

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50M 1216-109299 - Hydraulic System

Sample No: LH0263976

Oil Type: LIEBHERR HYDRAULIC HVI



**ALTER METAL**  
2900 SHERMAN STREET  
WAUSAU, WI  
US 54401  
Contact: Service Manager



#### SAMPLE INFORMATION

Sample Number	LH0263976	LH0264381	LH0200314	LH0243147
Sample Date	19 Oct 2023	21 Jul 2023	20 Apr 2023	21 Dec 2022
Machine Hours	8565	8127	7653	7018
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



#### OIL CONDITION

Visc @ 40°C	cSt	42.8	43.2	42.5	43.2
Acid Number (AN)	mg KOH/g	1.35	1.34	1.39	0.62



#### CONTAMINATION

Particles >4µm		790	2345	1776	1825
Particles >6µm		168	270	443	277
Particles >14µm		22	13	28	24
ISO 4406:1999 (c)		17/15/12	18/15/11	18/16/12	18/15/12
Silicon	ppm	3	4	4	4
Sodium	ppm	3	3	0	3
Potassium	ppm	0	<1	2	0



#### WEAR METALS

Iron	ppm	10	10	10	12
Copper	ppm	2	2	2	2
Lead	ppm	0	<1	<1	<1
Tin	ppm	0	0	0	<1
Aluminum	ppm	0	0	0	<1
Chromium	ppm	<1	<1	1	1
Molybdenum	ppm	43	48	47	32
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	<1	0	0



#### ADDITIVES

Calcium	ppm	2613	2806	2780	2768
Magnesium	ppm	115	142	126	109
Zinc	ppm	1059	1171	1137	1092
Phosphorus	ppm	947	1008	1008	975
Barium	ppm	0	0	0	0
Boron	ppm	52	56	54	40

T:  
F:

#### Diagnosis

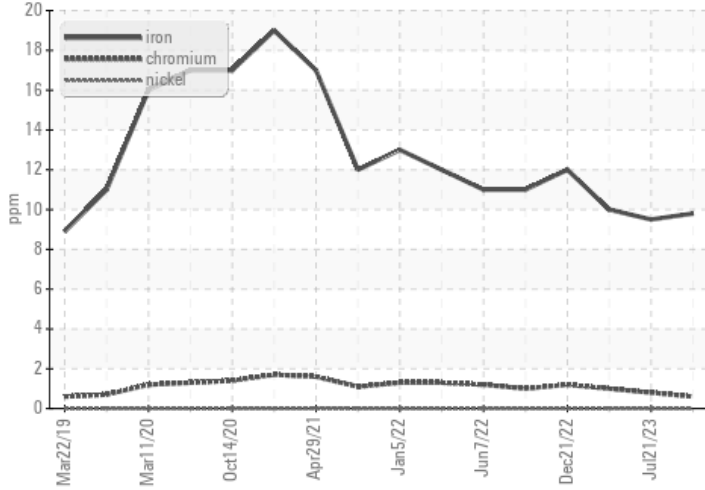
Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for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

Depot: ALTWAAUS  
Unique No: 10726776  
Signed: Don Baldrige  
Report Date: 07 Nov 2023

