

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR R920 54849 - Hydraulic System

Sample No: LH0274449

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL



SAMPLE INFORMATION

Sample Number	LH0274449	LH0274450	---	---
Sample Date	03 Aug 2023	02 Aug 2023	---	---
Machine Hours	541	594	---	---
Oil Hours	2	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	SEVERE	ABNORMAL	---	---

LIEBHERR CANADA LTD.

1015 SUTTON DRIVE
BURLINGTON, ON
CA L7L 5Z8

Contact: Joseph Gillis
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OIL CONDITION

Visc @ 40°C	cSt	46.0	45.8	---	---
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CONTAMINATION

Water	%	0.031	---	---	---
Particles >4µm		132796	73608	---	---
Particles >6µm		73945	27787	---	---
Particles >14µm		5353	2150	---	---
ISO 4406:1999 (c)		24/23/20	23/22/18	---	---
Silicon	ppm	2	5	---	---
Sodium	ppm	<1	<1	---	---
Potassium	ppm	<1	2	---	---



WEAR METALS

Iron	ppm	2	4	---	---
Copper	ppm	4	11	---	---
Lead	ppm	<1	7	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	<1	1	---	---
Chromium	ppm	0	0	---	---
Molybdenum	ppm	0	0	---	---
Nickel	ppm	0	<1	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	<1	<1	---	---
Manganese	ppm	0	<1	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	288	561	---	---
Magnesium	ppm	2	3	---	---
Zinc	ppm	766	687	---	---
Phosphorus	ppm	676	634	---	---
Barium	ppm	0	<1	---	---
Boron	ppm	<1	1	---	---

Diagnosis

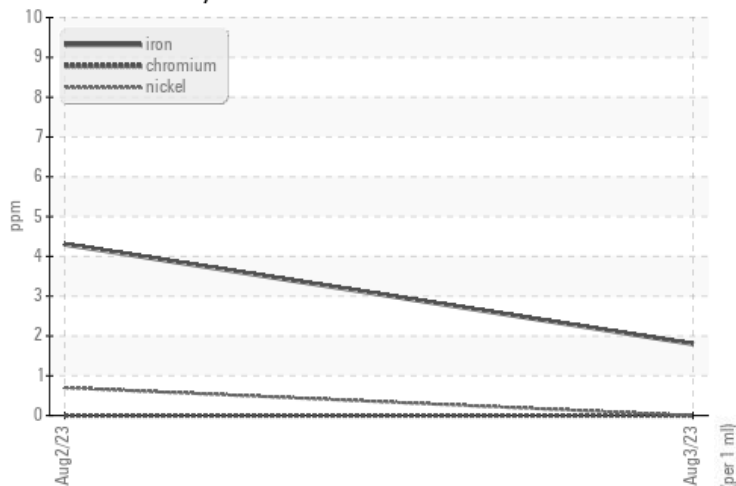
We advise that you check all areas where contaminants can enter the system. The oil change at the time of sampling has been noted. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. Resample in 30-45 days to monitor this situation. All component wear rates are normal. There is a high amount of particulates (2 to 100 microns in size) present in the oil. Free water present. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Depot: LIEMIS
Unique No: 5619312
Signed: Kevin Marson
Report Date: 08 Aug 2023

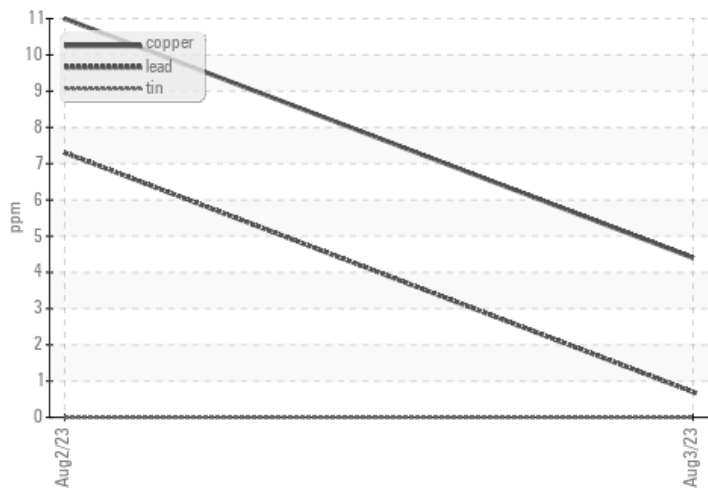


GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

