



CONSTRUCTION EQUIPMENT

VOLVO EC350EL 314575 - DIESEL ENGINE



Sample No: VCP439474
Oil Type: VALVOLINE 15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP439474	VCP431327	VCP424485	---
Sample Date	10 Jan 2024	18 Nov 2023	30 Sep 2023	---
Machine Hours	1057	822	586	---
Oil Hours	235	236	586	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ATTENTION	ABNORMAL	ABNORMAL	---

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



OIL CONDITION

Visc @ 100°C	cSt	▲ 11.0	▲ 11.9	▲ 10.3	---
Base Number (BN)	mg KOH/g	■ 6.5	■ 6.6	■ 5.9	---
Oxidation (PA)	%	36	41	73	---

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. 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	■ 0.1	■ 0.1	---
Nitration (PA)	%	50	54	65	---
Sulfation (PA)	%	44	46	58	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	■ 1.2	---
Silicon	ppm	■ 5	■ 11	■ 30	---
Sodium	ppm	■ <1	■ 2	■ 4	---
Potassium	ppm	■ 0	■ 2	■ 3	---



WEAR METALS

Iron	ppm	■ 4	■ 5	■ 13	---
Copper	ppm	■ 27	▲ 86	▲ 289	---
Lead	ppm	■ <1	■ <1	■ 0	---
Tin	ppm	■ <1	■ <1	■ 1	---
Aluminum	ppm	■ <1	■ 1	■ 2	---
Chromium	ppm	■ 0	■ 0	■ 0	---
Molybdenum	ppm	■ 45	■ 29	■ 62	---
Nickel	ppm	■ 0	■ <1	■ 0	---
Titanium	ppm	■ 0	0	0	---
Silver	ppm	■ 0	■ 0	■ 0	---
Manganese	ppm	■ <1	■ <1	■ 4	---
Vanadium	ppm	<1	0	0	---



ADDITIVES

Calcium	ppm	■ 2069	■ 2038	■ 1803	---
Magnesium	ppm	139	■ 135	■ 412	---
Zinc	ppm	■ 995	■ 990	■ 1300	---
Phosphorus	ppm	■ 867	■ 894	■ 1051	---
Barium	ppm	■ 0	■ 0	■ 0	---
Boron	ppm	■ 27	■ 15	■ 51	---

Depot: CITMILCON
Unique No: 10833701
Signed: Don Baldrige
Report Date: 18 Jan 2024



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GRAPHS

