



# CONSTRUCTION EQUIPMENT

## VOLVO EC350 314347 - DIESEL ENGINE



**Sample No:** VCP411938  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP411938</b>	VCP409956	VCP368236	VCP364748
Sample Date	<b>29 Jul 2023</b>	01 May 2023	27 Oct 2022	15 Aug 2022
Machine Hours	<b>2173</b>	1698	975	628
Oil Hours	<b>0</b>	0	500	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ATTENTION</b>	ATTENTION	ABNORMAL	ABNORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 12.1</b>	▲ 12.3	▲ 12.2	9.9
Base Number (BN)	mg KOH/g	<b>■ 8.1</b>	■ 7.0	■ 10.2	■ 5.7
Oxidation (PA)	%	<b>58</b>	86	88	71

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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

Soot %	%	<b>■ 0.1</b>	■ 0.1	■ 0.1	■ 0.1
Nitration (PA)	%	<b>63</b>	73	67	90
Sulfation (PA)	%	<b>51</b>	60	68	65
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	■ 0.7
Silicon	ppm	<b>■ 5</b>	■ 6	■ 7	■ 27
Sodium	ppm	<b>■ 0</b>	■ 2	■ 2	■ 3
Potassium	ppm	<b>■ &lt;1</b>	■ 0	■ 0	■ 4



### WEAR METALS

Iron	ppm	<b>■ 6</b>	■ 6	■ 5	■ 15
Copper	ppm	<b>■ 5</b>	▲ 15	▲ 51	▲ 158
Lead	ppm	<b>■ &lt;1</b>	■ 0	■ <1	■ 1
Tin	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ 3
Aluminum	ppm	<b>■ 2</b>	■ <1	■ <1	■ 4
Chromium	ppm	<b>■ 0</b>	■ 0	■ 0	■ <1
Molybdenum	ppm	<b>■ 59</b>	■ 40	■ 42	■ 80
Nickel	ppm	<b>■ &lt;1</b>	■ 0	■ 0	■ <1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>■ 0</b>	■ 0	0	<1
Manganese	ppm	<b>■ &lt;1</b>	■ 1	■ <1	4
Vanadium	ppm	<b>0</b>	<1	0	<1



### ADDITIVES

Calcium	ppm	<b>■ 1156</b>	■ 1661	■ 1698	■ 2159
Magnesium	ppm	<b>■ 888</b>	■ 451	■ 426	■ 16
Zinc	ppm	<b>■ 1197</b>	■ 1017	■ 1037	■ 1173
Phosphorus	ppm	<b>■ 988</b>	■ 825	■ 872	■ 935
Barium	ppm	<b>■ 1</b>	■ 0	■ 0	■ 0
Boron	ppm	<b>■ 4</b>	■ 25	■ 34	■ 20

**Depot:** VOLVO0157  
**Unique No:** 10578792  
**Signed:** Sean Felton  
**Report Date:** 02 Aug 2023



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## GRAPHS

