

LIEBHERR

CONSTRUCTION EQUIPMENT



[(343446)] LIEBHERR LH60M 124381-1217 - Hydraulic System

Sample No: LH0265842

Oil Type: AW HYDRAULIC OIL ISO 46

RAM IRON AND METAL

60 Ashwarren Road

TORONTO, ON

CA M3J 1Z5

Contact: PETER RACCO

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Diagnosis

Resample at the next service interval to monitor. Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The condition of the oil is acceptable for the time in service.



SAMPLE INFORMATION

Sample Number		LH0265842	LH0261592	LH0256686	LH0251491
Sample Date		26 Jun 2023	03 May 2023	02 Apr 2023	06 Feb 2023
Machine Hours		10141	9520	9107	8526
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	● 33.9	● 34.2	● 34.3	● 34.5
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CONTAMINATION

Particles >4µm		● 7184	● 8228	● 800	● 2978
Particles >6µm		● 1578	● 2169	● 180	● 589
Particles >14µm		● 50	● 127	● 10	● 14
ISO 4406:1999 (c)		20/18/13	20/18/14	17/15/10	19/16/11
Silicon	ppm	● 1	● 1	● <1	● 1
Sodium	ppm	● 2	● 2	● 2	● 2
Potassium	ppm	● <1	● <1	● <1	● <1



WEAR METALS

PQ		● 1	● 0	● 0	● 5
Iron	ppm	● 67	● 66	● 63	● 90
Copper	ppm	● 4	● 3	● 3	● 4
Lead	ppm	● <1	● <1	● <1	● <1
Tin	ppm	● 0	● <1	● 0	● 0
Aluminum	ppm	● <1	● <1	● <1	● <1
Chromium	ppm	● 2	● 2	● 2	● 2
Molybdenum	ppm	● <1	● <1	● <1	● <1
Nickel	ppm	● 0	● 0	● 0	● 0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	● <1	● 1	● 1	● 1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	● 227	● 244	● 238	● 301
Magnesium	ppm	● 8	● 7	● 7	● 5
Zinc	ppm	● 434	● 434	● 422	● 475
Phosphorus	ppm	● 373	● 389	● 380	● 422
Barium	ppm	● 0	● 0	● 0	● 0
Boron	ppm	● 2	● 2	● 2	● <1

Depot: RAMTOR
 Unique No: 5604373
 Signed: Kevin Marson
 Report Date: 30 Jun 2023

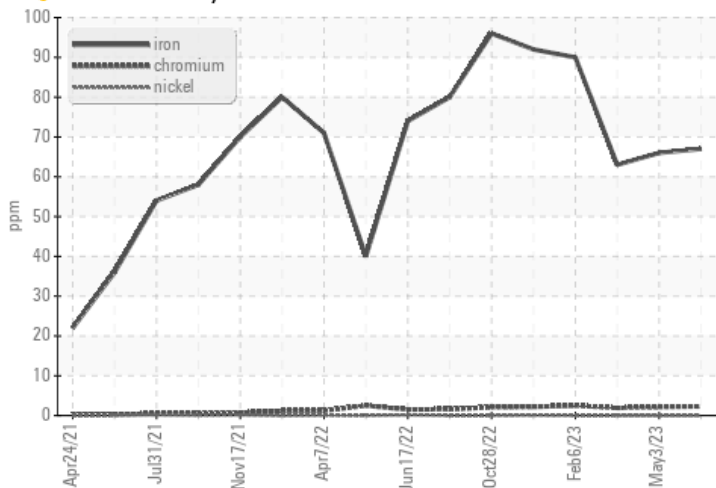
LIEBHERR

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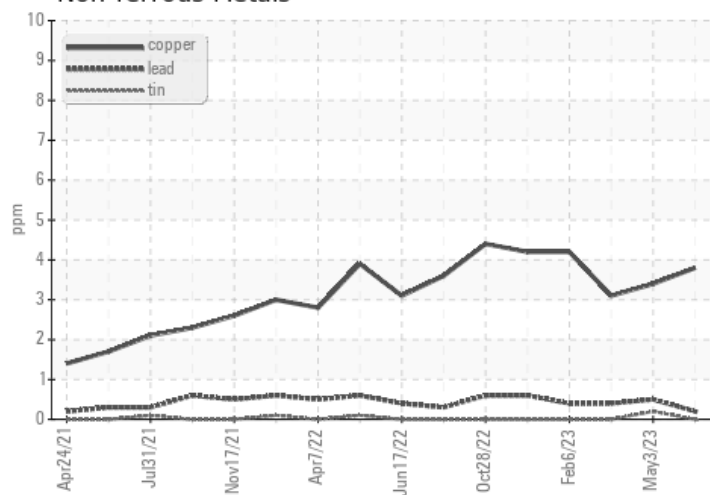


GRAPHS

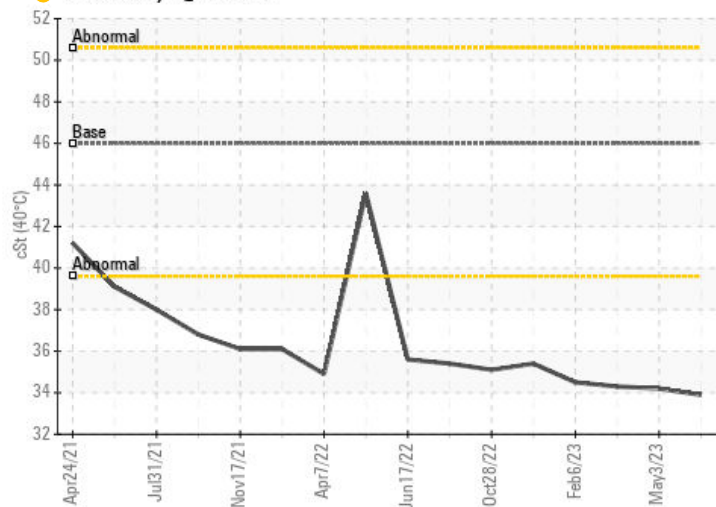
● Ferrous Alloys



Non-ferrous Metals



● Viscosity @ 40°C



Particle Filter (Magn: 100 x)

