

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH110 155976-1227 - Rear Left Wheel Hub

Sample No: LH0267551  
 Oil Type: GEAR OIL SAE 80W90



**KINDER MORGAN**  
 4301 IVERSON  
 TRINITY, AL  
 US 35601  
 Contact: CHIP OAKES

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 F: (256)355-5250



#### Sample Information

Sample Number	LH0267551	LH0267534	LH0280578	LH0280567
Sample Date	12 May 2024	18 Apr 2024	23 Feb 2024	30 Jan 2024
Machine Hours	1951	1623	995	534
Oil Hours	956	628	0	0
Oil Changed	Changed	Not Changd	Changed	Not Changd
Sample Status	ATTENTION	ATTENTION	NORMAL	NORMAL



#### Oil Condition

Visc @ 40°C	cSt	96.6	98.7	156	155



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Silicon	ppm	7	5	17	15
Sodium	ppm	2	0	3	0
Potassium	ppm	1	0	<1	1



#### Wear Metals

Iron	ppm	55	36	55	50
Copper	ppm	12	8	17	13
Lead	ppm	<1	0	<1	0
Tin	ppm	0	0	<1	0
Aluminum	ppm	1	<1	2	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	2	1	0	0
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	<1	0	0	0
Manganese	ppm	1	<1	2	<1
Vanadium	ppm	<1	0	0	0



#### Additives

Calcium	ppm	161	177	111	126
Magnesium	ppm	6	4	2	<1
Zinc	ppm	97	103	26	10
Phosphorus	ppm	435	466	1516	1298
Barium	ppm	0	0	0	6
Boron	ppm	3	<1	14	17

#### Diagnosis

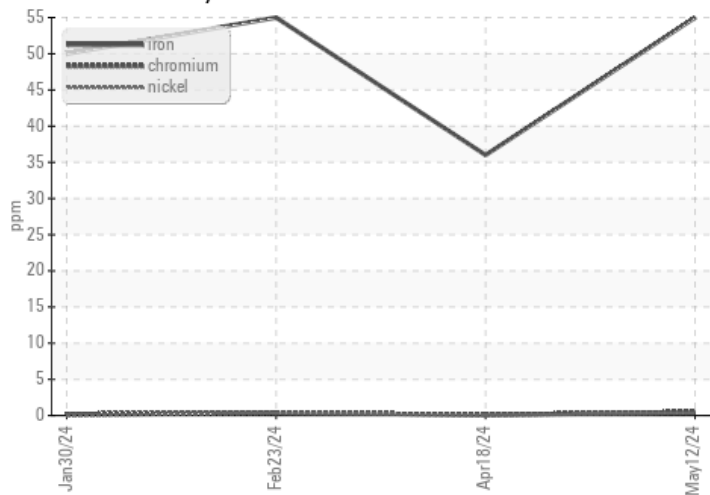
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Confirm oil type.

Depot: KINTRI  
 Unique No: 11049374  
 Signed: Don Baldrige  
 Report Date: 30 May 2024

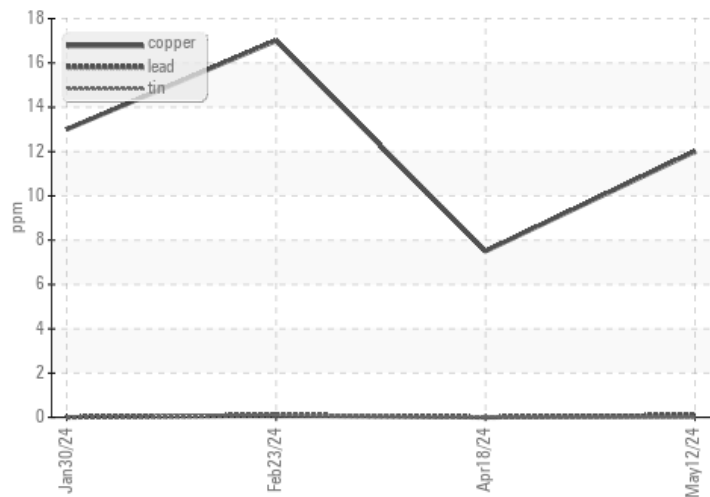


### Graphs

#### Ferrous Alloys



#### Non-ferrous Metals



#### ● Viscosity @ 40°C

