



CONSTRUCTION EQUIPMENT

D12844 WE ENERGIES VOLVO L220H 3482 - DIESEL ENGINE



Sample No: VCP414069
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: D12844 WE ENERGIES



SAMPLE INFORMATION

Sample Number	VCP414069	VCP418966	---	---
Sample Date	27 Sep 2023	28 Jul 2023	---	---
Machine Hours	947	582	---	---
Oil Hours	379	582	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.2	▲ 11.2	---	---
Base Number (BN)	mg KOH/g	■ 8.1	■ 5.7	---	---
Oxidation (PA)	%	77	61	---	---



CONTAMINATION

Soot %	%	■ 0.1	■ 0.1	---	---
Nitration (PA)	%	68	81	---	---
Sulfation (PA)	%	61	53	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	■ 0.7	---	---
Silicon	ppm	■ 13	■ 23	---	---
Sodium	ppm	■ 2	■ 0	---	---
Potassium	ppm	■ 0	■ 6	---	---



WEAR METALS

Iron	ppm	■ 5	■ 11	---	---
Copper	ppm	▲ 141	▲ 387	---	---
Lead	ppm	■ 0	■ <1	---	---
Tin	ppm	■ 1	■ 2	---	---
Aluminum	ppm	■ <1	■ 2	---	---
Chromium	ppm	■ 0	■ 0	---	---
Molybdenum	ppm	■ 57	■ 94	---	---
Nickel	ppm	■ <1	■ 1	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	■ 0	■ <1	---	---
Manganese	ppm	■ 2	■ 3	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	■ 1905	■ 2253	---	---
Magnesium	ppm	■ 365	■ 17	---	---
Zinc	ppm	■ 1245	■ 1218	---	---
Phosphorus	ppm	■ 1022	■ 1018	---	---
Barium	ppm	■ 0	■ 3	---	---
Boron	ppm	■ 38	■ 52	---	---

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 component wear rates are normal. 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.

Depot: VOLVO0069
Unique No: 10682085
Signed: Don Baldrige
Report Date: 09 Oct 2023



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VOLVO GRAPHS

