

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 156991 - Hydraulic System

Sample No: LH0290889

Oil Type: {unknown}



CMI - COMBINED METAL INDUSTRIES
 505 GARY RAY DRIVE
 NORTH YORK, ON
 CA M9L 1P9
 Contact: Greg Sacher
 gsacher@combinedmetal.com
 T: (416)642-7262
 F:



Sample Information

Sample Number	LH0290889	LH0291029	LH0289724	LH0285076
Sample Date	07 Jul 2024	27 May 2024	21 Apr 2024	04 Mar 2024
Machine Hours	2636	2198	1662	1005
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	ATTENTION	NORMAL



Oil Condition

Visc @ 40°C	cSt	41.6	41.9	43.0	43.1
		●	●	●	●



Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		● 6366	● 12239	● 22410	● 2595
Particles >6µm		● 1497	● 2172	● 4081	● 518
Particles >14µm		● 84	● 73	● 246	● 28
ISO 4406:1999 (c)		20/18/14	21/18/13	22/19/15	19/16/12
Silicon	ppm	● 2	● 1	● 1	● 2
Sodium	ppm	● 1	● 2	● <1	● <1
Potassium	ppm	● 2	● 6	● <1	● 1



Wear Metals

Iron	ppm	● 31	● 24	● 18	● 17
Copper	ppm	● 6	● 5	● 3	● 2
Lead	ppm	● <1	● 0	● 0	● 0
Tin	ppm	● 0	● 0	● 0	● 0
Aluminum	ppm	● <1	● <1	● 0	● <1
Chromium	ppm	● <1	● 0	● 0	● 0
Molybdenum	ppm	0	0	0	0
Nickel	ppm	● <1	● 0	● 0	● <1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	0
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	571	560	568	788
Magnesium	ppm	4	4	4	5
Zinc	ppm	811	758	773	766
Phosphorus	ppm	635	634	617	644
Barium	ppm	0	0	0	0
Boron	ppm	11	<1	<1	<1

Diagnosis

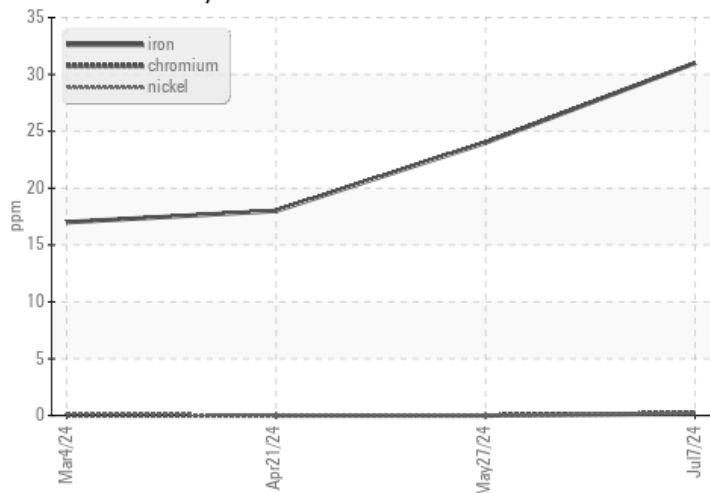
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The condition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

Depot: COMWES
 Unique No: 5811861
 Signed: Wes Davis
 Report Date: 09 Jul 2024

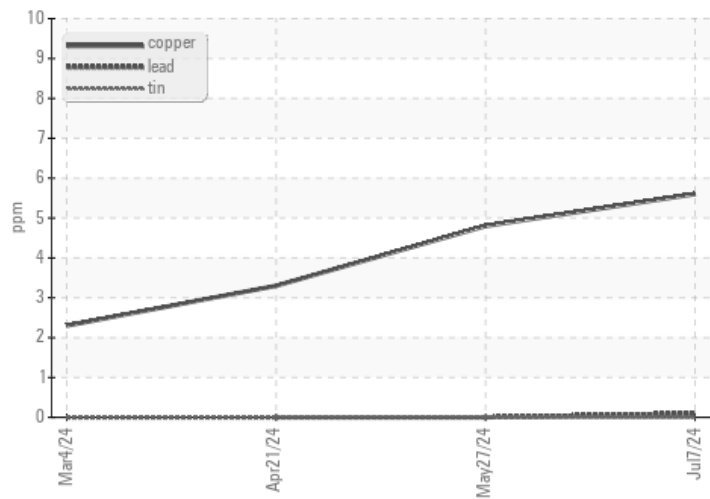


Graphs

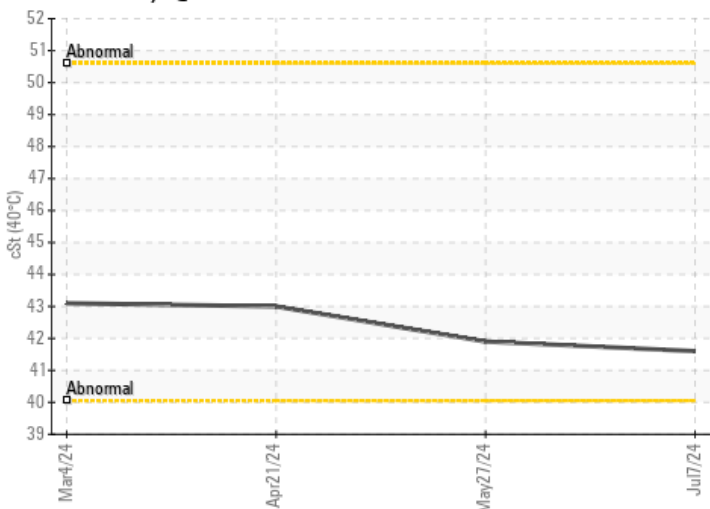
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

