

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH40 121161- Hydraulic System

Sample No: LH
 Oil Type: PETRO CANADA HYDREX AW 46



Sample Information

Sample Number	LH	LH0186136	---	---
Sample Date	27 Mar 2024	18 Dec 2020	---	---
Machine Hours	14060	1105	---	---
Oil Hours	0	0	---	---
Oil Changed	Not Chngd	Changed	---	---
Sample Status	ABNORMAL	SEVERE	---	---

LIEBHERR CANADA LTEE
 444 AVENUE DE LA FRICHE
 DOLBEAU-MISTASSINI, QC
 CA G8L 3M7
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Oil Condition

Visc @ 40°C	cSt	31.4	42.1	---	---
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Contamination

Water	%	NEG	NEG	---	---
Particles >4µm		13218	71271	---	---
Particles >6µm		3405	22540	---	---
Particles >14µm		206	1455	---	---
ISO 4406:1999 (c)		21/19/15	23/22/18	---	---
Silicon	ppm	1	2	---	---
Sodium	ppm	1	2	---	---
Potassium	ppm	<1	3	---	---

Diagnosis

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.



Wear Metals

PQ		0	---	---	---
Iron	ppm	26	12	---	---
Copper	ppm	2	2	---	---
Lead	ppm	0	2	---	---
Tin	ppm	0	0	---	---
Aluminum	ppm	<1	<1	---	---
Chromium	ppm	2	<1	---	---
Molybdenum	ppm	<1	0	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	<1	0	---	---
Silver	ppm	0	5	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



Additives

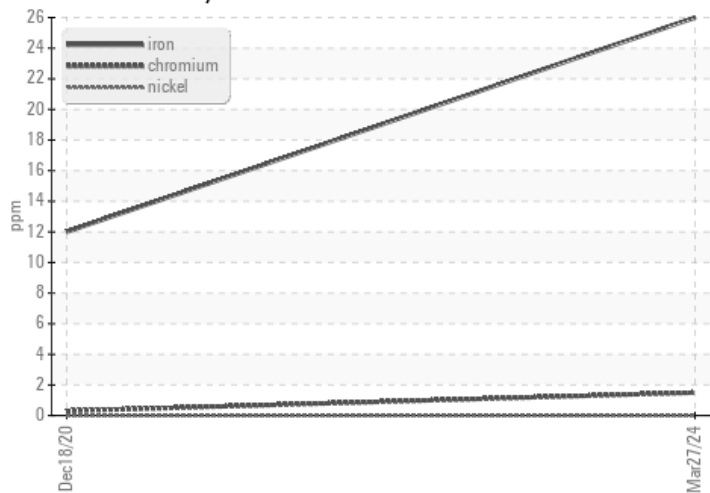
Calcium	ppm	318	880	---	---
Magnesium	ppm	35	8	---	---
Zinc	ppm	499	730	---	---
Phosphorus	ppm	402	595	---	---
Barium	ppm	0	<1	---	---
Boron	ppm	2	<1	---	---

Depot: LBADOL
 Unique No: 5763416
 Signed: Kevin Marson
 Report Date: 22 Apr 2024

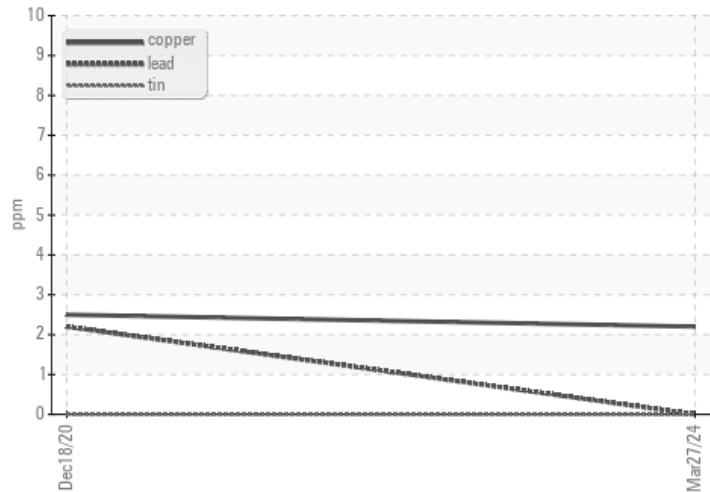


Graphs

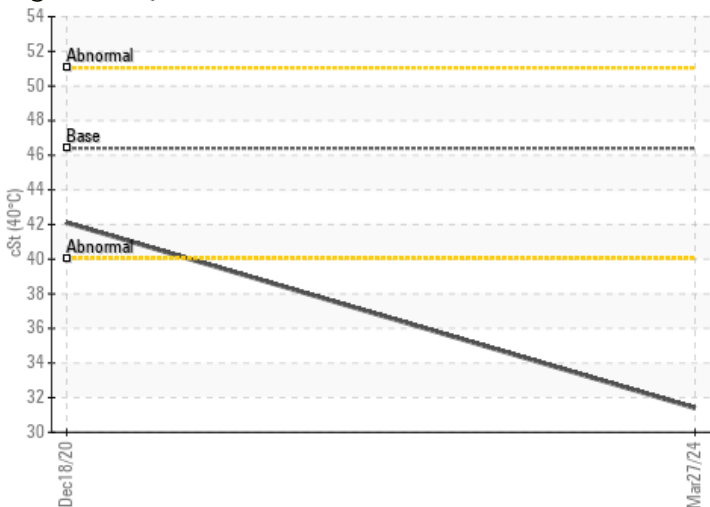
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

