



CONSTRUCTION EQUIPMENT

23909 VOLVO A40G 352850 - DIESEL ENGINE



Sample No: VCP430766
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 23909



SAMPLE INFORMATION

Sample Number	VCP430766	VCP426838	VCP317332	---
Sample Date	02 Sep 2023	22 Mar 2023	11 Apr 2022	---
Machine Hours	4011	2992	1077	---
Oil Hours	1000	1000	0	---
Oil Changed	Changed	Changed	N/A	---
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.3	▲ 11.7	■ 10.9	---
Base Number (BN)	mg KOH/g	■ 7.9	■ 5.3	■ 7.1	---
Oxidation (PA)	%	81	92	71	---



CONTAMINATION

Soot %	%	■ 0.2	■ 0.3	■ 0.1	---
Nitration (PA)	%	74	98	81	---
Sulfation (PA)	%	63	69	61	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	■ 0.8	---
Silicon	ppm	■ 6	■ 15	▲ 31	---
Sodium	ppm	■ 2	■ 4	■ 2	---
Potassium	ppm	■ 0	■ 0	■ 3	---



WEAR METALS

Iron	ppm	■ 12	■ 22	■ 20	---
Copper	ppm	▲ 86	▲ 80	▲ 302	---
Lead	ppm	■ 0	■ 2	■ 1	---
Tin	ppm	■ <1	■ 3	■ 5	---
Aluminum	ppm	■ 2	■ 2	■ 2	---
Chromium	ppm	■ <1	■ <1	■ <1	---
Molybdenum	ppm	■ 42	■ 47	■ 55	---
Nickel	ppm	■ <1	■ 2	■ <1	---
Titanium	ppm	0	<1	0	---
Silver	ppm	■ 0	■ 0	<1	---
Manganese	ppm	■ 1	■ 2	3	---
Vanadium	ppm	0	<1	0	---



ADDITIVES

Calcium	ppm	■ 1782	■ 1638	■ 1838	---
Magnesium	ppm	■ 534	■ 454	■ 453	---
Zinc	ppm	■ 1107	■ 1064	■ 1196	---
Phosphorus	ppm	■ 920	■ 758	■ 1044	---
Barium	ppm	■ 0	■ 0	■ 0	---
Boron	ppm	■ 22	■ 9	■ 65	---

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. 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: VOLVO3387
Unique No: 10636125
Signed: Don Baldrige
Report Date: 11 Sep 2023



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GRAPHS

