



# CONSTRUCTION EQUIPMENT

SWA240247 VOLVO EC220E 314443 - DIESEL ENGINE



**Sample No:** VCP405682  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWA240247



## SAMPLE INFORMATION

Sample Number	<b>VCP405682</b>	VCP376522	VCP372772	VCP347803
Sample Date	<b>25 Apr 2023</b>	26 Aug 2022	13 May 2022	12 Jan 2022
Machine Hours	<b>3763</b>	2623	2084	1501
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	N/A	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

## ALTA EQUIPMENT

5985 COURT STREET ROAD  
 SYRACUSE, NY  
 US 13206  
 Contact: JIM STRIGLE  
 JIM.STRIGLE@ALTG.COM  
 T: (315)437-2611  
 F: (315)434-9471



## OIL CONDITION

Visc @ 100°C	cSt	<b>13.7</b>	14.1	13.3	13.4
Base Number (BN)	mg KOH/g	<b>8.9</b>	11.2	11.5	10.8
Oxidation (PA)	%	<b>94</b>	106	95	94



## CONTAMINATION

Soot %	%	<b>0.2</b>	0.2	0.1	0.1
Nitration (PA)	%	<b>83</b>	91	73	70
Sulfation (PA)	%	<b>63</b>	71	68	67
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>7</b>	7	7	11
Sodium	ppm	<b>1</b>	<1	2	3
Potassium	ppm	<b>0</b>	1	0	1



## WEAR METALS

Iron	ppm	<b>9</b>	13	12	13
Copper	ppm	<b>0</b>	1	1	1
Lead	ppm	<b>0</b>	1	<1	1
Tin	ppm	<b>0</b>	<1	1	2
Aluminum	ppm	<b>2</b>	3	3	3
Chromium	ppm	<b>&lt;1</b>	<1	<1	1
Molybdenum	ppm	<b>36</b>	47	41	46
Nickel	ppm	<b>0</b>	0	<1	1
Titanium	ppm	<b>0</b>	0	<1	<1
Silver	ppm	<b>0</b>	0	<1	<1
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	<1



## ADDITIVES

Calcium	ppm	<b>1594</b>	1767	1761	1838
Magnesium	ppm	<b>494</b>	523	535	496
Zinc	ppm	<b>1088</b>	1201	1209	1259
Phosphorus	ppm	<b>831</b>	994	990	1002
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>20</b>	26	43	32

## 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:** VOLV00142  
**Unique No:** 10445817  
**Signed:** Wes Davis  
**Report Date:** 29 Apr 2023



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## VOLVO GRAPHS

