

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R954C 023859 - Hydraulic System

Sample No: LH0278967

Oil Type: AW HYDRAULIC OIL ISO 46



**Gerdau Ameristeel**  
55A Fenmar Drive  
Toronto, ON  
CA M9L 1M3  
Contact: Liebherr Maintenance



#### SAMPLE INFORMATION

Sample Number	LH0278967	LH0251352	LH0195777	LH0215816
Sample Date	07 Nov 2023	14 Mar 2023	13 Apr 2022	03 Dec 2021
Machine Hours	21581	21061	20026	19606
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	ABNORMAL	ABNORMAL	ABNORMAL



#### OIL CONDITION

Visc @ 40°C	cSt	40.6	39.9	35.8	35.8



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		5287	11362	8290	9335
Particles >6µm		75	1966	1498	1075
Particles >14µm		4	63	82	29
ISO 4406:1999 (c)		20/13/9	21/18/13	20/18/14	20/17/12
Silicon	ppm	2	<1	<1	<1
Sodium	ppm	2	<1	<1	<1
Potassium	ppm	4	<1	<1	0



#### WEAR METALS

Iron	ppm	6	4	6	7
Copper	ppm	2	1	2	2
Lead	ppm	<1	<1	0	0
Tin	ppm	0	0	<1	<1
Aluminum	ppm	<1	0	<1	<1
Chromium	ppm	4	2	2	2
Molybdenum	ppm	1	2	<1	<1
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	0	0	0
Silver	ppm	<1	0	<1	0
Manganese	ppm	0	0	0	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	95	118	57	60
Magnesium	ppm	4	5	2	1
Zinc	ppm	457	475	506	525
Phosphorus	ppm	373	427	424	444
Barium	ppm	<1	0	0	0
Boron	ppm	3	1	<1	<1

T:  
F:

#### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The condition of the oil is acceptable for the time in service.

Depot: GERTOR  
Unique No: 5694671  
Signed: Wes Davis  
Report Date: 08 Dec 2023

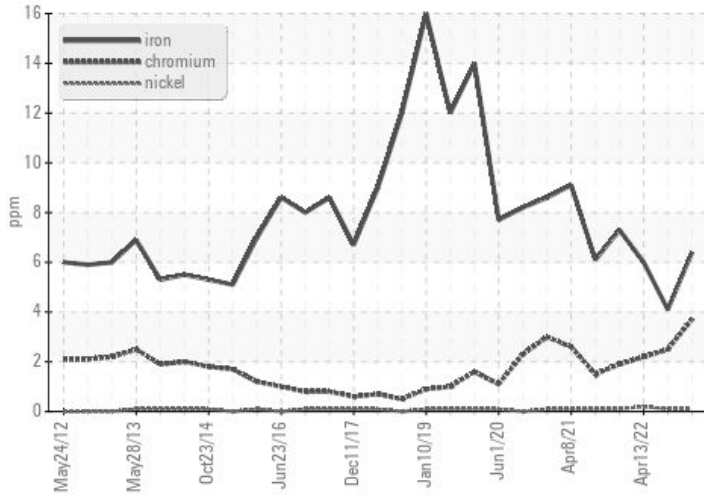
# LIEBHERR

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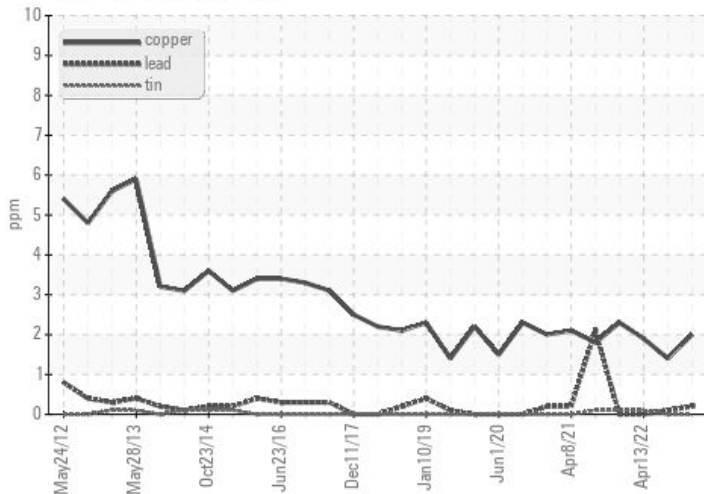


### GRAPHS

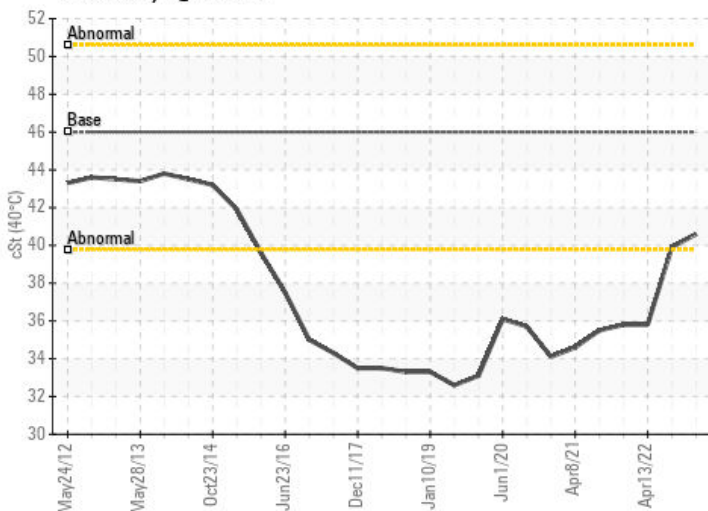
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

