



CONSTRUCTION EQUIPMENT

SPM620963 MCIRON VOLVO A45GFS 353666 - DIESEL ENGINE



Sample No: VCP414262
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SPM620963 MCIRON



SAMPLE INFORMATION

Sample Number	VCP414262	---	---	---
Sample Date	19 Oct 2023	---	---	---
Machine Hours	495	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

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OIL CONDITION

Visc @ 100°C	cSt	▲ 10.9	---	---	---
Base Number (BN)	mg KOH/g	■ 5.8	---	---	---
Oxidation (PA)	%	■ 56	---	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. 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. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	■ 0.6	---	---	---
Nitration (PA)	%	■ 85	---	---	---
Sulfation (PA)	%	■ 54	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 0.7	---	---	---
Silicon	ppm	■ 42	---	---	---
Sodium	ppm	■ 4	---	---	---
Potassium	ppm	■ 4	---	---	---



WEAR METALS

Iron	ppm	■ 38	---	---	---
Copper	ppm	▲ 465	---	---	---
Lead	ppm	■ 1	---	---	---
Tin	ppm	■ 6	---	---	---
Aluminum	ppm	■ 4	---	---	---
Chromium	ppm	■ 2	---	---	---
Molybdenum	ppm	■ 122	---	---	---
Nickel	ppm	■ 6	---	---	---
Titanium	ppm	■ <1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 3	---	---	---
Vanadium	ppm	■ 0	---	---	---



ADDITIVES

Calcium	ppm	■ 2983	---	---	---
Magnesium	ppm	■ 17	---	---	---
Zinc	ppm	■ 1581	---	---	---
Phosphorus	ppm	■ 1305	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 47	---	---	---

Depot: VOLVO5055
Unique No: 10751282
Signed: Jonathan Hester
Report Date: 24 Nov 2023



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GRAPHS

