<1	<1	---
Magnesium	ppm	ASTM D5185m 25	1	0	---
Calcium	ppm	ASTM D5185m 200	113	103	---
Phosphorus	ppm	ASTM D5185m 300	356	343	---
Zinc	ppm	ASTM D5185m 370	423	392	---
Sulfur	ppm	ASTM D5185m 2500	2516	2237	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	7	6	---
Sodium	ppm	ASTM D5185m	<1	2	---
Potassium	ppm	ASTM D5185m >20	<1	0	---

FLUID CLEANLINESS

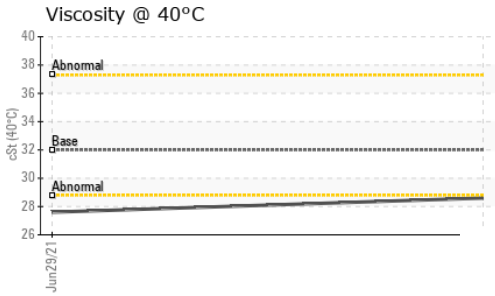
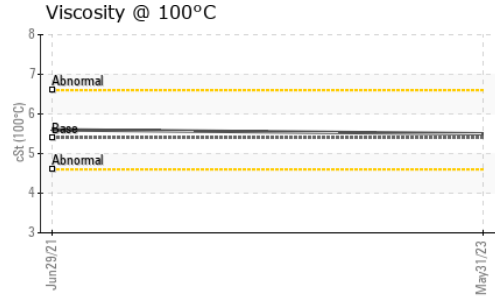
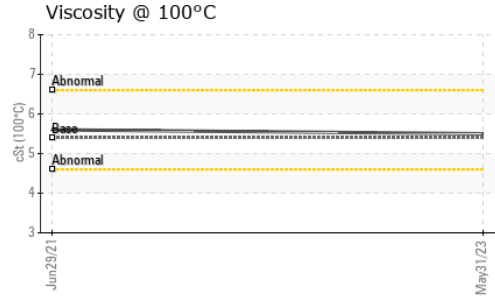
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	---	1268	---
Particles >6µm	ASTM D7647	>1300	---	206	---
Particles >14µm	ASTM D7647	>160	---	19	---
Particles >21µm	ASTM D7647	>40	---	6	---
Particles >38µm	ASTM D7647	>10	---	0	---
Particles >71µm	ASTM D7647	>3	---	0	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	---	17/15/11	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.57	0.31	0.330	---



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VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	▲ MODER	NONE	---
Yellow Metal	scalar	*Visual NONE	NONE	NONE	---
Precipitate	scalar	*Visual NONE	NONE	NONE	---
Silt	scalar	*Visual NONE	NONE	NONE	---
Debris	scalar	*Visual NONE	▲ MODER	NONE	---
Sand/Dirt	scalar	*Visual NONE	NONE	NONE	---
Appearance	scalar	*Visual NORML	NORML	NORML	---
Odor	scalar	*Visual NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual >0.1	NEG	NEG	---
Free Water	scalar	*Visual	NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	32	28.6	27.6	---
Visc @ 100°C	cSt ASTM D445	5.4	5.5	5.6	---
Viscosity Index (VI)	Scale ASTM D2270	102	132	147	---

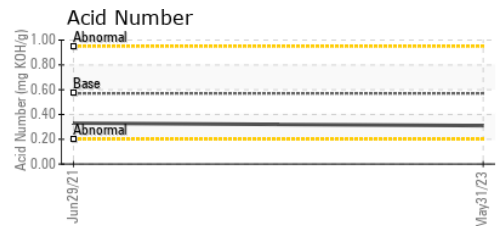
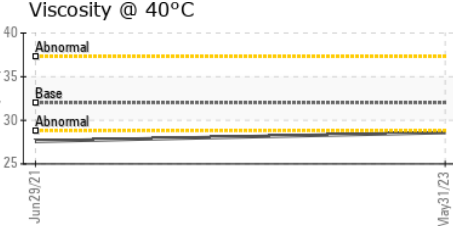
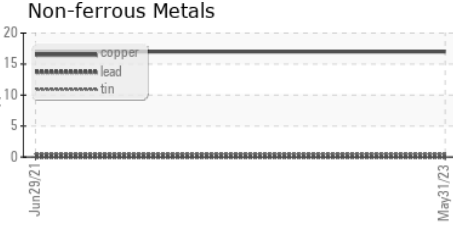
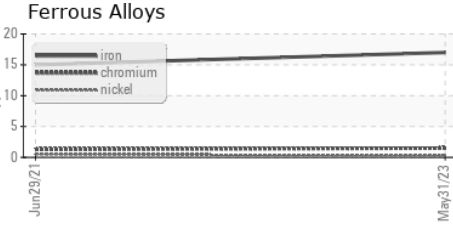
SAMPLE IMAGES

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

no image

no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0778173 **Received** : 14 Aug 2023
Lab Number : 05924226 **Diagnosed** : 15 Aug 2023
Unique Number : 10604173 **Diagnostician** : Don Baldrige
Test Package : MOB 2 (Additional Tests: KV100, VI)

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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)