

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH30 119194-1253 - Diesel Engine

Sample No: LH0243135

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



SAMPLE INFORMATION

Sample Number	LH0243135	LH0229305	LH0190920	LH0190921
Sample Date	09 Jun 2023	07 Nov 2022	12 Apr 2022	11 Feb 2022
Machine Hours	6258	5125	4163	3870
Oil Hours	1039	1052	1041	748
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL

TIMBER PRODUCTS

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US 49862
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OIL CONDITION

Visc @ 100°C	cSt	11.4	12.1	12.0	12.2
Base Number (BN)	mg KOH/g	4.7	9.0	8.8	10.3
Oxidation (PA)	%	85	71	95	86



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.6	0.1	0.1
Nitration (PA)	%	101	73	116	111
Sulfation (PA)	%	66	59	67	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	7	5	5
Sodium	ppm	4	1	0	0
Potassium	ppm	<1	4	0	0



WEAR METALS

Iron	ppm	6	3	11	7
Copper	ppm	4	1	10	6
Lead	ppm	<1	<1	23	9
Tin	ppm	1	<1	1	<1
Aluminum	ppm	1	0	1	1
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	0	<1	<1	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	<1	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1209	1434	2688	2650
Magnesium	ppm	628	573	24	24
Zinc	ppm	669	817	851	847
Phosphorus	ppm	649	689	704	705
Barium	ppm	<1	0	0	0
Boron	ppm	35	81	15	15

Diagnosis

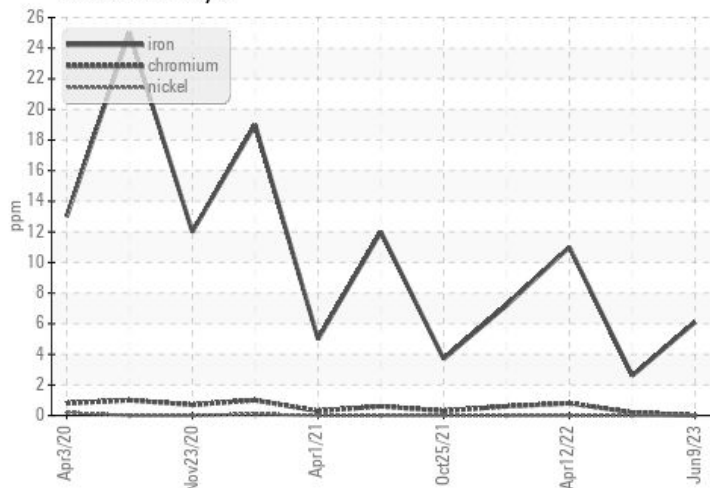
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Depot: TIMMUN
Unique No: 10896464
Signed: Don Baldrige
Report Date: 26 Feb 2024

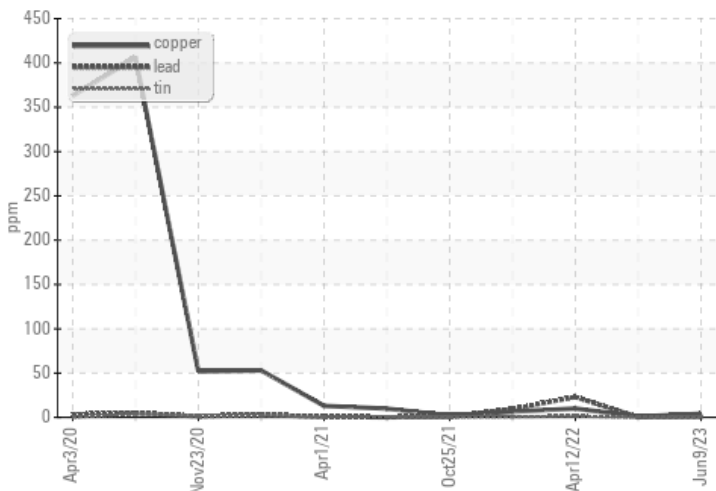


GRAPHS

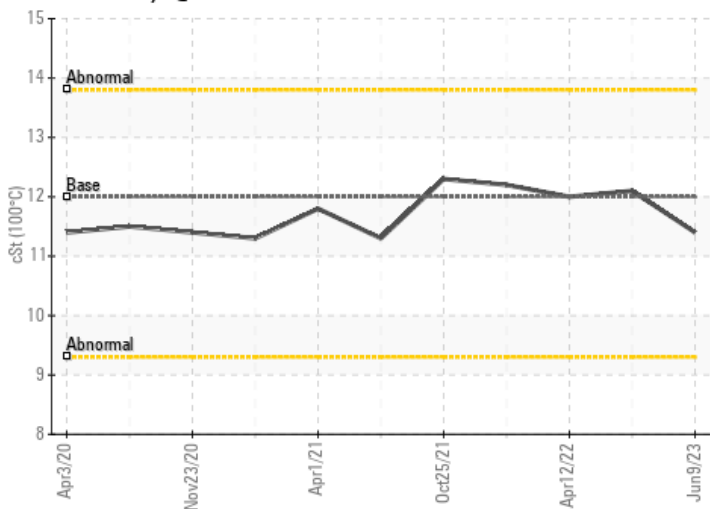
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

