



# CONSTRUCTION EQUIPMENT

## 600187 WASTE MGMT VOLVO EC160E 310218 - DIESEL ENGINE



**Sample No:** VCP420787  
**Oil Type:** VOLVO VDS-4.5 Premium Motor Oil 15W40  
**Job No:** 600187 WASTE MGMT



### SAMPLE INFORMATION

Sample Number	<b>VCP420787</b>	VCP349200	VCP371488	VCP363355
Sample Date	<b>10 Jan 2024</b>	07 Jun 2023	09 Jan 2023	11 Oct 2022
Machine Hours	<b>14875</b>	0	14095	0
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	N/A	Changed	N/A
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.3</b>	13.4	13.3	13.2
Base Number (BN)	mg KOH/g	<b>9.2</b>	8.4	8.2	11.2
Oxidation (PA)	%	<b>84</b>	53	43	79

### 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 acceptable for the time in service.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.5</b>	0.3	0.2	0.3
Nitration (PA)	%	<b>74</b>	60	57	68
Sulfation (PA)	%	<b>63</b>	50	46	62
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>15</b>	11	7	16
Sodium	ppm	<b>8</b>	4	2	2
Potassium	ppm	<b>&lt;1</b>	<1	6	2



### WEAR METALS

Iron	ppm	<b>21</b>	23	6	9
Copper	ppm	<b>1</b>	2	2	1
Lead	ppm	<b>0</b>	<1	1	0
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>6</b>	8	2	4
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>39</b>	21	12	35
Nickel	ppm	<b>0</b>	<1	<1	0
Titanium	ppm	<b>0</b>	<1	<1	0
Silver	ppm	<b>0</b>	0	<1	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	<1	0



### ADDITIVES

Calcium	ppm	<b>1669</b>	1941	1416	1739
Magnesium	ppm	<b>547</b>	310	219	414
Zinc	ppm	<b>1139</b>	1105	882	1103
Phosphorus	ppm	<b>945</b>	882	719	916
Barium	ppm	<b>0</b>	0	0	2
Boron	ppm	<b>32</b>	29	18	32

**Depot:** VOLVO1271  
**Unique No:** 10861600  
**Signed:** Sean Felton  
**Report Date:** 06 Feb 2024



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## GRAPHS

