



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LH60M 117099
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (42 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0290937	LH0270185	LH0261437
Sample Date		Client Info		10 Jun 2024	03 Mar 2024	24 Apr 2023
Machine Age	hrs	Client Info		3967	0	1986
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	4	4	4
Chromium	ppm	ASTM D5185(m)	>5	0	0	0
Nickel	ppm	ASTM D5185(m)	>5	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	1	1	1
Lead	ppm	ASTM D5185(m)	>30	<1	<1	<1
Copper	ppm	ASTM D5185(m)	>125	2	1	8
Tin	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

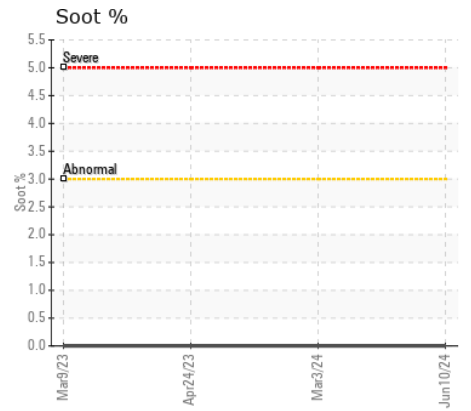
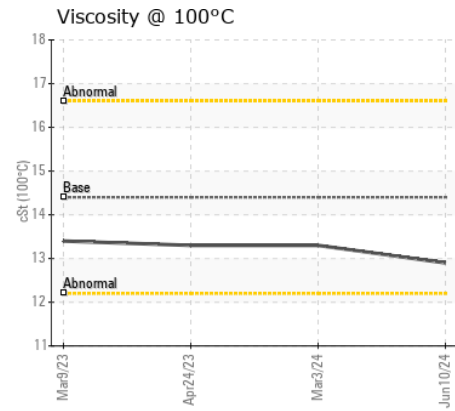
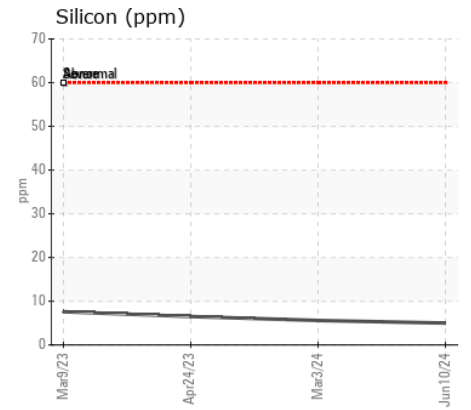
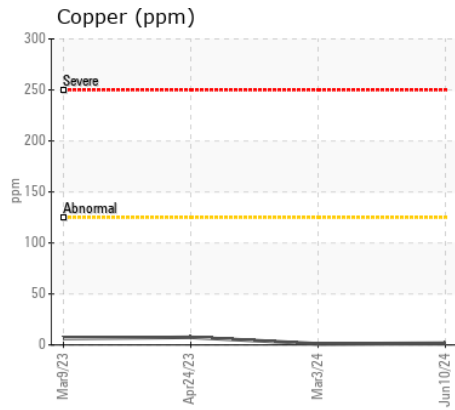
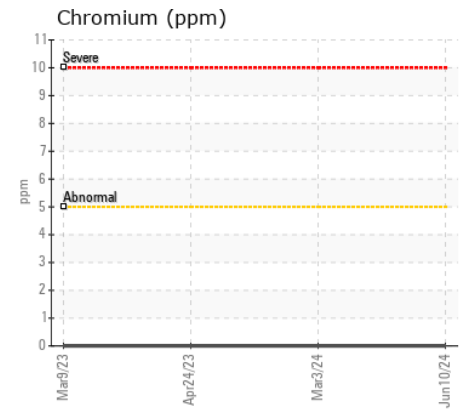
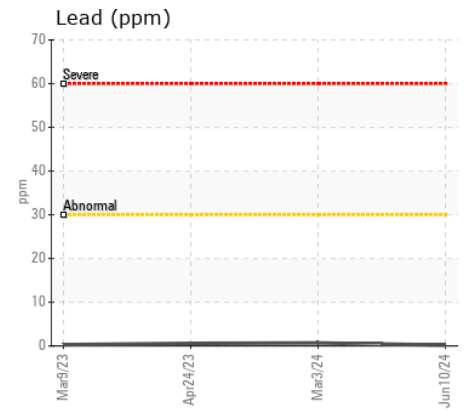
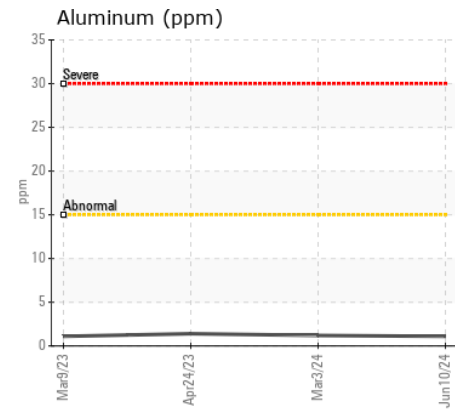
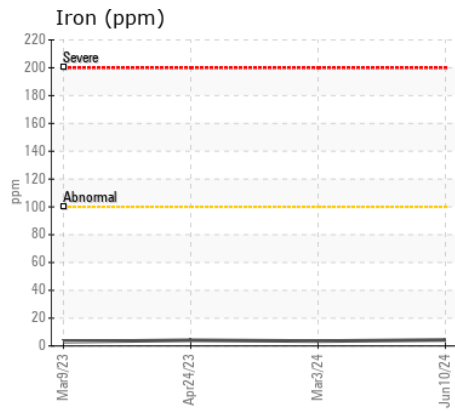
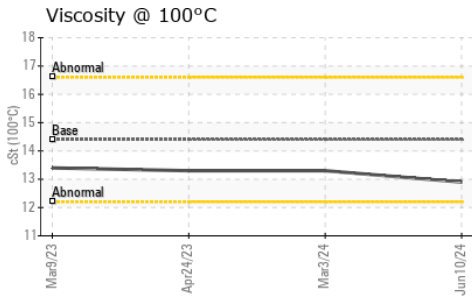
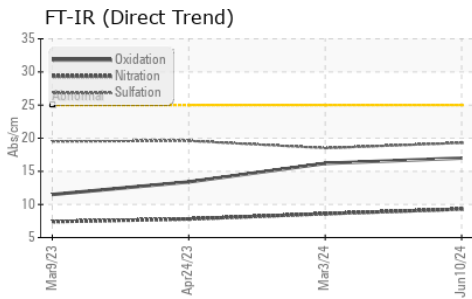
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	5	6	6
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	9.3	8.6	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.3	18.5	19.6
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	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>216	1	1	2
Boron	ppm	ASTM D5185(m)	250	<1	<1	5
Barium	ppm	ASTM D5185(m)	10	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	100	58	56	18
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)	450	980	941	267
Calcium	ppm	ASTM D5185(m)	3000	1072	1066	2083
Phosphorus	ppm	ASTM D5185(m)	1150	1023	1020	989
Zinc	ppm	ASTM D5185(m)	1350	1245	1192	1073
Sulfur	ppm	ASTM D5185(m)	4250	2563	2722	2989
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.0	16.2	13.4
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	12.9	13.3	13.3



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0290937 **Received** : 11 Jun 2024
Lab Number : 02640995 **Tested** : 12 Jun 2024
Unique Number : 5798534 **Diagnosed** : 12 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: VISUAL)

GERDAU AMERISTEEL
 2025 RIVER RD.
 LONDON, ON
 CA N5W 6C4
 Contact: Scott MacDonald

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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