## LIEBHERR

**CONSTRUCTION EQUIPMENT** 

### LIEBHERR A934BHD 022282-934 - Diesel Engine

Sample No: LHMC91089
Oil Type: 15W40 LA

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SAMP	LE INFOR	MATION		
Sample Number		LHMC91089	LHMC99443	 
Sample Date		16 Aug 2023	08 Nov 2019	 
Machine Hours		48591	40937	 
Oil Hours		0	317	 
Oil Changed		Changed	Not Changd	 
Sample Status		NORMAL	NORMAL	 
OIL CO	NDITION			
Visc @ 100°C	cSt	<b>12.8</b>	<b>14.3</b>	 
Base Number (BN)	mg KOH/g	<b>7.7</b>		 
Oxidation (PA)	%	65	88	 

CONTAMINATION					
Soot %	%	<b>0</b> 1	0.6		
Nitration (PA)	%	67	90		
Sulfation (PA)	%	57	66		
Glycol	%	NEG	NEG		
Fuel	%	<1.0	<1.0		
Silicon	ppm	<b>13</b>	O 7		
Sodium	ppm	<b>19</b>	○ 28		
Potassium	ppm	<b>24</b>	O 7		

WEA	AR METAL	S		
Iron		O 54	O 54	 
-	ppm			 
Copper	ppm	<b>13</b>	<b>O</b> 5	 
Lead	ppm	<b>5</b>	<b>6</b>	 
Tin	ppm	<b>2</b>	0	 
Aluminum	ppm	<b>2</b>	O 2	 
Chromium	ppm	<b>0</b> 1	O 2	 
Molybdenum	ppm	<b>13</b>	<b>4</b> 3	 
Nickel	ppm	<b>0</b>	O <1	 
Titanium	ppm	<1	6	 
Silver	ppm	<b>0</b>	0	 
Manganese	ppm	1	2	 
Vanadium	ppm	<1	0	 

	P   P   1   1   1   1   1   1   1   1			
ADI				
	DITIVES			
Calcium	ppm	2115	2210	 
Magnesium	ppm	<b>234</b>	<b>487</b>	 
Zinc	ppm	<b>1148</b>	O 1205	 
Phosphorus	ppm	<b>916</b>	O 933	 
Barium	ppm	<b>0</b>	<b>1</b> 3	 
Boron	ppm	<b>172</b>	O 77	 



#### RECO EQUIPMENT INC.

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#### 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: LEC0070
Unique No: 10615393
Signed: Wes Davis
Report Date: 22 Aug 2023

# LIEBHERR

**CONSTRUCTION EQUIPMENT** 





#### **GRAPHS**

