

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50M 1216-118289 - Rear Left Wheel Hub

Sample No: LH06135811

Oil Type: GEAR OIL SAE 80W90



**KOVALCHICK CORP**  
1060 WAYNE AVENUE  
INDIANA, PA  
US 15701  
Contact: Service Manager



#### Sample Information

Sample Number	LH06135811	LH05693565	LH05370570	---
Sample Date	31 Mar 2024	13 Nov 2022	10 Oct 2021	---
Machine Hours	5050	0	1635	---
Oil Hours	0	0	0	---
Oil Changed	Not Chngd	N/A	N/A	---
Sample Status	ABNORMAL	SEVERE	ABNORMAL	---



#### Oil Condition

Visc @ 40°C	cSt	65.6	113	166	---
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#### Contamination

Water	%	NEG	0.182	NEG	---
Silicon	ppm	95	969	121	---
Sodium	ppm	7	34	8	---
Potassium	ppm	3	7	2	---



#### Wear Metals

Iron	ppm	252	1086	422	---
Copper	ppm	25	64	20	---
Lead	ppm	0	<1	<1	---
Tin	ppm	0	<1	<1	---
Aluminum	ppm	6	65	12	---
Chromium	ppm	1	8	2	---
Molybdenum	ppm	0	1	1	---
Nickel	ppm	<1	0	<1	---
Titanium	ppm	<1	4	<1	---
Silver	ppm	0	<1	<1	---
Manganese	ppm	3	12	5	---
Vanadium	ppm	0	<1	<1	---



#### Additives

Calcium	ppm	819	447	158	---
Magnesium	ppm	12	14	7	---
Zinc	ppm	475	239	44	---
Phosphorus	ppm	1108	1432	2128	---
Barium	ppm	0	0	1	---
Boron	ppm	<1	3	8	---

T:  
F:

#### Diagnosis

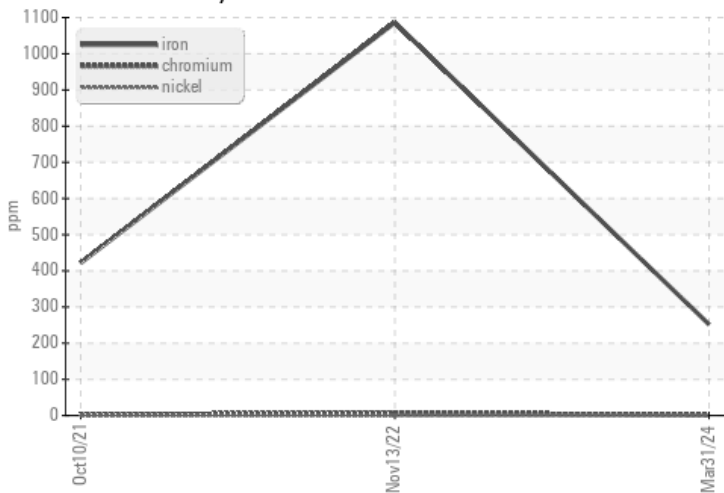
We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is lower than normal. Confirm oil type.

Depot: KOVIND  
Unique No: 10955276  
Signed: Don Baldrige  
Report Date: 04 Apr 2024

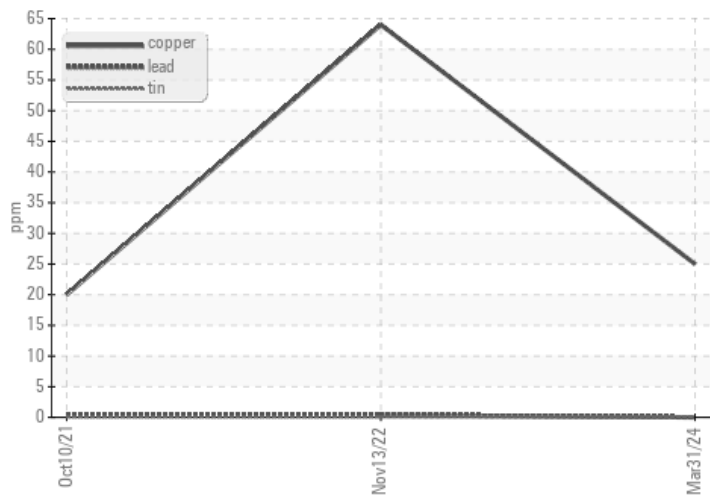


### Graphs

Ferrous Alloys



Non-ferrous Metals



● Viscosity @ 40°C

