

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [[CLEVELAND CLIFF]] LIEBHERR LH60 107739-1217 - Front Diff

Sample No: LH0268103

Oil Type: LIEBHERR GEAR BASIC 90 LS



**FINKBINER EQUIPMENT CO.**  
 15 W 400 N FRONTAGE RD  
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 US 60527  
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### SAMPLE INFORMATION

Sample Number	<b>LH0268103</b>	LH0267585	LH0244210	LH0190748
Sample Date	<b>22 Jan 2024</b>	16 Oct 2023	26 Jan 2023	21 Jun 2021
Machine Hours	<b>8998</b>	8524	7471	4876
Oil Hours	<b>1000</b>	0	0	0
Oil Changed	<b>Changed</b>	N/A	Changed	N/A
Sample Status	<b>NORMAL</b>	NORMAL	ABNORMAL	NORMAL



### OIL CONDITION

Visc @ 40°C	cSt	● 185	● 136	● 130	● 186
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### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	● 4	● 5	● 1	● <1
Sodium	ppm	● 4	● <1	● <1	● 3
Potassium	ppm	● <1	● 0	● 0	● <1



### WEAR METALS

Iron	ppm	● 17	● 1	● 4	● 12
Copper	ppm	● 31	● 2	● 4	● 14
Lead	ppm	● <1	● 0	● 0	● 0
Tin	ppm	● <1	● 0	● 0	● 0
Aluminum	ppm	● <1	● 0	● 0	● 0
Chromium	ppm	● 0	● 0	● 0	● <1
Molybdenum	ppm	● 0	● 0	● <1	● <1
Nickel	ppm	● <1	● 0	● 0	● <1
Titanium	ppm	● <1	● 0	● 0	● 0
Silver	ppm	● 0	● 0	● 0	● 0
Manganese	ppm	● 1	● 0	● <1	● <1
Vanadium	ppm	● 0	● 0	● 0	● 0



### ADDITIVES

Calcium	ppm	● 6	● 5	● 30	● 14
Magnesium	ppm	● 2	● 0	● 2	● 4
Zinc	ppm	● 16	● 4	● 13	● 6
Phosphorus	ppm	● 1131	● 591	● 1764	● 2263
Barium	ppm	● 371	● 0	● <1	● <1
Boron	ppm	● 2	● 30	● 328	● 38

### Diagnosis

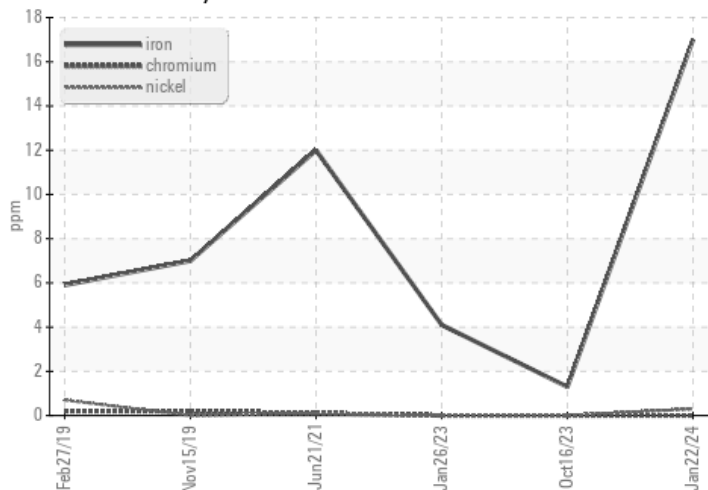
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

**Depot:** LEC0033  
**Unique No:** 10884182  
**Signed:** Don Baldrige  
**Report Date:** 18 Feb 2024

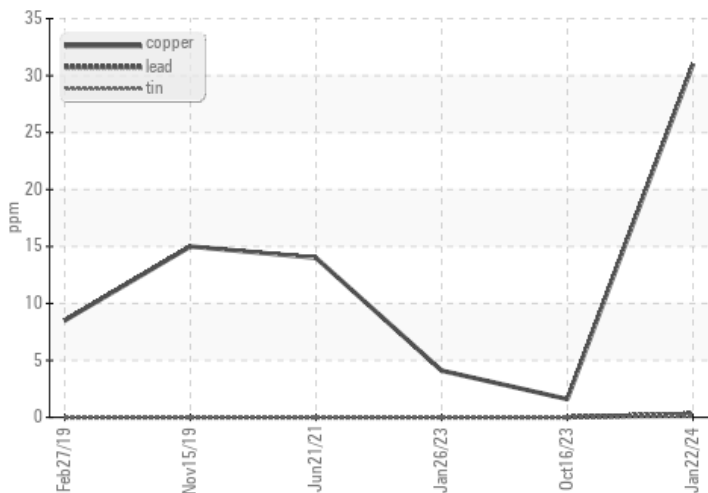


### GRAPHS

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

