



# CONSTRUCTION EQUIPMENT

## 619854 MOSAIC VOLVO EC480EL 314507 - DIESEL ENGINE



**Sample No:** VCP433371  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 619854 MOSAIC



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### SAMPLE INFORMATION

Sample Number	<b>VCP433371</b>	VCP421731	VCP354572	VCP350268
Sample Date	<b>09 Oct 2023</b>	15 Mar 2023	25 May 2022	03 Feb 2022
Machine Hours	<b>3761</b>	2945	1666	1118
Oil Hours	<b>500</b>	500	500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ATTENTION</b>	ATTENTION	ABNORMAL	ABNORMAL

### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 12.3</b>	▲ 11.7	■ 12.7	■ 12.6
Base Number (BN)	mg KOH/g	■ <b>7.2</b>	■ 8.8	■ 8.4	■ 5.1
Oxidation (PA)	%	<b>90</b>	84	85	67

### CONTAMINATION

Soot %	%	■ <b>0.2</b>	■ 0.1	■ 0.1	■ 0.2
Nitration (PA)	%	<b>89</b>	73	79	81
Sulfation (PA)	%	<b>63</b>	61	65	64
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	■ 0.8	<1.0	<1.0
Silicon	ppm	■ <b>16</b>	■ 11	■ 10	▲ 21
Sodium	ppm	■ <b>3</b>	■ 3	■ 4	■ 2
Potassium	ppm	■ <b>0</b>	■ 0	■ 2	■ 1

### WEAR METALS

Iron	ppm	■ <b>18</b>	■ 8	■ 9	■ 25
Copper	ppm	■ <b>12</b>	■ 4	▲ 49	▲ 226
Lead	ppm	■ <b>3</b>	■ 0	■ 1	■ 5
Tin	ppm	■ <b>2</b>	■ <1	■ 2	■ 4
Aluminum	ppm	■ <b>2</b>	■ 1	■ 2	■ 2
Chromium	ppm	■ <b>&lt;1</b>	■ <1	■ <1	■ <1
Molybdenum	ppm	■ <b>48</b>	■ 86	■ 41	■ 20
Nickel	ppm	■ <b>&lt;1</b>	■ <1	■ <1	■ <1
Titanium	ppm	<b>0</b>	0	<1	<1
Silver	ppm	■ <b>0</b>	■ 0	<1	0
Manganese	ppm	■ <b>&lt;1</b>	■ 1	■ <1	■ 2
Vanadium	ppm	<b>0</b>	0	<1	0

### ADDITIVES

Calcium	ppm	■ <b>1690</b>	■ 1705	■ 1815	■ 2363
Magnesium	ppm	■ <b>499</b>	■ 521	■ 409	116
Zinc	ppm	■ <b>1178</b>	■ 1095	■ 1158	■ 1079
Phosphorus	ppm	■ <b>908</b>	■ 915	■ 932	■ 940
Barium	ppm	■ <b>0</b>	■ 0	■ 0	■ 0
Boron	ppm	■ <b>17</b>	■ 29	■ 21	■ 6

### Diagnosis

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

**Depot:** VOLVO0093  
**Unique No:** 10741872  
**Signed:** Don Baldrige  
**Report Date:** 16 Nov 2023



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## GRAPHS

