

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 137429 - Hydraulic System

Sample No: LH0274498

Oil Type: AW HYDRAULIC OIL ISO 46



CMI - COMBINED METAL INDUSTRIES
 505 GARY RAY DRIVE
 NORTH YORK, ON
 CA M9L 1P9
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SAMPLE INFORMATION

Sample Number	LH0274498	LH0247033	LH0251551	LH0251875
Sample Date	20 Aug 2023	11 Jun 2023	11 Apr 2023	23 Feb 2023
Machine Hours	6359	5689	5027	4360
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Changed	Not Changd
Sample Status	NORMAL	NORMAL	ABNORMAL	ABNORMAL



OIL CONDITION

Visc @ 40°C	cSt	42.7	41.5	41.0	41.3



CONTAMINATION

Particles >4µm		3405	9176	2481	3284
Particles >6µm		881	2280	540	709
Particles >14µm		40	118	19	32
ISO 4406:1999 (c)		19/17/12	20/18/14	18/16/11	19/17/12
Silicon	ppm	1	2	3	3
Sodium	ppm	<1	<1	1	2
Potassium	ppm	0	<1	<1	0



WEAR METALS

Iron	ppm	5	7	10	9
Copper	ppm	1	2	3	3
Lead	ppm	<1	<1	0	<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	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	278	484	724	752
Magnesium	ppm	2	2	2	2
Zinc	ppm	690	682	778	762
Phosphorus	ppm	582	610	683	694
Barium	ppm	0	0	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: 5630280
 Signed: Kevin Marson
 Report Date: 22 Aug 2023

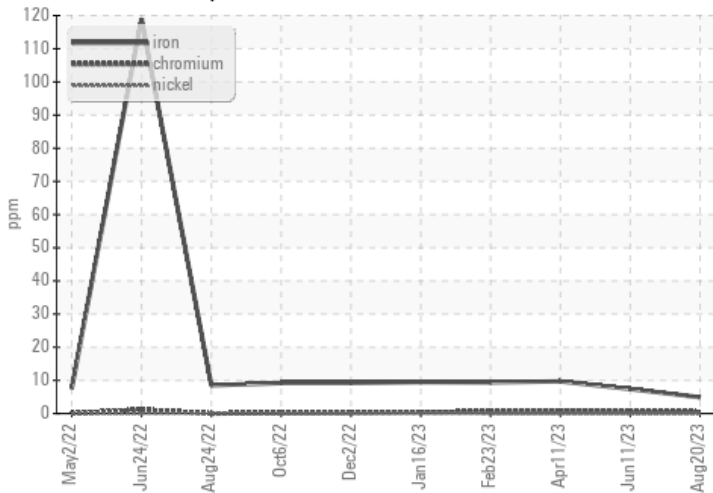
LIEBHERR

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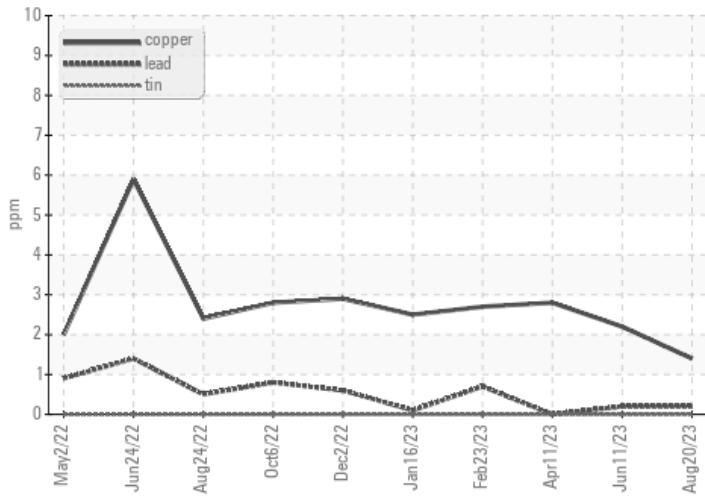


GRAPHS

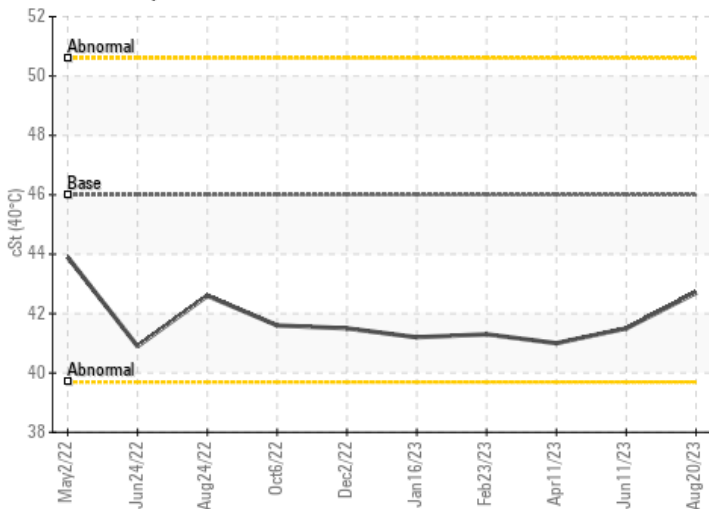
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

