

LIEBHERR R934B 011385 - HYDRAULIC SYSTEM

Sample No: LH0202845

Oil Type: PETRO CANADA HYDREX AW 46

SAMPLE INFORMATION

Sample Number	LH0202845	LH	LH0169676	LH
Sample Date	24 Jan 2022	01 Dec 2020	14 May 2020	19 Nov 2019
Machine Hours	0	43621	40920	40920
Oil Hours	0	0	0	0
Oil Changed	N/A	Not Changd	Not Changd	Not Changd
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL

GB SCRAP METAL

96 HYDE AVENUE
TORONTO, ON
CA M6M 1J4
Contact: Dino

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OIL CONDITION

Visc @ 40°C cSt ▲ 32.2 ▲ 32.0 ▲ 31.1 ▲ 30.1

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Particles >4µm		▲ 47784	■ 1520	▲ 64029	▲ 53388
Particles >6µm		■ 4823	■ 235	■ 3464	■ 3434
Particles >14µm		■ 110	■ 12	■ 169	■ 71
ISO 4406:1999 (c)		23/19/14	18/15/11	23/19/15	23/19/13
Silicon	ppm	■ 1	■ <1	■ <1	■ 0
Sodium	ppm	■ 0	■ <1	■ 0	■ 0
Potassium	ppm	■ <1	■ <1	■ <1	■ <1

Diagnosis

We recommend you service the filters on this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Particles >4µm are abnormally high. Viscosity of sample indicates oil is within ISO 32 range, advise investigate. The condition of the oil is acceptable for the time in service. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

WEAR METALS

Iron	ppm	■ 9	■ 16	■ 21	■ 6
Copper	ppm	■ 2	■ 2	■ 2	■ 1
Lead	ppm	■ <1	■ <1	■ 0	■ 0
Tin	ppm	■ <1	■ 0	■ 0	■ 0
Aluminum	ppm	■ <1	■ 0	■ <1	■ <1
Chromium	ppm	■ 3	■ 10	■ 11	■ 2
Molybdenum	ppm	■ 0	■ <1	■ 0	■ 0
Nickel	ppm	■ 0	■ 0	■ <1	■ 0
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	<1	<1	0
Manganese	ppm	■ <1	■ <1	■ <1	■ 0
Vanadium	ppm	0	0	0	0

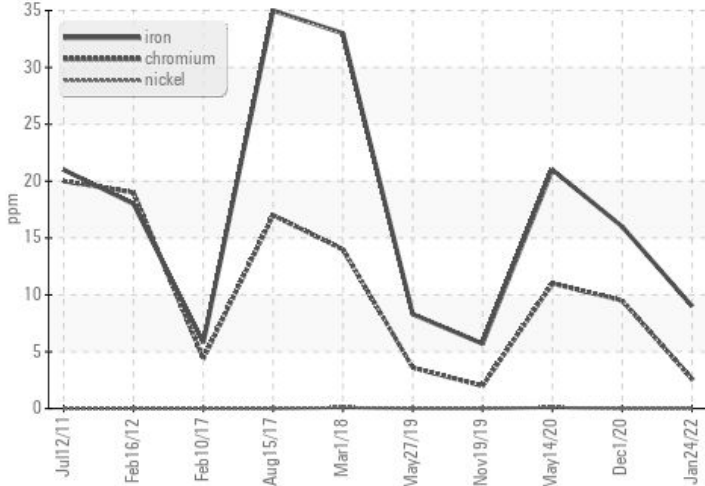
ADDITIVES

Calcium	ppm	■ 50	■ 60	■ 50	■ 41
Magnesium	ppm	■ 1	■ 3	■ <1	■ <1
Zinc	ppm	■ 423	■ 450	■ 420	■ 428
Phosphorus	ppm	■ 362	■ 348	■ 341	■ 342
Barium	ppm	■ 0	■ 0	■ 0	■ <1
Boron	ppm	■ <1	■ <1	■ <1	■ <1

