

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH40C 103882-1527 - Hydraulic System

Sample No: LH0261466

Oil Type: KENDALL FOUR SEASONS AW ISO 46

DOMINION NICKEL ALLOYS LTD.

834 APPLEBY LINE

BURLINGTON, ON

CA L7L 2Y7

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Diagnosis

We advise that you check for visible metal particles in the oil. 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. Light concentration of visible metal present. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. Additive levels indicate the addition of a different brand, or type of oil.



SAMPLE INFORMATION

Sample Number	LH0261466	LH0247336	LH0224522	LH0214176
Sample Date	29 Jun 2023	08 Mar 2023	25 Oct 2022	20 Jan 2022
Machine Hours	9040	8400	7787	6281
Oil Hours	4553	3913	4487	1825
Oil Changed	Not Changd	Not Changd	Not Changd	Not Changd
Sample Status	MARGINAL	NORMAL	NORMAL	NORMAL



OIL CONDITION

Visc @ 40°C	cSt	● 42.3	● 41.8	● 41.9	● 41.9
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CONTAMINATION

Particles >4µm		● 1241	● 5783	● 6816	● 3949
Particles >6µm		● 158	● 1455	● 1957	● 592
Particles >14µm		● 7	● 72	● 180	● 30
ISO 4406:1999 (c)		17/14/10	20/18/13	20/18/15	19/16/12
Silicon	ppm	● 1	● 1	● 1	● 1
Sodium	ppm	● 2	● 2	● 2	● 1
Potassium	ppm	● <1	● 1	● <1	● 0



WEAR METALS

Iron	ppm	● 13	● 13	● 14	● 13
Copper	ppm	● 7	● 7	● 8	● 6
Lead	ppm	● <1	● <1	● <1	● <1
Tin	ppm	● 0	● 0	● 0	● <1
Aluminum	ppm	● <1	● <1	● <1	● <1
Chromium	ppm	● 8	● 8	● 8	● 6
Molybdenum	ppm	● <1	● 0	● 0	● <1
Nickel	ppm	● 0	● 0	● 0	● <1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

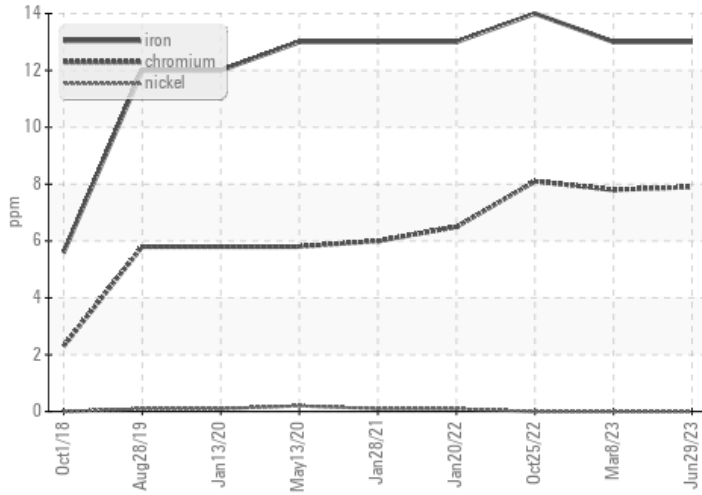
Calcium	ppm	704	781	877	812
Magnesium	ppm	● 4	● 4	● 4	● 6
Zinc	ppm	● 582	● 582	● 599	● 591
Phosphorus	ppm	● 507	● 525	● 553	● 528
Barium	ppm	● 0	● 0	● 0	● 0
Boron	ppm	● 1	● <1	● <1	● 1

Depot: DOMBUR
 Unique No: 5607457
 Signed: Kevin Marson
 Report Date: 19 Jul 2023

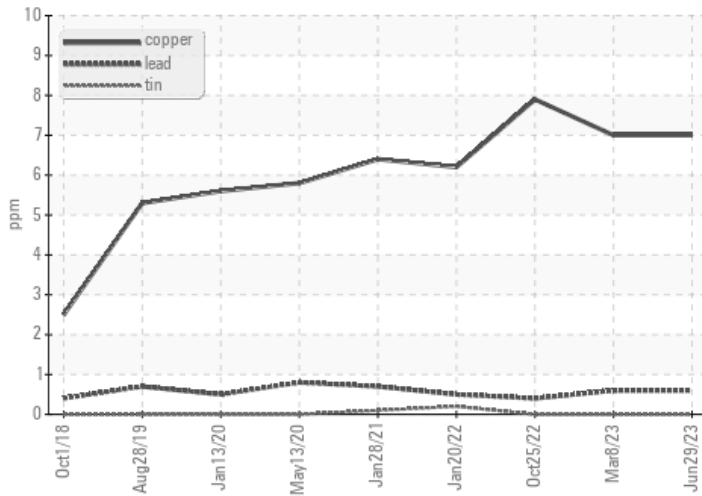


GRAPHS

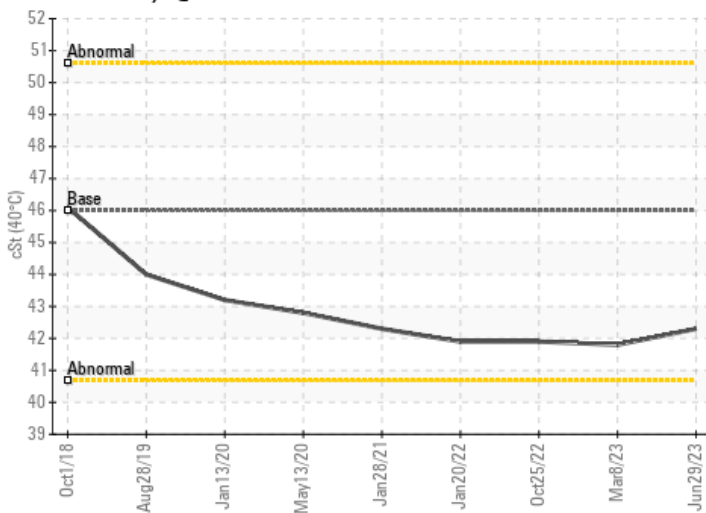
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Particle Filter (Magn: 100 x)