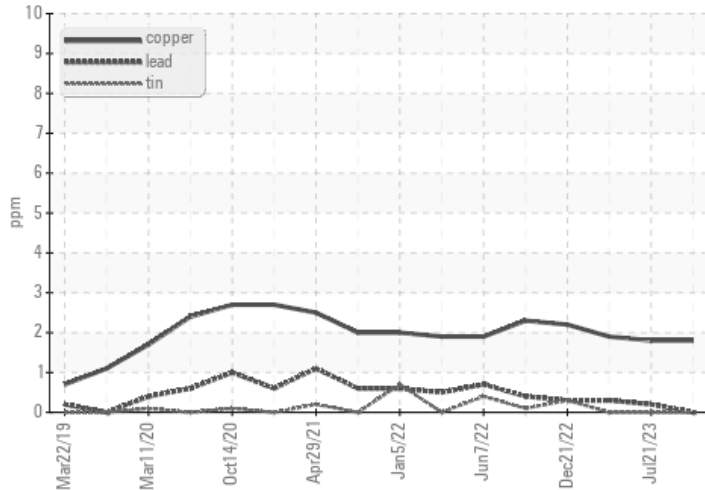


### GRAPHS

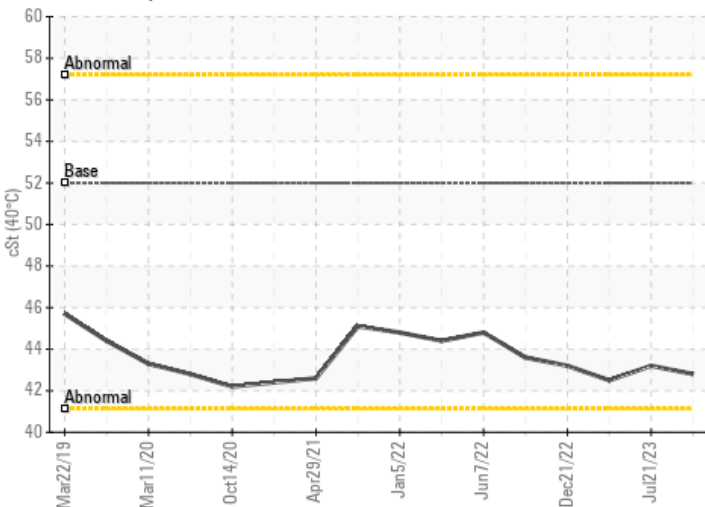
#### Ferrous Alloys



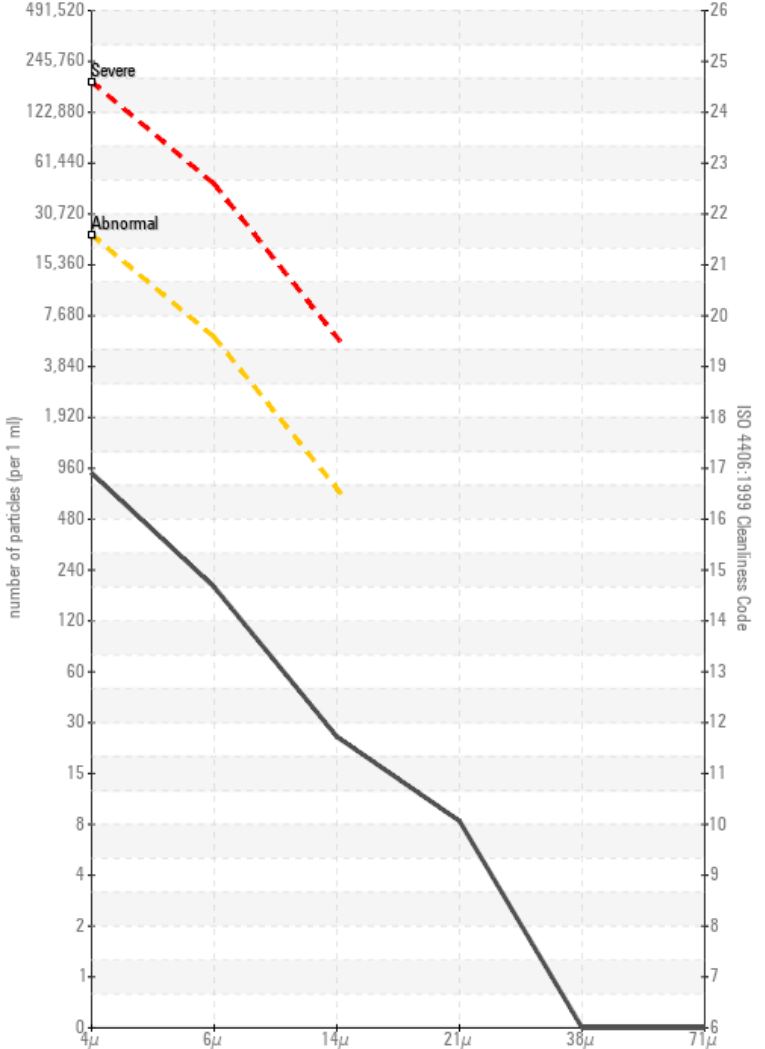
#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count



#### Acid Number

