

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R934 025778-918 - Hydraulic System

Sample No: LH0273809

Oil Type: LIEBHERR HYDRAULIC HVI



Sample Information

Sample Number	LH0273809	LH0190478	LHMC38049	LHMC37417
Sample Date	12 Apr 2024	09 Apr 2021	02 Sep 2011	30 Nov 2010
Machine Hours	4594	3853	572	179
Oil Hours	0	0	572	179
Oil Changed	Not Changd	Changed	Not Changd	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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Oil Condition

Visc @ 40°C	cSt	48.5	44.4	42.81	45.76
Acid Number (AN)	mg KOH/g	0.65	0.724	0.880	0.555



Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		13625	18174	7241	10993
Particles >6µm		139	307	216	653
Particles >14µm		5	4	2	1
ISO 4406:1999 (c)		21/14/10	21/15/9	20/15/8	21/17/7
Silicon	ppm	2	3	1	2
Sodium	ppm	0	4	6	5
Potassium	ppm	2	3	0	2

Diagnosis

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. 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	10	14	4	2
Copper	ppm	3	7	6	4
Lead	ppm	<1	2	<1	3
Tin	ppm	<1	0	0	0
Aluminum	ppm	3	<1	<1	<1
Chromium	ppm	1	2	<1	<1
Molybdenum	ppm	2	<1	0	0
Nickel	ppm	<1	1	0	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	<1	0



Additives

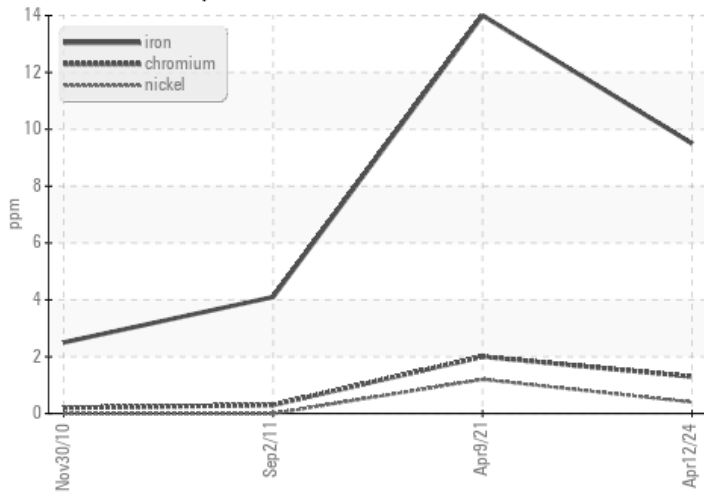
Calcium	ppm	744	1993	1391	1095
Magnesium	ppm	13	17	0	5
Zinc	ppm	548	752	514	399
Phosphorus	ppm	483	647	459	369
Barium	ppm	0	0	0	<1
Boron	ppm	4	12	<1	1

Depot: LEC0008
 Unique No: 10992286
 Signed: Angela Borella
 Report Date: 24 Apr 2024

