

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [(360377)] LIEBHERR L580 059426-1464 - Hydraulic System

Sample No: LH0237639

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



#### SAMPLE INFORMATION

Sample Number	LH0237639	LH0242483	LH0178333	LH0230689
Sample Date	09 Aug 2023	17 Nov 2022	18 Aug 2022	31 May 2022
Machine Hours	5106	3593	2987	2443
Oil Hours	0	0	0	0
Oil Changed	Changed	Not Changd	Not Changd	Not Changd
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

**CLOUTHIER VENTURES LTD.**  
 59 MATTHEWS STREET, R.R. # 5  
 PEMBROKE, ON  
 CA K8A 0A6  
 Contact: Travis Bennett  
 tbennett@clouthierconst.com  
 T: (613)735-6531  
 F: (613)735-2769



#### OIL CONDITION

Visc @ 40°C	cSt	42.6	43.5	43.5	43.6
Acid Number (AN)	mg KOH/g	1.02	---	---	---



#### CONTAMINATION

Particles >4µm		1142	15216	12770	19785
Particles >6µm		163	2957	1222	2518
Particles >14µm		11	122	24	44
ISO 4406:1999 (c)		17/15/11	21/19/14	21/17/12	21/19/13
Silicon	ppm	3	3	2	2
Sodium	ppm	2	2	2	2
Potassium	ppm	2	2	2	1



#### WEAR METALS

Iron	ppm	11	9	8	8
Copper	ppm	5	5	3	3
Lead	ppm	11	8	9	7
Tin	ppm	<1	<1	<1	<1
Aluminum	ppm	1	1	1	1
Chromium	ppm	2	<1	1	1
Molybdenum	ppm	0	0	0	0
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	0	<1	<1	0
Silver	ppm	1	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	1416	1382	1411	1418
Magnesium	ppm	7	6	6	7
Zinc	ppm	707	687	679	714
Phosphorus	ppm	588	643	585	630
Barium	ppm	<1	0	0	0
Boron	ppm	<1	<1	<1	0

#### Diagnosis

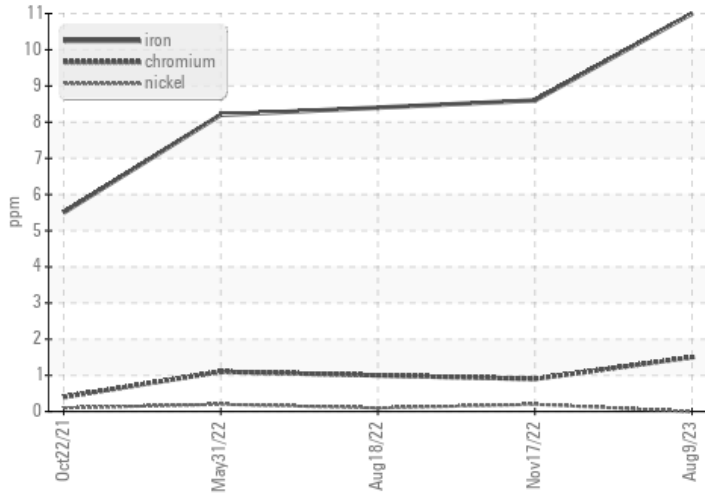
The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Lead ppm levels are abnormal. Bearing and/or bushing wear is indicated. The system cleanliness is acceptable for your target 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 AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: CLOPEM  
 Unique No: 5646638  
 Signed: Kevin Marson  
 Report Date: 28 Sep 2023

