LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR L586 029946 - Hydraulic System

Sample No: LH

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL

SAMPLE INFORMATION

Sample Number		**LH**	LH0120241	LH0097516	LH0116510
Sample Date		**06 Nov 2023**	10 Jul 2018	10 Jan 2018	16 May 2017
Machine Hours		**13000**	8895	8231	7290
Oil Hours		**0**	0	0	0
Oil Changed		**Changed**	Changed	Not Changd	Not Changd
Sample Status		**ABNORMAL**	NORMAL	NORMAL	NORMAL

OIL CONDITION

Visc @ 40°C	cSt	**42.5**	42.8	44.4	44.6
Acid Number (AN)	mg KOH/g	**---**	---	0.893	---

CONTAMINATION

Particles >4µm		**129863**	2026	38888	3778
Particles >6µm		**21824**	420	2168	294
Particles >14µm		**34**	50	103	23
ISO 4406:1999 (c)		**24/22/12**	18/16/13	22/18/14	19/15/12
Silicon	ppm	**5**	1	2	2
Sodium	ppm	**<1**	0	<1	1
Potassium	ppm	**1**	<1	<1	<1

WEAR METALS

Iron	ppm	**7**	4	5	3
Copper	ppm	**10**	3	3	2
Lead	ppm	**1**	1	<1	<1
Tin	ppm	**0**	0	0	0
Aluminum	ppm	**2**	<1	<1	<1
Chromium	ppm	**<1**	0	0	0
Molybdenum	ppm	**7**	0	0	0
Nickel	ppm	**0**	0	<1	<1
Titanium	ppm	**0**	0	<1	0
Silver	ppm	**<1**	0	0	0
Manganese	ppm	**0**	<1	0	<1
Vanadium	ppm	**0**	0	0	0

ADDITIVES

Calcium	ppm	**221**	302	406	722
Magnesium	ppm	**69**	3	2	3
Zinc	ppm	**418**	803	787	771
Phosphorus	ppm	**380**	605	599	605
Barium	ppm	**<1**	0	0	<1
Boron	ppm	**6**	<1	1	1

Summit Aggregates
2686 Greenfield Blvd.
Ayr, ON
CA N0B 1E0
Contact: Greg .
greg@summitagg.com
T: (226)791-0161
F:

Diagnosis

The filter change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.Copper ppm levels are abnormal. Bearing and/or bushing wear is indicated. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. Additive levels indicate the addition of a different brand, or type of oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Depot: SUMAYR
Unique No: 5672888
Signed: Kevin Marson
Report Date: 14 Nov 2023

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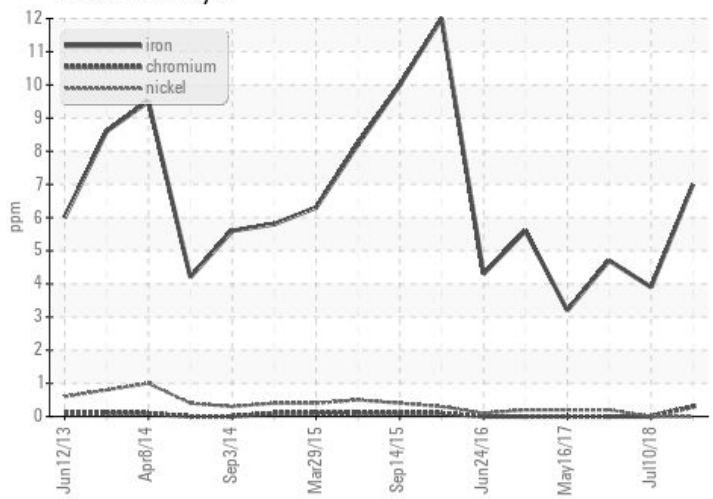
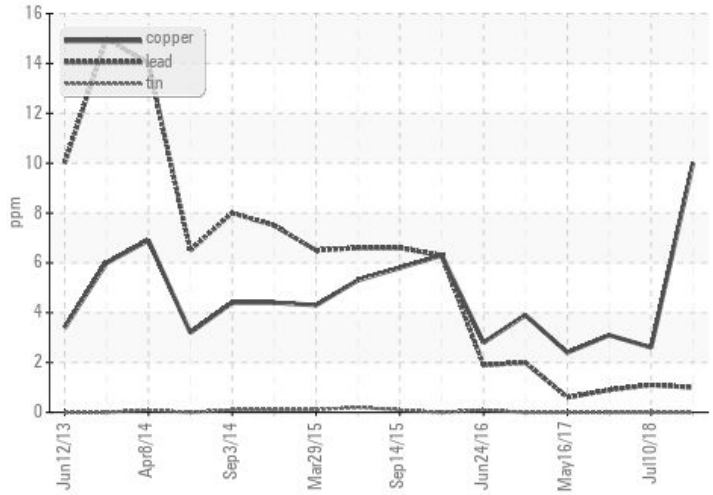
GRAPHS

