

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 138442 - Hydraulic System

Sample No: LH0278796

Oil Type: {unknown}



CMI - COMBINED METAL INDUSTRIES
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SAMPLE INFORMATION

Sample Number	LH0278796	LH0281415	LH0274624	LH0261754
Sample Date	21 Jan 2024	07 Dec 2023	20 Aug 2023	21 Jun 2023
Machine Hours	6137	5641	4196	3555
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Changed	Not Changd
Sample Status	NORMAL	ATTENTION	ABNORMAL	ABNORMAL



OIL CONDITION

Visc @ 40°C	cSt	42.9	43.2	42.1	41.8



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		15706	32486	37132	78565
Particles >6µm		1011	7997	10750	31285
Particles >14µm		43	326	645	3265
ISO 4406:1999 (c)		21/17/13	22/20/16	22/21/17	23/22/19
Silicon	ppm	<1	1	2	3
Sodium	ppm	<1	<1	<1	1
Potassium	ppm	2	<1	<1	2



WEAR METALS

Iron	ppm	4	4	5	6
Copper	ppm	1	1	2	3
Lead	ppm	0	<1	<1	<1
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	<1	<1	<1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	0	0	0	0
Nickel	ppm	0	<1	<1	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	<1	0	0
Manganese	ppm	0	0	0	0
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	159	165	324	465
Magnesium	ppm	2	1	3	5
Zinc	ppm	812	822	759	737
Phosphorus	ppm	647	614	651	641
Barium	ppm	0	<1	0	0
Boron	ppm	<1	<1	<1	<1

Diagnosis

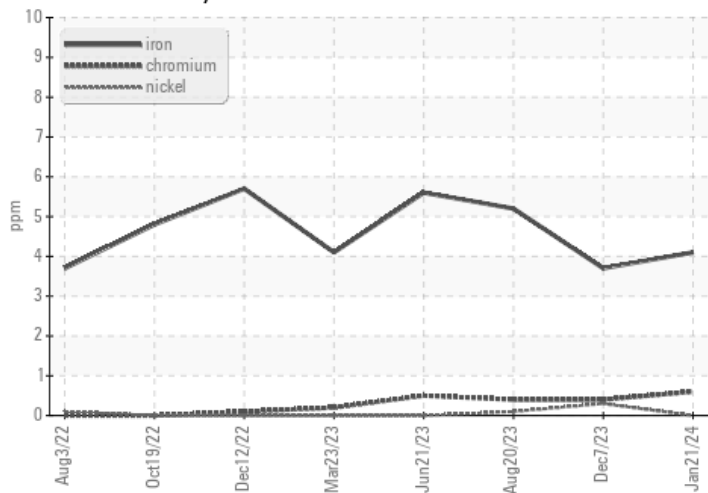
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The condition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

Depot: COMWES
 Unique No: 5711399
 Signed: Wes Davis
 Report Date: 23 Jan 2024

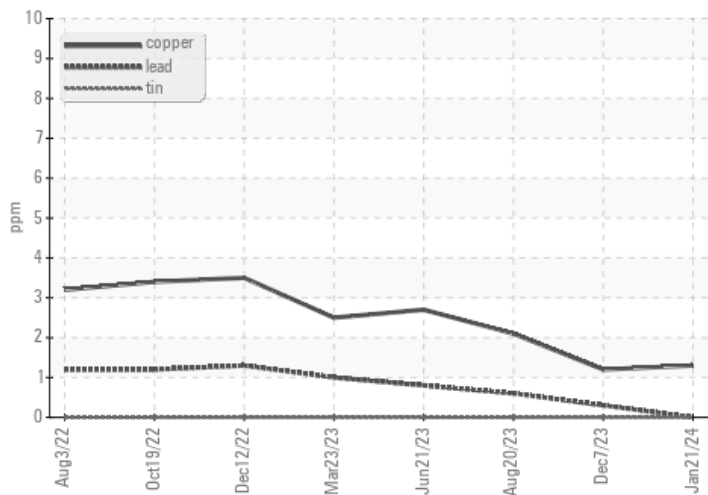


GRAPHS

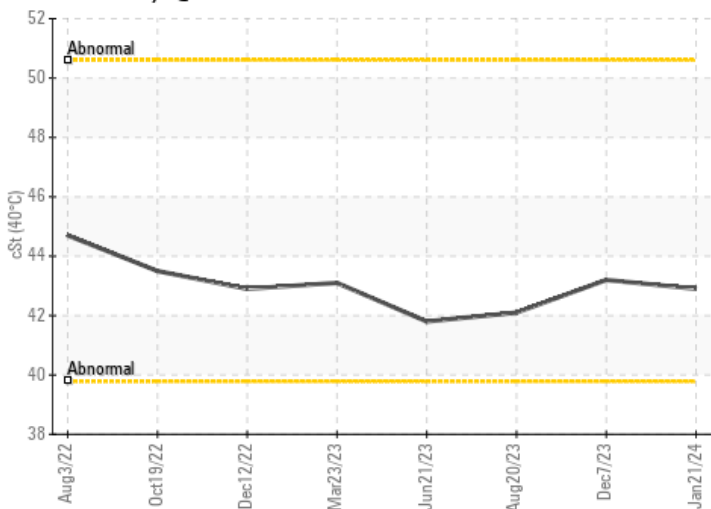
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

