

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH24 1251-1077 21 - Hydraulic System

Sample No: LH0254096

Oil Type: LIEBHERR HYDRAULIC HVI



SAMPLE INFORMATION

Sample Number	LH0254096	LH0243984	LH0229668	LH0217269
Sample Date	27 Apr 2023	03 Jan 2023	13 Sep 2022	15 Jun 2022
Machine Hours	8247	7421	6696	6100
Oil Hours	0	0	0	596
Oil Changed	Changed	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	ATTENTION

POTOMAC METALS INC
 410 16TH AVENUE
 RANSON, WV
 US 25438
 Contact: Service Manager



OIL CONDITION

Visc @ 40°C	cSt	43.0	42.9	42.8	43.0
Acid Number (AN)	mg KOH/g	0.71	0.74	0.78	0.76

T:
F:



CONTAMINATION

Particles >4µm		18803	17167	18992	23861
Particles >6µm		1850	2523	1344	5136
Particles >14µm		16	58	25	436
ISO 4406:1999 (c)		21/18/11	21/19/13	21/18/12	22/20/16
Silicon	ppm	1	1	<1	1
Sodium	ppm	0	<1	<1	1
Potassium	ppm	<1	<1	0	0

Diagnosis

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



WEAR METALS

Iron	ppm	19	17	15	16
Copper	ppm	7	6	6	6
Lead	ppm	2	2	1	2
Tin	ppm	0	0	0	0
Aluminum	ppm	<1	0	<1	<1
Chromium	ppm	2	2	1	2
Molybdenum	ppm	<1	<1	0	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

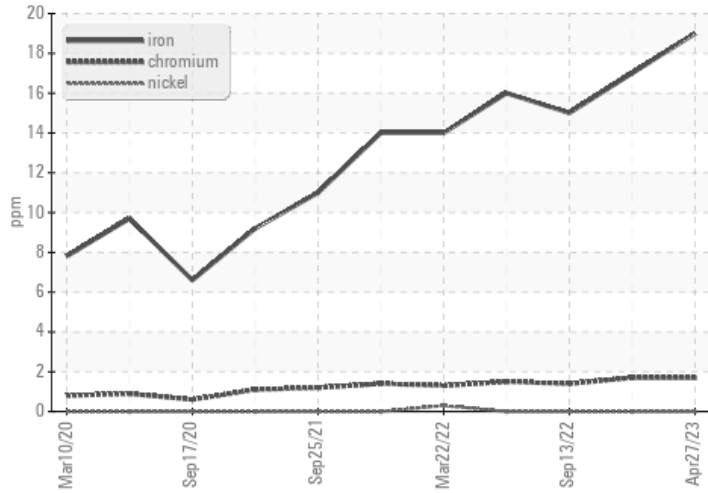
Calcium	ppm	449	447	431	495
Magnesium	ppm	50	49	48	50
Zinc	ppm	520	513	495	527
Phosphorus	ppm	397	407	401	415
Barium	ppm	0	<1	0	0
Boron	ppm	0	0	0	<1

