

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [(375856)] LIEBHERR R930 049712-1716 - Diesel Engine

Sample No: LH0231970  
 Oil Type: DIESEL ENGINE OIL SAE 15W40



#### SAMPLE INFORMATION

Sample Number	LH0231970	LH0231964	---	---
Sample Date	13 Jul 2023	22 Sep 2022	---	---
Machine Hours	1520	1000	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

COUNTY OF ST. PAUL NO. 19  
 5015 - 49 AVENUE  
 ST. PAUL, AB  
 CA T0A 3A4  
 Contact: Brent Lilje  
 blilje@county.stpaul.ab.ca  
 T: (780)645-3006  
 F:



#### OIL CONDITION

Visc @ 100°C	cSt	12.1	11.7	---	---
Oxidation (PA)	%	153	84	---	---



#### CONTAMINATION

Soot %	%	0	0	---	---
Nitration (PA)	%	83	77	---	---
Sulfation (PA)	%	90	61	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	1.2	1.1	---	---
Silicon	ppm	11	8	---	---
Sodium	ppm	3	5	---	---
Potassium	ppm	<1	<1	---	---

#### Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	4	6	---	---
Copper	ppm	14	40	---	---
Lead	ppm	<1	1	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	3	2	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	100	57	---	---
Nickel	ppm	0	0	---	---
Titanium	ppm	0	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---



#### ADDITIVES

Calcium	ppm	2029	876	---	---
Magnesium	ppm	135	1119	---	---
Zinc	ppm	1126	1177	---	---
Phosphorus	ppm	1028	1049	---	---
Barium	ppm	<1	1	---	---
Boron	ppm	88	45	---	---

Depot: COU501STP  
 Unique No: 5616157  
 Signed: Kevin Marson  
 Report Date: 21 Jul 2023



### GRAPHS

