LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR R944 042563-194 - Hydraulic System

Sample No: LH0243875

Oil Type: AW HYDRAULIC OIL ISO 68

LIEBHERR EQUIPMENT SOURCE
4100 CHESTNUT AVENUE
NEWPORT NEWS, VA
US 23607
Contact: LUKE APPLEBY
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SAMPLE INFORMATION

Sample Number		**LH0243875**	LH0229398	LHMC120626	LHMC010482
Sample Date		**29 Feb 2024**	03 Oct 2022	04 Dec 2017	31 Jan 2009
Machine Hours		**29512**	28033	18940	702
Oil Hours		**0**	2000	500	702
Oil Changed		**Changed**	Changed	Not Changd	Not Changd
Sample Status		**ATTENTION**	ABNORMAL	NORMAL	NORMAL

OIL CONDITION

Visc @ 40°C	cSt	**59.6**	64.2	65.52	40.68
Acid Number (AN)	mg KOH/g	**0.42**	0.43	0.436	1.32

CONTAMINATION

Water	%	**NEG**	NEG	NEG	NEG
Particles >4µm		**23126**	46561	3931	9588
Particles >6µm		**520**	7715	421	727
Particles >14µm		**12**	223	34	55
ISO 4406:1999 (c)		**22/16/11**	23/20/15	19/16/12	20/17/13
Silicon	ppm	**<1**	<1	<1	2
Sodium	ppm	**0**	0	1	5
Potassium	ppm	**2**	0	5	0

WEAR METALS

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

ADDITIVES

Calcium	ppm	**95**	89	80	1272
Magnesium	ppm	**13**	10	6	0
Zinc	ppm	**458**	440	448	690
Phosphorus	ppm	**327**	351	345	605
Barium	ppm	**0**	0	0	0
Boron	ppm	**<1**	6	6	0

Diagnosis

We recommend you service the filters on this component. 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. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: LIEBHERRUS
Unique No: 10915580
Signed: Wes Davis
Report Date: 08 Mar 2024

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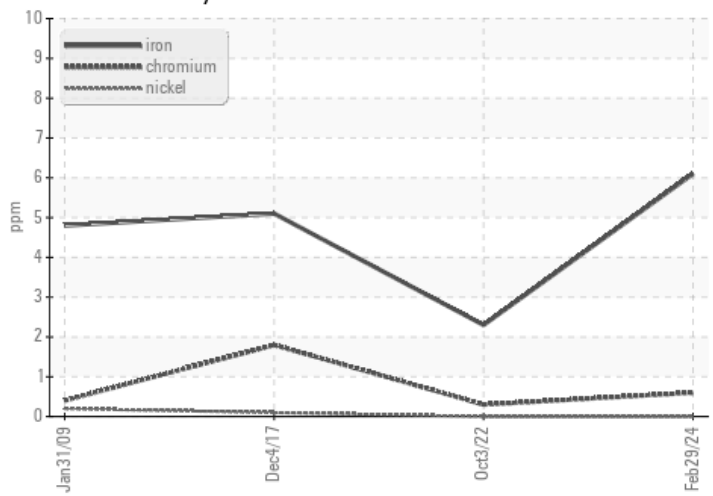
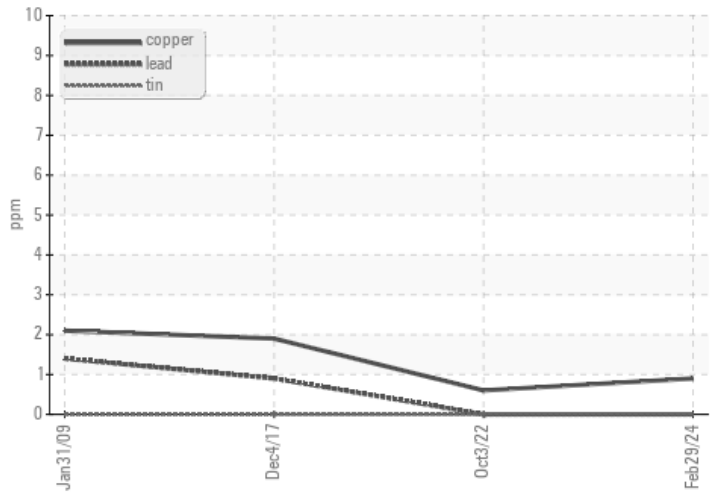
GRAPHS

