LIEBHERR
CONSTRUCTION EQUIPMENT

[(360377)] LIEBHERR L580 059426-1464 - Hydraulic System

Sample No: LH0237650

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL

CLOUTHIER VENTURES LTD.
59 MATTHEWS STREET, R.R. # 5
PEMBROKE, ON
CA K8A 0A6
Contact: Travis Bennett
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T: (613)735-6531
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Sample Information

Sample Number		**LH0237650**	LH0237639	LH0242483	LH0178333
Sample Date		**03 May 2024**	09 Aug 2023	17 Nov 2022	18 Aug 2022
Machine Hours		**6520**	5106	3593	2987
Oil Hours		**0**	0	0	0
Oil Changed		**Not Changd**	Changed	Not Changd	Not Changd
Sample Status		**NORMAL**	ABNORMAL	NORMAL	NORMAL

Oil Condition

Visc @ 40°C	cSt	**44.1**	42.6	43.5	43.5
Acid Number (AN)	mg KOH/g	**1.15**	1.02	---	---

Contamination

Water	%	**NEG**	NEG	NEG	NEG
Particles >4µm		**3493**	1142	15216	12770
Particles >6µm		**603**	163	2957	1222
Particles >14µm		**27**	11	122	24
ISO 4406:1999 (c)		**19/16/12**	17/15/11	21/19/14	21/17/12
Silicon	ppm	**<1**	3	3	2
Sodium	ppm	**1**	2	2	2
Potassium	ppm	**1**	2	2	2

Wear Metals

Iron	ppm	**7**	11	9	8
Copper	ppm	**3**	5	5	3
Lead	ppm	**6**	11	8	9
Tin	ppm	**0**	<1	<1	<1
Aluminum	ppm	**<1**	1	1	1
Chromium	ppm	**1**	2	<1	1
Molybdenum	ppm	**0**	0	0	0
Nickel	ppm	**0**	0	<1	<1
Titanium	ppm	**0**	0	<1	<1
Silver	ppm	**0**	1	0	0
Manganese	ppm	**0**	0	<1	<1
Vanadium	ppm	**0**	0	0	0

Additives

Calcium	ppm	**747**	1416	1382	1411
Magnesium	ppm	**4**	7	6	6
Zinc	ppm	**753**	707	687	679
Phosphorus	ppm	**605**	588	643	585
Barium	ppm	**0**	<1	0	0
Boron	ppm	**<1**	<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. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot: CLOPEM
Unique No: 5776845
Signed: Wes Davis
Report Date: 16 May 2024

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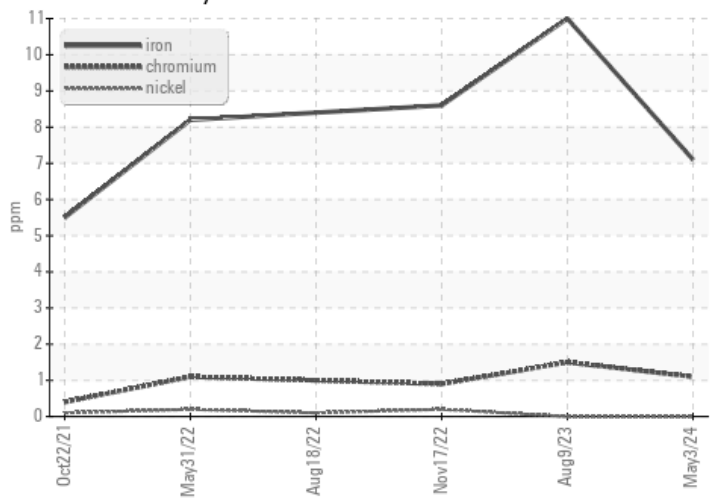
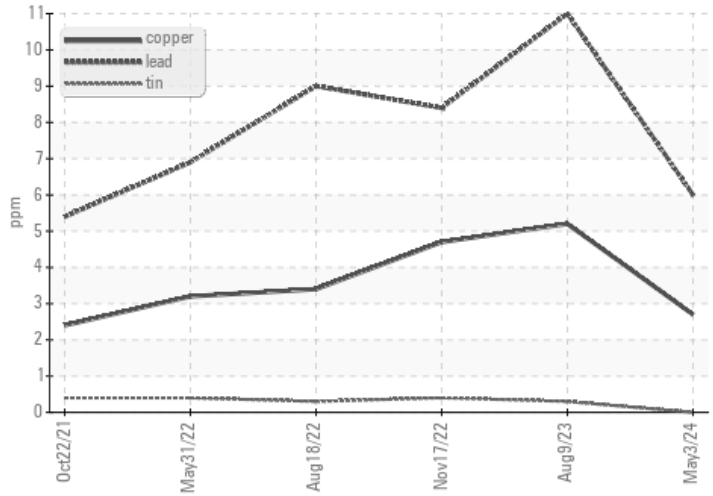
Graphs

