

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LH22M 110435-1250 - Diesel Engine

Sample No: LH0284000

Oil Type: PETRO CANADA 10W40



#### SAMPLE INFORMATION

Sample Number	LH0284000	LH0260468	LH0260584	LH0238727
Sample Date	31 Jan 2024	14 Aug 2023	28 Apr 2023	20 Jan 2023
Machine Hours	12137	11129	10507	9792
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

**ECOWASTE INDUSTRIES**  
 4 SPRUCE ST  
 NEW WESTMINSTER, BC  
 CA V3L 5G6  
 Contact: Service Manager



#### OIL CONDITION

Visc @ 40°C	cSt	---	101	---	---
Visc @ 100°C	cSt	11.8	14.4	14.3	14.7
Viscosity Index (VI)	Scale	---	146	---	---
Oxidation (PA)	%	173	84	68	103

T:  
F:

#### 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.



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	86	87	67	100
Sulfation (PA)	%	100	65	56	74
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	44	10	19	7
Sodium	ppm	3	3	2	3
Potassium	ppm	2	<1	<1	0



#### WEAR METALS

Iron	ppm	20	20	19	25
Copper	ppm	20	1	<1	1
Lead	ppm	1	0	<1	<1
Tin	ppm	<1	0	0	<1
Aluminum	ppm	4	2	2	3
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	38	66	63	71
Nickel	ppm	<1	0	<1	<1
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	4	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	1834	1156	1136	1336
Magnesium	ppm	749	1104	1020	1165
Zinc	ppm	945	1349	1266	1512
Phosphorus	ppm	809	1110	1128	1271
Barium	ppm	3	0	0	0
Boron	ppm	83	1	1	1

Depot: ECONEW  
 Unique No: 5722752  
 Signed: Bill Quesnel  
 Report Date: 06 Feb 2024



### GRAPHS

