

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH30 120113-1253 - Hydraulic System

Sample No: LH0272493

Oil Type: LIEBHERR HYDRAULIC HVI



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

Sample Number	LH0272493	LH0264322	LH0254036	LH0220999
Sample Date	29 Dec 2023	27 Jul 2023	22 Mar 2023	28 Nov 2022
Machine Hours	9587	9001	8516	7984
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL



#### OIL CONDITION

Visc @ 40°C	cSt	43.3	40.5	43.6	43.5
Acid Number (AN)	mg KOH/g	0.94	1.05	0.87	1.01



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		843	898	10215	13476
Particles >6µm		230	250	1522	489
Particles >14µm		23	21	63	24
ISO 4406:1999 (c)		17/15/12	17/15/12	21/18/13	21/16/12
Silicon	ppm	2	2	2	3
Sodium	ppm	0	2	4	4
Potassium	ppm	3	2	2	2



#### WEAR METALS

Iron	ppm	83	77	64	71
Copper	ppm	6	5	5	5
Lead	ppm	1	<1	<1	1
Tin	ppm	<1	0	<1	<1
Aluminum	ppm	2	2	1	1
Chromium	ppm	2	3	3	3
Molybdenum	ppm	<1	0	<1	<1
Nickel	ppm	<1	<1	0	0
Titanium	ppm	<1	0	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	2	1	1	1
Vanadium	ppm	0	0	<1	0



#### ADDITIVES

Calcium	ppm	1105	1268	1222	1339
Magnesium	ppm	8	7	9	11
Zinc	ppm	622	660	629	710
Phosphorus	ppm	569	548	554	590
Barium	ppm	8	0	0	0
Boron	ppm	0	0	0	<1

#### Diagnosis

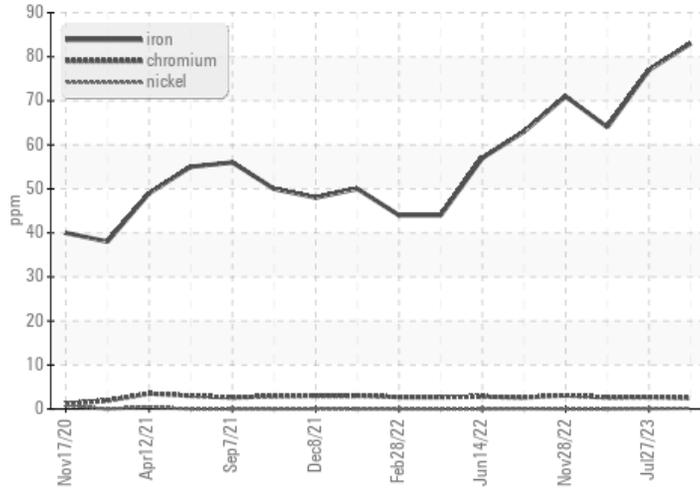
No corrective action is recommended at this time. Resample at the next service interval to monitor. The iron level is abnormal. All other component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: LEC0008  
 Unique No: 10818810  
 Signed: Don Baldrige  
 Report Date: 08 Jan 2024

