



# CONSTRUCTION EQUIPMENT

## 716824 SYNERGY VOLVO ECR235 314203 - DIESEL ENGINE



**Sample No:** VCP450727  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 716824 SYNERGY



### SAMPLE INFORMATION

Sample Number	<b>VCP450727</b>	VCP402865	VCP375851	VCP336811
Sample Date	<b>21 May 2024</b>	24 Feb 2023	09 Jun 2022	15 Nov 2021
Machine Hours	<b>4253</b>	3136	2375	1831
Oil Hours	<b>0</b>	500	500	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.6</b>	13.6	13.3	13.2
Base Number (BN)	mg KOH/g	<b>8.1</b>	10.2	10.8	---
Oxidation (PA)	%	<b>88</b>	91	87	77

### 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. The aluminum level is abnormal. All other 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 suitable for further service.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>87</b>	87	78	78
Sulfation (PA)	%	<b>61</b>	63	62	60
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>13</b>	8	8	8
Sodium	ppm	<b>3</b>	<1	3	0
Potassium	ppm	<b>2</b>	2	0	2



### WEAR METALS

Iron	ppm	<b>58</b>	33	25	21
Copper	ppm	<b>3</b>	2	1	2
Lead	ppm	<b>1</b>	<1	<1	<1
Tin	ppm	<b>2</b>	1	1	<1
Aluminum	ppm	<b>▲ 12</b>	10	7	4
Chromium	ppm	<b>2</b>	1	1	<1
Molybdenum	ppm	<b>50</b>	44	39	23
Nickel	ppm	<b>1</b>	1	<1	<1
Titanium	ppm	<b>&lt;1</b>	<1	<1	<1
Silver	ppm	<b>1</b>	0	<1	<1
Manganese	ppm	<b>1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>1701</b>	1812	1713	1696
Magnesium	ppm	<b>552</b>	507	508	610
Zinc	ppm	<b>1210</b>	1159	1062	1003
Phosphorus	ppm	<b>999</b>	952	881	877
Barium	ppm	<b>2</b>	3	0	0
Boron	ppm	<b>20</b>	19	41	45

**Depot:** VOLVO0093  
**Unique No:** 11048577  
**Signed:** Sean Felton  
**Report Date:** 30 May 2024



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## GRAPHS

