

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR 115415 - Hydraulic System

Sample No: LH0278784

Oil Type: PETRO CANADA HYDREX AW 46



SAMPLE INFORMATION

Sample Number	LH0278784	LH0251614	LH0192746	---
Sample Date	05 Feb 2024	06 Mar 2023	10 Sep 2021	---
Machine Hours	3117	2056	495	---
Oil Hours	0	0	0	---
Oil Changed	Not Changd	N/A	Not Changd	---
Sample Status	ABNORMAL	ABNORMAL	NORMAL	---

EARTHLINE FOUNDATIONS AND SHORING LTD
160 ADMIRAL BLVD
MISSISSAUGA, ON
CA L5T 2N6
Contact: Service Manager



OIL CONDITION

Visc @ 40°C	cSt	34.0	32.9	35.1	---
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T:
F:



CONTAMINATION

Water	%	NEG	NEG	NEG	---
Particles >4µm		1688	963	2112	---
Particles >6µm		371	218	194	---
Particles >14µm		23	15	7	---
ISO 4406:1999 (c)		18/16/12	17/15/11	18/15/10	---
Silicon	ppm	1	2	1	---
Sodium	ppm	<1	<1	0	---
Potassium	ppm	<1	<1	<1	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	3	2	<1	---
Copper	ppm	5	5	4	---
Lead	ppm	2	1	1	---
Tin	ppm	0	0	0	---
Aluminum	ppm	<1	<1	0	---
Chromium	ppm	0	0	0	---
Molybdenum	ppm	0	0	0	---
Nickel	ppm	0	0	<1	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	0	4	---
Manganese	ppm	0	0	0	---
Vanadium	ppm	0	0	0	---



ADDITIVES

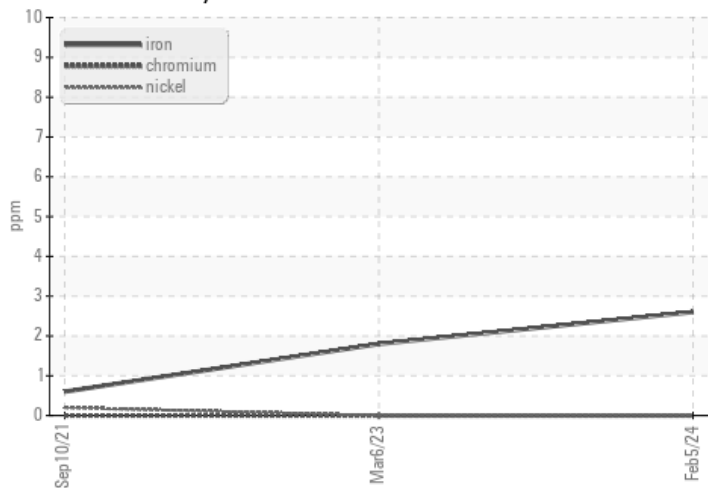
Calcium	ppm	76	77	75	---
Magnesium	ppm	6	5	5	---
Zinc	ppm	307	311	313	---
Phosphorus	ppm	250	275	278	---
Barium	ppm	0	0	0	---
Boron	ppm	<1	<1	<1	---

Depot: EARMIS
Unique No: 5723146
Signed: Kevin Marson
Report Date: 08 Feb 2024

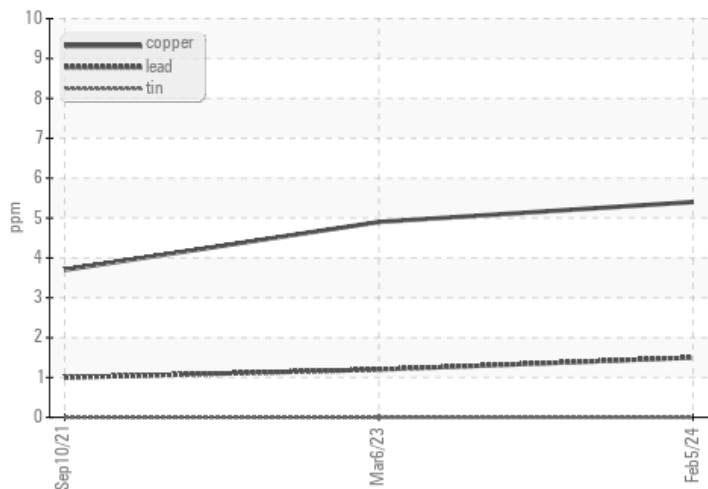


GRAPHS

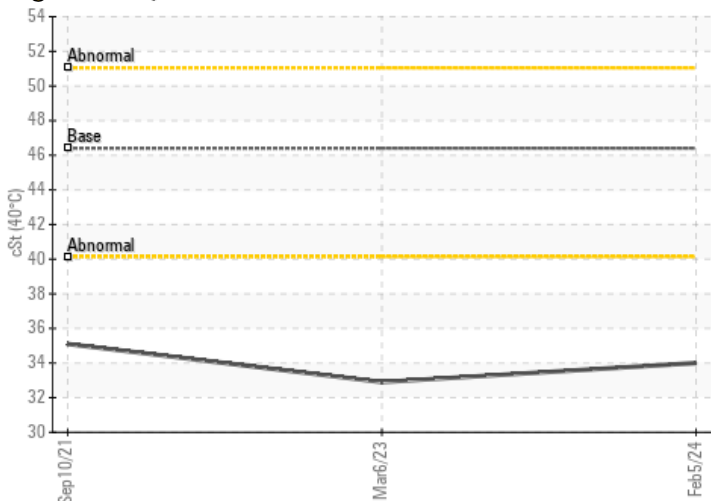
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count

