

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50 1203-77107 - Front Differential

Sample No: LH0254740

Oil Type: CHEVRON DELO GEAR ESI OIL 80W90



**AMERICAN STATE EQUIPMENT CO.**  
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#### SAMPLE INFORMATION

Sample Number	<b>LH0254740</b>	LH0243169	LH0229284	LH0217037
Sample Date	<b>16 Jun 2023</b>	22 Dec 2022	31 May 2022	08 Dec 2021
Machine Hours	<b>18994</b>	17940	16365	15034
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL



#### OIL CONDITION

Visc @ 40°C	cSt	<b>131</b>	133	140	133
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#### CONTAMINATION

Silicon	ppm	<b>0</b>	1	<1	<1
Sodium	ppm	<b>&lt;1</b>	0	<1	0
Potassium	ppm	<b>&lt;1</b>	3	1	2



#### WEAR METALS

Iron	ppm	<b>2</b>	6	2	3
Copper	ppm	<b>1</b>	4	1	2
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>0</b>	0	0	0
Aluminum	ppm	<b>&lt;1</b>	<1	0	0
Chromium	ppm	<b>0</b>	0	0	0
Molybdenum	ppm	<b>&lt;1</b>	1	<1	2
Nickel	ppm	<b>0</b>	0	<1	0
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	<1	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	0
Vanadium	ppm	<b>0</b>	0	0	0



#### ADDITIVES

Calcium	ppm	<b>41</b>	70	57	155
Magnesium	ppm	<b>5</b>	10	8	18
Zinc	ppm	<b>13</b>	27	17	54
Phosphorus	ppm	<b>855</b>	780	774	967
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>7</b>	17	19	48

#### Diagnosis

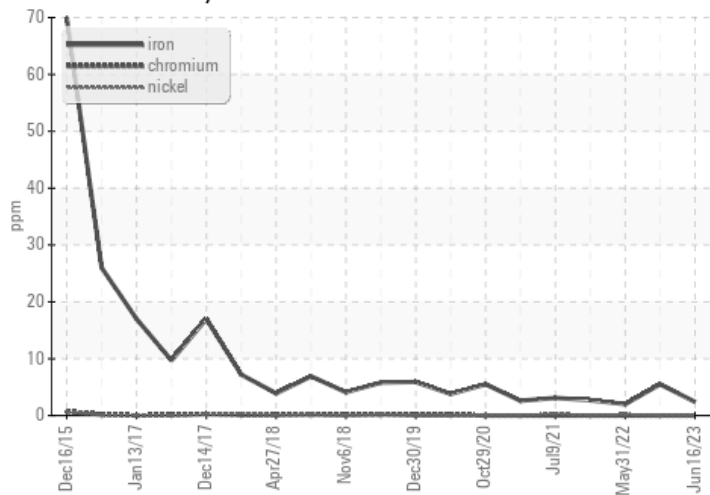
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

**Depot:** LEC0008  
**Unique No:** 10535772  
**Signed:** Don Baldrige  
**Report Date:** 30 Jun 2023

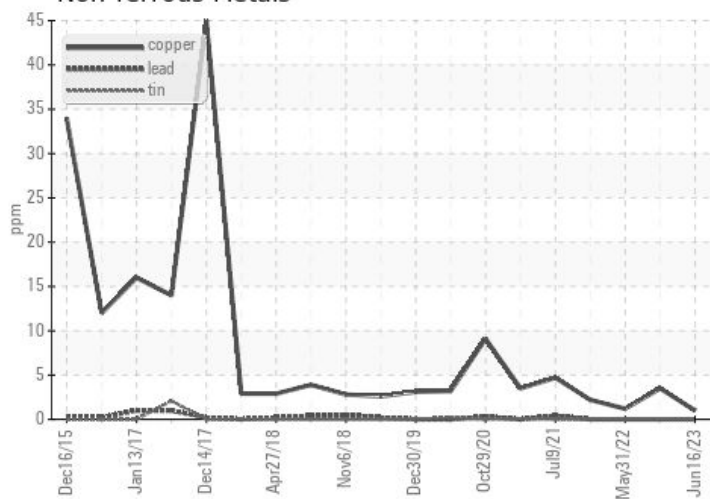


### GRAPHS

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

