



CONSTRUCTION EQUIPMENT

VOLVO EC220EL 315670 - DIESEL ENGINE



Sample No: VCP435538
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP435538	VCP433588	---	---
Sample Date	13 Feb 2024	03 Nov 2023	---	---
Machine Hours	1394	582	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ATTENTION	NORMAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.0	■ 12.9	---	---
Base Number (BN)	mg KOH/g	■ 5.4	■ 5.9	---	---
Oxidation (PA)	%	65	53	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. 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

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.1	■ 0.1	---	---
Nitration (PA)	%	64	58	---	---
Sulfation (PA)	%	55	56	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	■ 0.6	<1.0	---	---
Silicon	ppm	■ 10	■ 15	---	---
Sodium	ppm	■ 3	■ 0	---	---
Potassium	ppm	■ 2	■ 3	---	---



WEAR METALS

Iron	ppm	■ 10	■ 16	---	---
Copper	ppm	■ 2	■ 8	---	---
Lead	ppm	■ 2	■ 2	---	---
Tin	ppm	■ <1	■ 2	---	---
Aluminum	ppm	■ 4	■ 2	---	---
Chromium	ppm	■ <1	■ <1	---	---
Molybdenum	ppm	■ 114	■ 32	---	---
Nickel	ppm	■ <1	■ 4	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	■ 0	■ 2	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	■ 1752	■ 1823	---	---
Magnesium	ppm	■ 522	■ 180	---	---
Zinc	ppm	■ 1592	■ 1073	---	---
Phosphorus	ppm	■ 1355	■ 977	---	---
Barium	ppm	■ 10	■ 6	---	---
Boron	ppm	■ 225	92	---	---

Depot: VOLVO0090
Unique No: 10885588
Signed: Jonathan Hester
Report Date: 22 Feb 2024



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GRAPHS

