



CONSTRUCTION EQUIPMENT

W07013629 VOLVO A45G 342032 - DIESEL ENGINE



Sample No: VCP409207
Oil Type: MOBIL 15W40
Job No: W07013629



SAMPLE INFORMATION

Sample Number	VCP409207	VCP401328	VCP372944	VCP233575
Sample Date	17 Oct 2023	26 Jan 2023	05 Oct 2022	15 Jan 2019
Machine Hours	7726	6359	5841	2962
Oil Hours	500	0	0	0
Oil Changed	Changed	Changed	Changed	N/A
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	▲ 12.2	■ 12.7	■ 14.2	■ 13.04
Base Number (BN)	mg KOH/g	■ 4.0	■ 7.6	■ 9	---
Oxidation (PA)	%	85	44	43	98



CONTAMINATION

Soot %	%	■ 0.3	■ 0.1	■ 0.1	■ 0.4
Nitration (PA)	%	98	63	55	78
Sulfation (PA)	%	68	47	47	70
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	■ 1.8	<1.0	<1.0	<1.0
Silicon	ppm	■ 7	■ 3	■ 3	■ 7
Sodium	ppm	▲ 140	■ 2	■ 2	■ 6
Potassium	ppm	▲ 64	■ <1	■ 2	■ 2



WEAR METALS

Iron	ppm	■ 13	■ 4	■ 2	■ 13
Copper	ppm	■ 1	■ 2	■ 1	■ 100
Lead	ppm	■ 4	■ 1	■ <1	■ <1
Tin	ppm	■ 1	■ <1	■ <1	■ 2
Aluminum	ppm	■ 4	■ <1	■ <1	■ 3
Chromium	ppm	■ <1	■ <1	■ <1	■ <1
Molybdenum	ppm	■ 49	■ 28	■ 14	■ 44
Nickel	ppm	■ <1	■ <1	■ <1	■ <1
Titanium	ppm	0	0	0	<1
Silver	ppm	■ 0	■ 0	■ 0	■ 0
Manganese	ppm	■ <1	■ <1	■ <1	■ <1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 1377	■ 2345	■ 2075	■ 1994
Magnesium	ppm	■ 635	■ 229	■ 132	■ 636
Zinc	ppm	■ 928	■ 1214	■ 1007	■ 953
Phosphorus	ppm	■ 657	■ 966	■ 804	■ 784
Barium	ppm	■ 0	■ 0	■ 0	■ 0
Boron	ppm	■ 9	■ 31	■ 17	■ 34

Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Fuel content negligible. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot: VOLVO8882
Unique No: 10708826
Signed: Jonathan Hester
Report Date: 25 Oct 2023



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GRAPHS

