

LIEBHERR

CONSTRUCTION EQUIPMENT



[(340369)] LIEBHERR R920 045718-1705 - Hydraulic System

Sample No: LH0274849

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL

CLOUTHIER VENTURES LTD.
59 MATTHEWS STREET, R.R. # 5
PEMBROKE, ON
CA K8A 0A6
Contact: Travis Bennett
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Diagnosis

We advise that you check for visible metal particles in the oil. The oil change at the time of sampling has been noted. We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. Light concentration of visible metal present. There is a light amount of silt (particulates < 14 microns in size) present in the oil. Additive levels indicate the addition of a different brand, or type of oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



SAMPLE INFORMATION

Sample Number		LH0274849	LH0251811	LH0242551	LH0178334
Sample Date		06 Oct 2023	14 Mar 2023	03 Nov 2022	18 Jul 2022
Machine Hours		4924	0	3329	2847
Oil Hours		0	0	0	0
Oil Changed		Changed	Not Changd	Not Changd	Not Changd
Sample Status		ATTENTION	ABNORMAL	NORMAL	NORMAL



OIL CONDITION

Visc @ 40°C	cSt	● 42.8	● 43.1	● 43.2	● 41.6
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CONTAMINATION

Particles >4µm		● 28266	● 6333	● 10986	● 2818
Particles >6µm		● 5887	● 1561	● 2187	● 533
Particles >14µm		● 111	● 72	● 108	● 35
ISO 4406:1999 (c)		22/20/14	20/18/13	21/18/14	19/16/12
Silicon	ppm	● 7	● 5	● 6	● 5
Sodium	ppm	● 3	● 3	● 3	● 3
Potassium	ppm	● <1	● <1	● <1	● <1



WEAR METALS

Iron	ppm	● 12	● 10	● 11	● 9
Copper	ppm	● 7	● 6	● 6	● 5
Lead	ppm	● 1	● 2	● 2	● 2
Tin	ppm	● 0	● 0	● <1	● 0
Aluminum	ppm	● <1	● <1	● 1	● <1
Chromium	ppm	● <1	● <1	● <1	● <1
Molybdenum	ppm	● 0	● 0	● 0	● 0
Nickel	ppm	● <1	● 0	● <1	● <1
Titanium	ppm	0	0	0	0
Silver	ppm	<1	0	0	0
Manganese	ppm	● 0	● <1	● <1	● <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1200	1314	1325	● 1318
Magnesium	ppm	● 6	● 6	● 6	● 6
Zinc	ppm	● 714	● 701	● 673	● 680
Phosphorus	ppm	● 570	● 628	● 616	● 568
Barium	ppm	● <1	● 0	● 0	● 0
Boron	ppm	● 2	● <1	● 1	● <1

Depot: CLOPEM
 Unique No: 5657707
 Signed: Kevin Marson
 Report Date: 16 Oct 2023

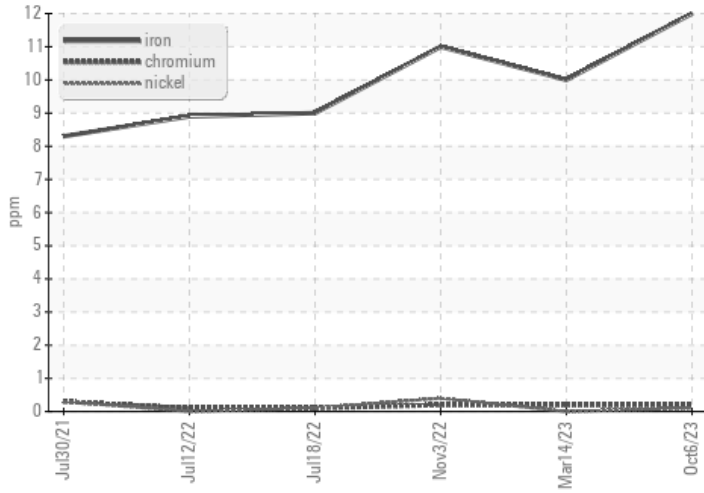
LIEBHERR

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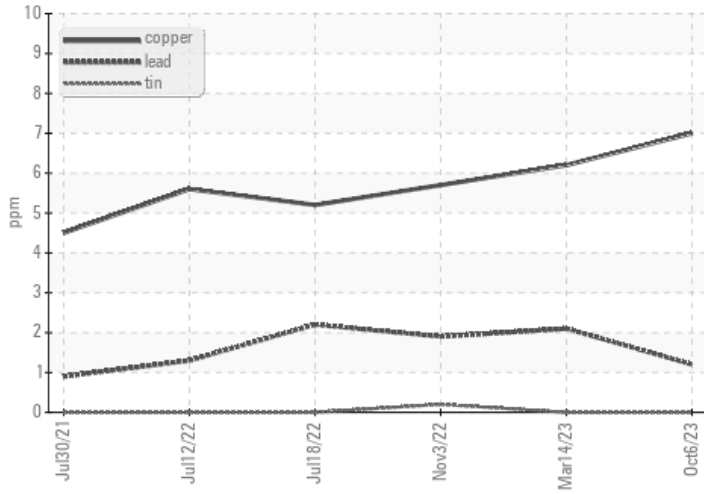


GRAPHS

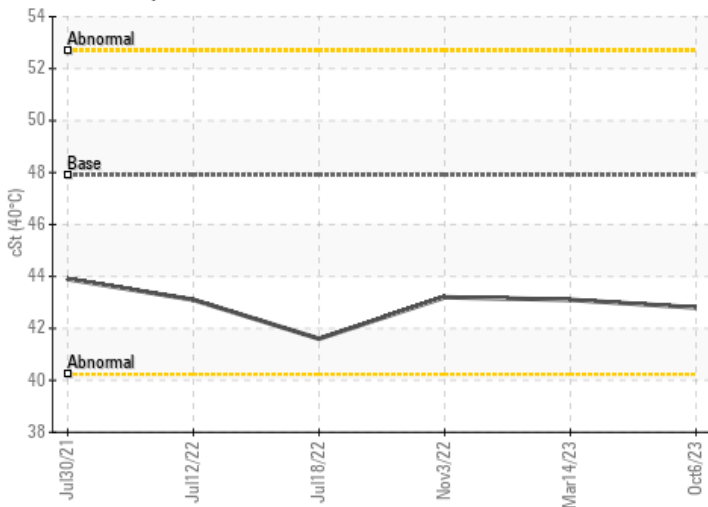
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Filter (Magn: 100 x)

