



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LB20 115079
Component
Crowd Winch Drive
Fluid
GEAR OIL LS 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL LS 80W90. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0274464	---	---
Sample Date		Client Info		07 Jun 2024	---	---
Machine Age	hrs	Client Info		478	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				NORMAL	---	---

WEAR

Metal levels are typical for a new component breaking in.

PQ		ASTM D8184*		833	---	---
Iron	ppm	ASTM D5185(m)	>200	948	---	---
Chromium	ppm	ASTM D5185(m)	>10	14	---	---
Nickel	ppm	ASTM D5185(m)	>10	2	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)		<1	---	---
Lead	ppm	ASTM D5185(m)		0	---	---
Copper	ppm	ASTM D5185(m)		1	---	---
Tin	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

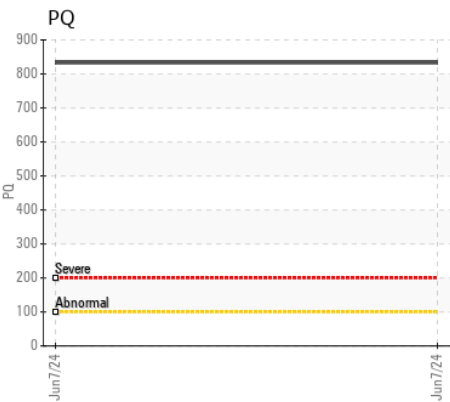
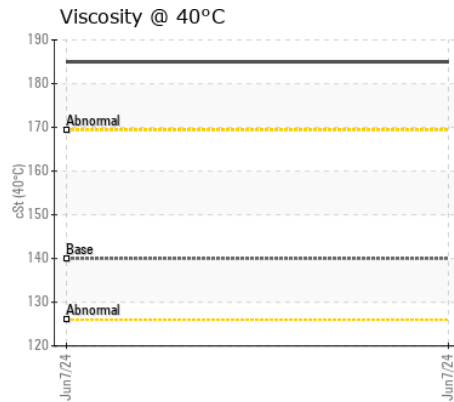
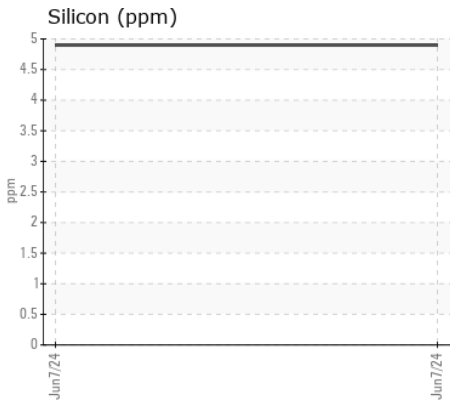
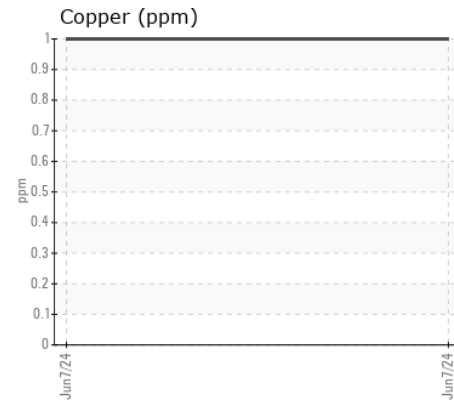
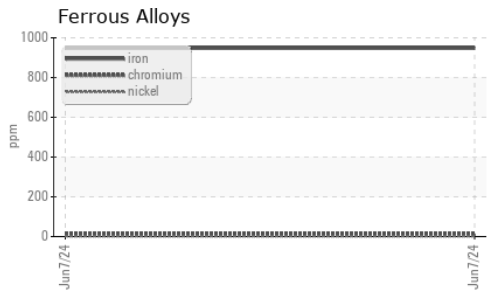
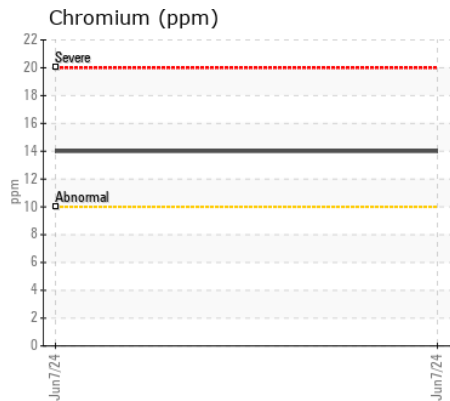
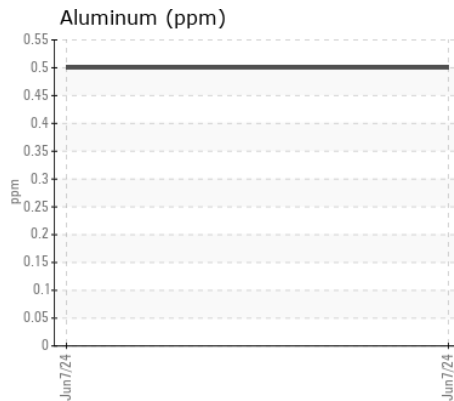
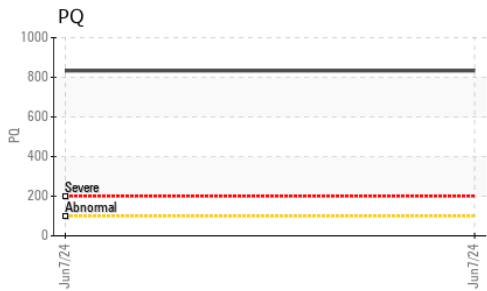
