



LIEBHERR

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH22M 137772-1525
Component
Front Right Wheel Hub
Fluid
SAE 75W90 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0232641	---	---
Sample Date		Client Info		28 May 2024	---	---
Machine Age	hrs	Client Info		3213	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		None	---	---
Sample Status				ABNORMAL	---	---

WEAR

Titanium ppm levels are abnormal.

Iron	ppm	ASTM D5185(m)	>650	389	---	---
Chromium	ppm	ASTM D5185(m)	>4	2	---	---
Nickel	ppm	ASTM D5185(m)	>4	0	---	---
Titanium	ppm	ASTM D5185(m)	>4	▲ 14	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>25	13	---	---
Lead	ppm	ASTM D5185(m)	>4	0	---	---
Copper	ppm	ASTM D5185(m)	>60	4	---	---
Tin	ppm	ASTM D5185(m)	>4	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

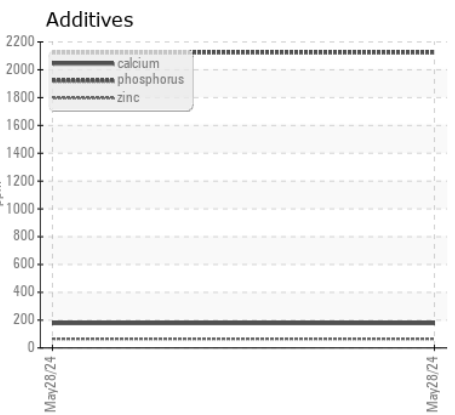
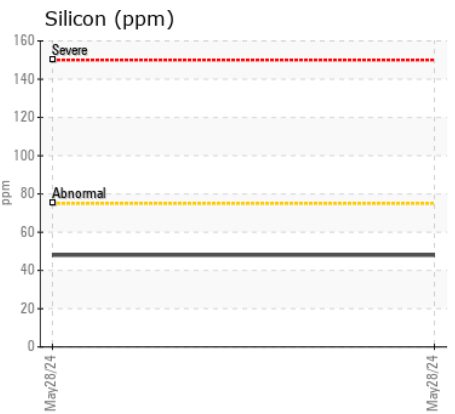
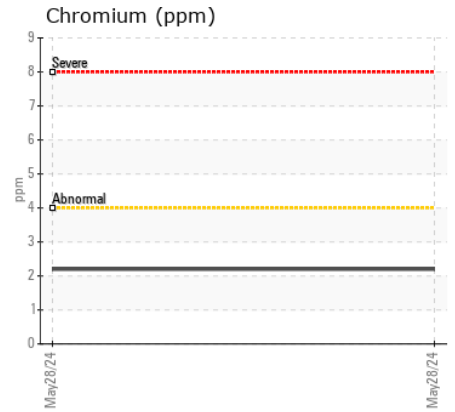
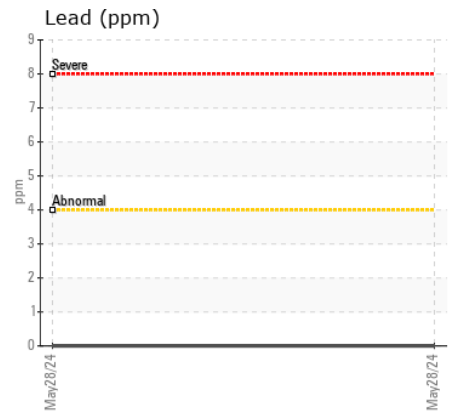
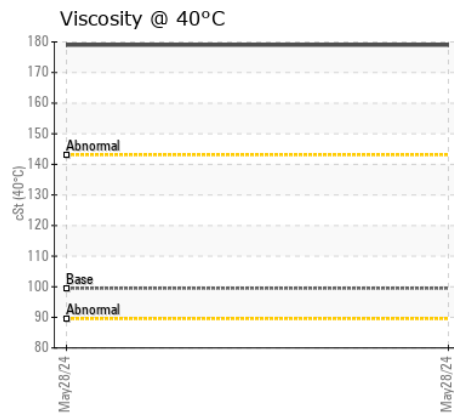
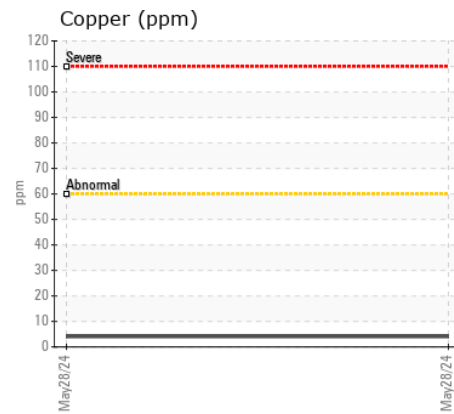
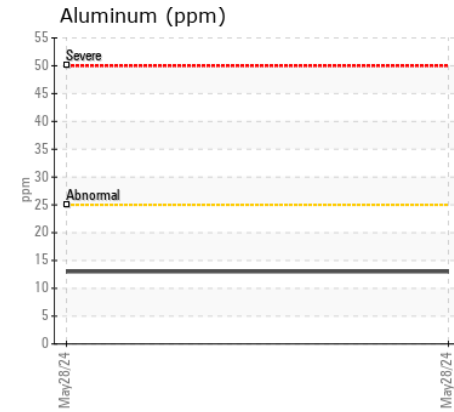
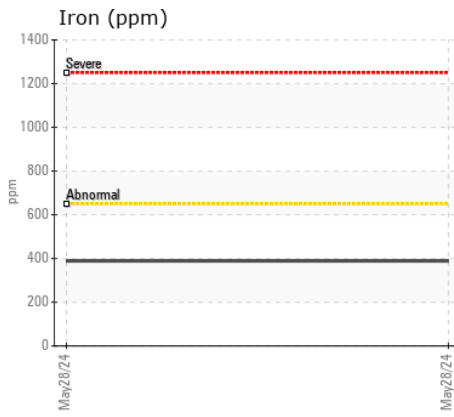
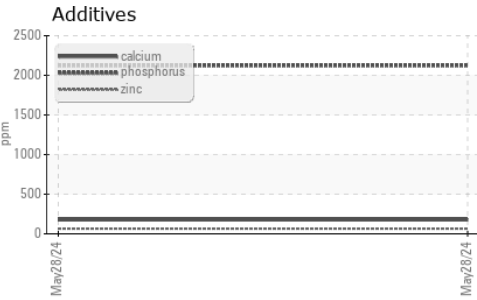
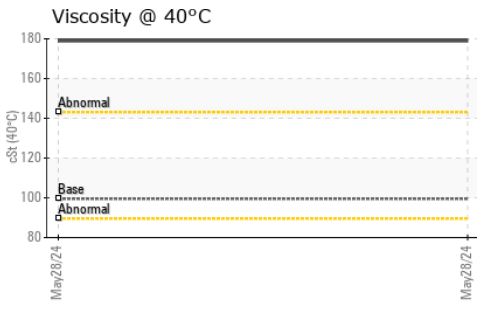
