

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [(363347)] LIEBHERR R934 054150-1550 - Diesel Engine

Sample No: LH0218933

Oil Type: VALVOLINE ALLFLEET 10W30



#### Information sur l'échantillon

Numéro d'échant.	LH0218933	LH0218927	LH0218919	---
Date d'échant.	09 Apr 2024	13 Jul 2023	22 Sep 2022	---
Heures de la Machine	1485	1040	468	---
Heures de l'huile	0	0	0	---
Huile changée	Changed	Changed	N/A	---
Statut de l'échant.	ABNORMAL	NORMAL	NORMAL	---



#### État d'huile

Visc 100°C	cSt	13.7	11.7	11.9	---
Oxydation (PA)	%	67	73	203	---



#### Contamination

Eau	%	NEG	NEG	NEG	---
% de suie	%	0	0	0	---
Nitration (PA)	%	81	78	102	---
Sulfatation (PA)	%	57	65	110	---
Glycol	%	NEG	NEG	NEG	---
Essence	%	<1.0	<1.0	1	---
Silicium	ppm	11	8	10	---
Sodium	ppm	2	2	3	---
Potassium	ppm	7	2	3	---



#### Métaux d'usure

Fer	ppm	6	7	11	---
Cuivre	ppm	5	19	108	---
Plomb	ppm	0	1	6	---
Étain	ppm	0	<1	1	---
Aluminium	ppm	4	2	3	---
Chrome	ppm	<1	<1	<1	---
Molybdène	ppm	82	16	42	---
Nickel	ppm	0	<1	0	---
Titane	ppm	4	36	<1	---
Argent	ppm	0	0	0	---
Manganèse	ppm	0	<1	1	---
Vanadium	ppm	0	<1	0	---



#### Additifs

Calcium	ppm	2169	1873	1385	---
Magnésium	ppm	56	342	909	---
Zinc	ppm	1157	1089	848	---
Phosphore	ppm	965	960	748	---
Baryum	ppm	2	4	30	---
Bore	ppm	35	34	83	---



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#### Diagnostic

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as VALVOLINE ALLFLEET 10W30, however, a fluid match indicates that this fluid is SAE 40 Diesel Engine Oil. Please confirm the oil type and grade on your next sample. All component wear rates are normal. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

**Depot:** KAR373CAR  
**Unique No:** 5776002  
**Signed:** Kevin Marson  
**Report Date:** 13 May 2024



### Graphs

