



CONSTRUCTION EQUIPMENT

VOLVO L180H 5479 - DIESEL ENGINE



Sample No: VCP436146
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP436146	VCP430677	VCP415840	VCP339726
Sample Date	19 Dec 2023	02 Oct 2023	22 Jun 2023	01 Dec 2021
Machine Hours	5127	4842	4500	1341
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ATTENTION	ATTENTION	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	█ 12.6	▲ 11.5	▲ 11.7	█ 12.8
Base Number (BN)	mg KOH/g	█ 10.1	█ 8.1	█ 9.3	█ 8.4
Oxidation (PA)	%	76	65	59	87



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	█ 0.1	█ 0.3	█ 0.2	█ 0.3
Nitration (PA)	%	52	74	68	78
Sulfation (PA)	%	59	55	53	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	█ 0.3	<1.0
Silicon	ppm	█ 6	█ 8	█ 6	█ 7
Sodium	ppm	█ 7	█ 13	█ 9	█ 5
Potassium	ppm	█ <1	█ 4	█ 4	█ <1



WEAR METALS

Iron	ppm	█ 2	█ 11	█ 7	█ 9
Copper	ppm	█ 3	█ 8	█ 3	▲ 312
Lead	ppm	█ 0	█ <1	█ 2	█ 5
Tin	ppm	█ <1	█ 1	█ 1	█ 2
Aluminum	ppm	█ 1	█ 2	█ 0	█ 1
Chromium	ppm	█ 0	█ <1	█ <1	█ <1
Molybdenum	ppm	█ 50	█ 54	█ 54	█ 46
Nickel	ppm	█ <1	█ <1	█ <1	█ 0
Titanium	ppm	<1	<1	<1	0
Silver	ppm	█ 0	█ 0	█ <1	0
Manganese	ppm	█ <1	█ 1	█ 1	█ 1
Vanadium	ppm	0	<1	0	0



ADDITIVES

Calcium	ppm	█ 1692	█ 1581	█ 1583	█ 1672
Magnesium	ppm	█ 566	755	797	█ 479
Zinc	ppm	█ 1175	█ 1091	█ 1098	█ 1049
Phosphorus	ppm	█ 1032	█ 896	█ 915	█ 875
Barium	ppm	█ 0	█ 0	█ 4	█ 0
Boron	ppm	█ 57	█ 25	█ 40	█ 12

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: VOLVO0090
Unique No: 10804396
Signed: Wes Davis
Report Date: 27 Dec 2023



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GRAPHS

