



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 3525 13 - DIESEL ENGINE



**Sample No:** VCP443807  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP443807</b>	VCP444744	VCP440648	VCP420925
Sample Date	<b>22 Jun 2024</b>	14 Mar 2024	17 Nov 2023	31 Jul 2023
Machine Hours	<b>6676</b>	6161	0	5166
Oil Hours	<b>0</b>	500	0	500
Oil Changed	<b>Changed</b>	Changed	N/A	Changed
Sample Status	<b>ATTENTION</b>	ATTENTION	ABNORMAL	NORMAL

**RIPA AND ASSOCIATES**  
 10149 FISHER AVENUE  
 TAMPA, FL  
 US 33619  
 Contact: PM Services  
 PMServices@ripaconstruction.com  
 T:  
 F:



### OIL CONDITION

Visc @ 100°C	cSt	<b>12.1</b>	12.3	12.2	12.8
Base Number (BN)	mg KOH/g	<b>8.9</b>	9.3	9.3	9.1
Oxidation (PA)	%	<b>72</b>	76	76	76

### Diagnosis

No corrective action is recommended at this time. 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.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.2	0.2	0.4
Nitration (PA)	%	<b>63</b>	63	63	65
Sulfation (PA)	%	<b>57</b>	57	58	58
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	1.3	<1.0
Silicon	ppm	<b>3</b>	4	25	4
Sodium	ppm	<b>2</b>	1	7	2
Potassium	ppm	<b>2</b>	1	29	2



### WEAR METALS

Iron	ppm	<b>8</b>	7	78	8
Copper	ppm	<b>2</b>	3	28	<1
Lead	ppm	<b>&lt;1</b>	<1	0	<1
Tin	ppm	<b>&lt;1</b>	<1	3	<1
Aluminum	ppm	<b>4</b>	4	19	4
Chromium	ppm	<b>0</b>	<1	2	<1
Molybdenum	ppm	<b>39</b>	44	42	40
Nickel	ppm	<b>4</b>	3	0	<1
Titanium	ppm	<b>0</b>	<1	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	9	<1
Vanadium	ppm	<b>0</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>1590</b>	1744	1613	1713
Magnesium	ppm	<b>509</b>	635	557	493
Zinc	ppm	<b>1109</b>	1270	940	1187
Phosphorus	ppm	<b>952</b>	1040	771	975
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>49</b>	30	36	33

**Depot:** RIPTAM  
**Unique No:** 1113276  
**Signed:** Sean Felton  
**Report Date:** 09 Jul 2024



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## GRAPHS

