



LIEBHERR

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
ABNORMAL
NORMAL

Machine Id
NO UNIT LH078917

Component
Hydraulic System

Fluid
LIEBHERR HYDRAULIC HVI (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.

WEAR

Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal.

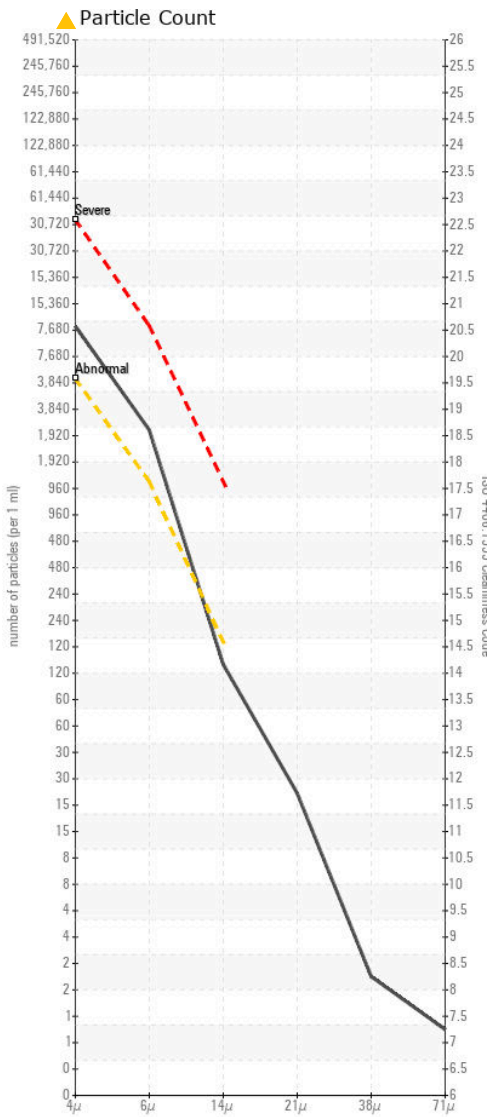
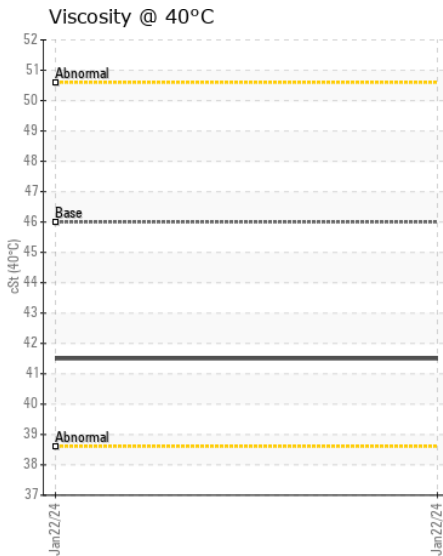
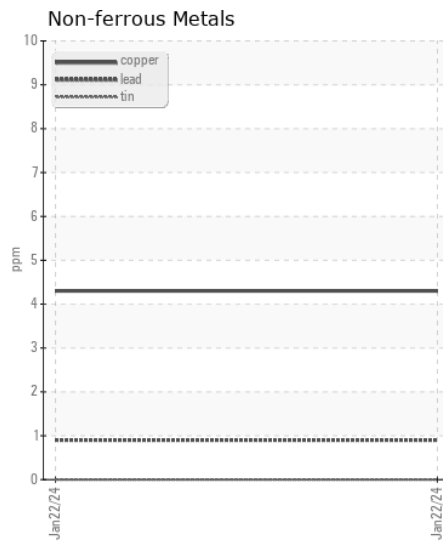
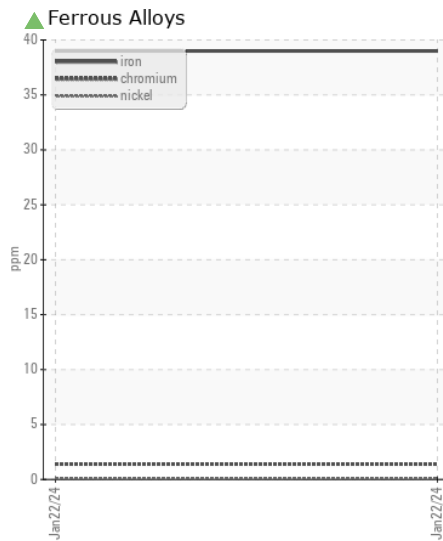
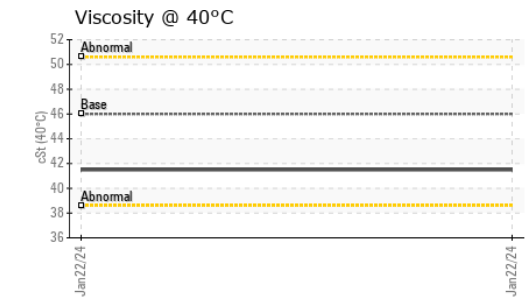
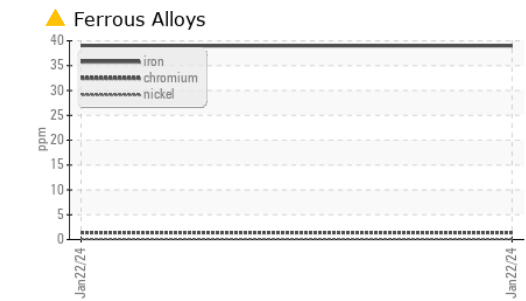
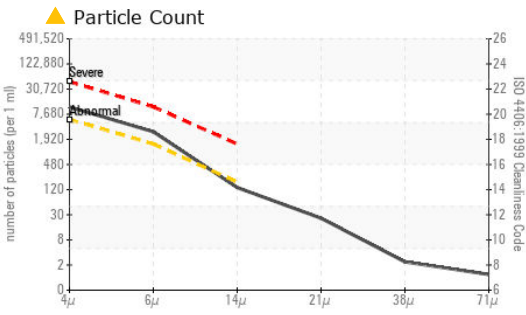
CONTAMINATION

