

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH30M 117414-1253 - Diesel Engine

Sample No: LH0285561

Oil Type: DIESEL ENGINE OIL SAE 15W40



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



#### SAMPLE INFORMATION

Sample Number	LH0285561	LH0272898	LH0235762	LHMC160593
Sample Date	08 Mar 2024	10 Jan 2024	26 Sep 2023	22 May 2023
Machine Hours	8628	8285	0	1750
Oil Hours	0	0	0	500
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



#### OIL CONDITION

Visc @ 100°C	cSt	11.4	11.3	11.2	11.4
Base Number (BN)	mg KOH/g	15.8	12.5	13.2	15.6
Oxidation (PA)	%	44	54	54	41



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	100	118	118	103
Sulfation (PA)	%	42	48	48	40
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	8	9	10
Sodium	ppm	4	2	1	4
Potassium	ppm	0	<1	0	0



#### WEAR METALS

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



#### ADDITIVES

Calcium	ppm	4235	4433	4323	4468
Magnesium	ppm	22	5	27	29
Zinc	ppm	1113	1241	1243	1222
Phosphorus	ppm	1022	1030	1041	1066
Barium	ppm	0	0	0	0
Boron	ppm	232	235	240	304

T:  
F:

#### Diagnosis

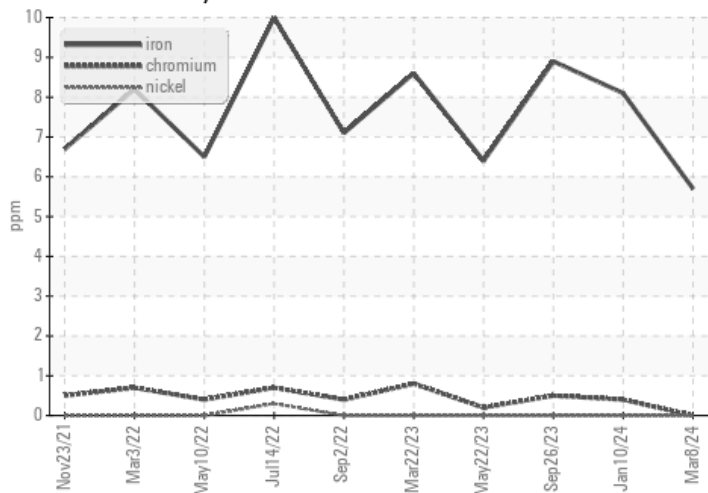
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.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

Depot: SPASPALH  
 Unique No: 10924467  
 Signed: Wes Davis  
 Report Date: 13 Mar 2024

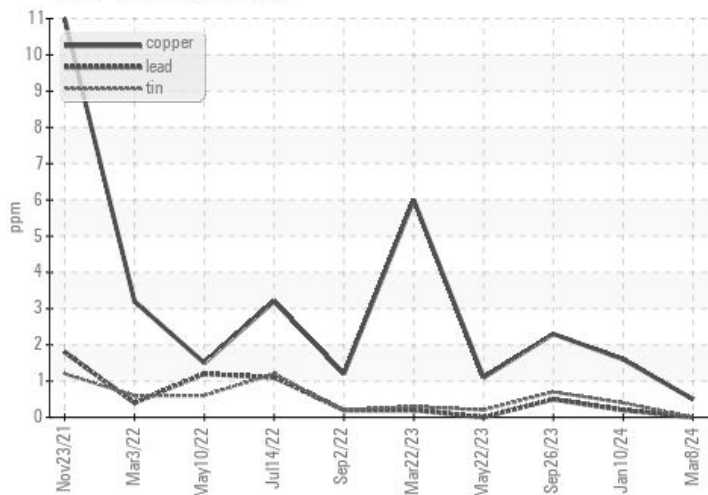


### GRAPHS

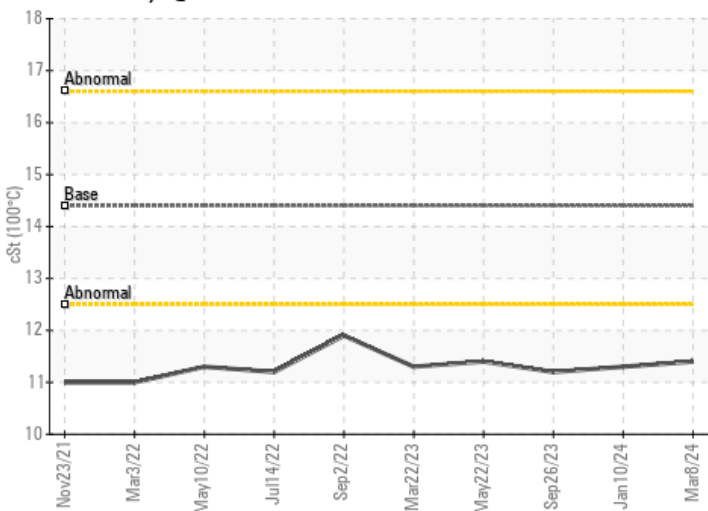
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number