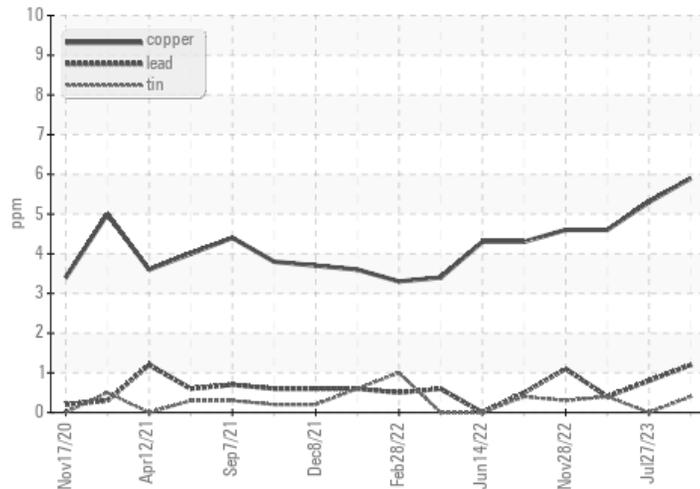


### GRAPHS

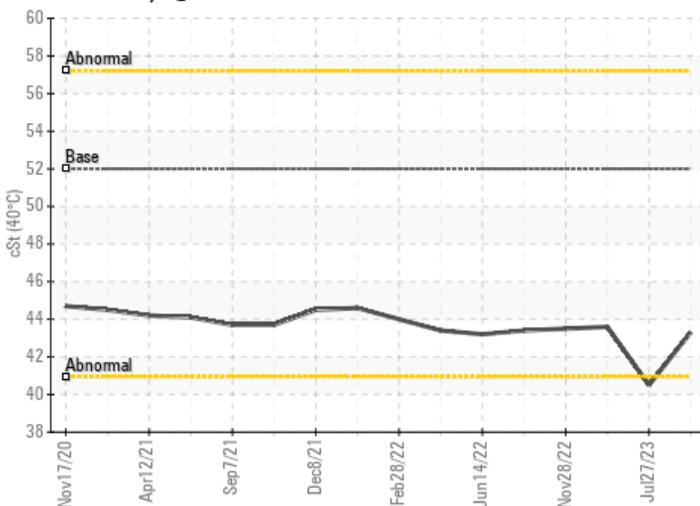
#### ● Ferrous Alloys



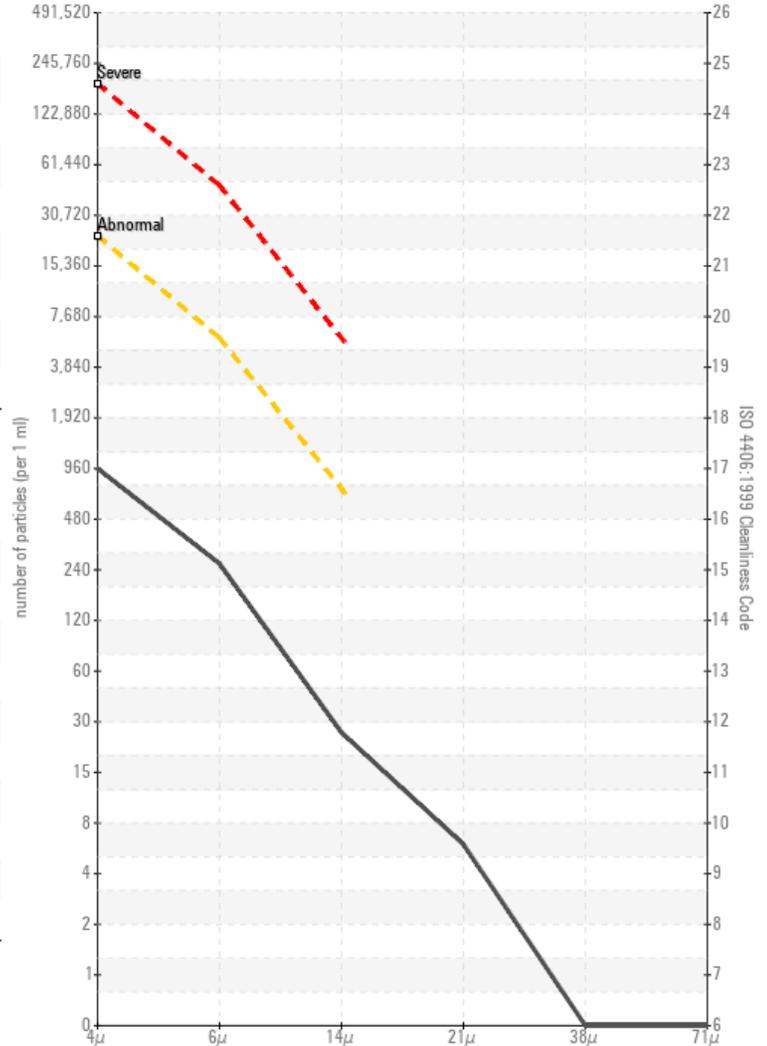
#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count



#### Acid Number

