



CONSTRUCTION EQUIPMENT

VOLVO EC350EL 314575 - DIESEL ENGINE



Sample No: VCP431327
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP431327	VCP424485	---	---
Sample Date	18 Nov 2023	30 Sep 2023	---	---
Machine Hours	822	586	---	---
Oil Hours	236	586	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

CITY CARTING

221 OLD GATE LN
MILFORD, CT
US 06460
Contact: TAVINS BANKS
tavins@citycart.net
T: (203)223-3885
F:



OIL CONDITION

Visc @ 100°C	cSt	▲ 11.9	▲ 10.3	---	---
Base Number (BN)	mg KOH/g	■ 6.6	■ 5.9	---	---
Oxidation (PA)	%	41	73	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level has decreased, but is still abnormal. 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	---	---
Soot %	%	■ 0.1	■ 0.1	---	---
Nitration (PA)	%	54	65	---	---
Sulfation (PA)	%	46	58	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	■ 1.2	---	---
Silicon	ppm	■ 11	■ 30	---	---
Sodium	ppm	■ 2	■ 4	---	---
Potassium	ppm	■ 2	■ 3	---	---



WEAR METALS

Iron	ppm	■ 5	■ 13	---	---
Copper	ppm	▲ 86	▲ 289	---	---
Lead	ppm	■ <1	■ 0	---	---
Tin	ppm	■ <1	■ 1	---	---
Aluminum	ppm	■ 1	■ 2	---	---
Chromium	ppm	■ 0	■ 0	---	---
Molybdenum	ppm	■ 29	■ 62	---	---
Nickel	ppm	■ <1	■ 0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	■ <1	■ 4	---	---
Vanadium	ppm	0	0	---	---



ADDITIVES

Calcium	ppm	■ 2038	■ 1803	---	---
Magnesium	ppm	■ 135	■ 412	---	---
Zinc	ppm	■ 990	■ 1300	---	---
Phosphorus	ppm	■ 894	■ 1051	---	---
Barium	ppm	■ 0	■ 0	---	---
Boron	ppm	■ 15	■ 51	---	---

Depot: CITMILCON
Unique No: 10756295
Signed: Jonathan Hester
Report Date: 29 Nov 2023



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GRAPHS

