

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R946 035496-1150 - Swing Drive

Sample No: LH0254595

Oil Type: LIEBHERR GEAR BASIC 90 LS



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

Sample Number	LH0254595	LH0244367	LHMC124672	---
Sample Date	20 Aug 2023	07 Apr 2023	20 Nov 2017	---
Machine Hours	1809	13412	500	---
Oil Hours	0	1000	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	SEVERE	SEVERE	ABNORMAL	---



#### OIL CONDITION

Visc @ 40°C	cSt	257	160	281.0	---
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#### CONTAMINATION

Water	%	4.01	0.395	0.886	---
Silicon	ppm	4	9	6	---
Sodium	ppm	97	<1	3	---
Potassium	ppm	106	0	6	---



#### WEAR METALS

Iron	ppm	2800	1768	1238	---
Copper	ppm	955	1333	81	---
Lead	ppm	9	0	<1	---
Tin	ppm	28	20	0	---
Aluminum	ppm	5	4	2	---
Chromium	ppm	29	17	9	---
Molybdenum	ppm	4	1	0	---
Nickel	ppm	12	4	4	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	0	0	0	---
Manganese	ppm	20	11	10	---
Vanadium	ppm	<1	0	0	---



#### ADDITIVES

Calcium	ppm	58	32	96	---
Magnesium	ppm	4	5	4	---
Zinc	ppm	28	58	46	---
Phosphorus	ppm	2844	608	1842	---
Barium	ppm	0	0	<1	---
Boron	ppm	23	17	35	---

#### Diagnosis

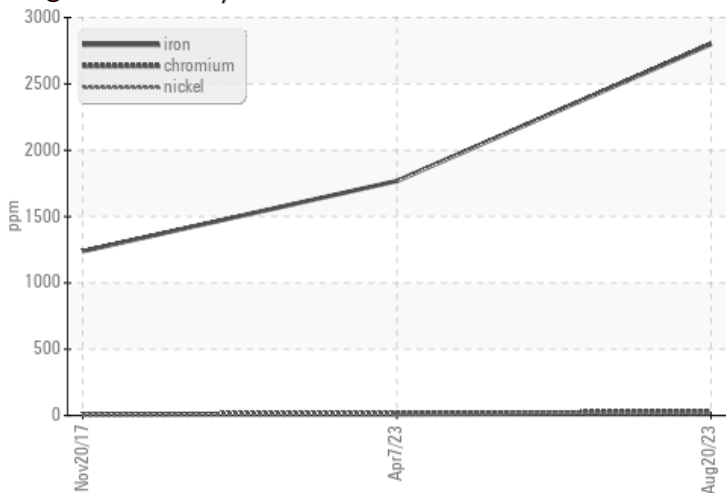
We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Bearing and/or bushing wear is indicated. There is a high concentration of water present in the oil. The oil is no longer serviceable due to the presence of contaminants.

Depot: LEC0033  
 Unique No: 10615843  
 Signed: Don Baldrige  
 Report Date: 23 Aug 2023

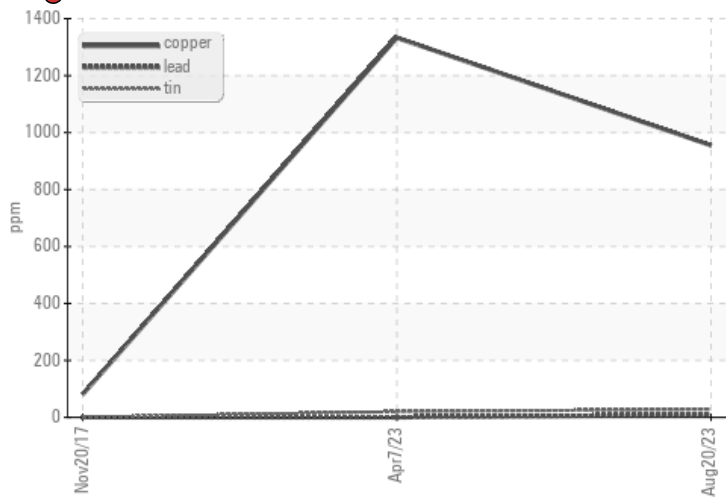


### GRAPHS

#### ● Ferrous Alloys



#### ● Non-ferrous Metals



#### Viscosity @ 40°C

