



# CONSTRUCTION EQUIPMENT

## SW-25213-2 CASTLE VA VOLVO ECR355E 314373 - DIESEL ENGINE



**Sample No:** VCP430680  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SW-25213-2 CASTLE VA



### SAMPLE INFORMATION

Sample Number	<b>VCP430680</b>	VCP426861	VCP406775	VCP337848
Sample Date	<b>10 Oct 2023</b>	05 Jul 2023	20 Apr 2023	29 Aug 2022
Machine Hours	<b>2392</b>	1810	1347	840
Oil Hours	<b>580</b>	460	500	315
Oil Changed	<b>Changed</b>	Changed	Changed	Not Changd
Sample Status	<b>NORMAL</b>	NORMAL	ATTENTION	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.9</b>	13.0	▲ 11.9	13.3
Base Number (BN)	mg KOH/g	<b>9.8</b>	9.9	9.5	11.4
Oxidation (PA)	%	<b>63</b>	63	72	86



### CONTAMINATION

Soot %	%	<b>0.1</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>53</b>	52	52	63
Sulfation (PA)	%	<b>55</b>	54	60	66
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	0.5	0.5
Silicon	ppm	<b>4</b>	5	11	10
Sodium	ppm	<b>2</b>	2	2	2
Potassium	ppm	<b>0</b>	1	<1	2



### WEAR METALS

Iron	ppm	<b>6</b>	6	12	139
Copper	ppm	<b>2</b>	3	8	8
Lead	ppm	<b>0</b>	<1	0	2
Tin	ppm	<b>&lt;1</b>	1	<1	2
Aluminum	ppm	<b>1</b>	2	3	4
Chromium	ppm	<b>&lt;1</b>	<1	<1	7
Molybdenum	ppm	<b>57</b>	62	48	37
Nickel	ppm	<b>0</b>	<1	0	2
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	<1	0	<1
Manganese	ppm	<b>&lt;1</b>	<1	2	4
Vanadium	ppm	<b>0</b>	0	0	<1



### ADDITIVES

Calcium	ppm	<b>1051</b>	1287	1491	1689
Magnesium	ppm	<b>861</b>	1007	713	451
Zinc	ppm	<b>1085</b>	1350	1168	1131
Phosphorus	ppm	<b>874</b>	1095	939	941
Barium	ppm	<b>0</b>	0	0	2
Boron	ppm	<b>4</b>	16	100	48

### 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

**Depot:** VOLVO8770  
**Unique No:** 10698244  
**Signed:** Angela Borella  
**Report Date:** 18 Oct 2023



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## GRAPHS

