



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
LIEBHERR L580 047314-1464
Component
Diesel Engine
Fluid
COREY OIL 10W40 (--- 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		LHMC122518	LHMC122559	LHMC124415
Sample Date		Client Info		01 Jul 2024	28 Feb 2024	10 Oct 2023
Machine Age	hrs	Client Info		6886	6115	5518
Oil Age	hrs	Client Info		0	250	1066
Filter Age	hrs	Client Info		500	250	1066
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Filter Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				ATTENTION	ATTENTION	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	11	9	36
Chromium	ppm	ASTM D5185m	>5	<1	<1	3
Nickel	ppm	ASTM D5185m	>5	<1	0	2
Titanium	ppm	ASTM D5185m		69	64	4
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	2	1	3
Lead	ppm	ASTM D5185m	>30	2	<1	3
Copper	ppm	ASTM D5185m	>125	3	2	12
Tin	ppm	ASTM D5185m	>5	<1	0	1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

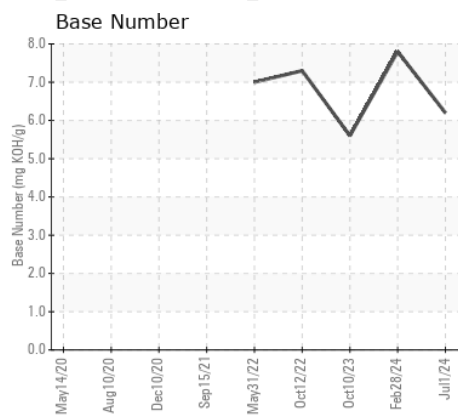
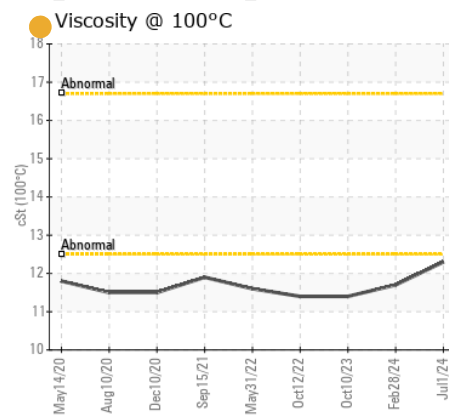
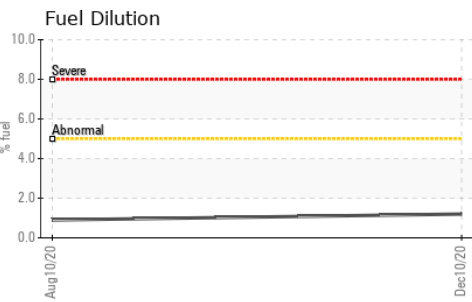
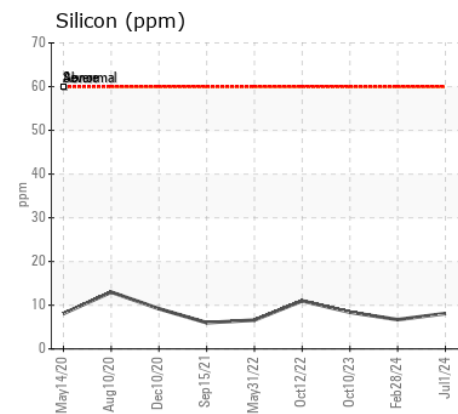
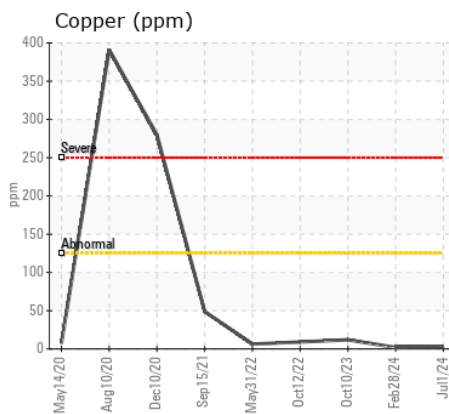
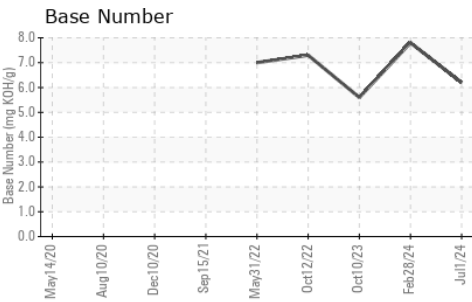
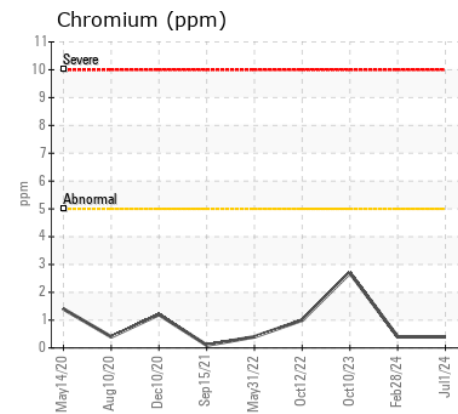
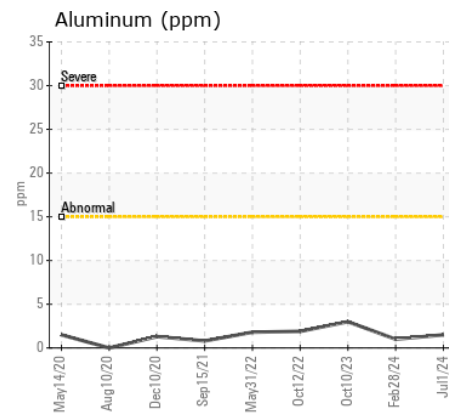
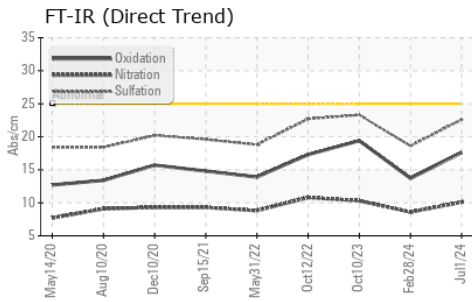
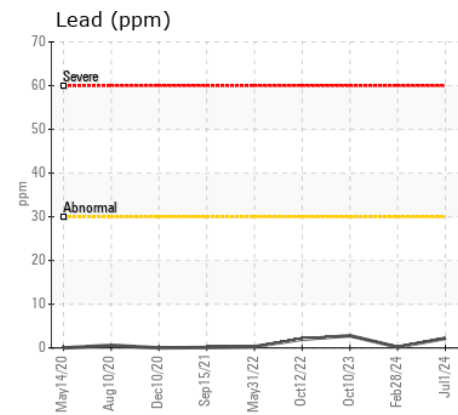
