



# CONSTRUCTION EQUIPMENT

## VOLVO EC235EL 314086 - DIESEL ENGINE



**Sample No:** VCP437108  
**Oil Type:** VALVOLINE 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP437108</b>	VCP434058	VCP406550	VCP268220
Sample Date	<b>10 Apr 2024</b>	21 Dec 2023	24 May 2023	02 Jan 2021
Machine Hours	<b>5092</b>	4629	4006	583
Oil Hours	<b>232</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**CITY CARTING**  
 221 OLD GATE LN  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.1</b>	12.4	12.1	12.32
Base Number (BN)	mg KOH/g	<b>7.1</b>	7.2	7.2	---
Oxidation (PA)	%	<b>36</b>	36	49	41

### 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>0.1</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>48</b>	47	58	55
Sulfation (PA)	%	<b>43</b>	42	49	48
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	6	4	4
Sodium	ppm	<b>4</b>	0	0	2
Potassium	ppm	<b>2</b>	5	5	6



### WEAR METALS

Iron	ppm	<b>3</b>	4	4	7
Copper	ppm	<b>&lt;1</b>	<1	4	10
Lead	ppm	<b>0</b>	<1	1	2
Tin	ppm	<b>&lt;1</b>	<1	<1	1
Aluminum	ppm	<b>&lt;1</b>	2	2	0
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>23</b>	37	86	18
Nickel	ppm	<b>0</b>	<1	0	1
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	0	<1
Manganese	ppm	<b>0</b>	<1	0	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>2086</b>	2349	2083	2157
Magnesium	ppm	<b>122</b>	170	168	139
Zinc	ppm	<b>931</b>	1124	1094	993
Phosphorus	ppm	<b>778</b>	913	918	903
Barium	ppm	<b>0</b>	8	0	0
Boron	ppm	<b>26</b>	39	52	27

**Depot:** CITMILCON  
**Unique No:** 10980221  
**Signed:** Jonathan Hester  
**Report Date:** 18 Apr 2024



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## GRAPHS

