

# LIEBHERR

## CONSTRUCTION EQUIPMENT



[(364849) [02625321]] LIEBHERR R934 053396-1487 - Hydraulic

Sample No: LH0219938

Oil Type: LIEBHERR HYDRAULIC HVI



### Sample Information

Sample Number	LH0219938	LH0219931	LH	---
Sample Date	01 Apr 2024	15 Mar 2024	09 Feb 2022	---
Machine Hours	1995	1925	0	---
Oil Hours	0	0	0	---
Oil Changed	Not Chngd	Changed	N/A	---
Sample Status	SEVERE	SEVERE	ABNORMAL	---

HUBERT & FILS

474 ROUTE 105  
BOIS-FRANC, QC  
CA J9E 3A9

Contact: Eric Brisebois  
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### Oil Condition

Visc @ 40°C	cSt	41.1	40.9	44.3	---
Acid Number (AN)	mg KOH/g	1.00	1.38	---	---



### Contamination

Water	%	NEG	NEG	NEG	---
Particles >4µm		2561	113685	98617	---
Particles >6µm		574	25575	14364	---
Particles >14µm		60	220	42	---
ISO 4406:1999 (c)		19/16/13	24/22/15	24/21/13	---
Silicon	ppm	5	6	5	---
Sodium	ppm	3	3	2	---
Potassium	ppm	<1	<1	1	---

### Diagnosis

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Copper ppm levels are severe. Bearing and/or bushing wear is indicated. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



### Wear Metals

Iron	ppm	6	8	7	---
Copper	ppm	40	45	9	---
Lead	ppm	5	6	2	---
Tin	ppm	2	4	<1	---
Aluminum	ppm	1	1	<1	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	0	0	0	---
Nickel	ppm	0	0	0	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	0	0	<1	---
Vanadium	ppm	0	0	0	---



### Additives

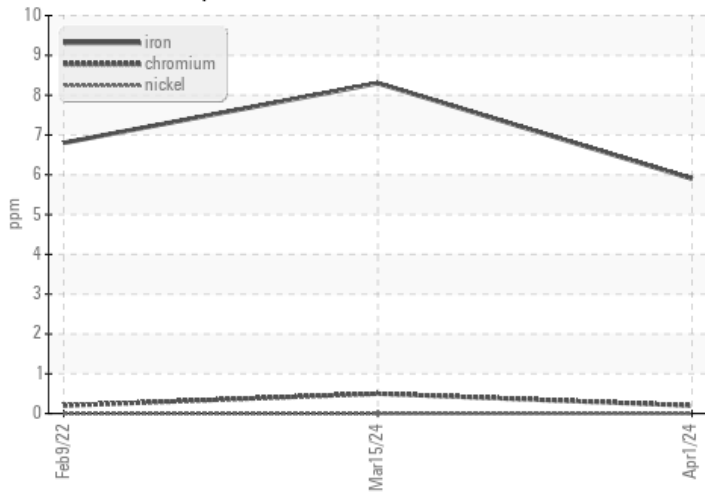
Calcium	ppm	1185	1296	1466	---
Magnesium	ppm	6	7	4	---
Zinc	ppm	679	702	749	---
Phosphorus	ppm	569	595	662	---
Barium	ppm	<1	2	0	---
Boron	ppm	2	2	<1	---

Depot: HUBBOI  
Unique No: 5761025  
Signed: Kevin Marson  
Report Date: 11 Apr 2024

