

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 112359-1216 - Diesel Engine

Sample No: LH0224996

Oil Type: PETRO CANADA SUPREME 5W30



SAMPLE INFORMATION

Sample Number	LH0224996	LH0221787	LH0224907	LH0151086
Sample Date	24 May 2023	02 Nov 2022	05 Jun 2022	17 Feb 2022
Machine Hours	6006	5107	11976	4009
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	N/A	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

RICHMOND STEEL
12707 170 STREET
EDMONTON, AB
CA T5V 1L9
Contact: Sandor Arguello



OIL CONDITION

Visc @ 40°C	cSt	---	---	---	69.6
Visc @ 100°C	cSt	● 11.6	● 12.7	11.6	11.6
Viscosity Index (VI)	Scale	---	---	---	161
Oxidation (PA)	%	89	73	78	47

T: (780)447-3391
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

Soot %	%	● 0	● 0	● 0	● 0
Nitration (PA)	%	87	76	84	49
Sulfation (PA)	%	62	57	62	46
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	● 0.9	● 1.3
Silicon	ppm	● 7	● 6	● 8	● 10
Sodium	ppm	● 4	● 2	● 4	● 4
Potassium	ppm	● <1	● <1	● 1	● <1



WEAR METALS

Iron	ppm	● 6	● 4	● 4	● 3
Copper	ppm	● 3	● 2	● 2	● 2
Lead	ppm	● <1	● 2	● <1	● 0
Tin	ppm	● <1	● <1	● <1	● <1
Aluminum	ppm	● 2	● 2	● 2	● 2
Chromium	ppm	● 0	● 0	● <1	● <1
Molybdenum	ppm	● 60	● 57	● 59	● 51
Nickel	ppm	● <1	● 0	● 0	● <1
Titanium	ppm	<1	0	0	0
Silver	ppm	● 0	0	<1	0
Manganese	ppm	● <1	● <1	<1	0
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	● 881	● 1010	● 835	723
Magnesium	ppm	● 1101	● 963	● 1175	● 1018
Zinc	ppm	● 1211	● 1178	● 1272	● 1089
Phosphorus	ppm	● 1089	● 1060	● 1094	● 947
Barium	ppm	● 0	● 0	● <1	● 0
Boron	ppm	● 26	● 4	● 39	● 39

Depot: RICEDM
Unique No: 5580408
Signed: Wes Davis
Report Date: 25 May 2023



GRAPHS

