



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR A918 110890-1184
Component
Hydraulic System
Fluid
DIESEL ENGINE OIL SAE 5W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0273350	LHMC124478	---
Sample Date		Client Info		01 May 2024	16 Sep 2023	---
Machine Age	hrs	Client Info		6322	3968	---
Oil Age	hrs	Client Info		6322	0	---
Filter Age	hrs	Client Info		1000	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Not Changd	---
Sample Status				NORMAL	ABNORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	7	5	---
Chromium	ppm	ASTM D5185m	>40	<1	0	---
Nickel	ppm	ASTM D5185m	>10	0	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m	>5	2	<1	---
Lead	ppm	ASTM D5185m	>5	1	<1	---
Copper	ppm	ASTM D5185m	>15	8	6	---
Tin	ppm	ASTM D5185m	>5	<1	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

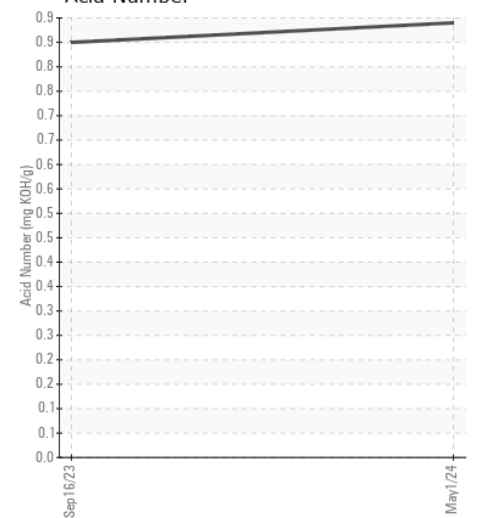
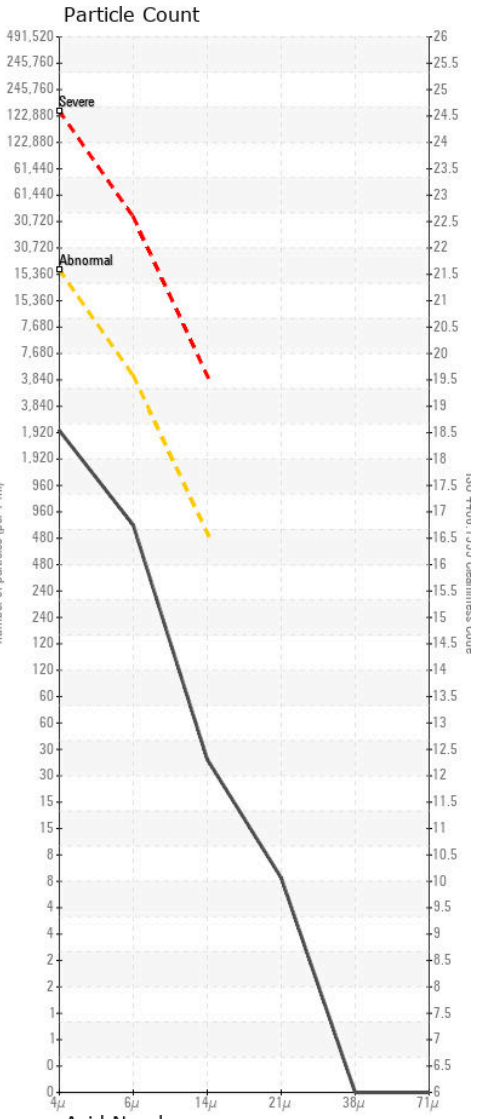
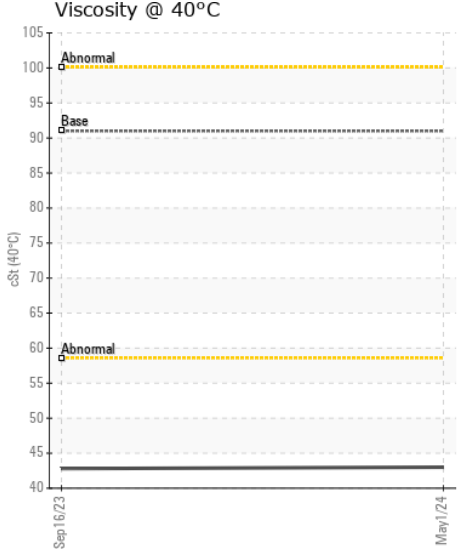
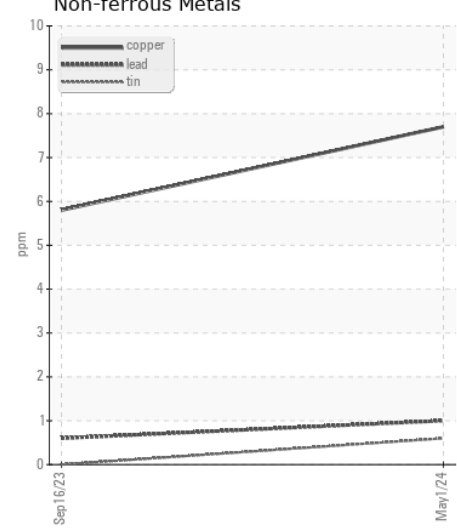
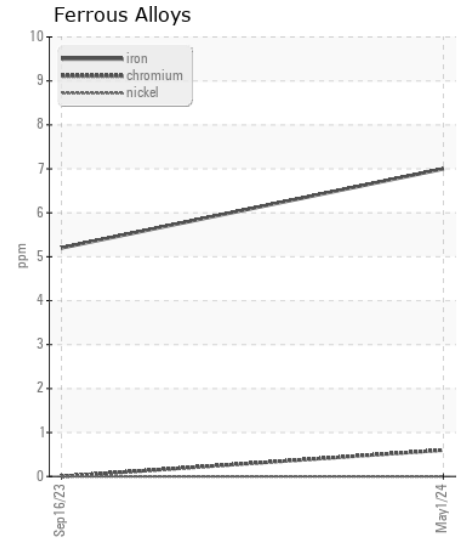
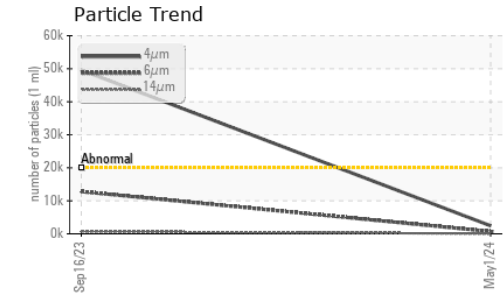
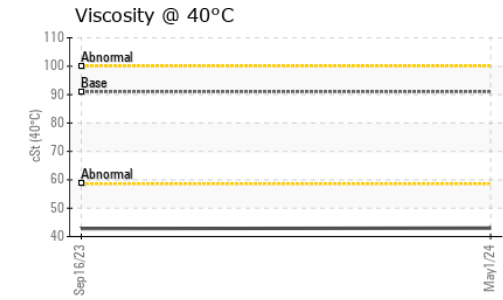
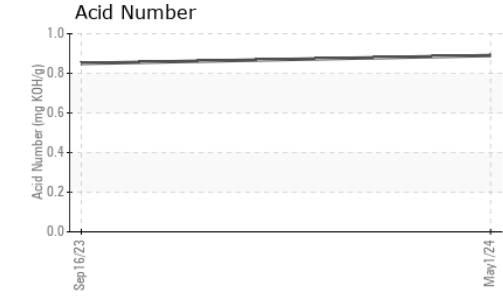
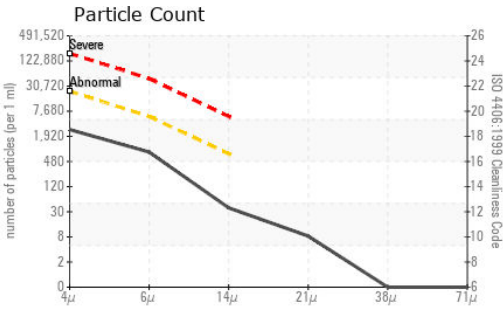
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>15	3	2	---
Potassium	ppm	ASTM D5185m	>20	3	0	---
Water		WC Method	>0.1	NEG	NEG	---
