



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR R945 058083-1866
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- 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) DIESEL ENGINE OIL SAE 40. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0291012	LH0278788	---
Sample Date		Client Info		10 Jun 2024	29 Jan 2024	---
Machine Age	hrs	Client Info		913	444	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				NORMAL	NORMAL	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	6	13	---
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>5	0	<1	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)	>3	0	0	---
Aluminum	ppm	ASTM D5185(m)	>15	1	2	---
Lead	ppm	ASTM D5185(m)	>30	3	5	---
Copper	ppm	ASTM D5185(m)	>125	111	155	---
Tin	ppm	ASTM D5185(m)	>5	<1	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

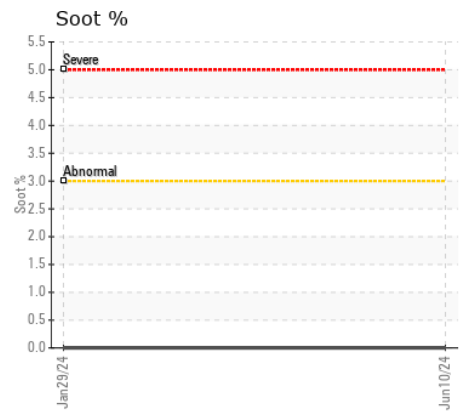
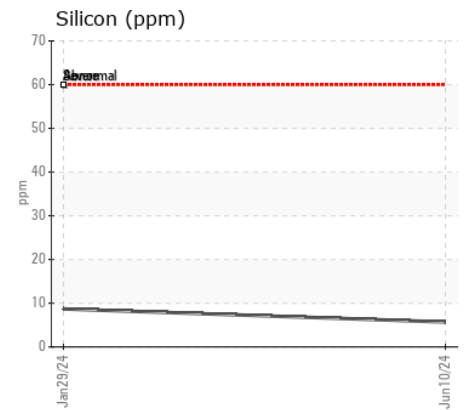
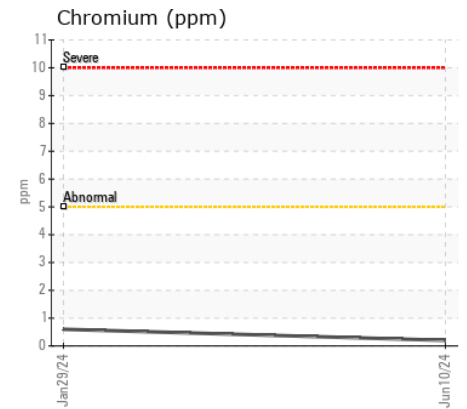
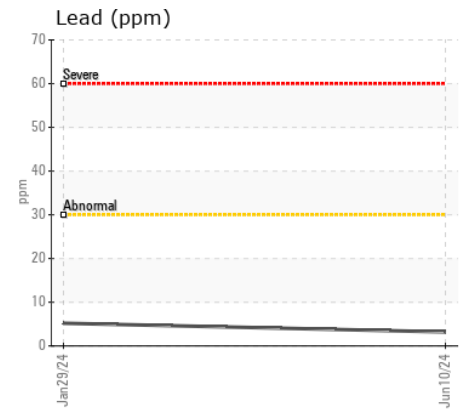
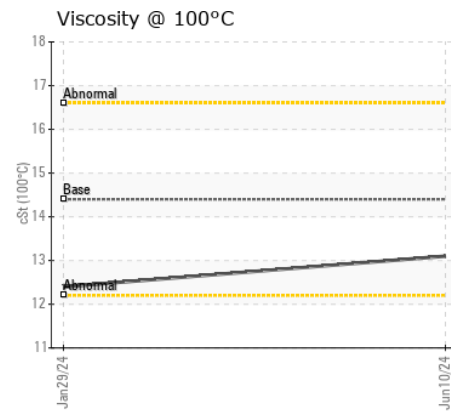
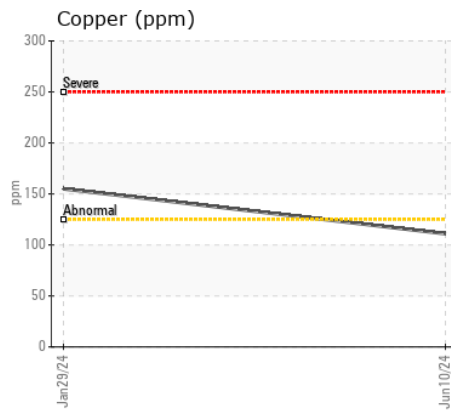
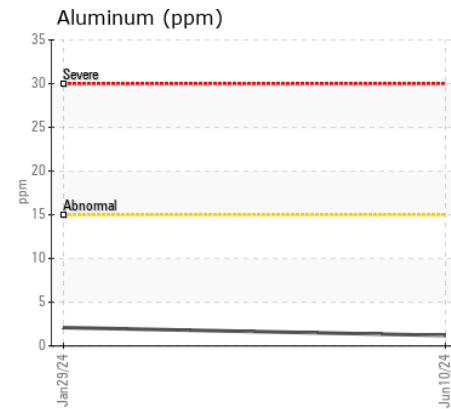
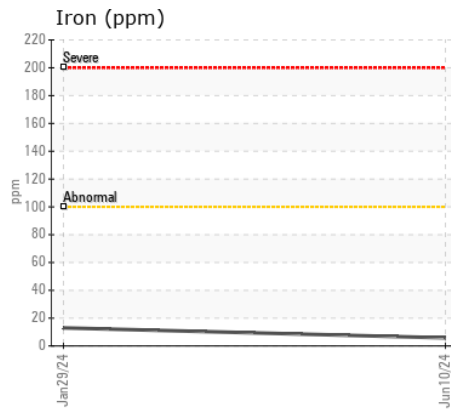
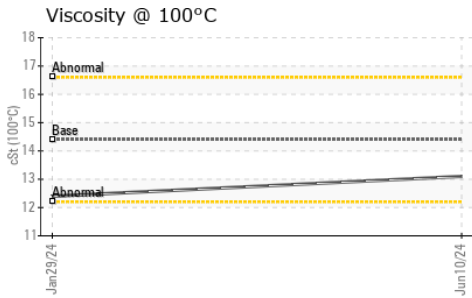
