



CONSTRUCTION EQUIPMENT

304054 VOLVO EC350EL 314414 - DIESEL ENGINE



Sample No: VCP415722
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 304054



SAMPLE INFORMATION

Sample Number	VCP415722	VCP405569	VCP376097	---
Sample Date	14 Jul 2023	02 Mar 2023	29 Sep 2022	---
Machine Hours	1757	1112	660	---
Oil Hours	0	0	660	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	---

CALLANAN
 RT 32 677 FLATBUSH RD
 EAST KINGSTON, NY
 US 12401
 Contact:



OIL CONDITION

Visc @ 100°C	cSt	▲ 11.5	▲ 11.6	▲ 10.7	---
Base Number (BN)	mg KOH/g	■ 7.5	■ 7.9	■ 5.9	---
Oxidation (PA)	%	86	80	77	---

T:
F:

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. All other 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

Soot %	%	■ 0.1	■ 0.1	■ 0.1	---
Nitration (PA)	%	81	77	93	---
Sulfation (PA)	%	62	63	65	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	■ 0.8	---
Silicon	ppm	■ 6	■ 5	■ 18	---
Sodium	ppm	■ 2	■ 0	■ 2	---
Potassium	ppm	■ 0	■ 1	■ 4	---



WEAR METALS

Iron	ppm	■ 6	■ 4	■ 12	---
Copper	ppm	▲ 25	▲ 117	▲ 244	---
Lead	ppm	■ <1	■ 0	■ 2	---
Tin	ppm	■ 1	■ 0	■ 3	---
Aluminum	ppm	■ 0	■ 0	■ 2	---
Chromium	ppm	■ 0	■ 0	■ <1	---
Molybdenum	ppm	■ 51	■ 56	■ 81	---
Nickel	ppm	■ 0	■ 0	■ 0	---
Titanium	ppm	<1	0	<1	---
Silver	ppm	■ 0	■ 0	0	---
Manganese	ppm	■ <1	■ 0	■ 3	---
Vanadium	ppm	<1	0	0	---



ADDITIVES

Calcium	ppm	■ 1772	■ 1641	■ 1966	---
Magnesium	ppm	■ 531	■ 434	■ 197	---
Zinc	ppm	■ 1111	■ 1058	■ 1158	---
Phosphorus	ppm	■ 897	■ 881	■ 966	---
Barium	ppm	■ 0	■ <1	■ 0	---
Boron	ppm	■ 24	■ 35	■ 15	---

Depot: CALEAS
Unique No: 10564320
Signed: Don Baldrige
Report Date: 21 Jul 2023



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VOLVO GRAPHS