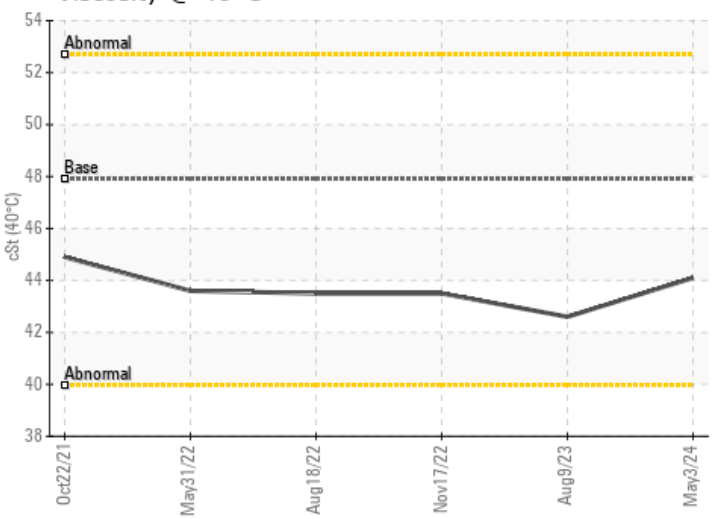
Ferrous Alloys



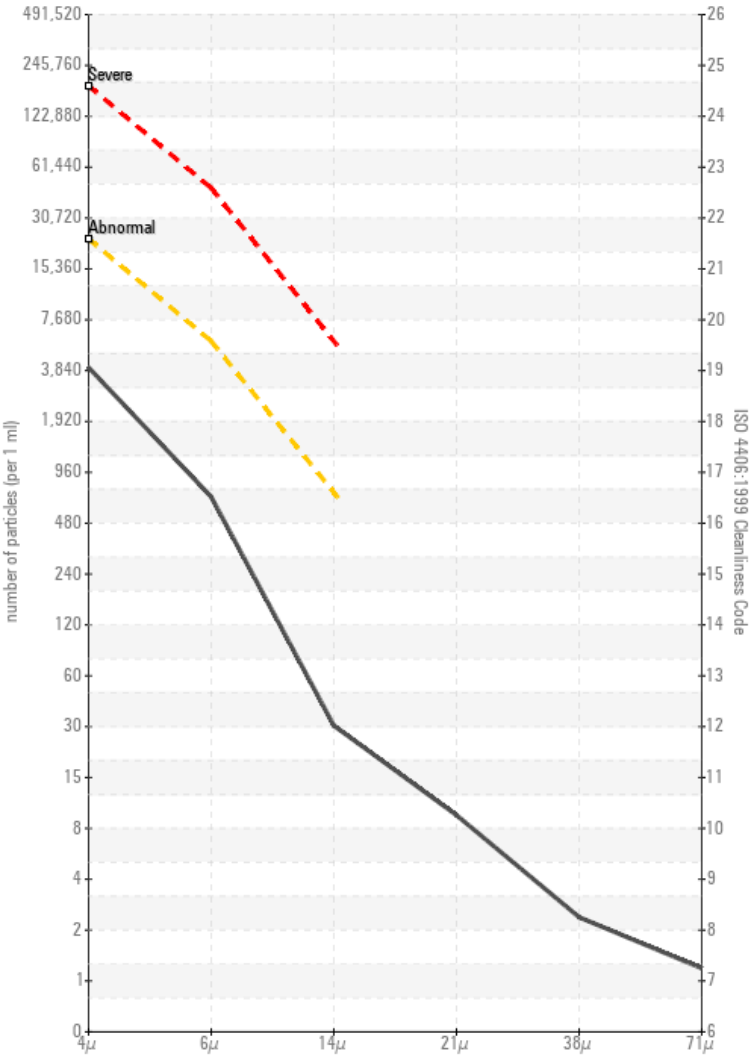
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number