## **CONSTRUCTION EQUIPMENT**

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

Sample No: LH0231971 **SAE 0W40** 

**Oil Type:** 

### **SAMPLE INFORMATION**

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Sample Number	LH0231971	LH0231970	LH0231964			
Sample Date	15 Jan 2024	13 Jul 2023	22 Sep 2022			
Machine Hours	2014	1520	1000			
Oil Hours	0	0	0			
Oil Changed	Changed	Changed	Changed			
Sample Status	NORMAL	NORMAL	NORMAL			
OIL CONDITION						
Visc @ 100°C cSt	<b>13.6</b>	12.1	11.7			

Oxidation (PA)		
- AL		

Water	%	NEG	NEG	NEG		
Soot %	%	0	0	0		
Nitration (PA)	%	84	83	77		
Sulfation (PA)	%	58	90	61		
Glycol	%	NEG	NEG	NEG		
Fuel	%	<1.0	0 1.2	0 1.1		
Silicon	ppm	8	0 11	8 🔘		
Sodium	ppm	02	3	O 5		
Potassium	ppm	01	○ <1	○ <1		

153

84

#### $\overline{\mathbf{O}}$ **WEAR METALS** 04 Iron ppm 04 6 Copper ppm 04 0 40 Lead ppm ○ <1 <1 Tin 0 0 <1 ppm < Aluminum 04 2 ppm $\bigcirc$ 3 Chromium ○ <1 ○ <1 ppm ○ <1 Molybdenum 91 0 100 0 57 ppm Nickel 0 <1 $\bigcirc 0$ $\bigcirc 0$ ppm Titanium 0 00 ppm <1 Silver 0 $\bigcirc 0$ 0 ppm Manganese 0 ppm ○ <1 <1

Vanadium 

ppm

	<b>FIVES</b>				
Calcium	ppm	2262	2029	876	
Magnesium	ppm	25	135	0 1119	
Zinc	ppm	O 1195	1126	0 1177	
Phosphorus	ppm	0 1034	0 1028	0 1049	
Barium	ppm	<b>○</b> <1	○ <1	01	
Boron	ppm	<b>50</b>	88	0 45	



COU501STP 5721208 Wes Davis 30 Jan 2024

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COUNTY OF ST. PAUL NO. 19

5015 - 49 AVENUE ST. PAUL, AB CA TOA 3A4 Contact: Brent Lilje blilje@county.stpaul.ab.ca T: (780)645-3006 F:

#### Diagnosis

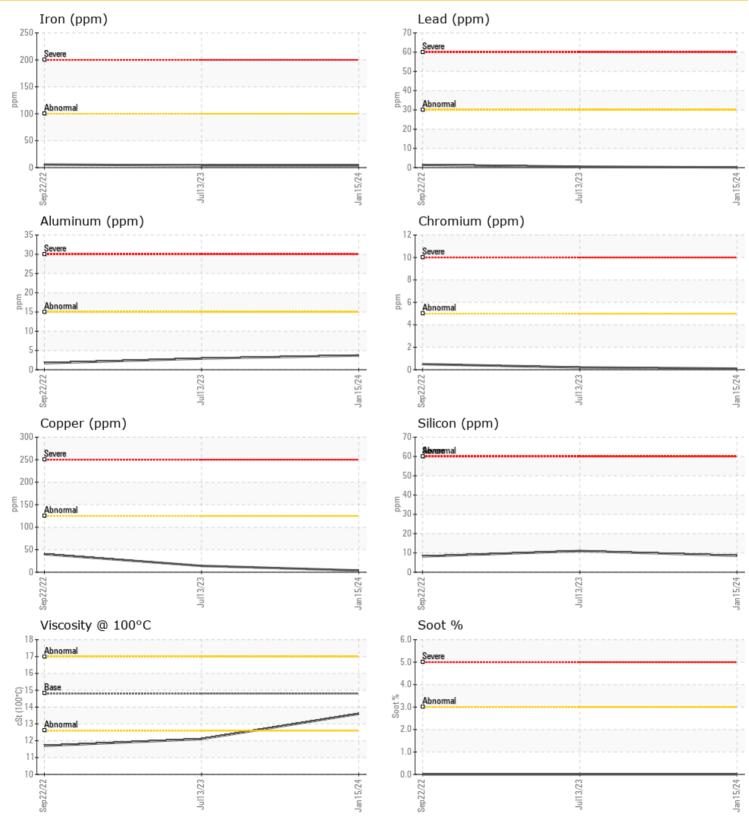
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.





GRAPHS

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