

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH80C 097852-1529 - Swing Drive

Sample No: LH0257921

Oil Type: TEXACO HAVOLINE GEAR OIL 80W90



#### Sample Information

Sample Number	LH0257921	LH0258434	LH0254280	LH0254279
Sample Date	18 Jun 2024	17 Apr 2024	20 Jul 2023	20 Jul 2023
Machine Hours	9188	0	7409	7409
Oil Hours	0	0	0	0
Oil Changed	N/A	Changed	Changed	N/A
Sample Status	ABNORMAL	SEVERE	NORMAL	SEVERE

**HEAVY MACHINES INC**  
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#### Oil Condition

Visc @ 40°C	cSt	129	147	93.5	133.6
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#### Contamination

Water	%	0.748	NEG	NEG	NEG
Silicon	ppm	5	9	3	6
Sodium	ppm	2	2	0	0
Potassium	ppm	0	0	1	<1



#### Wear Metals

Iron	ppm	546	1633	30	1796
Copper	ppm	107	440	2	456
Lead	ppm	<1	0	<1	4
Tin	ppm	<1	5	0	5
Aluminum	ppm	0	<1	<1	2
Chromium	ppm	7	21	<1	21
Molybdenum	ppm	1	2	<1	3
Nickel	ppm	1	5	0	7
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	4	13	<1	13
Vanadium	ppm	0	0	0	<1



#### Additives

Calcium	ppm	45	23	34	33
Magnesium	ppm	12	5	20	23
Zinc	ppm	68	34	154	57
Phosphorus	ppm	1551	1686	1105	1544
Barium	ppm	0	0	0	0
Boron	ppm	259	272	200	310

#### Diagnosis

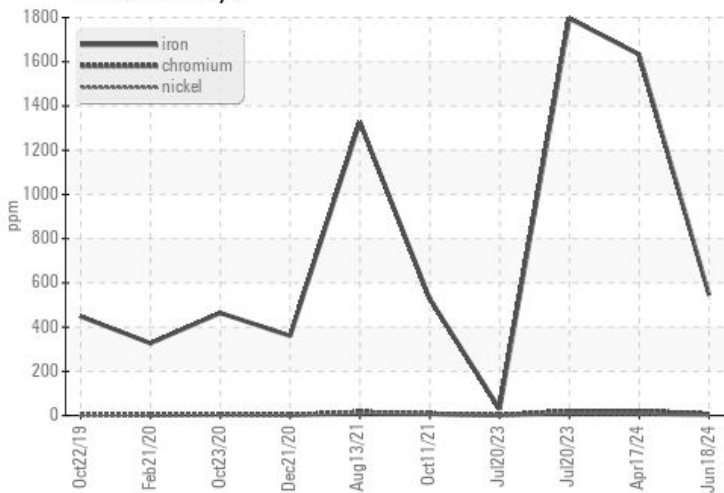
We advise that you check for the source of water entry. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate concentration of water present in the oil. The condition of the oil is acceptable for the time in service.

Depot: HEATHE  
 Unique No: 11099845  
 Signed: Don Baldrige  
 Report Date: 28 Jun 2024

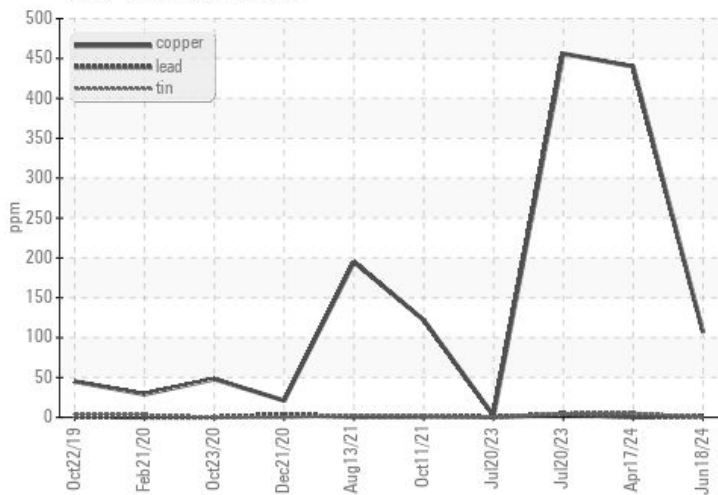


### Graphs

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

