

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 157351-1216 - Diesel Engine

Sample No: LHMC133199

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



SAMPLE INFORMATION

Sample Number	LHMC133199	---	---	---
Sample Date	08 Mar 2024	---	---	---
Machine Hours	546	---	---	---
Oil Hours	546	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

ALTER TRADING

2424 CLARKE STREET

PEORIA, IL

US 61602

Contact: Service Manager



OIL CONDITION

Visc @ 100°C	cSt	11.5	---	---	---
Base Number (BN)	mg KOH/g	4.6	---	---	---
Oxidation (PA)	%	218	---	---	---

T:

F:

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	0.1	---	---	---
Nitration (PA)	%	104	---	---	---
Sulfation (PA)	%	112	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	8	---	---	---
Sodium	ppm	3	---	---	---
Potassium	ppm	2	---	---	---



WEAR METALS

Iron	ppm	10	---	---	---
Copper	ppm	126	---	---	---
Lead	ppm	7	---	---	---
Tin	ppm	0	---	---	---
Aluminum	ppm	3	---	---	---
Chromium	ppm	<1	---	---	---
Molybdenum	ppm	44	---	---	---
Nickel	ppm	0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	1	---	---	---
Vanadium	ppm	<1	---	---	---



ADDITIVES

Calcium	ppm	1332	---	---	---
Magnesium	ppm	904	---	---	---
Zinc	ppm	854	---	---	---
Phosphorus	ppm	703	---	---	---
Barium	ppm	31	---	---	---
Boron	ppm	99	---	---	---

