

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### 111446 - Diesel Engine

Sample No: LH0281075

Oil Type: SAE 5W30



#### SAMPLE INFORMATION

Sample Number	LH0281075	LH0151093	---	---
Sample Date	10 Jan 2024	04 Jan 2024	---	---
Machine Hours	1000	1000	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

#### Liebherr Canada

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#### OIL CONDITION

Visc @ 100°C	cSt	11.6	12.4	---	---
Oxidation (PA)	%	71	186	---	---



#### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0	0	---	---
Nitration (PA)	%	53	96	---	---
Sulfation (PA)	%	56	102	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	4	9	---	---
Sodium	ppm	4	3	---	---
Potassium	ppm	0	1	---	---

#### 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	2	8	---	---
Copper	ppm	19	226	---	---
Lead	ppm	<1	7	---	---
Tin	ppm	0	<1	---	---
Aluminum	ppm	1	2	---	---
Chromium	ppm	0	<1	---	---
Molybdenum	ppm	61	98	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	<1	---	---
Manganese	ppm	0	<1	---	---
Vanadium	ppm	0	0	---	---



#### ADDITIVES

Calcium	ppm	843	1271	---	---
Magnesium	ppm	1101	899	---	---
Zinc	ppm	1152	902	---	---
Phosphorus	ppm	1030	799	---	---
Barium	ppm	0	2	---	---
Boron	ppm	60	70	---	---

Depot: LIERIC

Unique No: 5709788

Signed: Kevin Marson

Report Date: 15 Jan 2024



### GRAPHS