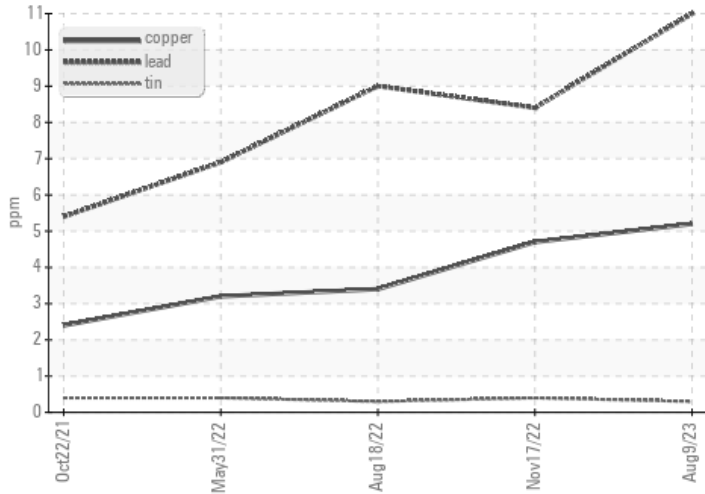


### GRAPHS

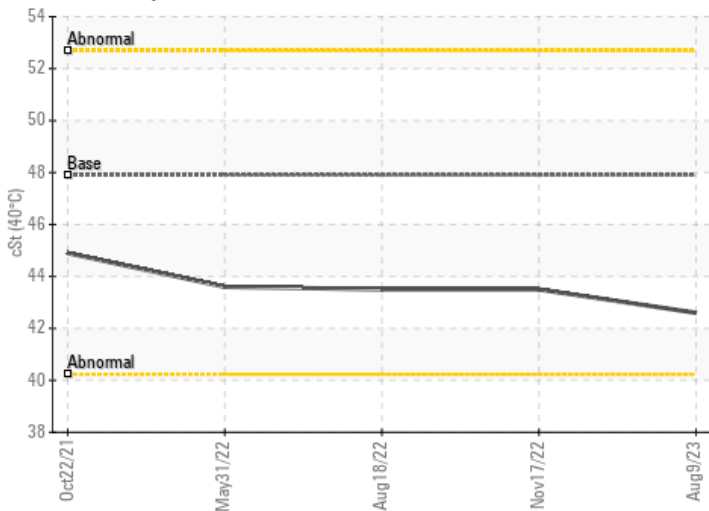
#### Ferrous Alloys



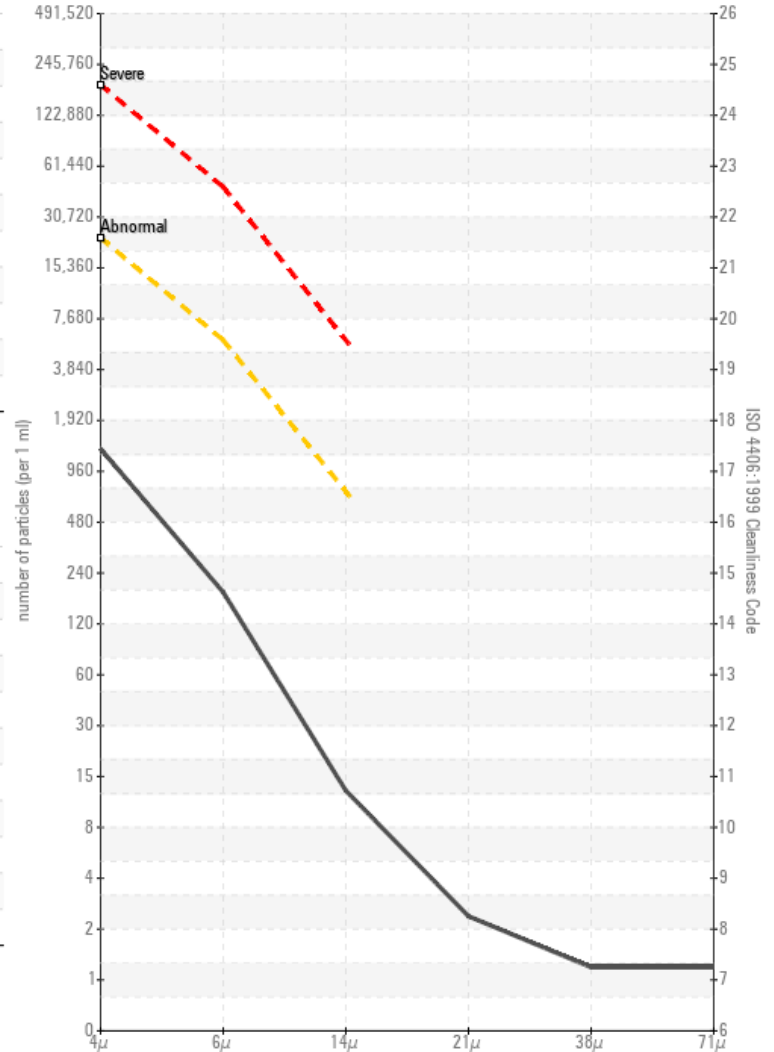
#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count



#### Acid Number

