LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH50M 1216-108671 - Hydraulic System

Sample No: LH0272540

Oil Type: LIEBHERR HYDRAULIC HVI

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SAMPLE INFORMATION

Sample Number		**LH0272540**	LH0263879	LH0263828	LH0254786
Sample Date		**01 Nov 2023**	05 Sep 2023	29 Jun 2023	12 Apr 2023
Machine Hours		**18598**	17864	17296	16979
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	**41.5**	41.8	40.8	41.3
Acid Number (AN)	mg KOH/g	**0.72**	0.65	0.72	0.564

CONTAMINATION

Particles >4µm		**1621**	777	171	546
Particles >6µm		**507**	155	50	118
Particles >14µm		**34**	11	5	11
ISO 4406:1999 (c)		**18/16/12**	17/14/11	15/13/10	16/14/11
Silicon	ppm	**<1**	<1	<1	<1
Sodium	ppm	**2**	2	<1	2
Potassium	ppm	**0**	0	1	0

WEAR METALS

Iron	ppm	**31**	30	31	30
Copper	ppm	**2**	1	3	2
Lead	ppm	**0**	0	<1	0
Tin	ppm	**0**	0	<1	0
Aluminum	ppm	**0**	0	0	0
Chromium	ppm	**<1**	<1	<1	<1
Molybdenum	ppm	**<1**	0	2	2
Nickel	ppm	**0**	0	<1	0
Titanium	ppm	**<1**	<1	<1	<1
Silver	ppm	**0**	0	0	0
Manganese	ppm	**<1**	<1	<1	<1
Vanadium	ppm	**0**	0	0	<1

ADDITIVES

Calcium	ppm	**522**	558	605	632
Magnesium	ppm	**14**	17	13	17
Zinc	ppm	**534**	565	561	576
Phosphorus	ppm	**446**	348	437	450
Barium	ppm	**0**	0	0	0
Boron	ppm	**3**	3	3	3

Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: LEC0008
Unique No: 10728149
Signed: Don Baldridge
Report Date: 08 Nov 2023

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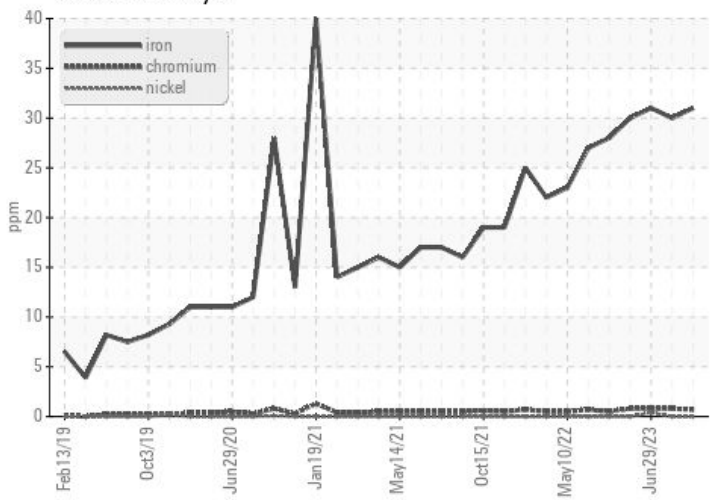
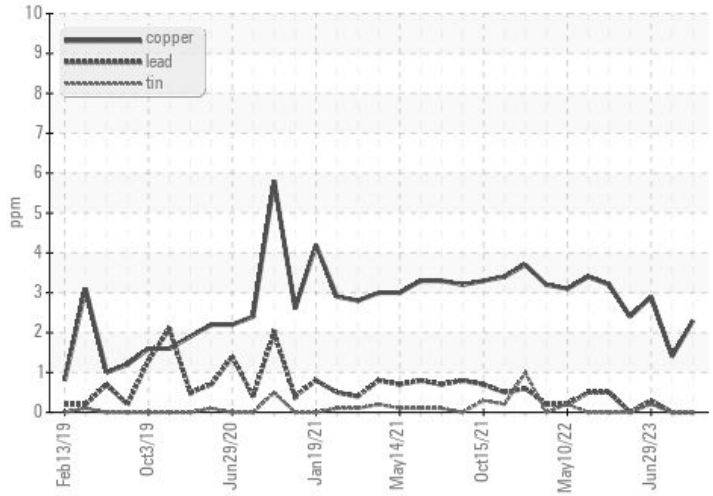
GRAPHS