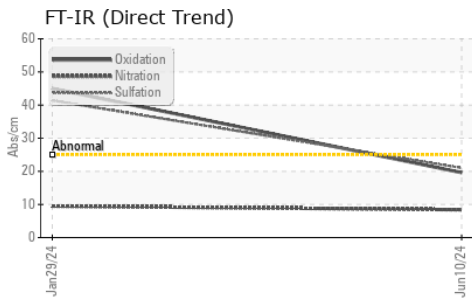
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>60	6	9	---
Potassium	ppm	ASTM D5185(m)	>20	<1	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0	0	---
Nitration	Abs/cm	ASTM D7624*	>20	8.4	9.5	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	21.0	41.4	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)	>216	2	2	---
Boron	ppm	ASTM D5185(m)	250	8	140	---
Barium	ppm	ASTM D5185(m)	10	3	18	---
Molybdenum	ppm	ASTM D5185(m)	100	57	32	---
Manganese	ppm	ASTM D5185(m)		<1	<1	---
Magnesium	ppm	ASTM D5185(m)	450	965	636	---
Calcium	ppm	ASTM D5185(m)	3000	1110	926	---
Phosphorus	ppm	ASTM D5185(m)	1150	940	830	---
Zinc	ppm	ASTM D5185(m)	1350	1155	598	---
Sulfur	ppm	ASTM D5185(m)	4250	2233	7054	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.6	45.0	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.1	12.4	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0291012
Lab Number : 02640993
Unique Number : 5798532
Test Package : MOB 1
Received : 11 Jun 2024
Tested : 11 Jun 2024
Diagnosed : 11 Jun 2024 - Wes Davis

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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