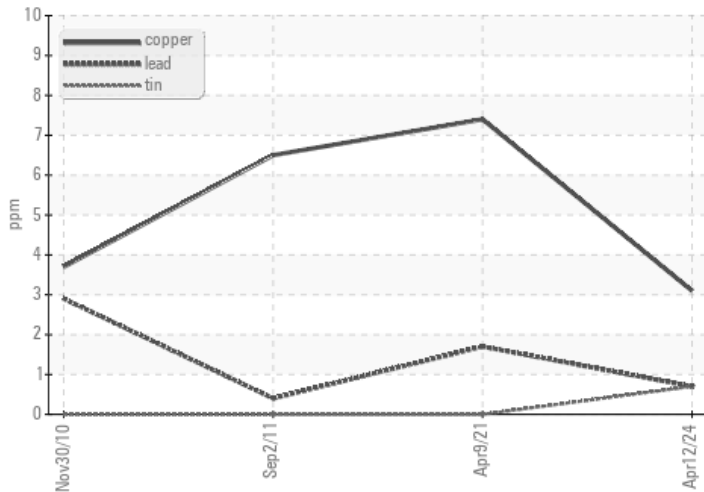


Graphs

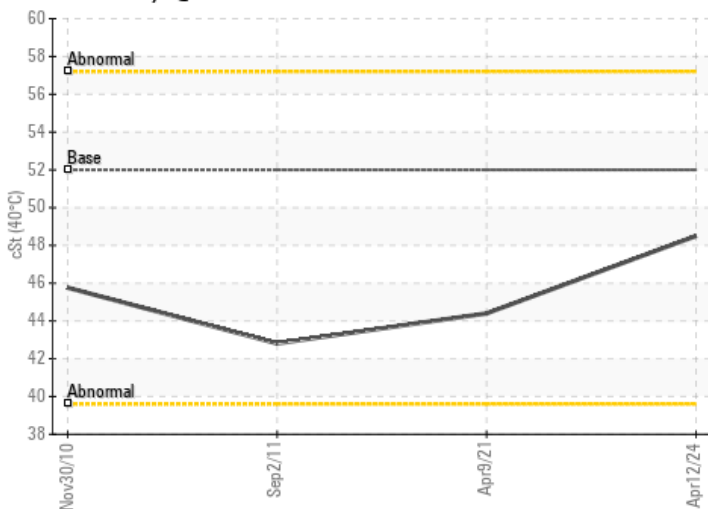
Ferrous Alloys



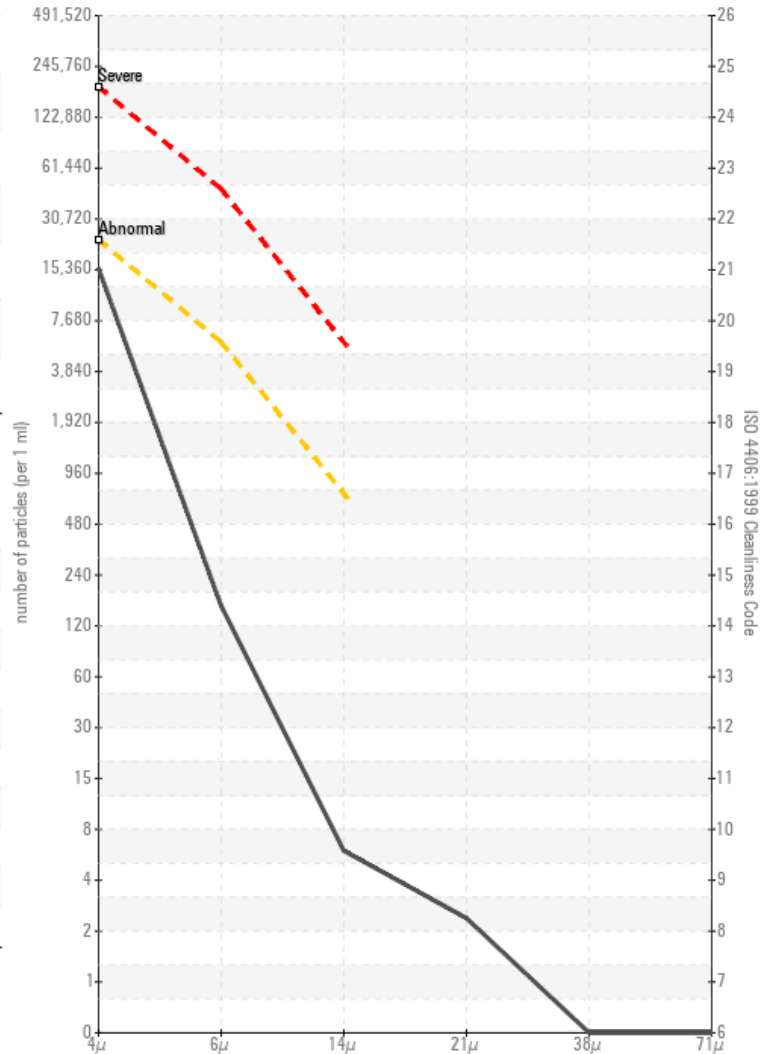
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

