

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L580 1414-56018 - Diesel Engine

Sample No: LH05999672

Oil Type: LIEBHERR MOTOROIL 5W30



#### SAMPLE INFORMATION

Sample Number	LH05999672	LH0158324	LH0158445	LH05890698
Sample Date	05 Nov 2023	29 Sep 2023	30 Jul 2023	05 Jul 2023
Machine Hours	0	1426	10000	13517
Oil Hours	14495	0	0	0
Oil Changed	Not Changd	N/A	N/A	Not Changd
Sample Status	NORMAL	NORMAL	ABNORMAL	NORMAL

**VERSO CORP - QUINNESEC MILL**  
W6791 US HWY 2  
QUINNESEC, MI  
US 49876  
Contact: ERIC LARSON  
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T:  
F:



#### OIL CONDITION

Visc @ 100°C	cSt	12.3	11.8	12.0	12.0
Base Number (BN)	mg KOH/g	12.8	14.0	13.6	12.5
Oxidation (PA)	%	77	53	63	70



#### CONTAMINATION

Soot %	%	0.2	0.1	0.2	0.3
Nitration (PA)	%	144	114	129	135
Sulfation (PA)	%	61	47	56	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	9	10	8
Sodium	ppm	2	2	115	3
Potassium	ppm	0	1	48	2

#### 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.



#### WEAR METALS

Iron	ppm	9	9	14	13
Copper	ppm	<1	<1	4	2
Lead	ppm	0	<1	<1	1
Tin	ppm	<1	<1	<1	1
Aluminum	ppm	3	2	5	0
Chromium	ppm	<1	<1	<1	1
Molybdenum	ppm	0	1	10	<1
Nickel	ppm	0	0	0	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	<1



#### ADDITIVES

Calcium	ppm	5033	4672	4415	4408
Magnesium	ppm	50	40	103	153
Zinc	ppm	1411	1330	1248	1295
Phosphorus	ppm	1194	1120	1057	1081
Barium	ppm	0	0	0	0
Boron	ppm	237	320	241	234

Depot: VERQUI  
Unique No: 10728032  
Signed: Wes Davis  
Report Date: 07 Nov 2023



### GRAPHS