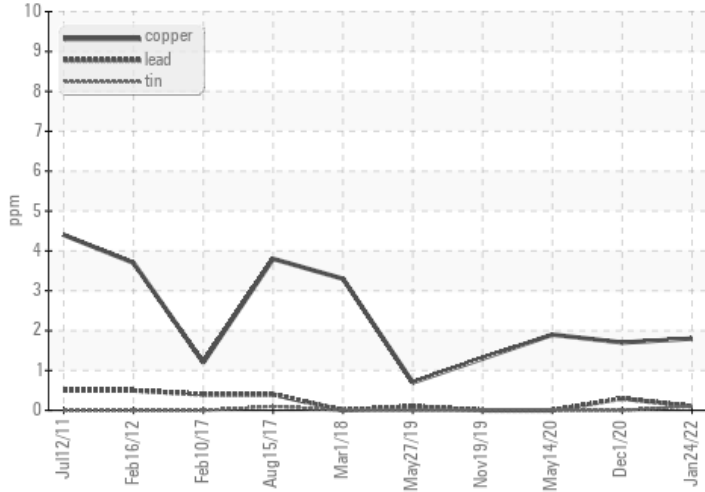
Depot: WAXTOR
Unique No: 5345165
Signed: Kevin Marson
Report Date: 26 Jan 2022

GRAPHS

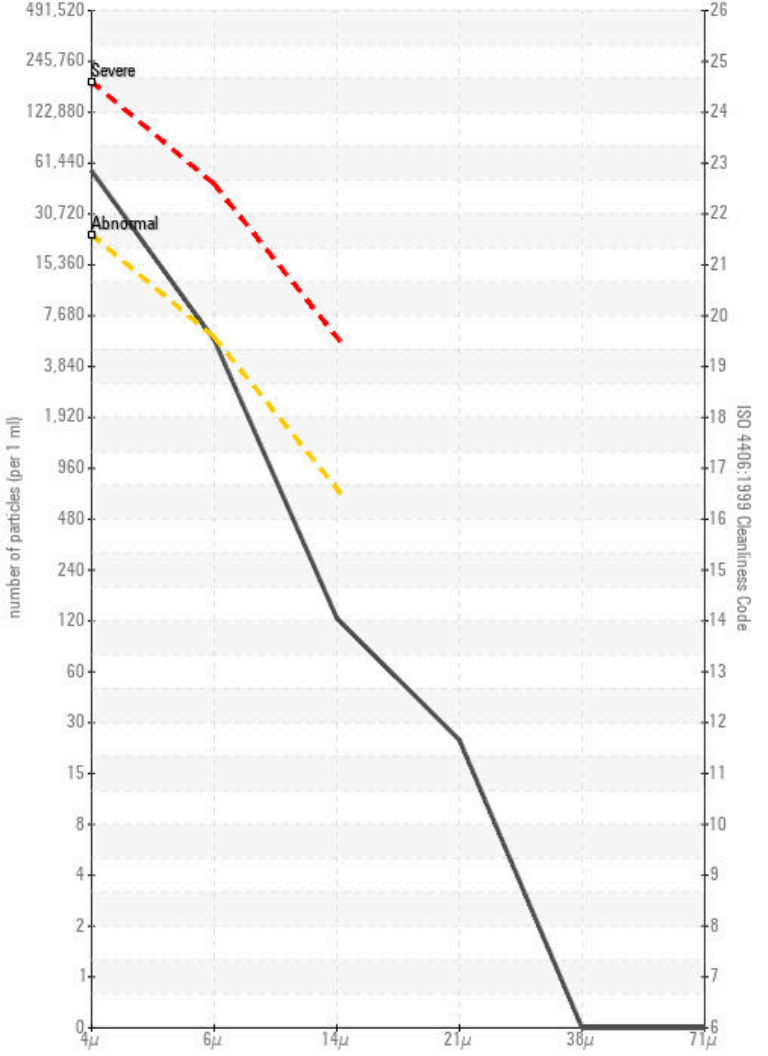
Ferrous Alloys



Non-ferrous Metals



Particle Count



Viscosity @ 40°C

