

LIEBHERR

CONSTRUCTION EQUIPMENT



[(355228)] LIEBHERR LH60M 114198-1217 - Diesel Engine

Sample No: LH0225135

Oil Type: PETRO CANADA SUPREME SYNTHETIC 5W40



SAMPLE INFORMATION

Sample Number	LH0225135	LH0269774	LH0225068	LH0250443
Sample Date	07 Dec 2023	22 Sep 2023	10 Feb 2023	09 Jan 2023
Machine Hours	8004	7355	4980	4651
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

AltaSteel
 9401 34 St NW
 Edmonton, AB
 CA T6B 2X6
 Contact: Richard Bailey
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 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	11.7	13.2	11.7	11.7
Oxidation (PA)	%	92	70	82	99



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	90	72	88	96
Sulfation (PA)	%	63	54	61	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	1.9	<1.0	<1.0	<1.0
Silicon	ppm	6	6	10	8
Sodium	ppm	4	2	5	5
Potassium	ppm	<1	0	<1	<1

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	4	3	4	6
Copper	ppm	<1	<1	<1	3
Lead	ppm	<1	<1	0	<1
Tin	ppm	0	0	0	<1
Aluminum	ppm	2	<1	1	2
Chromium	ppm	0	0	0	0
Molybdenum	ppm	61	58	62	62
Nickel	ppm	<1	0	0	<1
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	<1	<1	0
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	845	1011	874	839
Magnesium	ppm	1094	977	1151	1139
Zinc	ppm	1200	1177	1268	1217
Phosphorus	ppm	989	984	1153	1084
Barium	ppm	0	<1	0	<1
Boron	ppm	19	2	30	28

Depot: ALT940EDM
Unique No: 5707985
Signed: Kevin Marson
Report Date: 09 Jan 2024



GRAPHS

