

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR A934C 045480-1007 - Front Differential

Sample No: LH0204204

Oil Type: GEAR OIL LS 80W90



**NORTHERN METAL RECYCLING**  
 2800 PACIFIC ST N  
 MINNEAPOLIS, MN  
 US 55411  
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 T: (612)305-7338  
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#### SAMPLE INFORMATION

Sample Number	LH0204204	LHMC142228	LHMC106326	LHMC80977
Sample Date	19 Dec 2023	03 May 2019	02 Jun 2017	14 Oct 2016
Machine Hours	31068	22895	17931	16575
Oil Hours	2000	2000	500	1500
Oil Changed	Changed	Changed	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



#### OIL CONDITION

Visc @ 40°C	cSt	105	334	274.4	270.0
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#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	2	2	6	7
Sodium	ppm	1	<1	3	4
Potassium	ppm	0	12	<1	0



#### WEAR METALS

Iron	ppm	12	3	4	3
Copper	ppm	10	<1	1	0
Lead	ppm	0	<1	0	<1
Tin	ppm	<1	0	0	0
Aluminum	ppm	0	0	<1	0
Chromium	ppm	0	0	<1	<1
Molybdenum	ppm	2	2	2	2
Nickel	ppm	0	0	0	<1
Titanium	ppm	0	0	5	5
Silver	ppm	0	<1	<1	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	137	23	193	197
Magnesium	ppm	37	<1	8	4
Zinc	ppm	68	10	87	80
Phosphorus	ppm	1343	923	848	914
Barium	ppm	0	0	<1	0
Boron	ppm	200	152	154	152

#### Diagnosis

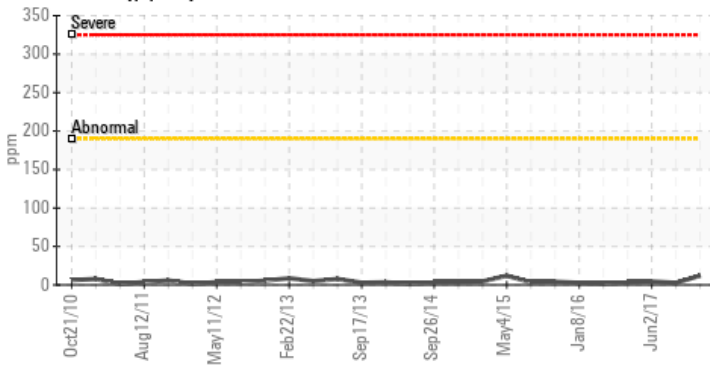
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

Depot: NORMINLH  
 Unique No: 10844598  
 Signed: Don Baldrige  
 Report Date: 24 Jan 2024

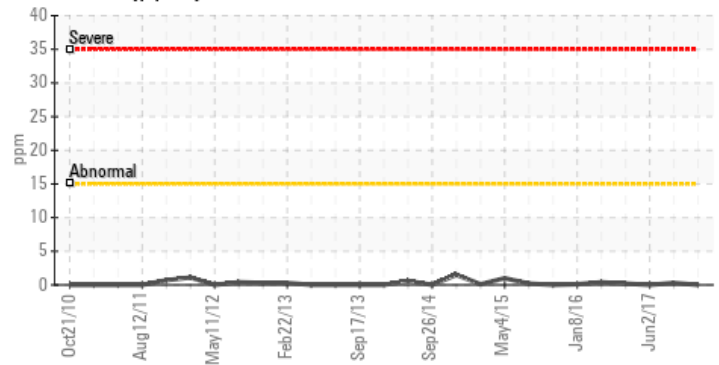


### GRAPHS

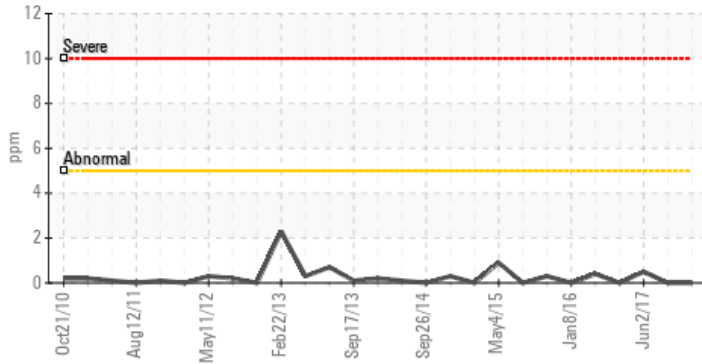
Iron (ppm)



