

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L580 032314 - Diesel Engine

Sample No: LH

Oil Type: SHELL ROTELLA T4 15W40



#### SAMPLE INFORMATION

Sample Number	LH	LH0208252	---	---
Sample Date	10 Nov 2023	16 Jan 2023	---	---
Machine Hours	15486	14000	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

HUBERT & FILS

474 ROUTE 105

BOIS-FRANC, QC

CA J9E 3A9

Contact: Eric Brisebois

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#### OIL CONDITION

Visc @ 100°C	cSt	13.3	15.6	---	---
Oxidation (PA)	%	58	83	---	---



#### CONTAMINATION

Soot %	%	0.1	1.9	---	---
Nitration (PA)	%	47	94	---	---
Sulfation (PA)	%	55	82	---	---
Glycol	%	NEG	0.0	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	4	5	---	---
Sodium	ppm	2	2	---	---
Potassium	ppm	4	8	---	---

#### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	3	27	---	---
Copper	ppm	<1	2	---	---
Lead	ppm	0	4	---	---
Tin	ppm	0	<1	---	---
Aluminum	ppm	<1	2	---	---
Chromium	ppm	0	<1	---	---
Molybdenum	ppm	<1	1	---	---
Nickel	ppm	<1	<1	---	---
Titanium	ppm	0	<1	---	---
Silver	ppm	<1	0	---	---
Manganese	ppm	0	<1	---	---
Vanadium	ppm	0	0	---	---



#### ADDITIVES

Calcium	ppm	1909	2506	---	---
Magnesium	ppm	18	24	---	---
Zinc	ppm	1043	1229	---	---
Phosphorus	ppm	907	1100	---	---
Barium	ppm	<1	0	---	---
Boron	ppm	155	62	---	---

Depot: HUBBOI

Unique No: 5681523

Signed: Wes Davis

Report Date: 15 Nov 2023



### GRAPHS

