

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A934C 061188-1419 - Rear Left Wheel Hub

Sample No: LH0253883

Oil Type: HARTLAND LS 80W90



SAMPLE INFORMATION

Sample Number	LH0253883	LH0253909	LH0236052	LH0220572
Sample Date	21 Sep 2023	13 Jul 2023	23 Nov 2022	27 Sep 2022
Machine Hours	27222	26744	25468	0
Oil Hours	0	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

NORTHERN METAL RECYCLING

2800 PACIFIC ST N
MINNEAPOLIS, MN
US 55411
Contact: CHRIS GILMER
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T: (612)305-7338
F:



OIL CONDITION

Visc @ 40°C	cSt	153	157	154	150



CONTAMINATION

Element	ppm	<1	0	<1	2
Silicon	ppm	<1	0	<1	2
Sodium	ppm	2	2	2	2
Potassium	ppm	2	<1	<1	2



WEAR METALS

Element	ppm	6	7	9	18
Iron	ppm	6	7	9	18
Copper	ppm	<1	1	1	<1
Lead	ppm	0	0	0	0
Tin	ppm	0	0	0	<1
Aluminum	ppm	0	0	0	<1
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	1	2	2	2
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Element	ppm	26	35	24	31
Calcium	ppm	26	35	24	31
Magnesium	ppm	4	6	6	9
Zinc	ppm	17	12	6	21
Phosphorus	ppm	1244	1597	1126	1040
Barium	ppm	0	0	0	0
Boron	ppm	12	12	18	18

Diagnosis

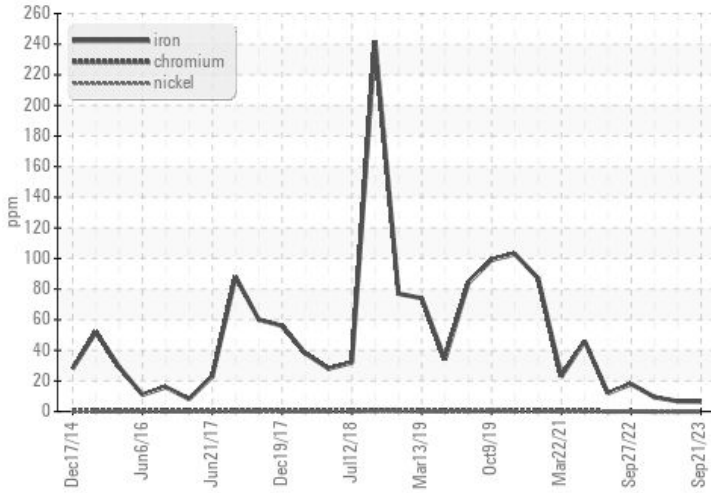
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: NORMINLH
Unique No: 10728451
Signed: Sean Felton
Report Date: 08 Nov 2023

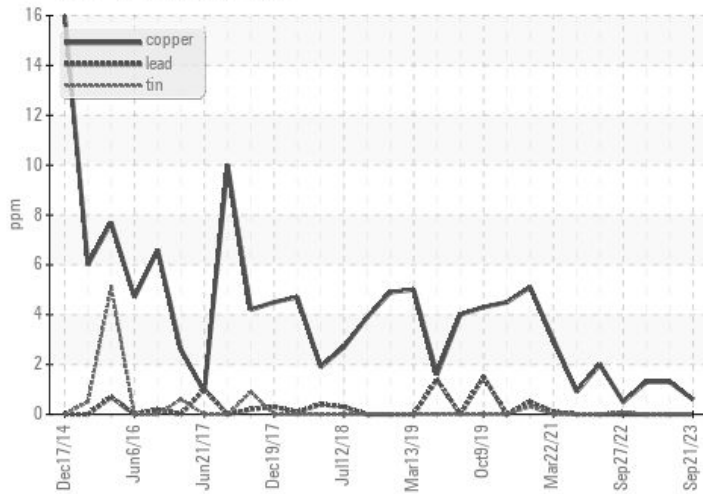


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

