

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR A934C 061188-1419 - Transmission (Manual)

Sample No: LH0253880

Oil Type: DIESEL ENGINE OIL SAE 5W40



**NORTHERN METAL RECYCLING**  
 2800 PACIFIC ST N  
 MINNEAPOLIS, MN  
 US 55411  
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#### SAMPLE INFORMATION

Sample Number	<b>LH0253880</b>	LH0236051	LH0220531	LH0200243
Sample Date	<b>21 Sep 2023</b>	23 Nov 2022	27 Sep 2022	04 Apr 2022
Machine Hours	<b>27222</b>	25468	0	23959
Oil Hours	<b>0</b>	1000	1000	1000
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL



#### OIL CONDITION

Visc @ 40°C	cSt	<b>57.7</b>	55.9	53.8	54.1
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#### CONTAMINATION

Silicon	ppm	<b>6</b>	5	7	4
Sodium	ppm	<b>2</b>	3	3	0
Potassium	ppm	<b>3</b>	<1	<1	4



#### WEAR METALS

Iron	ppm	<b>4</b>	11	28	18
Copper	ppm	<b>0</b>	1	2	3
Lead	ppm	<b>0</b>	0	<1	0
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>1</b>	<1	2	1
Chromium	ppm	<b>0</b>	0	<1	<1
Molybdenum	ppm	<b>2</b>	4	3	<1
Nickel	ppm	<b>&lt;1</b>	0	0	0
Titanium	ppm	<b>89</b>	73	58	22
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	1	1
Vanadium	ppm	<b>1</b>	<1	<1	<1



#### ADDITIVES

Calcium	ppm	<b>1372</b>	1599	2107	3201
Magnesium	ppm	<b>703</b>	549	492	321
Zinc	ppm	<b>1237</b>	1048	1073	1189
Phosphorus	ppm	<b>1088</b>	919	965	1052
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>186</b>	164	186	217

#### Diagnosis

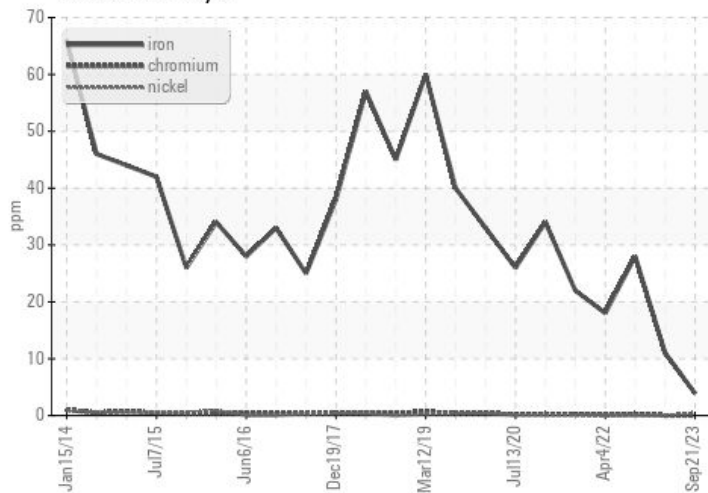
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: NORMINLH  
 Unique No: 10736307  
 Signed: Sean Felton  
 Report Date: 10 Nov 2023

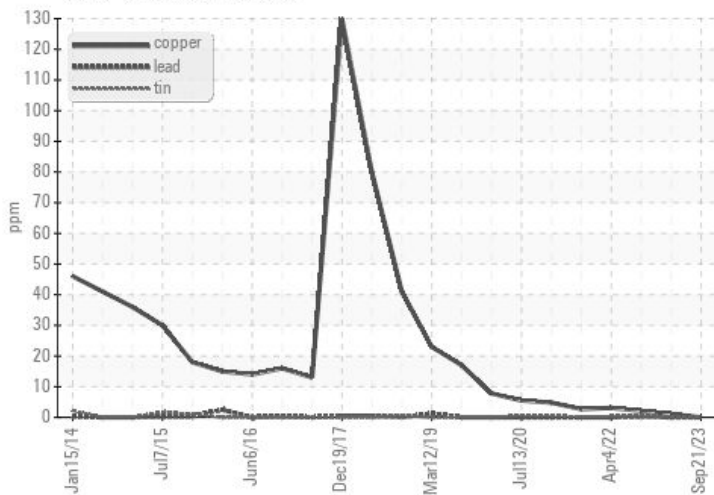


### GRAPHS

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

