



CONSTRUCTION EQUIPMENT

SWO-072114 APAC ALA VOLVO EC350EL 314549 - DIESEL ENGINE



Sample No: VCP453835
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWO-072114 APAC ALA



SAMPLE INFORMATION

Sample Number	VCP453835	VCP443247	VCP430855	---
Sample Date	22 May 2024	07 May 2024	08 Dec 2023	---
Machine Hours	4555	1951	1449	---
Oil Hours	0	0	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ATTENTION	ABNORMAL	SEVERE	---

COWIN EQUIPMENT COMPANY

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OIL CONDITION

Visc @ 100°C	cSt	12.3	12.1	8.4	---
Base Number (BN)	mg KOH/g	9.6	7.7	7.6	---
Oxidation (PA)	%	78	83	64	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. 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.



CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	58	70	65	---
Sulfation (PA)	%	58	62	53	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	1.1	13.7	---
Silicon	ppm	7	11	7	---
Sodium	ppm	2	0	0	---
Potassium	ppm	<1	2	2	---



WEAR METALS

Iron	ppm	3	8	5	---
Copper	ppm	1	21	41	---
Lead	ppm	<1	2	<1	---
Tin	ppm	<1	2	1	---
Aluminum	ppm	2	2	1	---
Chromium	ppm	0	<1	<1	---
Molybdenum	ppm	43	50	71	---
Nickel	ppm	<1	<1	<1	---
Titanium	ppm	0	<1	<1	---
Silver	ppm	<1	0	0	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	0	<1	0	---



ADDITIVES

Calcium	ppm	1670	1684	1312	---
Magnesium	ppm	543	476	462	---
Zinc	ppm	1129	1027	817	---
Phosphorus	ppm	909	888	659	---
Barium	ppm	0	2	11	---
Boron	ppm	54	46	61	---

Depot: VOLVO8247
Unique No: 11046904
Signed: Angela Borella
Report Date: 29 May 2024



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GRAPHS

