



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
LIEBHERR L586 1761-75959
Component
Diesel Engine
Fluid
LIEBHERR 5W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LHMC132855	---	---
Sample Date		Client Info		16 May 2024	---	---
Machine Age	hrs	Client Info		758	---	---
Oil Age	hrs	Client Info		400	---	---
Filter Age	hrs	Client Info		400	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ATTENTION	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	---	---
Chromium	ppm	ASTM D5185m	>5	1	---	---
Nickel	ppm	ASTM D5185m	>5	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>15	4	---	---
Lead	ppm	ASTM D5185m	>30	1	---	---
Copper	ppm	ASTM D5185m	>125	11	---	---
Tin	ppm	ASTM D5185m	>5	2	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

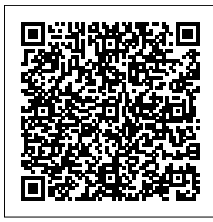
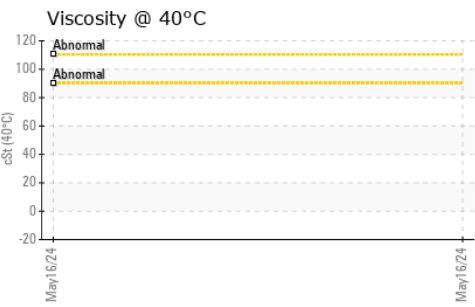
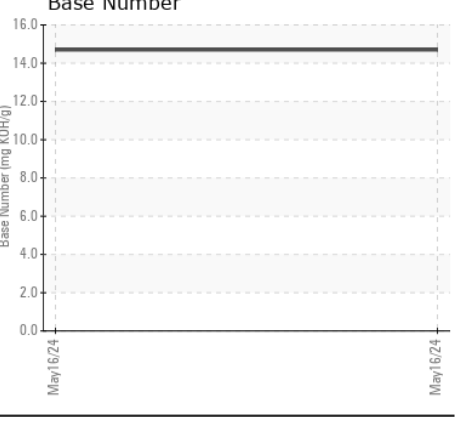
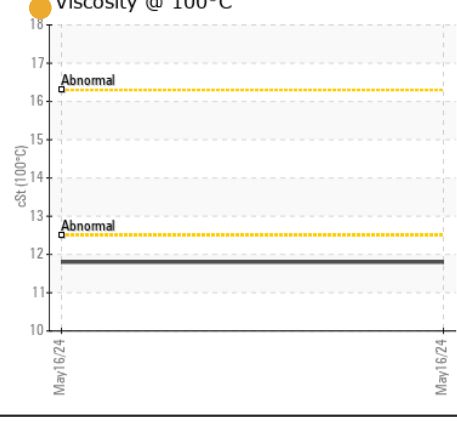
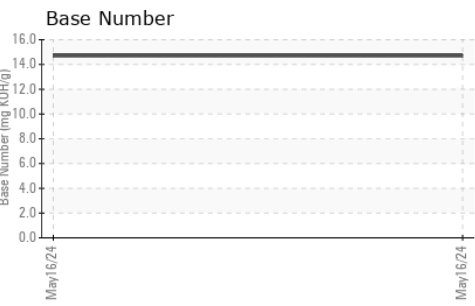
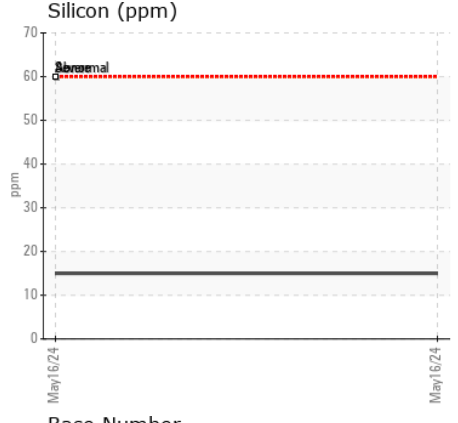
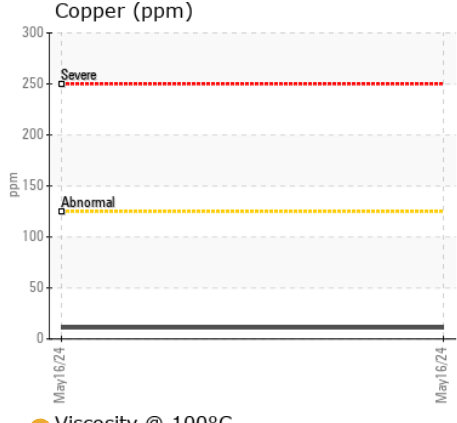
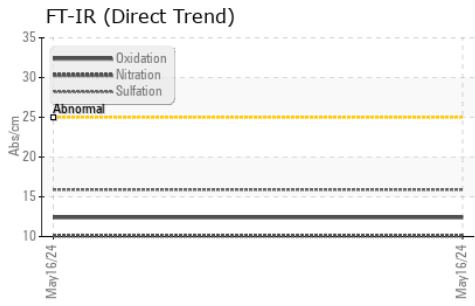
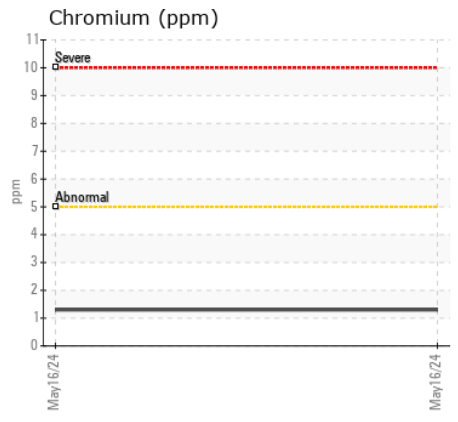
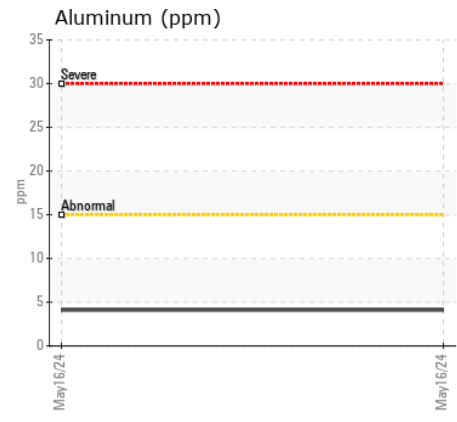
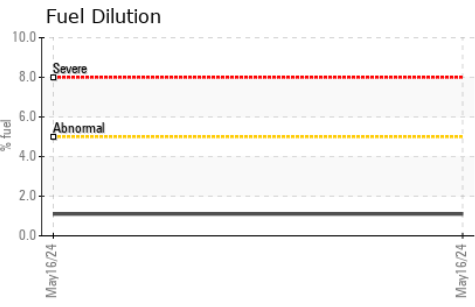
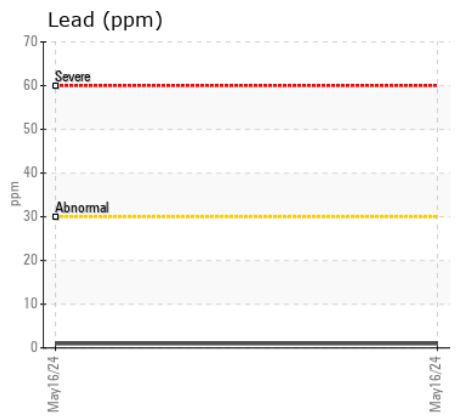
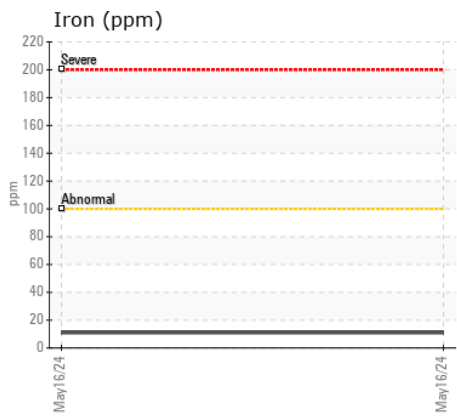
