

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH50M 144157-1216 - Diesel Engine

Sample No: LH0255453

Oil Type: PETRO CANADA DURON HP 15W40



**CALGARY METALS (1985) LTD.**  
 3415 OGDEN RD. SE.  
 CALGARY, AB  
 CA T2G 4N4  
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#### Sample Information

Sample Number	LH0255453	LH0255450	LH0255441	LH0255426
Sample Date	21 Jun 2024	05 Mar 2024	17 Nov 2023	23 Aug 2023
Machine Hours	3338	2724	2077	1548
Oil Hours	0	0	0	0
Oil Changed	N/A	N/A	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL



#### Oil Condition

Visc @ 100°C	cSt	13.4	13.3	13.3	13.0
Oxidation (PA)	%	62	60	61	64



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	62	61	58	61
Sulfation (PA)	%	50	51	52	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	6	6	6
Sodium	ppm	3	1	1	2
Potassium	ppm	<1	<1	0	0



#### Wear Metals

Iron	ppm	3	4	3	4
Copper	ppm	2	4	18	85
Lead	ppm	0	<1	<1	2
Tin	ppm	0	<1	0	0
Aluminum	ppm	<1	2	<1	1
Chromium	ppm	<1	<1	0	<1
Molybdenum	ppm	58	58	60	57
Nickel	ppm	<1	<1	<1	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	<1	0
Manganese	ppm	0	0	0	<1
Vanadium	ppm	0	0	0	0



#### Additives

Calcium	ppm	1032	1061	1066	1008
Magnesium	ppm	937	940	968	938
Zinc	ppm	1161	1164	1193	1139
Phosphorus	ppm	954	1005	984	998
Barium	ppm	<1	<1	<1	1
Boron	ppm	4	6	9	8

#### 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.

Depot: CAL341CAL  
 Unique No: 5802086  
 Signed: Wes Davis  
 Report Date: 28 Jun 2024



### Graphs

