LIEBHERR
CONSTRUCTION EQUIPMENT

116431-1217 - Hydraulic System

Sample No: LH0195493

Oil Type: LIEBHERR HYDRAULIC HVI

American Iron and Metal
2555 Sheffield Road
Ottawa, ON
CA K1B 3V6
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SAMPLE INFORMATION

Sample Number		**LH0195493**	LH0153848	---	---
Sample Date		**08 Apr 2021**	23 Dec 2019	---	---
Machine Hours		**3172**	559	---	---
Oil Hours		**0**	0	---	---
Oil Changed		**Not Changd**	Not Changd	---	---
Sample Status		**ABNORMAL**	ATTENTION	---	---

OIL CONDITION

Visc @ 40°C	cSt	**41.7**	44.9	---	---
Acid Number (AN)	mg KOH/g	**---**	1.42	---	---

CONTAMINATION

Particles >4µm		**41483**	23075	---	---
Particles >6µm		**8265**	237	---	---
Particles >14µm		**97**	5	---	---
ISO 4406:1999 (c)		**23/20/14**	22/15/10	---	---
Silicon	ppm	**2**	1	---	---
Sodium	ppm	**2**	0	---	---
Potassium	ppm	**1**	1	---	---

WEAR METALS

PQ		**3**	---	---	---
Iron	ppm	**68**	24	---	---
Copper	ppm	**4**	2	---	---
Lead	ppm	**<1**	<1	---	---
Tin	ppm	**<1**	0	---	---
Aluminum	ppm	**<1**	<1	---	---
Chromium	ppm	**<1**	<1	---	---
Molybdenum	ppm	**<1**	<1	---	---
Nickel	ppm	**0**	0	---	---
Titanium	ppm	**0**	<1	---	---
Silver	ppm	**<1**	0	---	---
Manganese	ppm	**1**	<1	---	---
Vanadium	ppm	**<1**	0	---	---

ADDITIVES

Calcium	ppm	**1166**	1241	---	---
Magnesium	ppm	**7**	8	---	---
Zinc	ppm	**705**	721	---	---
Phosphorus	ppm	**577**	620	---	---
Barium	ppm	**<1**	<1	---	---
Boron	ppm	**<1**	<1	---	---

Diagnosis

We recommend you service the filters on this component. 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. Particles >4µm are abnormally high. Particles >6µm are notably high. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: BAKOTT
Unique No: 5201894
Signed: Kevin Marson
Report Date: 13 Apr 2021

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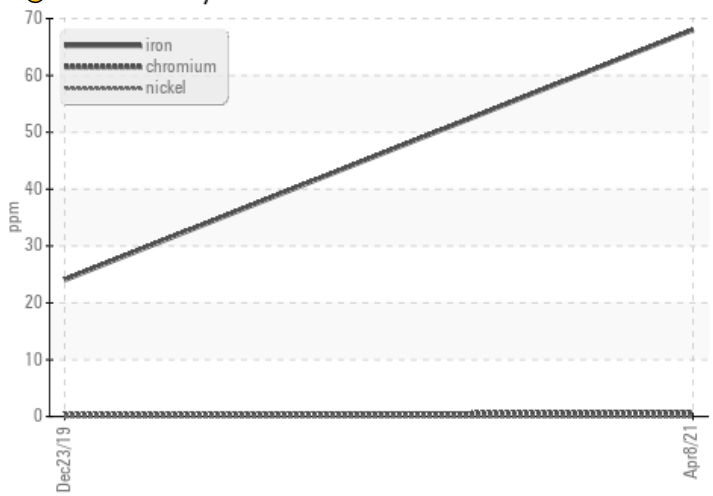
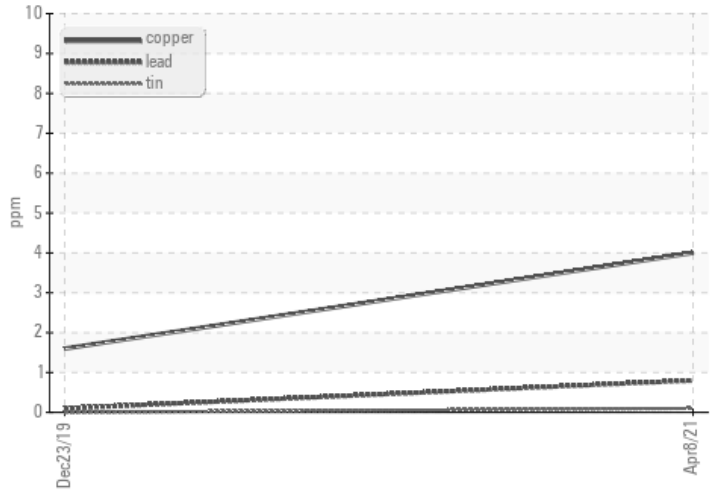
GRAPHS

Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C

Particle Count