



CONSTRUCTION EQUIPMENT

W02007642 VOLVO XL4100 4140000346 - DIESEL ENGINE



Sample No: VCP418774
Oil Type: MOBIL 15W40
Job No: W02007642



SAMPLE INFORMATION

Sample Number	VCP418774	---	---	---
Sample Date	24 Oct 2023	---	---	---
Machine Hours	758	---	---	---
Oil Hours	758	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.3	---	---	---
Base Number (BN)	mg KOH/g	■ 5.8	---	---	---
Oxidation (PA)	%	■ 60	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	■ 59	---	---	---
Sulfation (PA)	%	■ 51	---	---	---
Glycol	%	■ NEG	---	---	---
Fuel	%	■ 0.2	---	---	---
Silicon	ppm	■ 25	---	---	---
Sodium	ppm	■ 3	---	---	---
Potassium	ppm	■ 4	---	---	---



WEAR METALS

Iron	ppm	■ 24	---	---	---
Copper	ppm	▲ 506	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	■ 8	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 54	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	■ 2	---	---	---
Silver	ppm	■ 3	---	---	---
Manganese	ppm	■ 2	---	---	---
Vanadium	ppm	■ 0	---	---	---



ADDITIVES

Calcium	ppm	■ 1650	---	---	---
Magnesium	ppm	■ 426	---	---	---
Zinc	ppm	■ 1191	---	---	---
Phosphorus	ppm	■ 987	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 8	---	---	---

Depot: VOLVO0002
Unique No: 10714118
Signed: Don Baldrige
Report Date: 31 Oct 2023



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GRAPHS