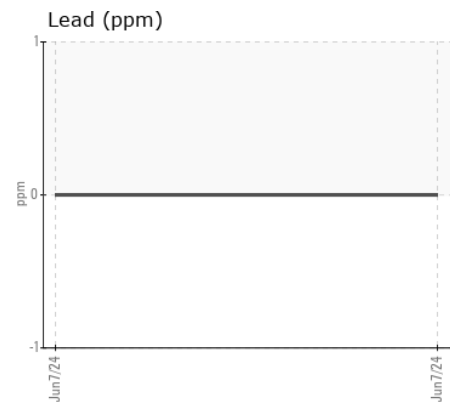
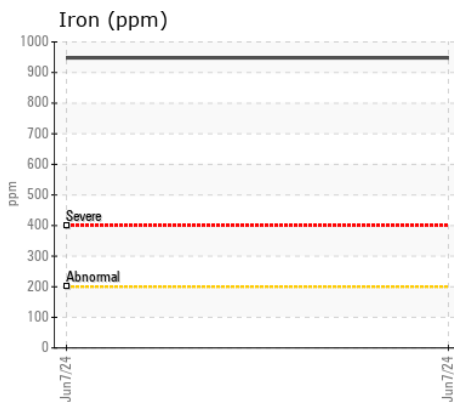
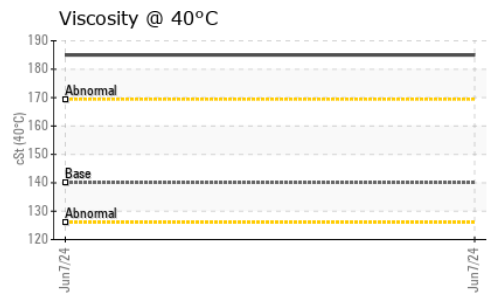
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)		5	---	---
Potassium	ppm	ASTM D5185(m)	>20	2	---	---
Water		WC Method	>0.2	NEG	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	VLITE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		5	---	---
Boron	ppm	ASTM D5185(m)	150	2	---	---
Barium	ppm	ASTM D5185(m)		3	---	---
Molybdenum	ppm	ASTM D5185(m)		0	---	---
Manganese	ppm	ASTM D5185(m)		7	---	---
Magnesium	ppm	ASTM D5185(m)	10	<1	---	---
Calcium	ppm	ASTM D5185(m)	70	73	---	---
Phosphorus	ppm	ASTM D5185(m)	2000	761	---	---
Zinc	ppm	ASTM D5185(m)	50	28	---	---
Sulfur	ppm	ASTM D5185(m)	20000	17244	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	140	185	---	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0274464 **Received** : 10 Jun 2024
Lab Number : 02640841 **Tested** : 11 Jun 2024
Unique Number : 5798380 **Diagnosed** : 11 Jun 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: PQ)

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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