

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L586 058671-1334 - Diesel Engine

Sample No: LH0260116

Oil Type: DIESEL ENGINE OIL SAE 30



#### SAMPLE INFORMATION

Sample Number	LH0260116	LH0260106	LH0150833	LH0199519
Sample Date	10 Aug 2023	07 Aug 2023	16 Dec 2022	07 Jul 2022
Machine Hours	6574	6000	5000	0
Oil Hours	574	0	0	0
Oil Changed	Not Chngd	Changed	Changed	Changed
Sample Status	NORMAL	SEVERE	NORMAL	NORMAL

**Bird's Hill Gravel and Stone Ltd.**

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#### OIL CONDITION

Visc @ 100°C	cSt	15.1	14.2	13.6	12.4
Oxidation (PA)	%	63	121	76	104



#### CONTAMINATION

Soot %	%	0	0.2	0	0.1
Nitration (PA)	%	55	125	78	98
Sulfation (PA)	%	58	80	61	76
Glycol	%	NEG	0.0	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	21	12	8
Sodium	ppm	2	3	2	3
Potassium	ppm	2	12	7	16

#### 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. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	5	37	12	23
Copper	ppm	2	10	7	47
Lead	ppm	0	<1	<1	3
Tin	ppm	<1	2	<1	2
Aluminum	ppm	2	13	8	6
Chromium	ppm	<1	11	4	1
Molybdenum	ppm	16	37	39	46
Nickel	ppm	0	<1	0	0
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	<1	<1	0	<1
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	1673	1363	1431	1385
Magnesium	ppm	319	630	654	787
Zinc	ppm	1070	1119	1156	1187
Phosphorus	ppm	955	938	1058	928
Barium	ppm	0	1	<1	4
Boron	ppm	98	15	21	17

Depot: BIRWIN

Unique No: 5620683

Signed: Kevin Marson

Report Date: 14 Aug 2023



### GRAPHS

