

LIEBHERR

CONSTRUCTION EQUIPMENT



062154-1049 - Diesel Engine

Sample No: LH0291113

Oil Type: PETRO CANADA 10W40



Sample Information

Sample Number	LH0291113	LH0123037	LH0202957	LH0222350
Sample Date	13 May 2024	26 Oct 2023	22 Jun 2023	10 May 2022
Machine Hours	12610	12421	12090	11897
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

American Iron and Metal

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Oil Condition

Visc @ 100°C	cSt	13.2	13.3	12.9	12.8
Oxidation (PA)	%	55	57	54	56



Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0.4	0	0
Nitration (PA)	%	49	56	49	58
Sulfation (PA)	%	50	53	49	55
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	6	6	8
Sodium	ppm	1	1	2	2
Potassium	ppm	<1	0	<1	1

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 condition of the oil is acceptable for the time in service.



Wear Metals

Iron	ppm	3	6	3	8
Copper	ppm	2	4	5	4
Lead	ppm	0	2	1	4
Tin	ppm	0	0	0	<1
Aluminum	ppm	<1	1	1	2
Chromium	ppm	0	0	0	<1
Molybdenum	ppm	59	60	58	62
Nickel	ppm	0	0	<1	0
Titanium	ppm	<1	0	<1	0
Silver	ppm	0	<1	0	0
Manganese	ppm	0	0	0	<1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	1021	1075	1073	1197
Magnesium	ppm	957	958	944	942
Zinc	ppm	1150	1195	1179	1271
Phosphorus	ppm	1001	1008	1047	1098
Barium	ppm	0	<1	0	0
Boron	ppm	1	1	2	8

Depot: BAKOTT
Unique No: 577666
Signed: Wes Davis
Report Date: 15 May 2024



Graphs

