



CONSTRUCTION EQUIPMENT

SPM63470 VOLVO A45G 353267 - DIESEL ENGINE



Sample No: VCP426585
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SPM63470



SAMPLE INFORMATION

Sample Number	VCP426585	VCP416000	VCP365340	---
Sample Date	23 Nov 2023	10 Jul 2023	06 Dec 2022	---
Machine Hours	1837	1257	476	---
Oil Hours	0	0	476	---
Oil Changed	N/A	Changed	Changed	---
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	---

LEE MAR BUILDING & CONSTRUCTION
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OIL CONDITION

Visc @ 100°C	cSt	▲ 11.3	▲ 11.8	▲ 10.3	---
Base Number (BN)	mg KOH/g	■ 6.5	■ 7.8	■ 7.1	---
Oxidation (PA)	%	86	86	64	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	■ 0.6	■ 0.6	■ 0.5	---
Nitration (PA)	%	85	83	92	---
Sulfation (PA)	%	65	65	60	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	▲ 4.7	<1.0	■ 1.6	---
Silicon	ppm	■ 8	■ 10	■ 28	---
Sodium	ppm	■ 3	■ 0	■ 2	---
Potassium	ppm	■ 0	■ 2	■ 3	---

Diagnosis

We advise that you check the fuel injection system. Resample at the next service interval to monitor. Valve wear is indicated. All other component wear rates are normal. Light fuel dilution occurring. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

WEAR METALS

Iron	ppm	■ 20	■ 19	■ 27	---
Copper	ppm	■ 54	■ 130	▲ 372	---
Lead	ppm	■ 2	■ 2	■ 1	---
Tin	ppm	■ 4	■ 4	■ 8	---
Aluminum	ppm	■ 2	■ 3	■ 2	---
Chromium	ppm	■ <1	■ <1	■ <1	---
Molybdenum	ppm	■ 45	■ 53	■ 87	---
Nickel	ppm	▲ 14	▲ 17	■ 2	---
Titanium	ppm	0	0	0	---
Silver	ppm	■ 0	■ 0	■ 0	---
Manganese	ppm	■ <1	■ 1	■ 2	---
Vanadium	ppm	<1	0	0	---

ADDITIVES

Calcium	ppm	■ 1624	■ 1705	■ 2312	---
Magnesium	ppm	■ 410	■ 437	46	---
Zinc	ppm	■ 931	■ 1047	■ 1209	---
Phosphorus	ppm	■ 784	■ 877	■ 1027	---
Barium	ppm	■ 0	■ 0	■ 0	---
Boron	ppm	■ 11	■ 17	■ 28	---

Depot: LEEFOR
Unique No: 10763880
Signed: Don Baldrige
Report Date: 01 Dec 2023



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GRAPHS

