

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### - Feed Gearbox

Sample No: LH0258847

Oil Type: GEAR OIL SAE 80W90



### Sample Information

Sample Number	LH0258847	LH0217347	LHMC97127	---
Sample Date	29 Feb 2024	20 May 2022	26 Feb 2021	---
Machine Hours	7106	5172	3979	---
Oil Hours	1000	0	2000	---
Oil Changed	Changed	N/A	Changed	---
Sample Status	SEVERE	ABNORMAL	ABNORMAL	---

**MIDDLE RIVER MARINE**  
 1771 SOUTH TORRENCE AVE  
 CHICAGO, IL  
 US 60617  
 Contact: Scott Molitor  
 scottmolitor@gomiddleriver.com  
 T:  
 F:



### Oil Condition

Visc @ 40°C	cSt	● 113	● 4669	● 5283.	---
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### Contamination

Water	%	● 0.101	NEG	NEG	---
Silicon	ppm	● 35	● 24	● 28	---
Sodium	ppm	● <1	● 403	● 358	---
Potassium	ppm	● 0	● 11	● 9	---



### Wear Metals

Iron	ppm	● 2217	● 64	● 29	---
Copper	ppm	● 4	● <1	● <1	---
Lead	ppm	● 0	● <1	● <1	---
Tin	ppm	● 0	● 0	● <1	---
Aluminum	ppm	● 4	● <1	● <1	---
Chromium	ppm	● 16	● <1	● <1	---
Molybdenum	ppm	● 5	● 12	● <1	---
Nickel	ppm	● 8	0	<1	---
Titanium	ppm	<1	2	3	---
Silver	ppm	0	<1	<1	---
Manganese	ppm	● 19	● <1	● <1	---
Vanadium	ppm	<1	0	0	---



### Additives

Calcium	ppm	● 44	● 294	● 260	---
Magnesium	ppm	● 0	● 3	● 4	---
Zinc	ppm	● 56	● 459	● 546	---
Phosphorus	ppm	● 1076	● 606	● 674	---
Barium	ppm	● 0	● 1	● 0	---
Boron	ppm	● 165	● 722	● 577	---

### Diagnosis

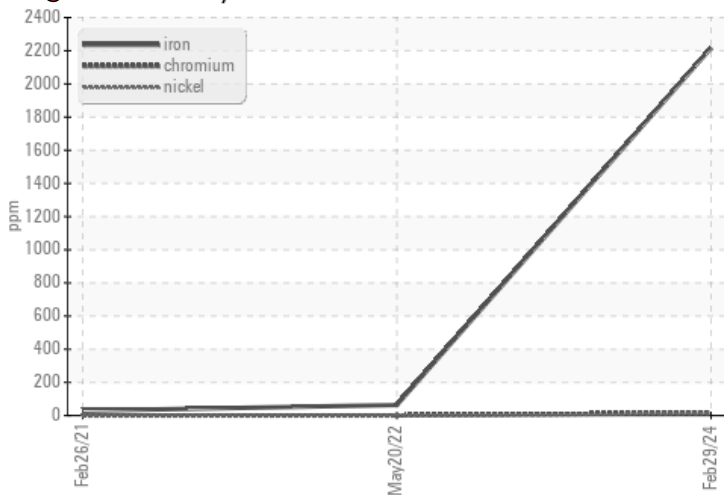
The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The iron level is severe. Gear wear is indicated. Appearance is hazy. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

**Depot:** MIDCHIL  
**Unique No:** 11002928  
**Signed:** Don Baldrige  
**Report Date:** 30 Apr 2024

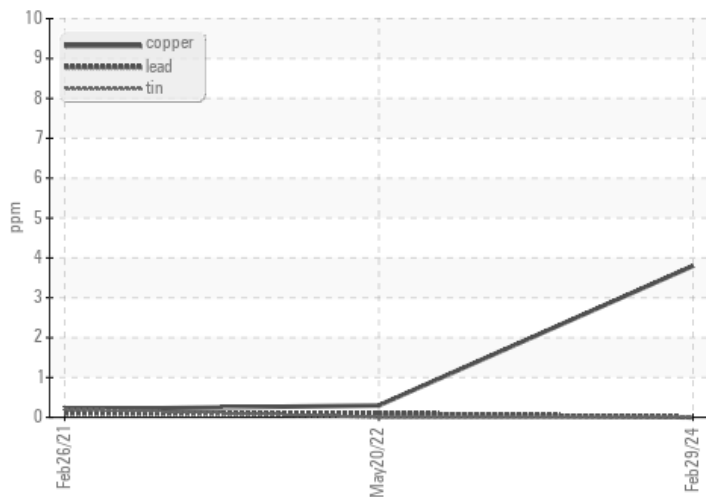


### Graphs

#### ● Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