Depot: ALTPEO

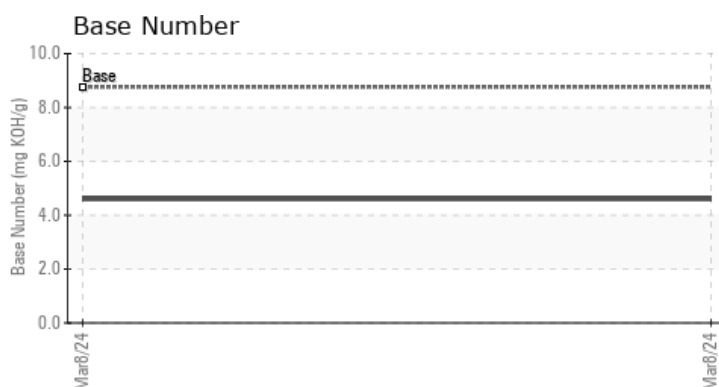
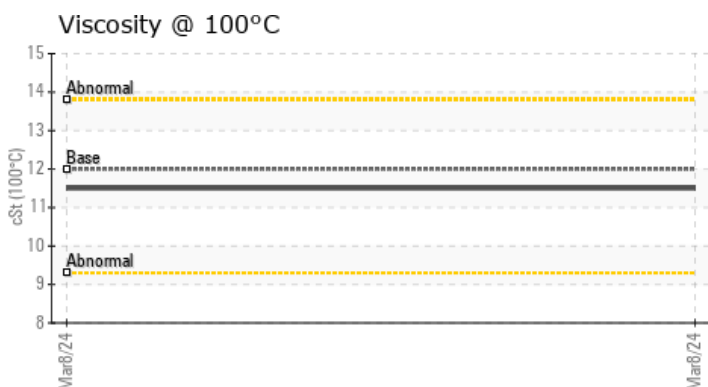
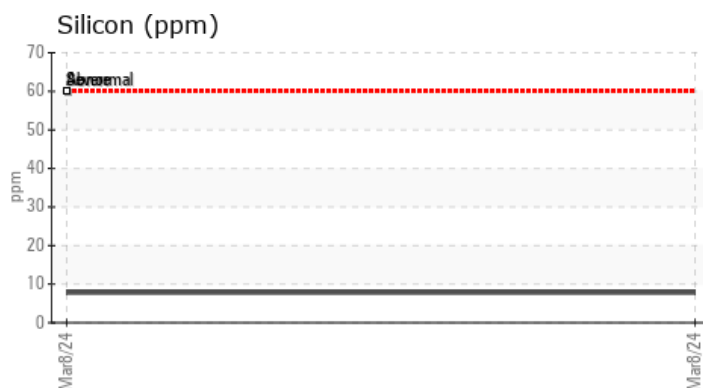
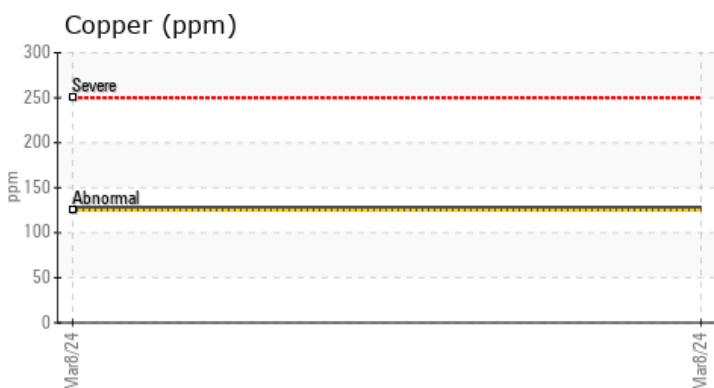
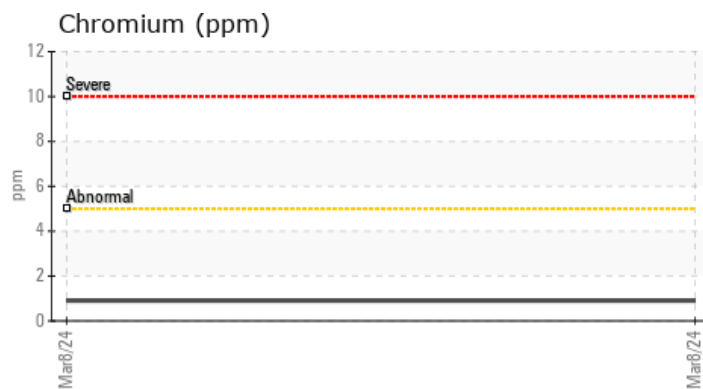
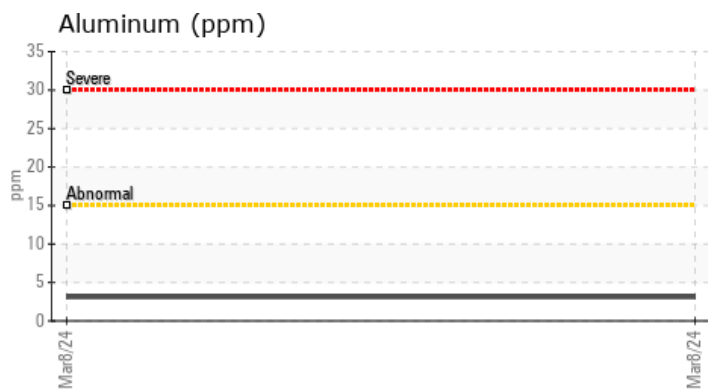
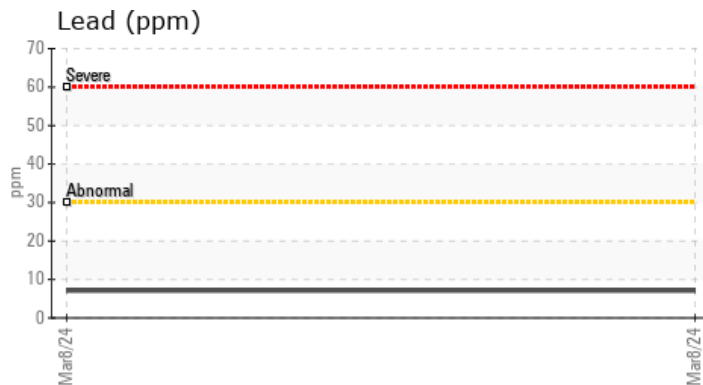
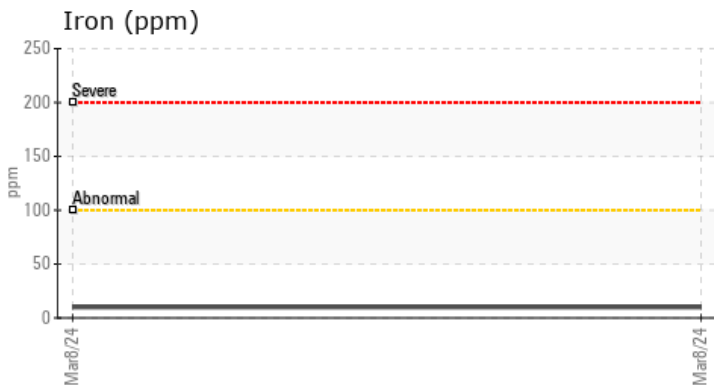
Unique No: 10937046

