



# CONSTRUCTION EQUIPMENT

## 24399 VOLVO ECR88D 2 16643 - DIESEL ENGINE



**Sample No:** VCP420547  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 24399



### SAMPLE INFORMATION

Sample Number	<b>VCP420547</b>	VCP395079	VCP384295	VCP339770
Sample Date	<b>06 Nov 2023</b>	20 May 2023	06 Oct 2022	16 Dec 2021
Machine Hours	<b>2604</b>	2071	1477	682
Oil Hours	<b>1000</b>	1000	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	N/A
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**OL THOMPSON**  
 3691 PARAMOUNT DR  
 NORTH CHARLESTON, SC  
 US 29405  
 Contact: G. GARRISON  
 ggarrison@oltc.com  
 T:  
 F:

### OIL CONDITION

Visc @ 100°C	cSt	<b>12.1</b>	13.6	13.6	13.2
Base Number (BN)	mg KOH/g	<b>9.4</b>	9.0	9.0	10.8
Oxidation (PA)	%	<b>76</b>	86	97	76

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.4</b>	0.4	0.4	0.1
Nitration (PA)	%	<b>76</b>	80	97	48
Sulfation (PA)	%	<b>60</b>	63	71	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>0.1</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>8</b>	7	8	12
Sodium	ppm	<b>5</b>	3	3	4
Potassium	ppm	<b>&lt;1</b>	4	2	1

### WEAR METALS

Iron	ppm	<b>13</b>	16	17	10
Copper	ppm	<b>2</b>	3	20	4
Lead	ppm	<b>0</b>	1	0	<1
Tin	ppm	<b>&lt;1</b>	1	<1	<1
Aluminum	ppm	<b>4</b>	5	5	10
Chromium	ppm	<b>&lt;1</b>	1	1	1
Molybdenum	ppm	<b>30</b>	48	49	44
Nickel	ppm	<b>&lt;1</b>	<1	0	0
Titanium	ppm	<b>&lt;1</b>	<1	<1	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0

### ADDITIVES

Calcium	ppm	<b>2229</b>	1880	1976	1775
Magnesium	ppm	<b>391</b>	528	475	564
Zinc	ppm	<b>1211</b>	1291	1234	1024
Phosphorus	ppm	<b>1000</b>	970	990	1045
Barium	ppm	<b>0</b>	0	<1	1
Boron	ppm	<b>31</b>	21	17	65

### Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. 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:** OLTNOR  
**Unique No:** 10743050  
**Signed:** Wes Davis  
**Report Date:** 20 Nov 2023



# CONSTRUCTION EQUIPMENT



## GRAPHS

