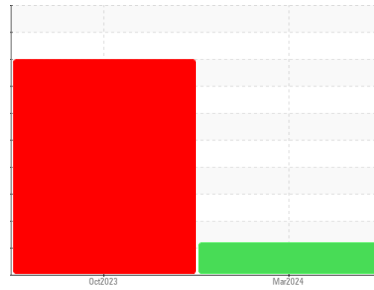




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

AMR-Manchester

Machine Id

646242 144845

Component

Hydraulic System

Fluid

LIEBHERR HYDRAULIC HVI (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			DJJ0013974	DJJ0003563	---
Sample Date	Client Info			26 Mar 2024	09 Oct 2023	---
Machine Age	hrs	Client Info		1529	991	---
Oil Age	hrs	Client Info		0	991	---
Oil Changed	Client Info			Not Chngd	Not Chngd	---
Sample Status				ATTENTION	SEVERE	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	NEG	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	10	8	---
Chromium	ppm	ASTM D5185m	>10	1	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>10	1	<1	---
Lead	ppm	ASTM D5185m	>10	2	0	---
Copper	ppm	ASTM D5185m	>75	7	3	---
Tin	ppm	ASTM D5185m	>10	1	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
Cadmium	ppm	ASTM D5185m		<1	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		<1	0	---
Molybdenum	ppm	ASTM D5185m		1	0	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m	7	3	0	---
Calcium	ppm	ASTM D5185m	1500	1137	1280	---
Phosphorus	ppm	ASTM D5185m	750	607	545	---
Zinc	ppm	ASTM D5185m	820	622	704	---
Sulfur	ppm	ASTM D5185m	4000	3822	4031	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	4	4	---
Sodium	ppm	ASTM D5185m		0	2	---
Potassium	ppm	ASTM D5185m	>20	2	1	---

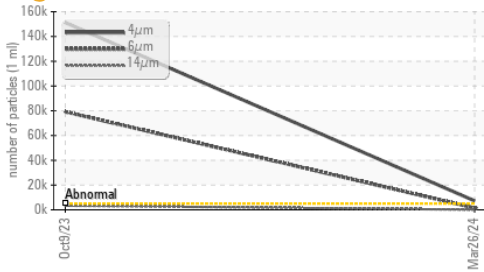
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	7234	▲ 151229	---
Particles >6µm		ASTM D7647	>1300	1453	▲ 79153	---
Particles >14µm		ASTM D7647	>160	73	▲ 3313	---
Particles >21µm		ASTM D7647	>40	12	▲ 562	---
Particles >38µm		ASTM D7647	>10	0	▲ 23	---
Particles >71µm		ASTM D7647	>3	0	▲ 1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/18/13	▲ 24/23/19	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.2	1.12	1.22	---

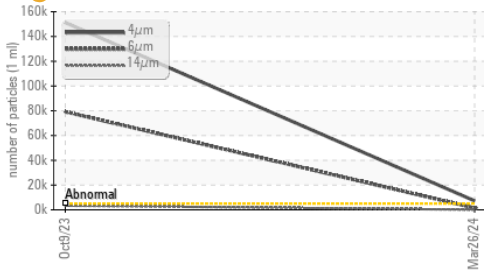


OIL ANALYSIS REPORT

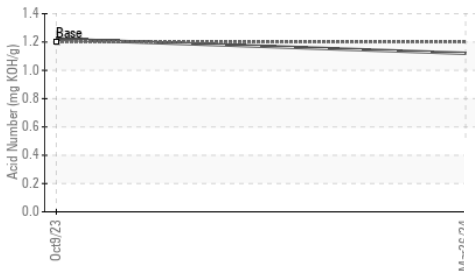
Particle Trend



Particle Trend



Acid Number



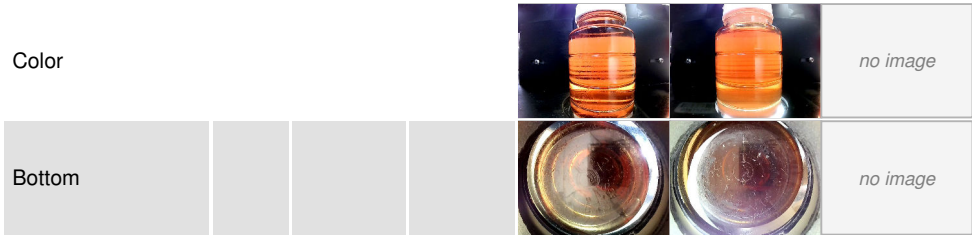
Viscosity @ 40°C



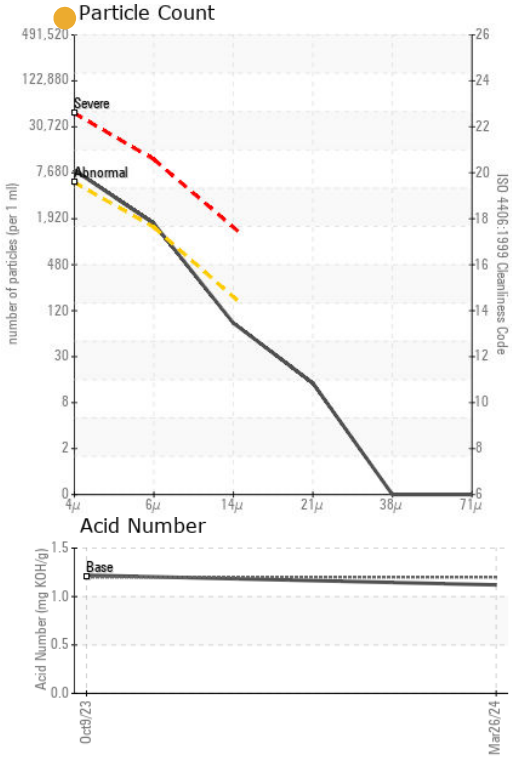
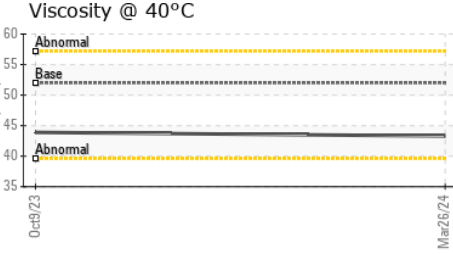
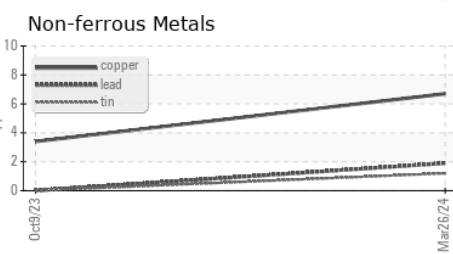
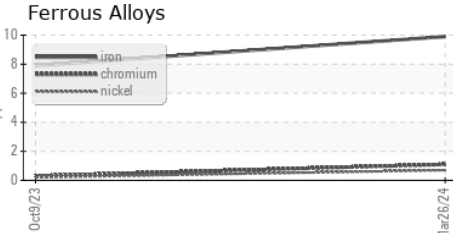
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 52	43.3	43.9	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0013974
Lab Number : 06147237
Unique Number : 10977315
Test Package : MOBCE

ADVANTAGE METALS RECYCLING - MANCHESTER
 3005 MANCHESTER TRAFFICWAY
 KANSAS CITY, MO
 US 64129

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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