LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR 162921049 - Hydraulic System

Sample No: LH0286691

Oil Type: AW HYDRAULIC OIL ISO 32

Sample Information

Sample Number		**LH0286691**	LH0281546	LH0227488	---
Sample Date		**14 Jun 2024**	01 Jan 2024	11 Oct 2022	---
Machine Hours		**552**	1175	535	---
Oil Hours		**0**	0	0	---
Oil Changed		**Not Changd**	Not Changd	Not Changd	---
Sample Status		**SEVERE**	ABNORMAL	NORMAL	---

Oil Condition

Visc @ 40°C	cSt	**33.2**	30.7	31.7	---

Contamination

Water	%	**NEG**	NEG	NEG	---
Particles >4µm		**115231**	71516	18812	---
Particles >6µm		**44284**	15310	3751	---
Particles >14µm		**818**	168	163	---
ISO 4406:1999 (c)		**24/23/17**	23/21/15	21/19/15	---
Silicon	ppm	**3**	3	2	---
Sodium	ppm	**<1**	<1	<1	---
Potassium	ppm	**<1**	3	<1	---

Wear Metals

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

Additives

Calcium	ppm	**87**	85	86	---
Magnesium	ppm	**13**	15	16	---
Zinc	ppm	**452**	387	387	---
Phosphorus	ppm	**365**	329	352	---
Barium	ppm	**<1**	<1	0	---
Boron	ppm	**1**	2	1	---

GeoSolv Design/Build
120 VINYL CT 2ND FLOOR
WOODBRIDGE, ON
CA L4L 4A3
Contact: Service Manager

T:
F:

Diagnosis

Check seals and/or filters for points of contaminant entry. 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. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Depot: GEOWOO
Unique No: 5799892
Signed: Wes Davis
Report Date: 18 Jun 2024

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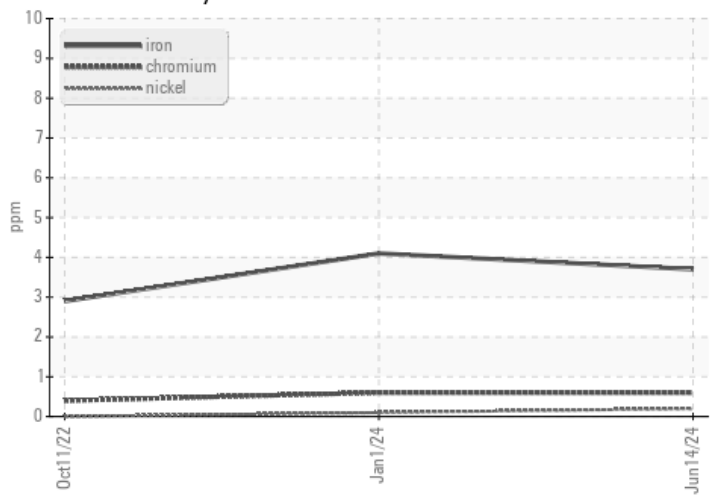
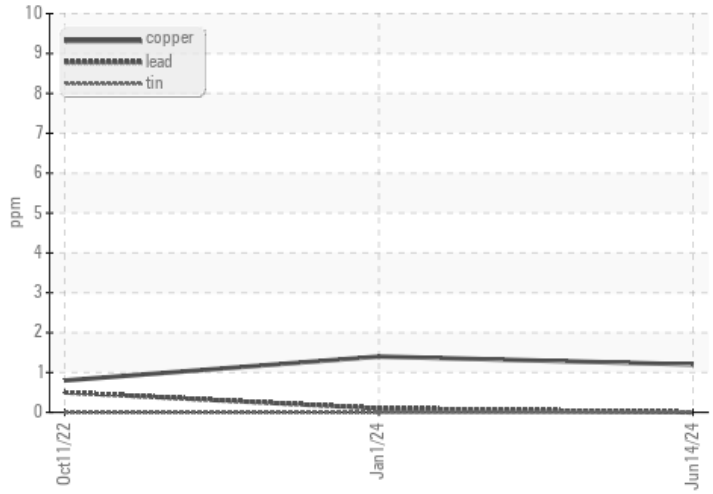
Graphs

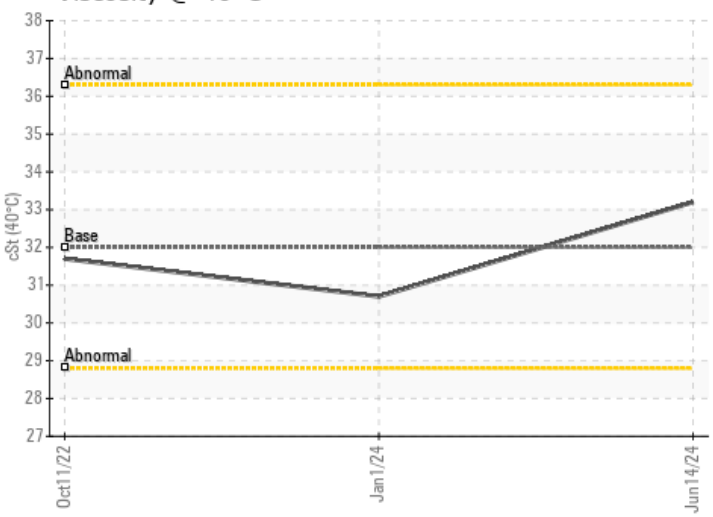
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count