

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### C201690002 - Diesel Engine

Sample No: LH0265145

Oil Type: PETRO CANADA DURON HP 15W40



#### SAMPLE INFORMATION

Sample Number	LH0265145	---	---	---
Sample Date	03 Mar 2024	---	---	---
Machine Hours	0	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	NORMAL	---	---	---

#### Liebherr-Canada Ltd.

Fort McKay Industrial Park, Lot No. 12 and 13  
 Fort McMurray, AB  
 CA T9H 5N3  
 Contact: Evan Moores  
 evan.moores@liebherr.com

T:  
 F:



#### OIL CONDITION

Visc @ 100°C	cSt	13.7	---	---	---
Oxidation (PA)	%	84	---	---	---



#### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	0	---	---	---
Nitration (PA)	%	63	---	---	---
Sulfation (PA)	%	54	---	---	---
Glycol	%	0.0	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	19	---	---	---
Sodium	ppm	4	---	---	---
Potassium	ppm	9	---	---	---

#### Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	5	---	---	---
Copper	ppm	10	---	---	---
Lead	ppm	2	---	---	---
Tin	ppm	<1	---	---	---
Aluminum	ppm	2	---	---	---
Chromium	ppm	0	---	---	---
Molybdenum	ppm	44	---	---	---
Nickel	ppm	0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	1	---	---	---
Vanadium	ppm	0	---	---	---



#### ADDITIVES

Calcium	ppm	1418	---	---	---
Magnesium	ppm	873	---	---	---
Zinc	ppm	842	---	---	---
Phosphorus	ppm	772	---	---	---
Barium	ppm	12	---	---	---
Boron	ppm	130	---	---	---

Depot: LIEFTM  
 Unique No: 5737518  
 Signed: Kevin Marson  
 Report Date: 08 Mar 2024



### GRAPHS