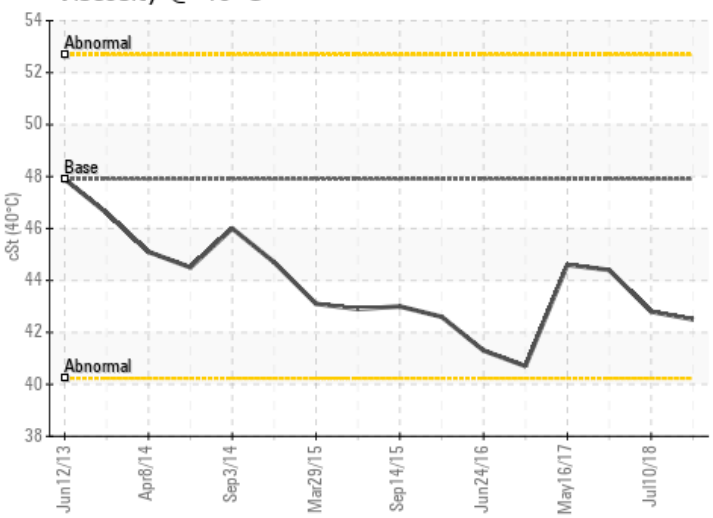
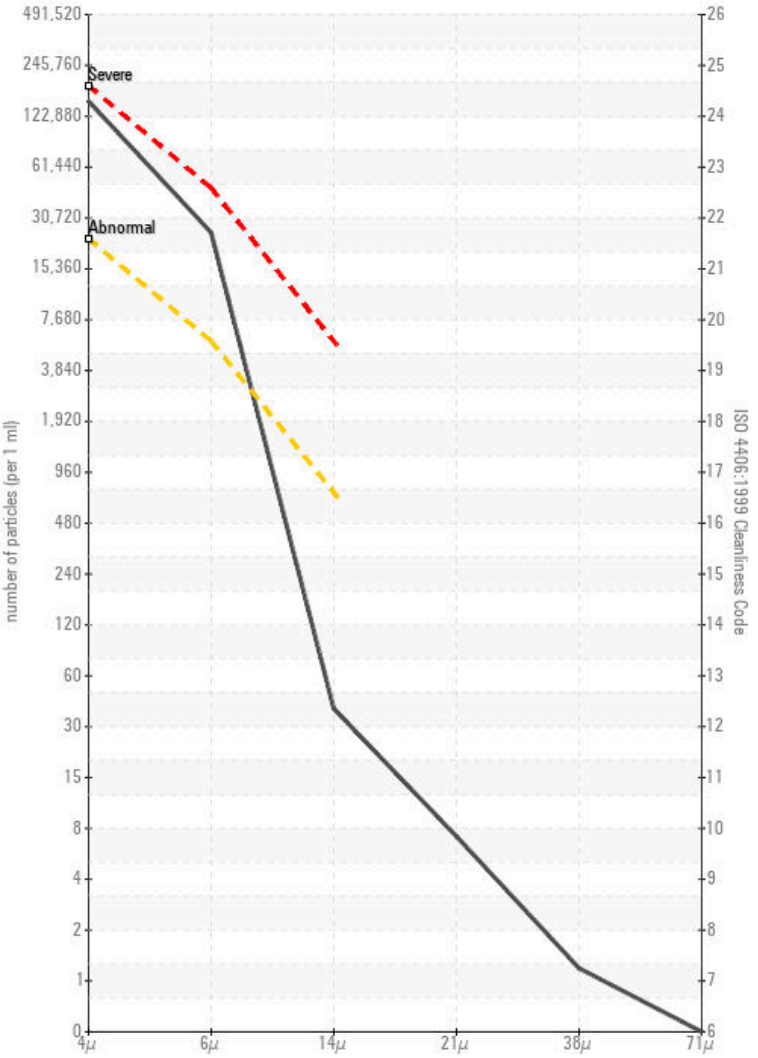
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Count