



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 352851 - DIESEL ENGINE



**Sample No:** VCP411553  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP411553</b>	VCP420265	VCP386668	VCP375971
Sample Date	<b>12 Jul 2023</b>	12 Apr 2023	07 Oct 2022	09 Jun 2022
Machine Hours	<b>3635</b>	3090	2036	1603
Oil Hours	<b>0</b>	500	500	1500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	ABNORMAL	ABNORMAL

### RIPA AND ASSOCIATES

10149 FISHER AVENUE  
TAMPA, FL  
US 33619  
Contact: ROBERT TURNER  
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T:  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.4</b>	12.3	13.1	12.9
Base Number (BN)	mg KOH/g	<b>9.3</b>	8.3	10.5	10.0
Oxidation (PA)	%	<b>78</b>	75	90	92



### CONTAMINATION

Soot %	%	<b>0.2</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>67</b>	64	75	84
Sulfation (PA)	%	<b>58</b>	54	69	70
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.5	<1.0	<1.0
Silicon	ppm	<b>5</b>	5	8	8
Sodium	ppm	<b>6</b>	4	2	3
Potassium	ppm	<b>1</b>	0	2	<1



### WEAR METALS

Iron	ppm	<b>5</b>	6	8	9
Copper	ppm	<b>2</b>	4	41	87
Lead	ppm	<b>0</b>	0	<1	<1
Tin	ppm	<b>&lt;1</b>	0	1	1
Aluminum	ppm	<b>0</b>	1	3	2
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>45</b>	45	45	43
Nickel	ppm	<b>2</b>	2	3	3
Titanium	ppm	<b>&lt;1</b>	<1	<1	<1
Silver	ppm	<b>0</b>	0	0	<1
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	<1	0



### ADDITIVES

Calcium	ppm	<b>1757</b>	1618	1744	1721
Magnesium	ppm	<b>518</b>	517	498	474
Zinc	ppm	<b>1127</b>	1100	1169	1157
Phosphorus	ppm	<b>947</b>	927	963	944
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>31</b>	40	24	24

### 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:** RIPTAM  
**Unique No:** 10609116  
**Signed:** Wes Davis  
**Report Date:** 21 Aug 2023



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## GRAPHS