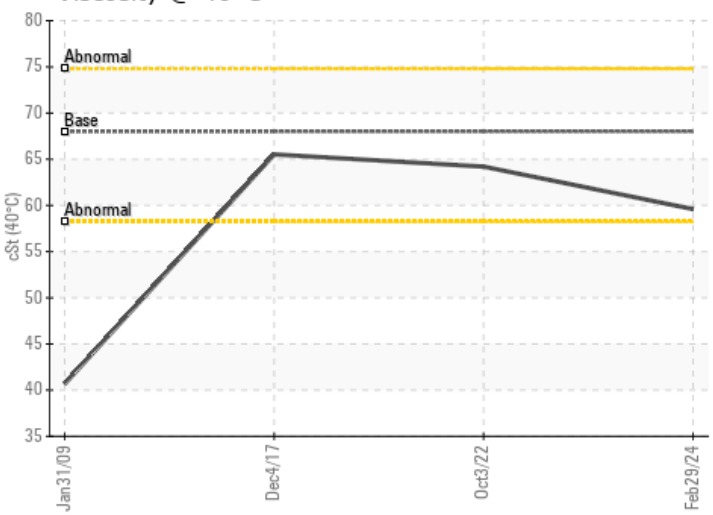
Ferrous Alloys



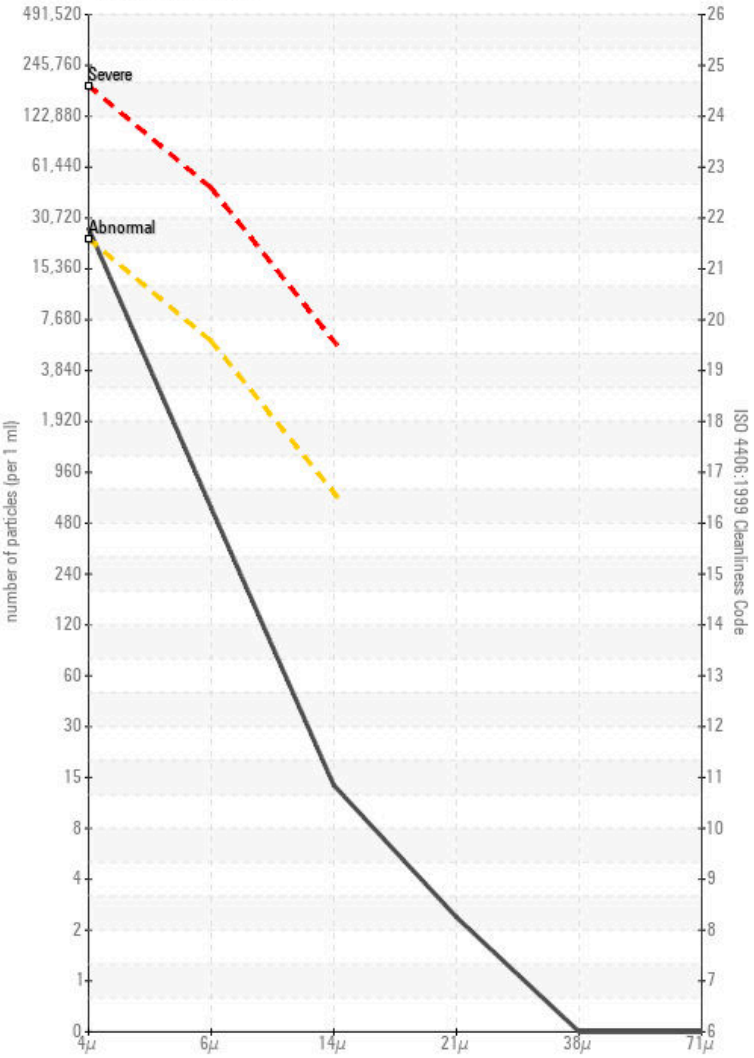
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number