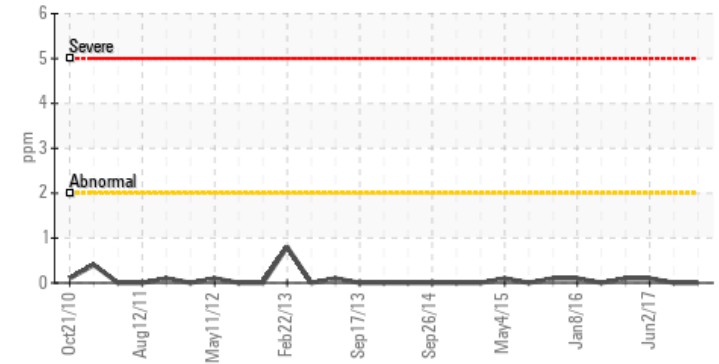
Lead (ppm)



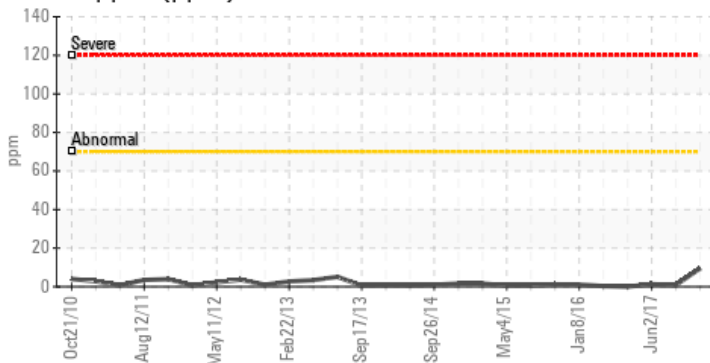
Aluminum (ppm)



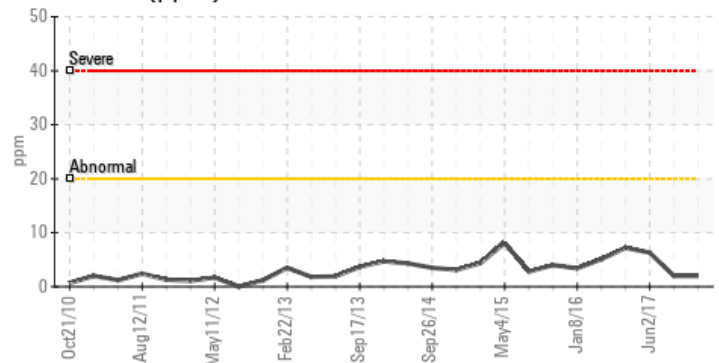
Chromium (ppm)



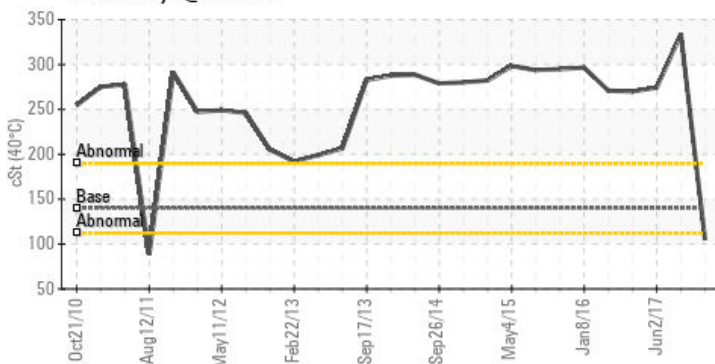
Copper (ppm)



Silicon (ppm)



Viscosity @ 40°C



Additives

