# LIEBHERR

# **CONSTRUCTION EQUIPMENT**

## **LIEBHERR L556 053602-1484 - Diesel Engine**

Sample No: LH0278951

Oil Type: PETRO CANADA 10W40

Sample Information						
Sample Number	LH0278951	LH0281542	LH0215735			
Sample Date	16 Jul 2024	11 Jan 2024	13 Oct 2023			
Machine Hours	8759	7741	7226			
Oil Hours	0	0	0			
Oil Changed	Not Changd	Changed	Changed			
Sample Status	SEVERE	NORMAL	NORMAL			
A						

Oil Co	ndition				
Visc @ 100°C	cSt	<b>12.8</b>	○ 13.6	12.6	
Oxidation (PA)	%	65	55	56	
Comba					

Conto	ımination				
Water	%	NEG	NEG	NEG	
Soot %	%	<b>0</b>	O 0	<b>0</b>	
Nitration (PA)	%	66	49	50	
Sulfation (PA)	%	52	50	51	
Glycol	%	○ 0.0	NEG	NEG	
Fuel	%	<1.0	<1.0	<1.0	
Silicon	ppm	<b>5</b>	<b>5</b>	<b>5</b>	
Sodium	ppm	<b>1</b>	O <1	O 2	
Potassium	ppm	<b>○</b> <1	0	O <1	

Wear	Metals				
Iron	ppm	<b>7</b>	O 2	02	
Copper	ppm	<b>445</b>	O <1	<b></b> <1	
Lead	ppm	<u> </u>	O <1	<b></b> <1	
Tin	ppm	<b>0</b>	O <1	0	
Aluminum	ppm	<b>1</b>	O 1	<b></b> <1	
Chromium	ppm	<b>○</b> <1	O 0	O 0	
Molybdenum	ppm	<b>60</b>	<b>57</b>	<b>59</b>	
Nickel	ppm	<b>0</b>	O 0	0	
Titanium	ppm	<1	0	0	
Silver	ppm	<b>○</b> <1	0	<b></b> <1	
Manganese	ppm	<b>○</b> <1	O 0	O 0	
Vanadium	ppm	0	0	0	

Add	itives				
Calcium	ppm	<b>1049</b>	O 1062	O 1043	
Magnesium	ppm	<b>961</b>	968	968	
Zinc	ppm	<b>1184</b>	O 1165	<b>1177</b>	
Phosphorus	ppm	<b>1004</b>	O 1003	<b>1004</b>	
Barium	ppm	<b></b> <1	0	O <1	
Boron	ppm	<b>○</b> <1	O 1	O 1	



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#### Diagnosis

We advise that you monitor for an abnormal oil pressure drop and noise. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Copper ppm levels are severe. Lead ppm levels are noted. A sharp increase in the copper level is noted. Bearing wear is indicated. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot:CAVASHUnique No:5813929Signed:Kevin MarsonReport Date:18 Jul 2024

CONSTRUCTION EQUIPMENT





### **Graphs**

