

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [(364849)] LIEBHERR R934 053396-1487 - Hydraulic System

Sample No: LH0279272

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



#### Sample Information

Sample Number	LH0279272	LH0279080	LH0219938	LH0219931
Sample Date	12 Jun 2024	21 May 2024	01 Apr 2024	15 Mar 2024
Machine Hours	2063	2053	1995	1925
Oil Hours	0	0	0	0
Oil Changed	Not Changd	Not Changd	Not Changd	Changed
Sample Status	SEVERE	SEVERE	SEVERE	SEVERE

#### HUBERT & FILS

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

Contact: Eric Brisebois

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#### Oil Condition

Visc @ 40°C	cSt	41.0	41.7	41.1	40.9
Acid Number (AN)	mg KOH/g	---	---	1.00	1.38



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		9636	9249	2561	113685
Particles >6µm		2115	1492	574	25575
Particles >14µm		126	39	60	220
ISO 4406:1999 (c)		20/18/14	20/18/12	19/16/13	24/22/15
Silicon	ppm	6	4	5	6
Sodium	ppm	3	3	3	3
Potassium	ppm	<1	1	<1	<1



#### Wear Metals

Iron	ppm	6	6	6	8
Copper	ppm	43	44	40	45
Lead	ppm	6	5	5	6
Tin	ppm	2	2	2	4
Aluminum	ppm	<1	<1	1	1
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	0	0	0	0
Nickel	ppm	<1	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	<1	0	0	0
Manganese	ppm	<1	<1	0	0
Vanadium	ppm	0	0	0	0



#### Additives

Calcium	ppm	1203	1155	1185	1296
Magnesium	ppm	6	6	6	7
Zinc	ppm	676	685	679	702
Phosphorus	ppm	579	559	569	595
Barium	ppm	<1	0	<1	2
Boron	ppm	2	3	2	2

#### Diagnosis

We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Copper ppm levels are severe. Lead ppm levels are abnormal. 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. Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: HUBBOI

Unique No: 5800531

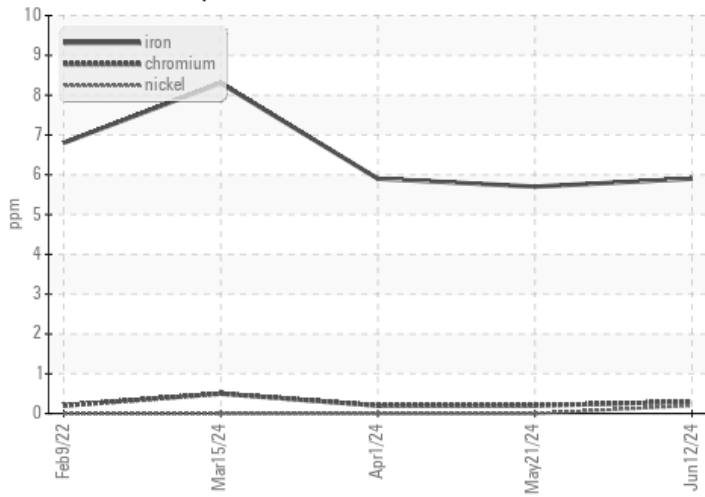
Signed: Kevin Marson

Report Date: 20 Jun 2024

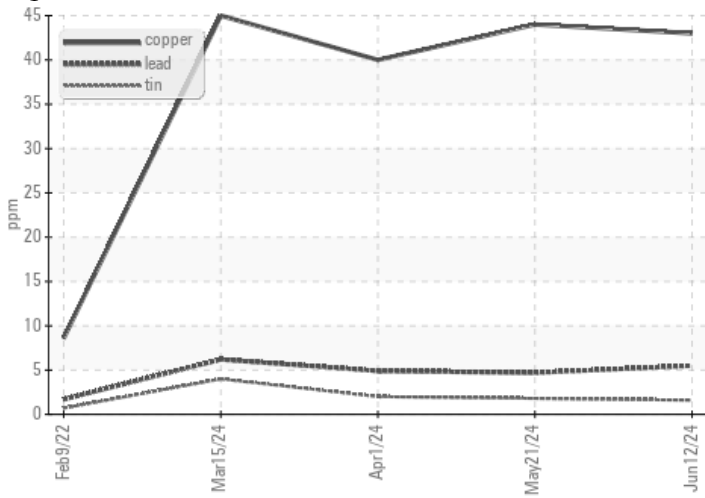


### Graphs

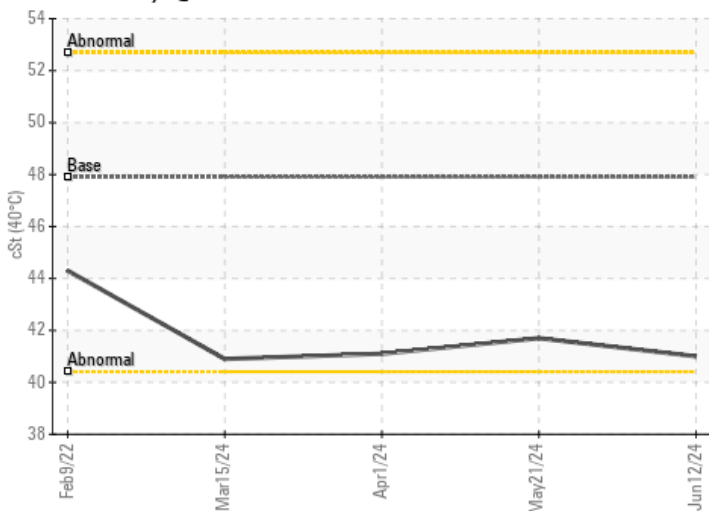
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count