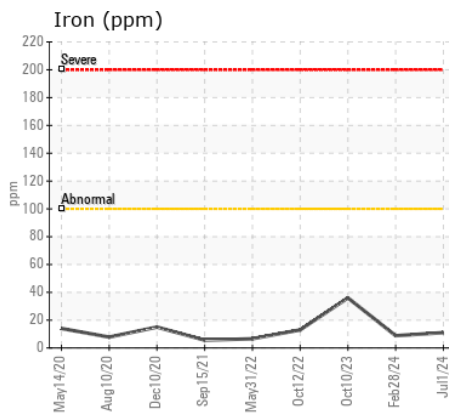
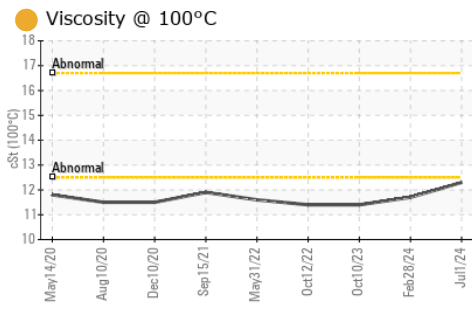
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>60	8	7	8
Potassium	ppm	ASTM D5185m	>20	3	2	5
Fuel	%	ASTM D3524	>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	0.1	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	10.1	8.6	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	18.6	23.3
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	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	3	2
Boron	ppm	ASTM D5185m		24	96	22
Barium	ppm	ASTM D5185m		0	0	10
Molybdenum	ppm	ASTM D5185m		5	6	20
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		726	631	809
Calcium	ppm	ASTM D5185m		1296	1173	1395
Phosphorus	ppm	ASTM D5185m		973	823	964
Zinc	ppm	ASTM D5185m		1156	960	1039
Sulfur	ppm	ASTM D5185m		4018	3465	3436
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.6	13.7	19.4
Base Number (BN)	mg KOH/g	ASTM D2896		6.2	7.8	5.6
Visc @ 100°C	cSt	ASTM D445		12.3	11.7	11.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LHMC122518 **Received** : 15 Jul 2024
Lab Number : 06237230 **Tested** : 17 Jul 2024
Unique Number : 11126064 **Diagnosed** : 17 Jul 2024 - Don Baldridge
Test Package : MOBCE (Additional Tests: FuelDilution, TBN)

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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)