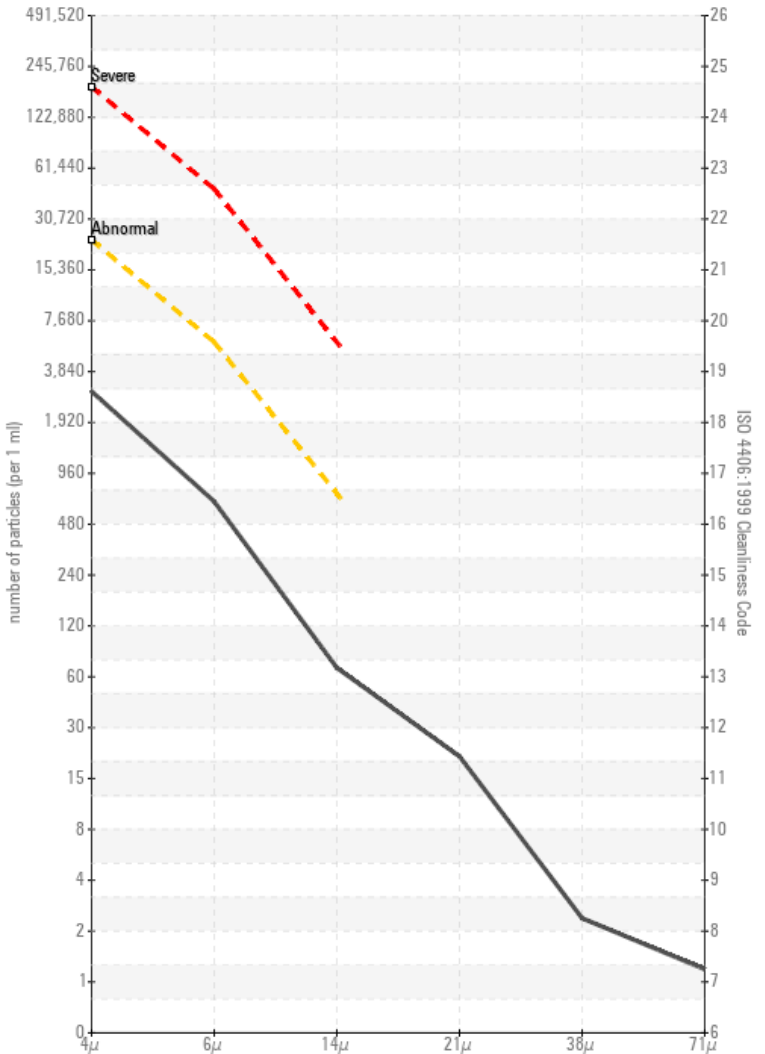


### Graphs

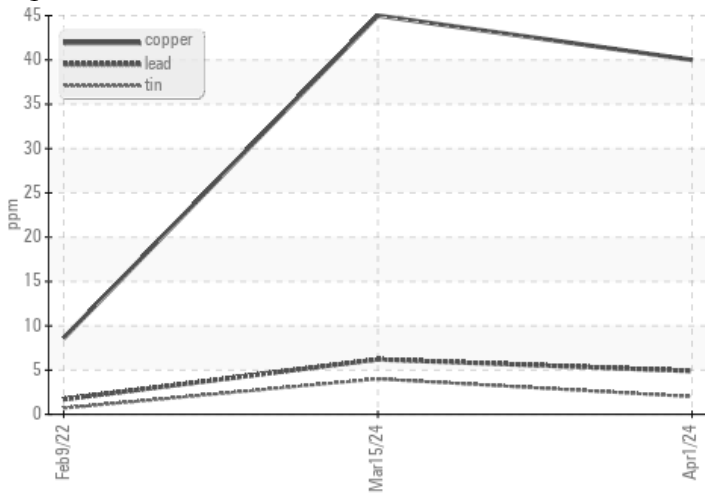
#### Ferrous Alloys



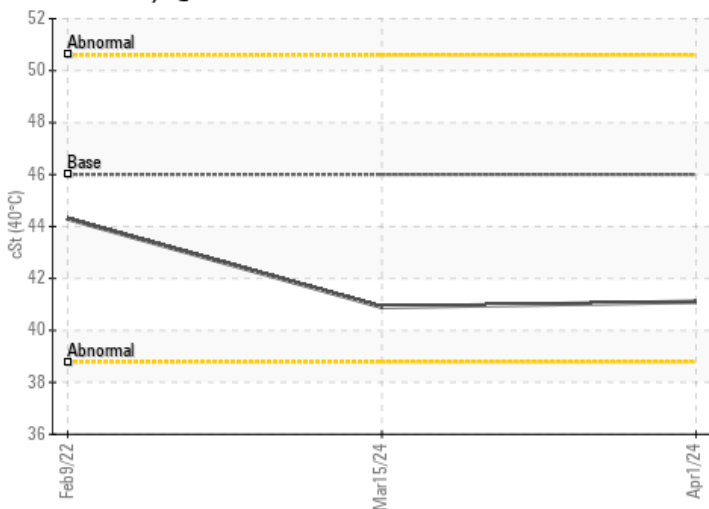
#### Particle Count



#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Acid Number

