

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A934C 061188-1419 - Swing Drive

Sample No: LH0263928

Oil Type: GEAR OIL SAE 80W90



SAMPLE INFORMATION

Sample Number	LH0263928	LH0253884	LH0220670	LH0236044
Sample Date	10 Nov 2023	21 Sep 2023	10 Jan 2023	23 Nov 2022
Machine Hours	27562	27222	25331	25468
Oil Hours	0	0	250	1000
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	MARGINAL	SEVERE

NORTHERN METAL RECYCLING

2800 PACIFIC ST N
MINNEAPOLIS, MN
US 55411

Contact: CHRIS GILMER
chris.gilmer@emrgroup.com

T: (612)305-7338

F:



OIL CONDITION

Visc @ 40°C	cSt	130	139	153	164
-------------	-----	-----	-----	-----	-----



CONTAMINATION

Water	%	NEG	NEG	0.380	1.26
Silicon	ppm	1	<1	2	2
Sodium	ppm	2	<1	1	3
Potassium	ppm	0	1	<1	2



WEAR METALS

Iron	ppm	91	145	258	523
Copper	ppm	57	59	40	76
Lead	ppm	0	0	<1	<1
Tin	ppm	2	3	2	2
Aluminum	ppm	0	<1	<1	<1
Chromium	ppm	<1	<1	3	6
Molybdenum	ppm	<1	<1	3	2
Nickel	ppm	0	<1	<1	1
Titanium	ppm	<1	<1	<1	0
Silver	ppm	0	<1	0	0
Manganese	ppm	<1	1	3	4
Vanadium	ppm	<1	0	0	0



ADDITIVES

Calcium	ppm	19	40	44	35
Magnesium	ppm	4	15	14	10
Zinc	ppm	11	25	30	31
Phosphorus	ppm	896	980	859	957
Barium	ppm	0	0	0	0
Boron	ppm	4	3	9	12

Diagnosis

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) GEAR OIL SAE 80W90. Please confirm.

All 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: NORMINLH

Unique No: 10844588

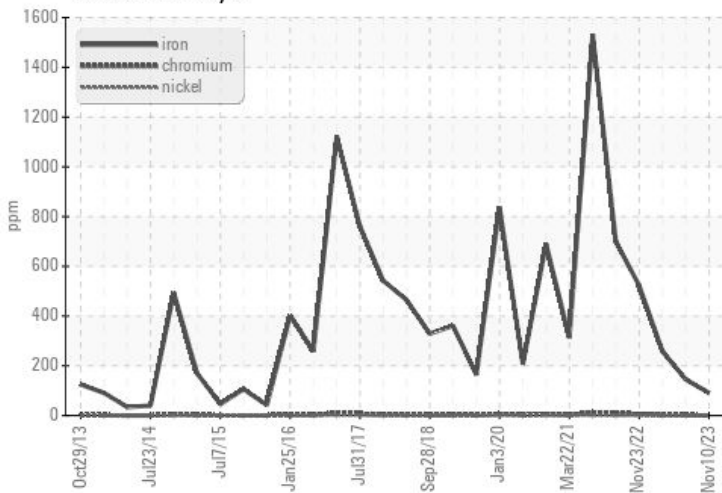
Signed: Wes Davis

Report Date: 23 Jan 2024

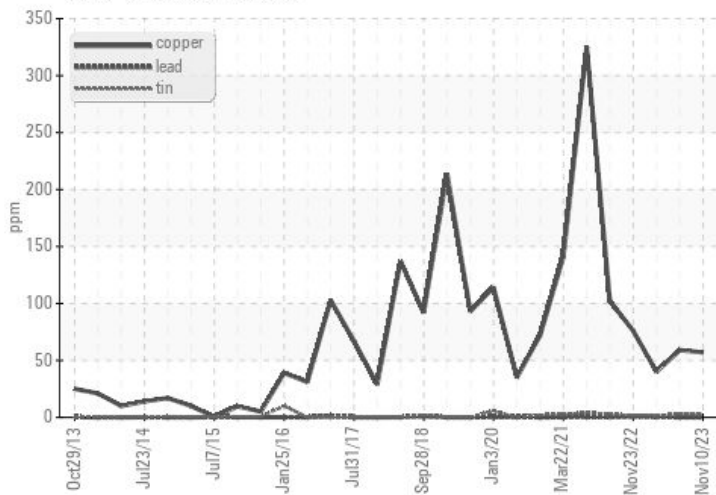


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

