



# CONSTRUCTION EQUIPMENT

## VOLVO ECR145EL 315117 - DIESEL ENGINE



**Sample No:** VCP454996  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP454996</b>	VCP432098	VCP415938	VCP390725
Sample Date	<b>23 May 2024</b>	26 Oct 2023	13 Jun 2023	04 Nov 2022
Machine Hours	<b>3934</b>	3320	2978	2053
Oil Hours	<b>0</b>	0	0	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.6</b>	12.0	12.6	13.2
Base Number (BN)	mg KOH/g	<b>9.9</b>	10.3	10.4	12.2
Oxidation (PA)	%	<b>73</b>	80	84	88

### Diagnosis

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 suitable for further service.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.2	0.3	0.3
Nitration (PA)	%	<b>64</b>	63	72	67
Sulfation (PA)	%	<b>56</b>	59	61	66
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	1.9	<1.0	<1.0
Silicon	ppm	<b>7</b>	6	6	6
Sodium	ppm	<b>2</b>	<1	2	0
Potassium	ppm	<b>2</b>	1	2	0



### WEAR METALS

Iron	ppm	<b>15</b>	8	6	10
Copper	ppm	<b>4</b>	3	3	2
Lead	ppm	<b>&lt;1</b>	0	0	<1
Tin	ppm	<b>1</b>	0	0	<1
Aluminum	ppm	<b>6</b>	2	6	5
Chromium	ppm	<b>2</b>	<1	0	1
Molybdenum	ppm	<b>51</b>	43	55	42
Nickel	ppm	<b>&lt;1</b>	0	0	0
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>1</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	0	0	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1595</b>	1585	1961	1736
Magnesium	ppm	<b>553</b>	458	596	497
Zinc	ppm	<b>1154</b>	1022	1303	1107
Phosphorus	ppm	<b>929</b>	821	1093	911
Barium	ppm	<b>&lt;1</b>	2	12	0
Boron	ppm	<b>26</b>	35	34	35

**Depot:** VOLVO0093  
**Unique No:** 11048575  
**Signed:** Wes Davis  
**Report Date:** 29 May 2024



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## VOLVO GRAPHS