Signed: Jonathan Hester

Report Date: 22 Mar 2024



GRAPHS



LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 157351-1216 - Splitter Box

Sample No: LHMC133243

Oil Type: LIEBHERR GEAR BASIC 90 LS



SAMPLE INFORMATION

Sample Number	LHMC133243	---	---	---
Sample Date	08 Mar 2024	---	---	---
Machine Hours	546	---	---	---
Oil Hours	546	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

ALTER TRADING
 2424 CLARKE STREET
 PEORIA, IL
 US 61602
 Contact: Service Manager



OIL CONDITION

Visc @ 40°C	cSt	● 192	---	---	---
-------------	-----	-------	-----	-----	-----

T:
F:



CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	● <1	---	---	---
Sodium	ppm	● 4	---	---	---
Potassium	ppm	● 0	---	---	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	● 19	---	---	---
Copper	ppm	● <1	---	---	---
Lead	ppm	● 0	---	---	---
Tin	ppm	● 0	---	---	---
Aluminum	ppm	● <1	---	---	---
Chromium	ppm	● <1	---	---	---
Molybdenum	ppm	● 3	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	● 2	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

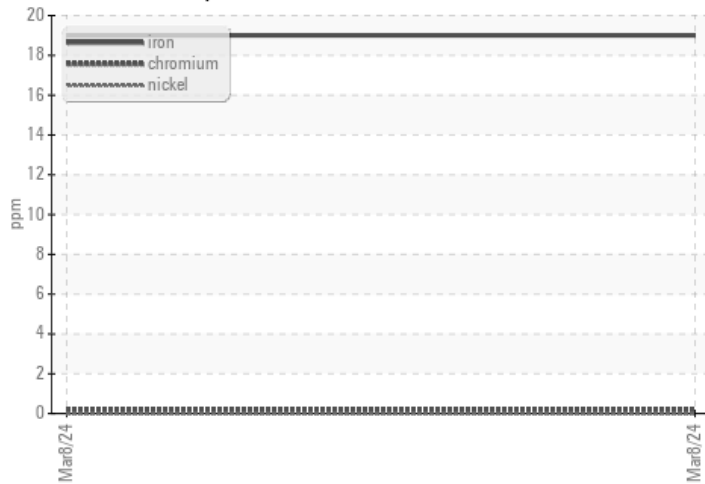
Calcium	ppm	● 15	---	---	---
Magnesium	ppm	● 3	---	---	---
Zinc	ppm	● 6	---	---	---
Phosphorus	ppm	● 1767	---	---	---
Barium	ppm	● 0	---	---	---
Boron	ppm	● 7	---	---	---

Depot: ALTPEO
Unique No: 10937408
Signed: Wes Davis
Report Date: 20 Mar 2024

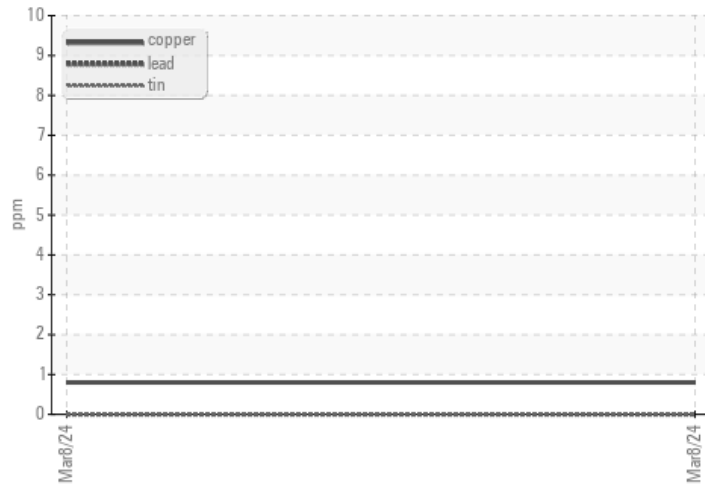


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

