

LIEBHERR

CONSTRUCTION EQUIPMENT



[[CLEVELAND CLIFF]] LIEBHERR LH60 107739-1217 - Rear Right W

Sample No: LH0268107

Oil Type: LIEBHERR GEAR BASIC 90 LS



SAMPLE INFORMATION

Sample Number	LH0268107	LH0244205	LH0200069	LH0190714
Sample Date	22 Jan 2024	26 Jan 2023	24 Sep 2021	21 Jun 2021
Machine Hours	8998	7471	5121	4876
Oil Hours	1000	0	0	0
Oil Changed	Changed	Changed	N/A	N/A
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

FINKBINER EQUIPMENT CO.

15 W 400 N FRONTAGE RD

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US 60527

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OIL CONDITION

Visc @ 40°C	cSt	150	128	142	183
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CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	12	<1	<1	8
Sodium	ppm	2	0	3	3
Potassium	ppm	<1	<1	2	1



WEAR METALS

Iron	ppm	71	9	8	33
Copper	ppm	60	5	6	23
Lead	ppm	<1	0	0	0
Tin	ppm	<1	0	0	0
Aluminum	ppm	1	0	0	0
Chromium	ppm	<1	0	0	<1
Molybdenum	ppm	4	<1	<1	<1
Nickel	ppm	0	0	<1	0
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	2	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	136	28	9	15
Magnesium	ppm	3	<1	2	5
Zinc	ppm	63	10	0	13
Phosphorus	ppm	1365	1814	1966	2115
Barium	ppm	4	0	2	4
Boron	ppm	5	345	292	43

Diagnosis

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Bearing and/or bushing wear is indicated. All other 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: 10884183

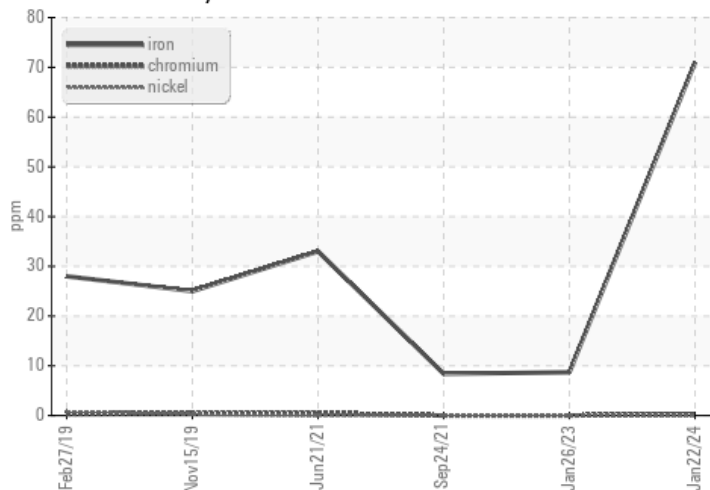
Signed: Don Baldrige

Report Date: 18 Feb 2024

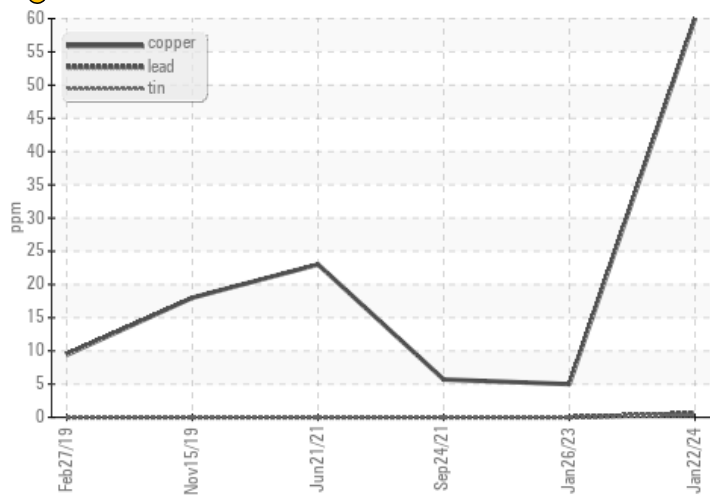


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

