

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH30M 117414-1253 - Diesel Engine

Sample No: LH0285588

Oil Type: LIEBHERR MOTOROIL 5W30



SPARTAN RECYCLING
 3071 HOWARD ST
 SPARTANBURG, SC
 US 29303
 Contact: SERVICE MANAGER

T:
 F:



Sample Information

Sample Number	LH0285588	LH0285561	LH0272898	LH0235762
Sample Date	23 Apr 2024	08 Mar 2024	10 Jan 2024	26 Sep 2023
Machine Hours	8838	8628	8285	0
Oil Hours	250	0	0	0
Oil Changed	Changed	Changed	Changed	N/A
Sample Status	SEVERE	NORMAL	NORMAL	NORMAL



Oil Condition

Visc @ 100°C	cSt	8.2	11.4	11.3	11.2
Base Number (BN)	mg KOH/g	14.5	15.8	12.5	13.2
Oxidation (PA)	%	37	44	54	54



Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	83	100	118	118
Sulfation (PA)	%	38	42	48	48
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	16.0	<1.0	<1.0	<1.0
Silicon	ppm	7	8	8	9
Sodium	ppm	2	4	2	1
Potassium	ppm	0	0	<1	0



Wear Metals

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



Additives

Calcium	ppm	3792	4235	4433	4323
Magnesium	ppm	20	22	5	27
Zinc	ppm	1053	1113	1241	1243
Phosphorus	ppm	921	1022	1030	1041
Barium	ppm	0	0	0	0
Boron	ppm	228	232	235	240

Diagnosis

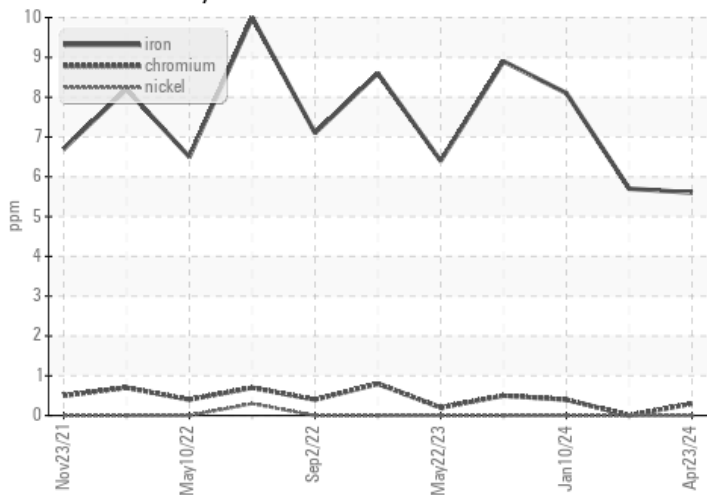
We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Depot: SPASPALH
 Unique No: 11003136
 Signed: Wes Davis
 Report Date: 30 Apr 2024

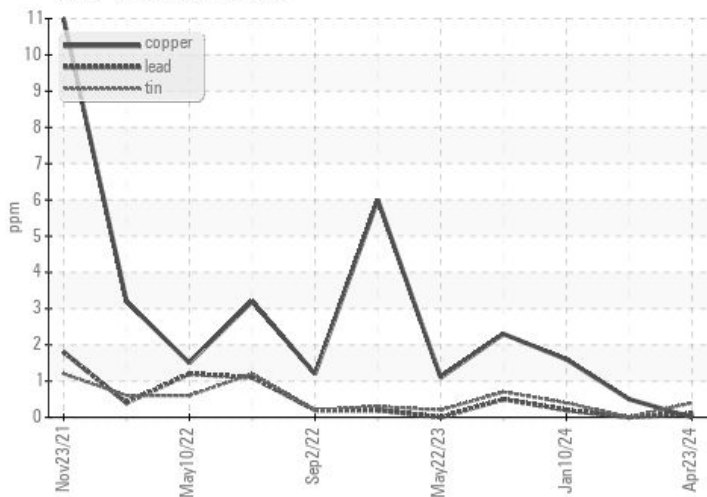


Graphs

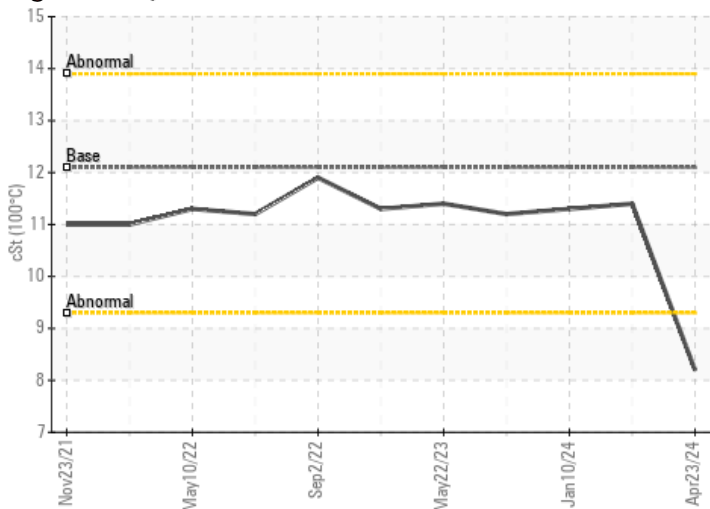
Ferrous Alloys



Non-ferrous Metals



● Viscosity @ 100°C



Base Number