Particles >4µm		ASTM D7647	>20000	2439	▲ 49604	---
Particles >6µm		ASTM D7647	>5000	707	▲ 12797	---
Particles >14µm		ASTM D7647	>640	33	● 698	---
Particles >21µm		ASTM D7647	>160	7	164	---
Particles >38µm		ASTM D7647	>40	0	6	---
Particles >71µm		ASTM D7647	>10	0	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	18/17/12	▲ 23/21/17	---
Silt	scalar	*Visual	NONE	NONE	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	>0.1	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>44	0	2	---
Boron	ppm	ASTM D5185m	250	<1	0	---
Barium	ppm	ASTM D5185m	10	2	0	---
Molybdenum	ppm	ASTM D5185m	100	3	2	---
Manganese	ppm	ASTM D5185m		<1	0	---
Magnesium	ppm	ASTM D5185m	450	11	12	---
Calcium	ppm	ASTM D5185m	3000	1111	1096	---
Phosphorus	ppm	ASTM D5185m	1150	621	523	---
Zinc	ppm	ASTM D5185m	1350	677	627	---
Sulfur	ppm	ASTM D5185m	4250	3406	2992	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.89	0.85	---
Visc @ 40°C	cSt	ASTM D445	91	43.0	42.8	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LH0273350 **Received** : 13 May 2024
Lab Number : 06177673 **Tested** : 14 May 2024
Unique Number : 11023726 **Diagnosed** : 15 May 2024 - Don Baldrige
Test Package : CONST

UNITED SCRAP
 1545 S CICERO AVE
 CHICAGO, IL
 US 60804
 Contact:

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)