



CONSTRUCTION EQUIPMENT

594651 VOLVO EW180 320056 - DIESEL ENGINE



Sample No: VCP412533
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 594651



SAMPLE INFORMATION

Sample Number	VCP412533	VCP381503	VCP372712	VCP310143
Sample Date	17 Aug 2023	31 Oct 2022	27 Jun 2022	26 Jun 2021
Machine Hours	3505	3440	6528	2404
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.3	13.3	13.3	13.4
Base Number (BN)	mg KOH/g	10.4	11.7	10.8	---
Oxidation (PA)	%	75	88	85	84

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.

CONTAMINATION

Soot %	%	0.1	0.2	0.2	0.1
Nitration (PA)	%	43	66	65	52
Sulfation (PA)	%	58	66	63	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	6	5	5
Sodium	ppm	3	4	4	2
Potassium	ppm	2	0	0	<1

WEAR METALS

Iron	ppm	30	17	18	3
Copper	ppm	<1	<1	<1	<1
Lead	ppm	0	<1	<1	<1
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	3	3	4	0
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	43	45	41	37
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	1690	1775	1697	1517
Magnesium	ppm	523	531	507	458
Zinc	ppm	1111	1092	1078	986
Phosphorus	ppm	946	915	890	869
Barium	ppm	0	<1	0	0
Boron	ppm	72	44	45	98

Depot: HUBORL
Unique No: 10617210
Signed: Wes Davis
Report Date: 24 Aug 2023



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GRAPHS