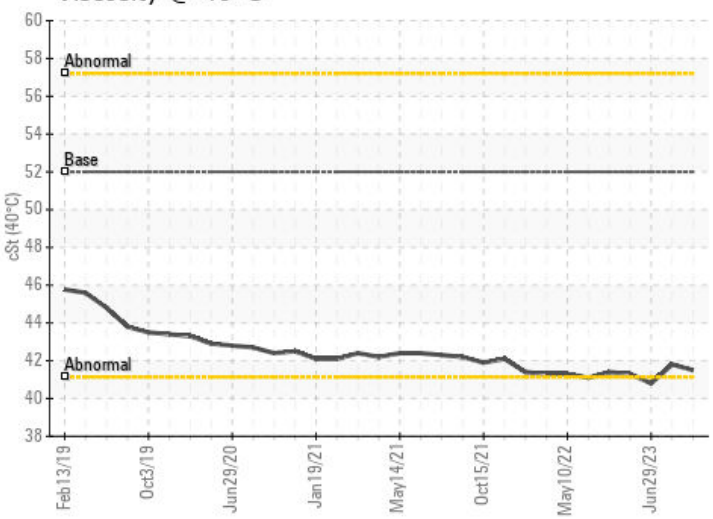
Ferrous Alloys



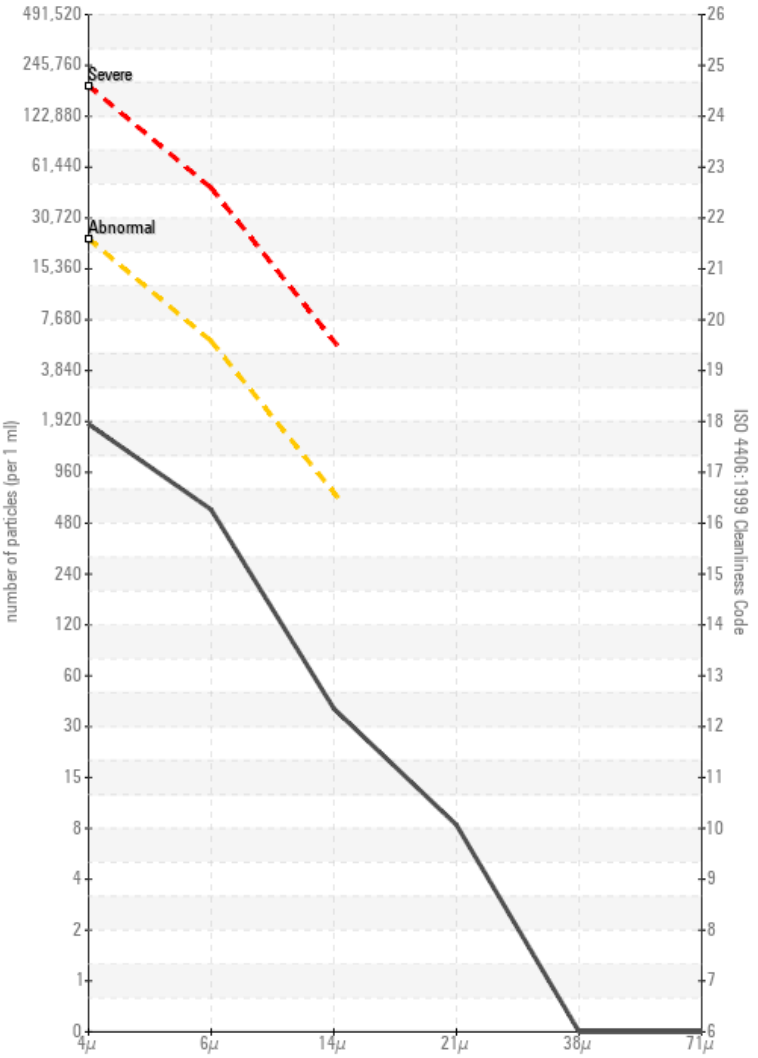
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number