

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 1216-108671 - Diesel Engine

Sample No: LH0268419

Oil Type: DIESEL ENGINE OIL SAE 5W40



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Sample Information

Sample Number	LH0268419	LH0258879	LH0258754	LH0272710
Sample Date	14 Jun 2024	05 Apr 2024	23 Feb 2024	17 Jan 2024
Machine Hours	21235	20592	20036	19562
Oil Hours	0	500	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



Oil Condition

Visc @ 100°C	cSt	12.8	13.1	13.1	12.9
Base Number (BN)	mg KOH/g	6.8	7.3	7.4	7.3
Oxidation (PA)	%	62	60	56	57



Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	75	73	69	69
Sulfation (PA)	%	58	55	53	54
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	9	7	7
Sodium	ppm	3	4	2	3
Potassium	ppm	3	4	1	2



Wear Metals

Iron	ppm	4	3	4	4
Copper	ppm	8	2	1	3
Lead	ppm	0	<1	0	0
Tin	ppm	0	<1	0	0
Aluminum	ppm	1	<1	1	1
Chromium	ppm	0	0	0	0
Molybdenum	ppm	4	5	6	11
Nickel	ppm	0	0	0	0
Titanium	ppm	85	89	85	67
Silver	ppm	<1	<1	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	<1	<1



Additives

Calcium	ppm	1397	1334	1392	1456
Magnesium	ppm	722	731	664	667
Zinc	ppm	1222	1200	1131	1258
Phosphorus	ppm	978	1071	934	1021
Barium	ppm	<1	0	0	0
Boron	ppm	57	136	126	98

Diagnosis

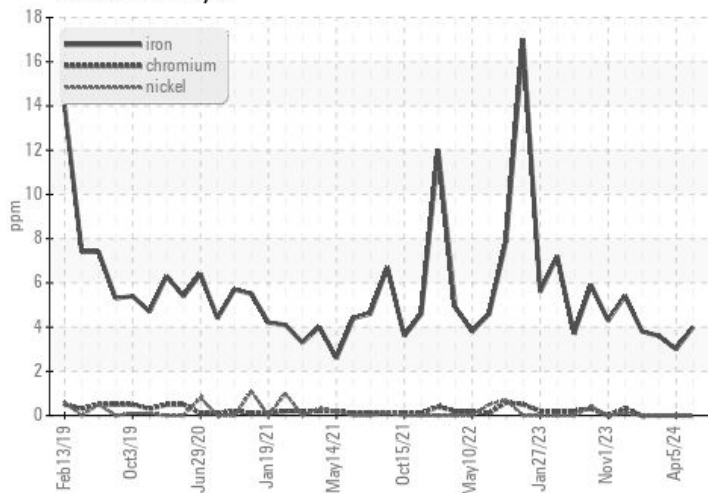
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: LEC0008
 Unique No: 11097273
 Signed: Wes Davis
 Report Date: 25 Jun 2024

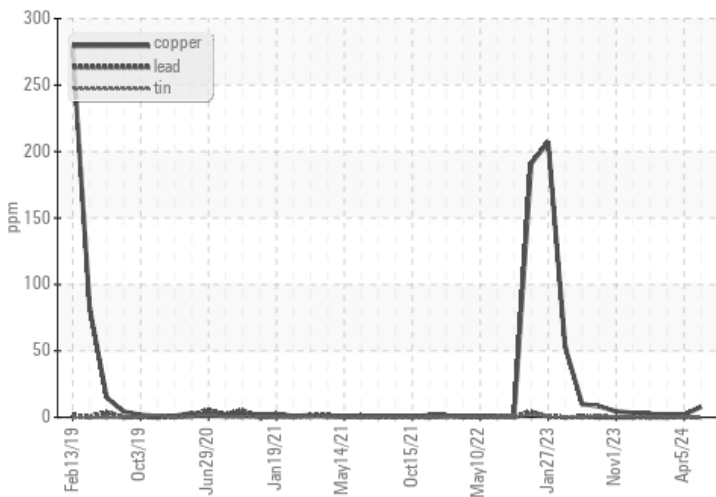


Graphs

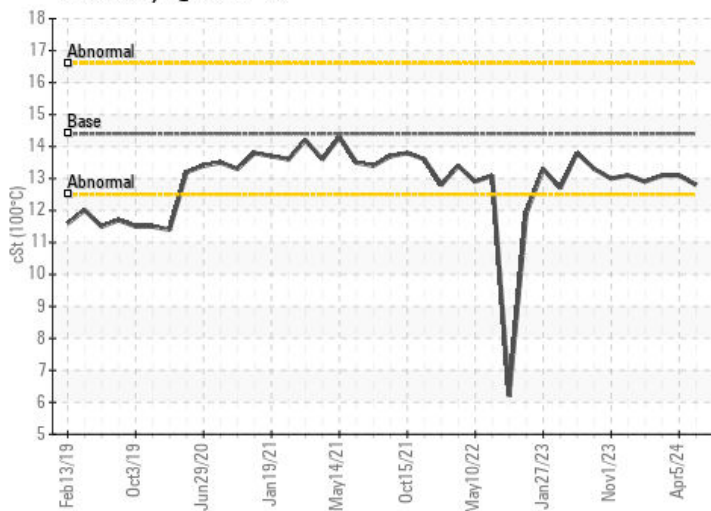
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

