



# CONSTRUCTION EQUIPMENT

## 3034 VOLVO ECR145EL 315064 - DIESEL ENGINE



**Sample No:** VCP401788  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 3034



### SAMPLE INFORMATION

Sample Number	<b>VCP401788</b>	VCP384077	VCP350290	VCP327827
Sample Date	<b>09 Nov 2023</b>	03 Nov 2022	25 May 2022	19 Nov 2021
Machine Hours	<b>2410</b>	1465	9601	495
Oil Hours	<b>0</b>	500	500	495
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**LEONARDS CONTRACTING**  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.1</b>	13.4	13.3	13.3
Base Number (BN)	mg KOH/g	<b>10.8</b>	12.3	11.2	8.1
Oxidation (PA)	%	<b>86</b>	92	85	51

### 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

Soot %	%	<b>0.3</b>	0.3	0.2	0.2
Nitration (PA)	%	<b>63</b>	73	67	63
Sulfation (PA)	%	<b>63</b>	67	63	51
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>6</b>	6	10	16
Sodium	ppm	<b>&lt;1</b>	2	4	1
Potassium	ppm	<b>0</b>	0	1	3



### WEAR METALS

Iron	ppm	<b>8</b>	14	3	37
Copper	ppm	<b>1</b>	2	4	11
Lead	ppm	<b>0</b>	<1	<1	<1
Tin	ppm	<b>&lt;1</b>	1	<1	2
Aluminum	ppm	<b>3</b>	5	0	16
Chromium	ppm	<b>&lt;1</b>	2	0	7
Molybdenum	ppm	<b>40</b>	43	77	11
Nickel	ppm	<b>&lt;1</b>	1	0	8
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	4
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1713</b>	1716	1910	2341
Magnesium	ppm	<b>537</b>	521	90	145
Zinc	ppm	<b>1180</b>	1172	1012	1084
Phosphorus	ppm	<b>993</b>	935	893	998
Barium	ppm	<b>0</b>	0	<1	0
Boron	ppm	<b>41</b>	36	145	10

**Depot:** LEOMAD  
**Unique No:** 10749770  
**Signed:** Wes Davis  
**Report Date:** 17 Nov 2023



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## GRAPHS