Depot: POTRAN
Unique No: 10608703
Signed: Doug Bogart
Report Date: 22 Aug 2023

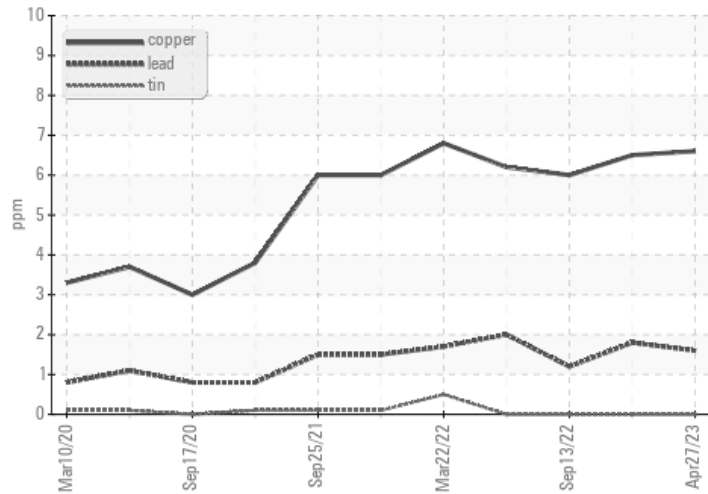


GRAPHS

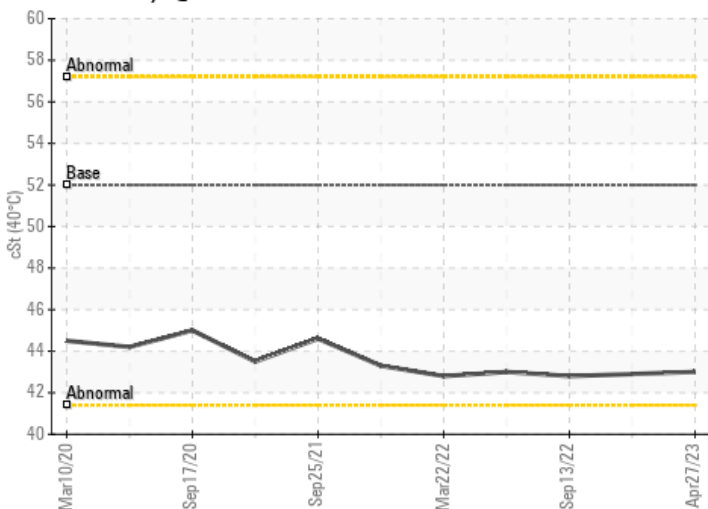
Ferrous Alloys



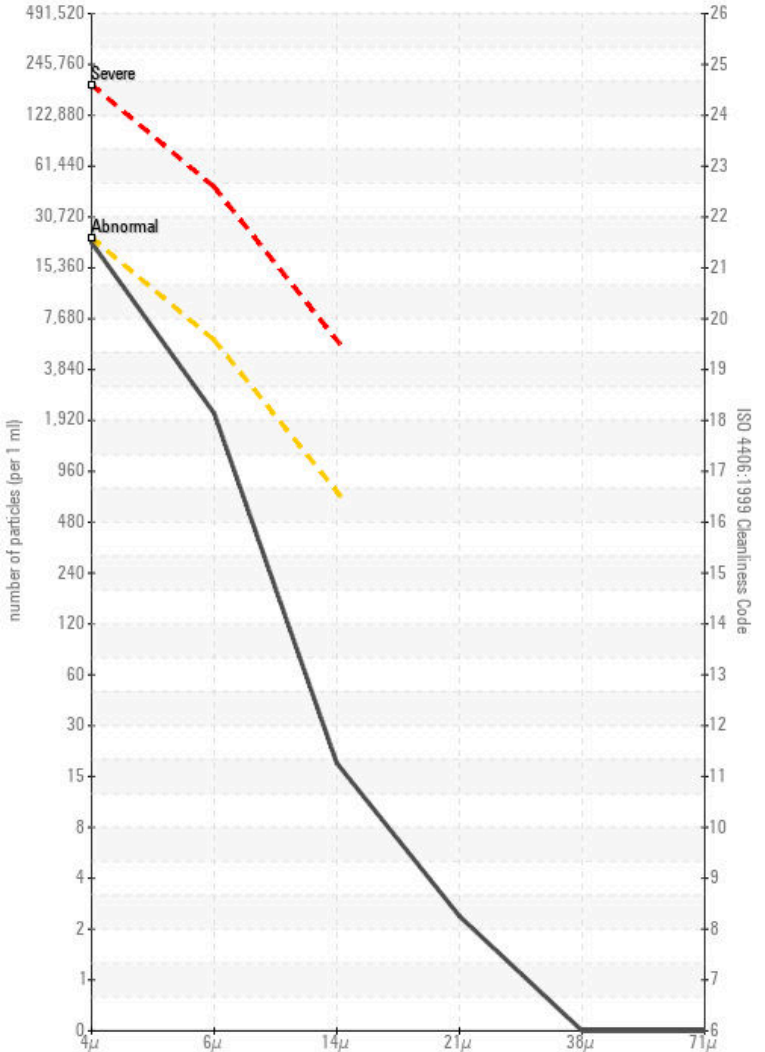
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

