

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50M 1216-120131 - Diesel Engine

Sample No: LHMC99420

Oil Type: LB 15W40



#### SAMPLE INFORMATION

Sample Number	LHMC99420	LH0206761	LH0206747	---
Sample Date	30 Jun 2023	28 Mar 2022	23 Jun 2021	---
Machine Hours	2616	1500	506	---
Oil Hours	966	0	0	---
Oil Changed	Changed	N/A	Not Changd	---
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	---

#### ELG METALS

369 RIVER RD  
MC KEESPORT, PA  
US 15132  
Contact:



#### OIL CONDITION

Visc @ 100°C	cSt	11.2	11.7	12.0	---
Base Number (BN)	mg KOH/g	11.4	3.3	---	---
Oxidation (PA)	%	73	212	198	---

T:  
F:



#### CONTAMINATION

Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	124	128	89	---
Sulfation (PA)	%	55	114	111	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	2.1	<1.0	<1.0	---
Silicon	ppm	8	8	7	---
Sodium	ppm	0	2	2	---
Potassium	ppm	3	6	6	---

#### Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.



#### WEAR METALS

Iron	ppm	16	24	12	---
Copper	ppm	51	349	449	---
Lead	ppm	1	12	4	---
Tin	ppm	<1	2	1	---
Aluminum	ppm	4	2	0	---
Chromium	ppm	<1	1	<1	---
Molybdenum	ppm	4	38	46	---
Nickel	ppm	0	0	0	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	0	<1	<1	---
Manganese	ppm	<1	2	2	---
Vanadium	ppm	0	0	0	---



#### ADDITIVES

Calcium	ppm	4078	1430	1327	---
Magnesium	ppm	89	934	869	---
Zinc	ppm	1146	976	879	---
Phosphorus	ppm	1008	725	699	---
Barium	ppm	<1	0	28	---
Boron	ppm	215	51	188	---

Depot: ELGMCK  
Unique No: 10559210  
Signed: Wes Davis  
Report Date: 17 Jul 2023



### GRAPHS