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

FLUID CONDITION

The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278917	---	---
Sample Date		Client Info		22 Jan 2024	---	---
Machine Age	hrs	Client Info		0	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---
PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>20	▲ 39	---	---
Chromium	ppm	ASTM D5185(m)	>20	1	---	---
Nickel	ppm	ASTM D5185(m)	>20	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		<1	---	---
Aluminum	ppm	ASTM D5185(m)	>20	<1	---	---
Lead	ppm	ASTM D5185(m)	>20	<1	---	---
Copper	ppm	ASTM D5185(m)	>20	4	---	---
Tin	ppm	ASTM D5185(m)	>20	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>15	2	---	---
Potassium	ppm	ASTM D5185(m)	>20	1	---	---
Water		WC Method	>0.05	NEG	---	---
Particles >4µm		ASTM D7647	>5000	▲ 9948	---	---
Particles >6µm		ASTM D7647	>1300	▲ 2553	---	---
Particles >14µm		ASTM D7647	>160	119	---	---
Particles >21µm		ASTM D7647	>40	22	---	---
Particles >38µm		ASTM D7647	>10	2	---	---
Particles >71µm		ASTM D7647	>3	1	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 20/19/14	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.05	NEG	---	---
Sodium	ppm	ASTM D5185(m)		3	---	---
Boron	ppm	ASTM D5185(m)	0	2	---	---
Barium	ppm	ASTM D5185(m)	0	0	---	---
Molybdenum	ppm	ASTM D5185(m)	0	<1	---	---
Manganese	ppm	ASTM D5185(m)	<1	<1	---	---
Magnesium	ppm	ASTM D5185(m)	7	21	---	---
Calcium	ppm	ASTM D5185(m)	1317	1039	---	---
Phosphorus	ppm	ASTM D5185(m)	611	564	---	---
Zinc	ppm	ASTM D5185(m)	696	654	---	---
Sulfur	ppm	ASTM D5185(m)	2574	4759	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	46	41.5	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0278917 **Received** : 23 Jan 2024
Lab Number : 02610584 **Diagnosed** : 24 Jan 2024
Unique Number : 5711670 **Diagnostician** : Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ, PrtCount)

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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