LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH50M 113527-1216 - Hydraulic System

Sample No: LH0290625

Oil Type: AW HYDRAULIC OIL ISO 46

LIEBHERR CANADA LTEE
444 AVENUE DE LA FRICHE
DOLBEAU-MISTASSINI, QC
CA G8L 3M7
Contact: Martin Gagnon
martin.gagnon@liebherr.com
T:
F: (418)276-9844

Sample Information

Sample Number		**LH0290625**	LH0284315	LH	---
Sample Date		**13 Jun 2024**	13 Mar 2024	13 Mar 2023	---
Machine Hours		**6512**	6512	0	---
Oil Hours		**0**	0	0	---
Oil Changed		**Not Changd**	Not Changd	N/A	---
Sample Status		**ABNORMAL**	NORMAL	ABNORMAL	---

Oil Condition

Visc @ 40°C	cSt	**39.6**	39.9	43.0	---
Visc @ 100°C	cSt	**---**	---	7.4	---
Viscosity Index (VI)	Scale	**---**	---	137	---

Contamination

Water	%	**NEG**	NEG	NEG	---
Particles >4µm		**9002**	6456	96755	---
Particles >6µm		**2634**	1398	12267	---
Particles >14µm		**159**	46	40	---
ISO 4406:1999 (c)		**20/19/14**	20/18/13	24/21/12	---
Silicon	ppm	**0**	<1	2	---
Sodium	ppm	**<1**	<1	2	---
Potassium	ppm	**<1**	<1	<1	---

Wear Metals

PQ		**1**	---	12	---
Iron	ppm	**55**	44	82	---
Copper	ppm	**3**	2	4	---
Lead	ppm	**0**	0	<1	---
Tin	ppm	**0**	0	<1	---
Aluminum	ppm	**0**	<1	<1	---
Chromium	ppm	**<1**	<1	2	---
Molybdenum	ppm	**0**	0	0	---
Nickel	ppm	**0**	0	0	---
Titanium	ppm	**0**	0	0	---
Silver	ppm	**0**	0	0	---
Manganese	ppm	**<1**	<1	1	---
Vanadium	ppm	**0**	0	<1	---

Additives

Calcium	ppm	**271**	276	743	---
Magnesium	ppm	**2**	2	4	---
Zinc	ppm	**614**	625	407	---
Phosphorus	ppm	**504**	522	445	---
Barium	ppm	**0**	0	0	---
Boron	ppm	**<1**	<1	<1	---

Diagnosis

We recommend an early resample to monitor this condition.Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: LBADOL
Unique No: 5799576
Signed: Kevin Marson
Report Date: 17 Jun 2024

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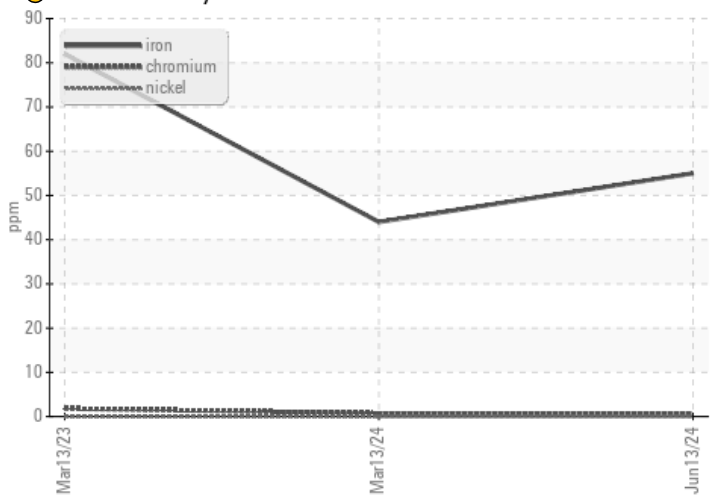
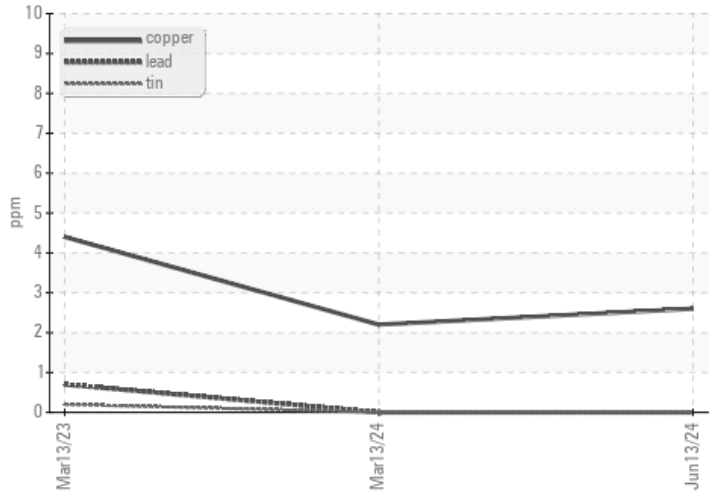
Graphs

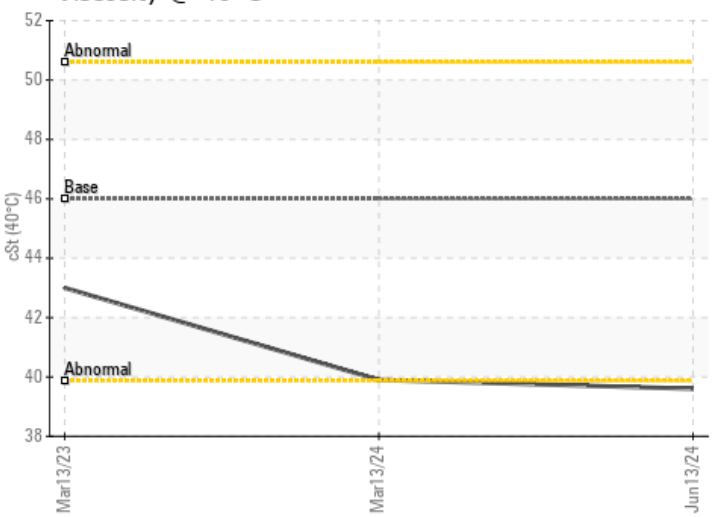
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count