

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L1827 (S/N 11113) - Diesel Engine

Sample No: LH0273164

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



Sample Information

Sample Number	LH0273164	LH0247831	---	---
Sample Date	14 May 2024	29 Aug 2023	---	---
Machine Hours	1002	72	---	---
Oil Hours	500	72	---	---
Oil Changed	Changed	Not Changd	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

PETERSON CONTRACTORS INC
 PO BOX A
 REINBECK, IA
 US 50669
 Contact: WADE VANHAVEN
 MBERWALD@PCIUS.COM
 T:
 F:



Oil Condition

Visc @ 100°C	cSt	● 11.5	● 11.9	---	---
Base Number (BN)	mg KOH/g	● 7.3	● 14.2	---	---
Oxidation (PA)	%	● 69	● 42	---	---

Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The aluminum level is abnormal. All other component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.



Contamination

Water	%	NEG	● 0.809	---	---
Soot %	%	● 0.8	● 0.1	---	---
Nitration (PA)	%	● 74	● 78	---	---
Sulfation (PA)	%	● 57	● 40	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	● 9	● 7	---	---
Sodium	ppm	● 2	● 2	---	---
Potassium	ppm	● 167	● 75	---	---



Wear Metals

Iron	ppm	● 24	● 8	---	---
Copper	ppm	● 5	● 1	---	---
Lead	ppm	● <1	● 0	---	---
Tin	ppm	● <1	● 0	---	---
Aluminum	ppm	● 38	● 13	---	---
Chromium	ppm	● 1	● <1	---	---
Molybdenum	ppm	● 4	● <1	---	---
Nickel	ppm	● 0	● 0	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	● 1	● <1	---	---
Manganese	ppm	● <1	● <1	---	---
Vanadium	ppm	<1	0	---	---



Additives

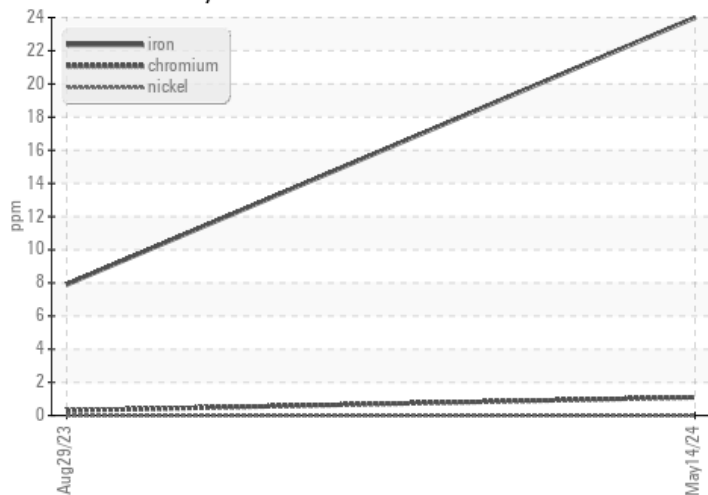
Calcium	ppm	● 3813	● 3976	---	---
Magnesium	ppm	● 157	● 161	---	---
Zinc	ppm	● 1161	● 1151	---	---
Phosphorus	ppm	● 1141	● 965	---	---
Barium	ppm	● 0	● 0	---	---
Boron	ppm	● 242	● 264	---	---

Depot: PETREILH
Unique No: 11036861
Signed: Jonathan Hester
Report Date: 23 May 2024

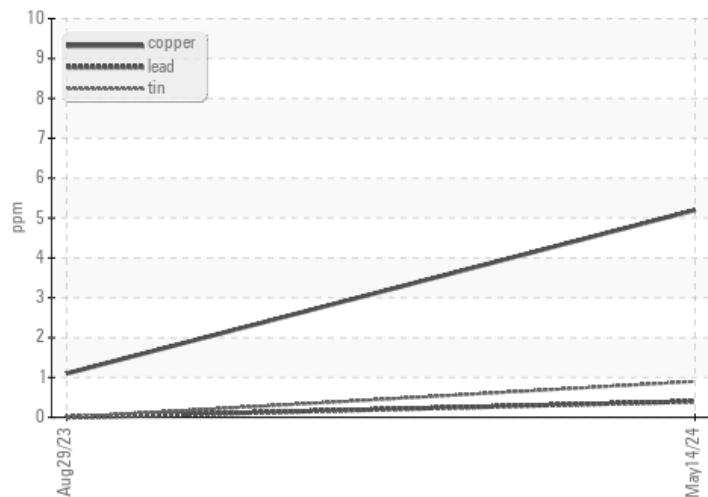


Graphs

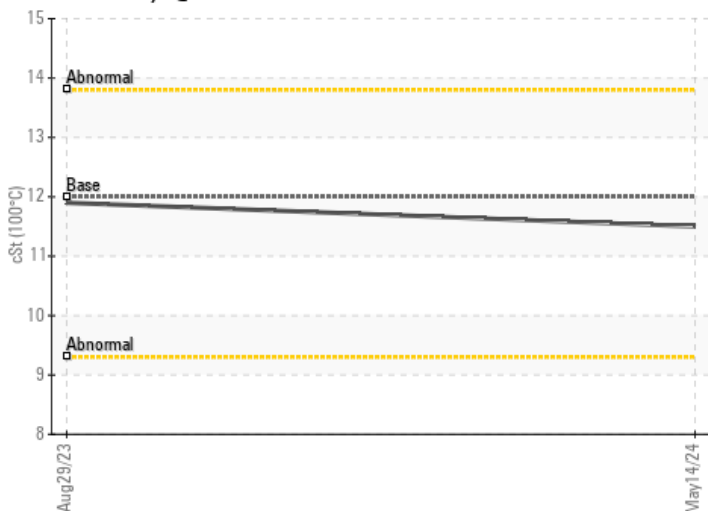
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