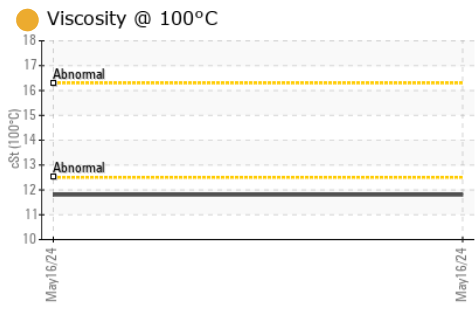
Fuel content negligible. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>60	15	---	---
Potassium	ppm	ASTM D5185m	>20	2	---	---
Fuel	%	ASTM D3524	>5	1.1	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	10.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	15.9	---	---
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

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		4	---	---
Boron	ppm	ASTM D5185m		410	---	---
Barium	ppm	ASTM D5185m		2	---	---
Molybdenum	ppm	ASTM D5185m		5	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		108	---	---
Calcium	ppm	ASTM D5185m		5441	---	---
Phosphorus	ppm	ASTM D5185m		1452	---	---
Zinc	ppm	ASTM D5185m		1640	---	---
Sulfur	ppm	ASTM D5185m		4454	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.4	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		14.7	---	---
Visc @ 100°C	cSt	ASTM D445		11.8	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LHMC132855 **Received** : 23 May 2024
Lab Number : 06189878 **Tested** : 29 May 2024
Unique Number : 11046630 **Diagnosed** : 29 May 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: FuelDilution, kv40, PercentFuel, TBN)

USG
 86 PPL RD
 DANVILLE, PA
 US 17821
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: