



# CONSTRUCTION EQUIPMENT

## VOLVO EC140B 11614 - DIESEL ENGINE



**Sample No:** VCP424396  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



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### SAMPLE INFORMATION

Sample Number	<b>VCP424396</b>	VCP402860	VCP330033	VCP181614
Sample Date	<b>03 Aug 2023</b>	16 Feb 2023	28 Feb 2022	15 Dec 2015
Machine Hours	<b>4676</b>	4627	4627	4099
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	ABNORMAL	NORMAL

### OIL CONDITION

Visc @ 100°C	cSt	<b>13.1</b>	13.4	▲ 17.1	14.87
Base Number (BN)	mg KOH/g	<b>10.0</b>	10.8	▲ 0.0	---
Oxidation (PA)	%	<b>71</b>	75	98	48

### CONTAMINATION

Soot %	%	<b>0.1</b>	0.6	▲ 5	1.4
Nitration (PA)	%	<b>38</b>	53	133	58
Sulfation (PA)	%	<b>57</b>	62	95	39
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>7</b>	6	11	6
Sodium	ppm	<b>2</b>	2	4	4
Potassium	ppm	<b>&lt;1</b>	1	3	6

### WEAR METALS

Iron	ppm	<b>8</b>	25	▲ 129	38
Copper	ppm	<b>&lt;1</b>	3	22	4
Lead	ppm	<b>0</b>	<1	3	3
Tin	ppm	<b>0</b>	<1	2	<1
Aluminum	ppm	<b>0</b>	3	▲ 21	2
Chromium	ppm	<b>&lt;1</b>	<1	6	2
Molybdenum	ppm	<b>43</b>	41	35	44
Nickel	ppm	<b>0</b>	0	<1	2
Titanium	ppm	<b>&lt;1</b>	<1	4	1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	2	<1
Vanadium	ppm	<b>&lt;1</b>	0	<1	0

### ADDITIVES

Calcium	ppm	<b>1681</b>	1664	1914	1685
Magnesium	ppm	<b>521</b>	463	583	857
Zinc	ppm	<b>1093</b>	1062	1334	1076
Phosphorus	ppm	<b>919</b>	883	1027	925
Barium	ppm	<b>0</b>	2	0	0
Boron	ppm	<b>70</b>	69	47	20

### 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.

**Depot:** VOLVO0093  
**Unique No:** 10609120  
**Signed:** Wes Davis  
**Report Date:** 21 Aug 2023



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## GRAPHS

