

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 137429 - Hydraulic System

Sample No: LH0286546

Oil Type: AW HYDRAULIC OIL ISO 46



CMI - COMBINED METAL INDUSTRIES
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 NORTH YORK, ON
 CA M9L 1P9
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SAMPLE INFORMATION

Sample Number	LH0286546	LH0281412	LH0274498	LH0247033
Sample Date	01 Apr 2024	07 Dec 2023	20 Aug 2023	11 Jun 2023
Machine Hours	8697	7579	6359	5689
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	42.2	43.1	42.7	41.5
		●	●	●	●



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		● 2391	● 4720	● 3405	● 9176
Particles >6µm		● 639	● 1549	● 881	● 2280
Particles >14µm		● 28	● 65	● 40	● 118
ISO 4406:1999 (c)		18/16/12	19/18/13	19/17/12	20/18/14
Silicon	ppm	● 0	● <1	● 1	● 2
Sodium	ppm	● <1	● <1	● <1	● <1
Potassium	ppm	● <1	● 0	● 0	● <1



WEAR METALS

Iron	ppm	● 4	● 3	● 5	● 7
Copper	ppm	● <1	● 1	● 1	● 2
Lead	ppm	● 0	● <1	● <1	● <1
Tin	ppm	● 0	● 0	● 0	● 0
Aluminum	ppm	● 0	● <1	● <1	● <1
Chromium	ppm	● <1	● <1	● <1	● <1
Molybdenum	ppm	● 0	● 0	● 0	● 0
Nickel	ppm	● 0	● <1	● 0	● 0
Titanium	ppm	0	0	0	0
Silver	ppm	0	<1	0	0
Manganese	ppm	● 0	● 0	● 0	● <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	● 151	● 170	● 278	● 484
Magnesium	ppm	● 1	● 0	● 2	● 2
Zinc	ppm	● 791	● 785	● 690	● 682
Phosphorus	ppm	● 609	● 587	● 582	● 610
Barium	ppm	● 0	● <1	● 0	● 0
Boron	ppm	● <1	● 1	● <1	● <1

Diagnosis

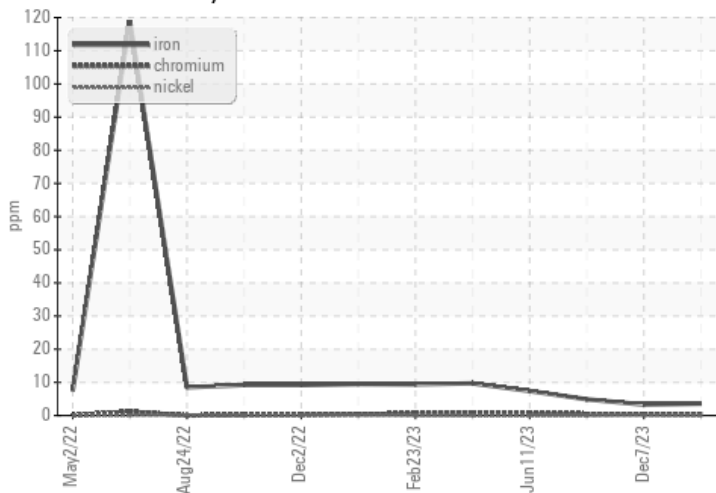
Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The condition of the oil is acceptable for the time in service.

Depot: COMWES
 Unique No: 5759239
 Signed: Kevin Marson
 Report Date: 03 Apr 2024

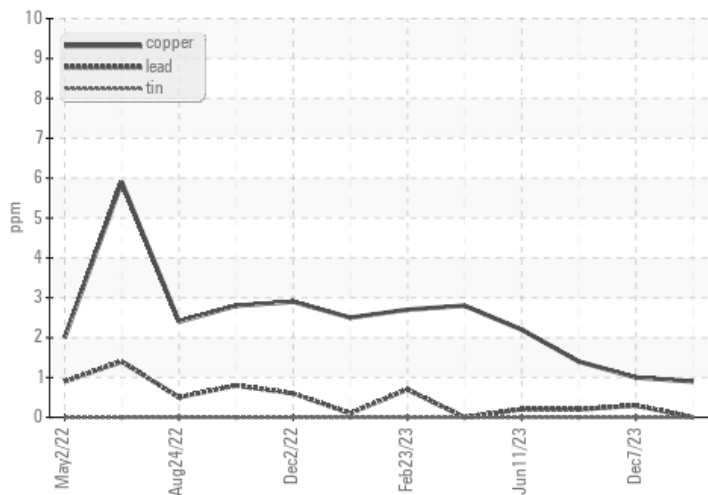


GRAPHS

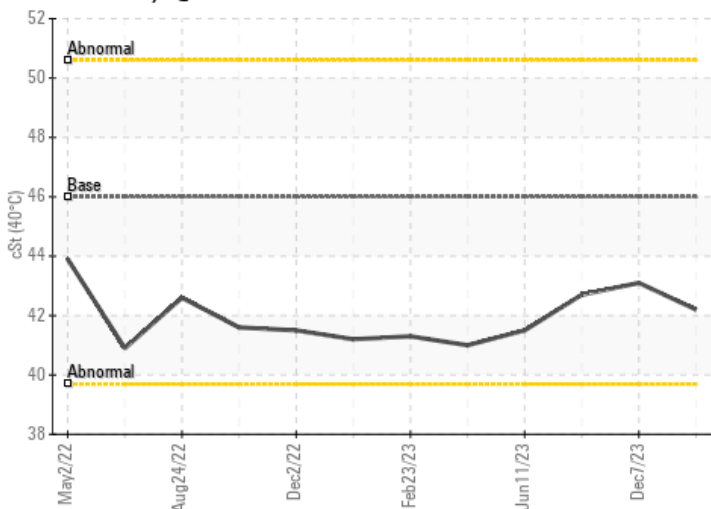
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