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	48	---	---
Potassium	ppm	ASTM D5185(m)	>20	5	---	---
Water		WC Method	>0.2	NEG	---	---
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*	>0.2	NEG	---	---

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 90 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Sodium	ppm	ASTM D5185(m)		11	---	---
Boron	ppm	ASTM D5185(m)	150	14	---	---
Barium	ppm	ASTM D5185(m)	5	2	---	---
Molybdenum	ppm	ASTM D5185(m)	0	0	---	---
Manganese	ppm	ASTM D5185(m)		4	---	---
Magnesium	ppm	ASTM D5185(m)	0	5	---	---
Calcium	ppm	ASTM D5185(m)	20	177	---	---
Phosphorus	ppm	ASTM D5185(m)	1200	2124	---	---
Zinc	ppm	ASTM D5185(m)	25	65	---	---
Sulfur	ppm	ASTM D5185(m)	22000	24175	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	99.5	179	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0232641 **Received** : 03 Jun 2024
Lab Number : 02639458 **Tested** : 03 Jun 2024
Unique Number : 5788620 **Diagnosed** : 03 Jun 2024 - Kevin Marson
Test Package : MOBCE

Excavation Dolbeau Inc.
 493 - 2ieme Avenue
 Dolbeau-Mistassini, QC
 CA G8L 1V3
 Contact: Service Manager

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.

T:
F: