

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A944 038569-194 - Swing Drive

Sample No: LH0263921

Oil Type: GEAR OIL LS 80W90



ALTER SCRAP
2400 NORTH 14TH AVENUE
WAUSAU, WI
US 54401
Contact: DALE BAUER

T: (715)675-6900
F: (715)675-9748

Diagnosis

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high concentration of water present in the oil. The oil viscosity is higher than normal. The oil is no longer serviceable due to the presence of contaminants.



SAMPLE INFORMATION

Sample Number	LH0263921	LHMC142523	LHMC87341	---
Sample Date	26 Oct 2023	04 Nov 2019	27 Mar 2015	---
Machine Hours	14477	12646	10170	---
Oil Hours	500	0	0	---
Oil Changed	Changed	Not Chngd	Changed	---
Sample Status	SEVERE	SEVERE	SEVERE	---



OIL CONDITION

Visc @ 40°C	cSt	816	148	118.6	---
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CONTAMINATION

Water	%	4.29	5.73	0.118	---
Silicon	ppm	7	4	32	---
Sodium	ppm	0	15	5	---
Potassium	ppm	5	111	0	---



WEAR METALS

Iron	ppm	1093	1309	2289	---
Copper	ppm	180	1164	3033	---
Lead	ppm	0	<1	6	---
Tin	ppm	11	31	78	---
Aluminum	ppm	2	1	4	---
Chromium	ppm	9	7	26	---
Molybdenum	ppm	7	8	6	---
Nickel	ppm	3	3	11	---
Titanium	ppm	0	<1	<1	---
Silver	ppm	0	0	0	---
Manganese	ppm	6	7	15	---
Vanadium	ppm	<1	0	<1	---



ADDITIVES

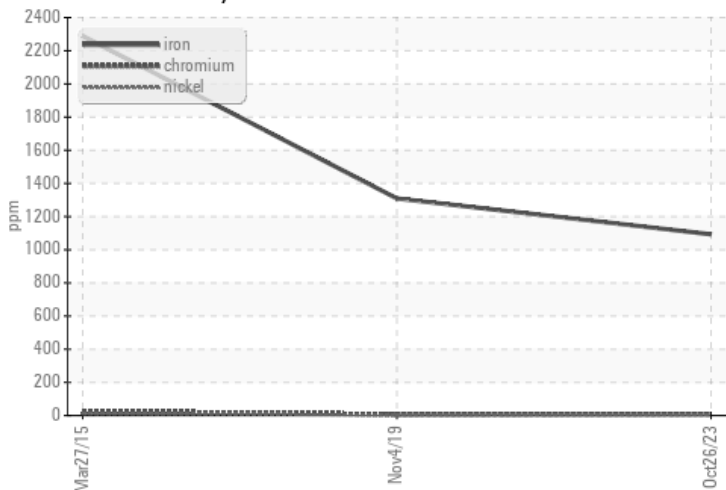
Calcium	ppm	513	249	189	---
Magnesium	ppm	99	5	19	---
Zinc	ppm	178	151	262	---
Phosphorus	ppm	1273	619	1483	---
Barium	ppm	0	<1	0	---
Boron	ppm	36	47	8	---

Depot: ALTWAU
Unique No: 10833637
Signed: Don Baldrige
Report Date: 18 Jan 2024

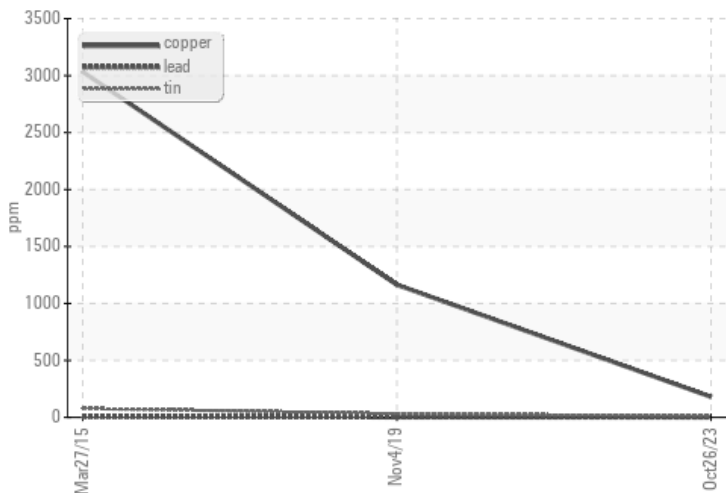


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

