

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A934C 061188-1419 - Hydraulic System

Sample No: LH0272398

Oil Type: LIEBHERR HYDRAULIC HVI



SAMPLE INFORMATION

Sample Number	LH0272398	LH0263924	LH0253882	LH0253903
Sample Date	30 Jan 2024	10 Nov 2023	21 Sep 2023	13 Jul 2023
Machine Hours	28124	27562	27222	26744
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	NORMAL	ATTENTION	ATTENTION	NORMAL

NORTHERN METAL RECYCLING

2800 PACIFIC ST N
MINNEAPOLIS, MN
US 55411

Contact: CHRIS GILMER
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F:



OIL CONDITION

Visc @ 40°C	cSt	41.9	41.73	41.4	40.8
Acid Number (AN)	mg KOH/g	0.34	0.30	0.34	0.40



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		8031	21596	26076	495
Particles >6µm		1761	3861	5020	143
Particles >14µm		102	301	180	18
ISO 4406:1999 (c)		20/18/14	22/19/15	22/20/15	16/14/11
Silicon	ppm	4	3	2	1
Sodium	ppm	2	0	1	2
Potassium	ppm	0	2	0	<1

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.



WEAR METALS

Iron	ppm	32	31	30	31
Copper	ppm	2	3	2	4
Lead	ppm	1	1	0	0
Tin	ppm	<1	<1	0	0
Aluminum	ppm	0	2	0	<1
Chromium	ppm	2	2	2	3
Molybdenum	ppm	0	<1	0	<1
Nickel	ppm	0	<1	0	0
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	0	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	246	261	281	363
Magnesium	ppm	5	5	2	4
Zinc	ppm	246	258	302	356
Phosphorus	ppm	231	271	274	317
Barium	ppm	0	0	0	0
Boron	ppm	3	4	3	6

