



CONSTRUCTION EQUIPMENT

A12475 VOLVO L120G 30297 - DIESEL ENGINE



Sample No: VCP446453
Oil Type: MOBIL 15W40
Job No: A12475



SAMPLE INFORMATION

Sample Number	VCP446453	VCP348591	VCP271978	VCP257039
Sample Date	17 Apr 2024	31 Jan 2022	23 Apr 2020	16 Oct 2019
Machine Hours	17040	16450	15720	15210
Oil Hours	500	1000	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	SEVERE	SEVERE	ABNORMAL	SEVERE

WASTE MANAGEMENT - TELFORD
 400 PROGRESS DR
 TELFORD, PA
 US 18969-1191
 Contact: EDWARD ROGENER
 erogener@wm.com
 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	█ 13.6	█ 13.7	█ 13.3	█ 13.1
Base Number (BN)	mg KOH/g	█ 9.1	█ 10.3	---	---
Oxidation (PA)	%	79	75	60	77

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	█ 1.7	█ 1	█ 0.4	█ 0.5
Nitration (PA)	%	92	81	65	55
Sulfation (PA)	%	66	63	55	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	▲ 34	▲ 25	█ 13	█ 13
Sodium	ppm	▲ 179	█ 8	█ 8	█ 22
Potassium	ppm	▲ 31	█ 2	█ 0	█ 3

WEAR METALS

Iron	ppm	▲ 225	▲ 136	█ 44	█ 79
Copper	ppm	█ 7	█ 5	█ 1	█ 3
Lead	ppm	█ 2	█ <1	█ 0	█ 0
Tin	ppm	█ 2	█ <1	█ 0	█ 3
Aluminum	ppm	▲ 174	▲ 81	▲ 26	▲ 80
Chromium	ppm	█ 8	█ 5	█ 3	█ 8
Molybdenum	ppm	█ 48	█ 32	█ 21	█ 40
Nickel	ppm	█ 8	█ 6	█ 4	█ 10
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	█ 0	0	0	0
Manganese	ppm	█ 2	█ 1	█ <1	█ 2
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	█ 1623	█ 1665	█ 1380	█ 1729
Magnesium	ppm	█ 522	█ 607	█ 611	█ 503
Zinc	ppm	█ 986	█ 987	█ 768	█ 863
Phosphorus	ppm	█ 883	█ 889	█ 701	█ 693
Barium	ppm	█ 0	█ 0	█ 0	█ 0
Boron	ppm	█ 24	█ 46	█ 55	█ 38

Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Piston and cylinder wear is indicated. Sodium and/or potassium levels are high. Elemental level of silicon (Si) above normal indicating ingress of seal material. The BN result indicates that there is suitable alkalinity remaining in the oil.

Depot: WASTEL
Unique No: 10990948
Signed: Jonathan Hester
Report Date: 24 Apr 2024



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GRAPHS

