

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50M 1203-75955 - Diesel Engine

Sample No: LH0258882

Oil Type: DIESEL ENGINE OIL SAE 15W40



#### SAMPLE INFORMATION

Sample Number	LH0258882	LHMC115088	---	---
Sample Date	12 Mar 2024	24 Aug 2017	---	---
Machine Hours	1517	1056	---	---
Oil Hours	0	565	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	SEVERE	ABNORMAL	---	---

**NORBORD MN**  
 4409 NORTHWOOD RD NW  
 SOLWAY, MN  
 US 56678  
 Contact: RIC BOWMAN  
 ric.bowman@norbord.com  
 T: (218)444-0909  
 F: (218)751-2075



#### OIL CONDITION

Visc @ 100°C	cSt	7.8	14.92	---	---
Base Number (BN)	mg KOH/g	4.4	---	---	---
Oxidation (PA)	%	80	68	---	---

#### 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. Please specify the brand, type, and viscosity of the oil on your next sample. 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.



#### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	1	0.6	---	---
Nitration (PA)	%	98	83	---	---
Sulfation (PA)	%	65	53	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	24.4	<1.0	---	---
Silicon	ppm	7	10	---	---
Sodium	ppm	5	3	---	---
Potassium	ppm	0	2	---	---



#### WEAR METALS

Iron	ppm	40	35	---	---
Copper	ppm	10	157	---	---
Lead	ppm	2	4	---	---
Tin	ppm	1	1	---	---
Aluminum	ppm	4	16	---	---
Chromium	ppm	<1	2	---	---
Molybdenum	ppm	25	0	---	---
Nickel	ppm	0	<1	---	---
Titanium	ppm	7	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	1	<1	---	---
Vanadium	ppm	0	0	---	---



#### ADDITIVES

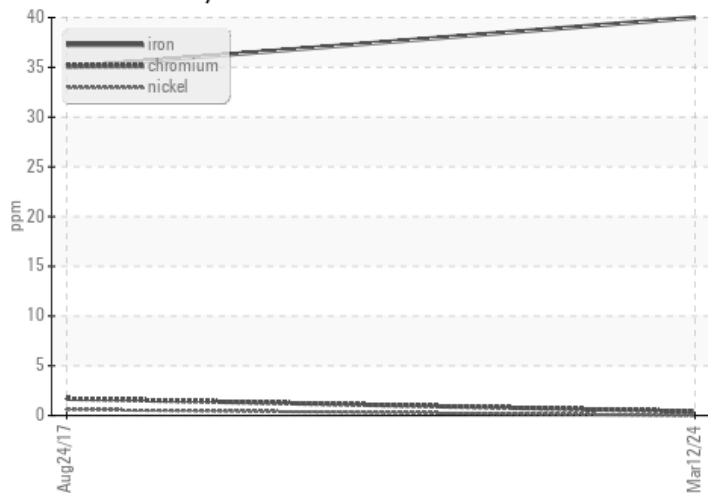
Calcium	ppm	1179	1242	---	---
Magnesium	ppm	303	767	---	---
Zinc	ppm	832	1086	---	---
Phosphorus	ppm	683	836	---	---
Barium	ppm	0	3	---	---
Boron	ppm	12	24	---	---

**Depot:** NORSOLLH  
**Unique No:** 10939711  
**Signed:** Wes Davis  
**Report Date:** 26 Mar 2024

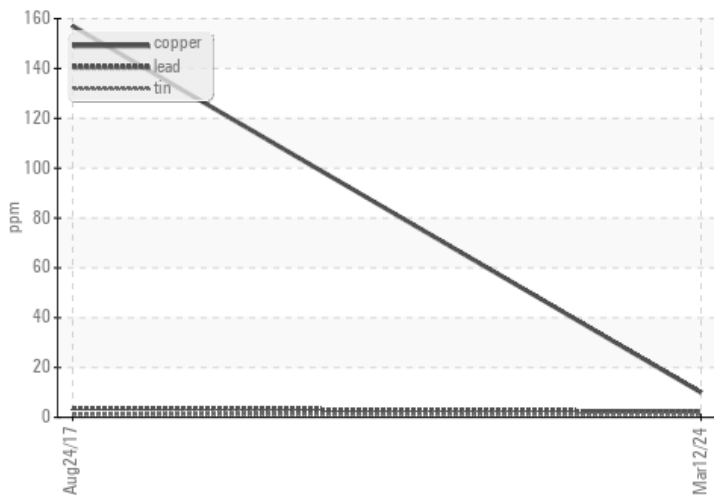


### GRAPHS

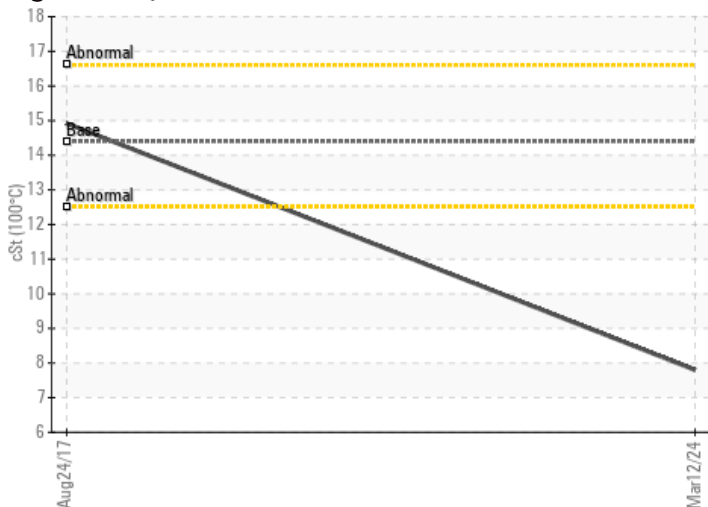
#### Ferrous Alloys



#### Non-ferrous Metals



#### ● Viscosity @ 100°C



#### Base Number