Depot: NORMINLH

Unique No: 10923875

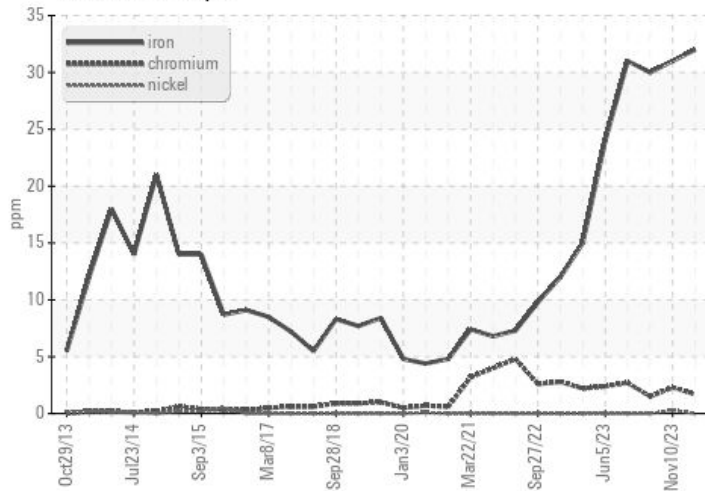
Signed: Jonathan Hester

Report Date: 13 Mar 2024

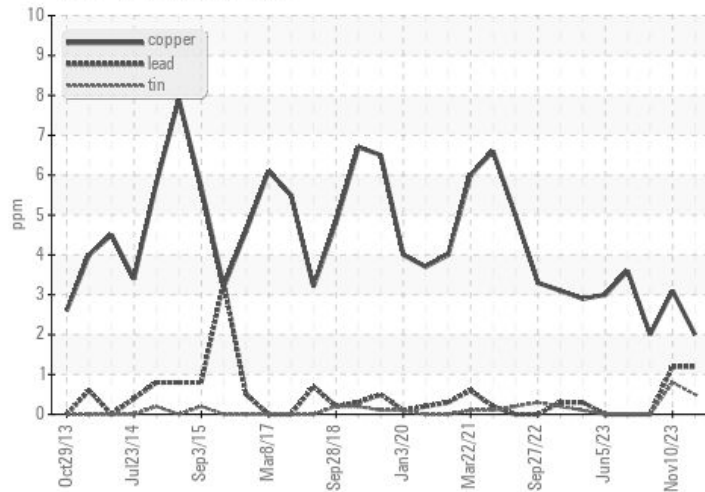


GRAPHS

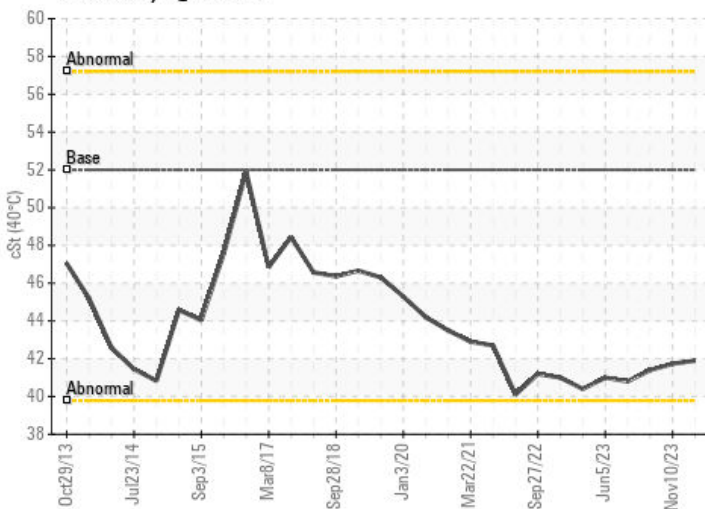
Ferrous Alloys



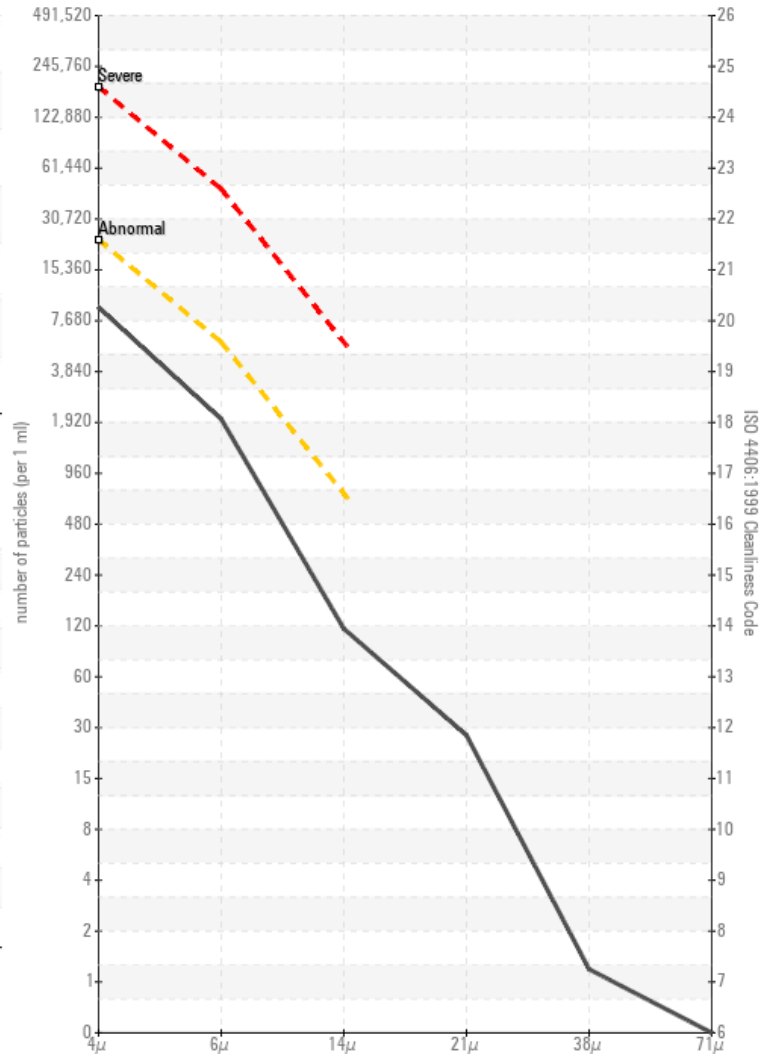
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

