



# CONSTRUCTION EQUIPMENT

## VOLVO A30F 82303 - DIESEL ENGINE



**Sample No:** VCP411548  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP411548</b>	VCP390245	VCP299456	VCP266206
Sample Date	<b>11 Aug 2023</b>	28 Dec 2022	13 May 2021	25 Apr 2020
Machine Hours	<b>12173</b>	11500	10638	10182
Oil Hours	<b>500</b>	500	500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	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>▲ 11.5</b>	■ 12.2	<b>▲ 11.5</b>	■ 11.8
Base Number (BN)	mg KOH/g	<b>■ 8.7</b>	■ 7.7	---	---
Oxidation (PA)	%	<b>68</b>	48	80	63



### CONTAMINATION

Soot %	%	<b>■ 0.2</b>	■ 0.1	■ 0.3	■ 0.5
Nitration (PA)	%	<b>68</b>	58	74	87
Sulfation (PA)	%	<b>55</b>	46	64	58
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>▲ 3.6</b>	<1.0	■ 1.7	<1.0
Silicon	ppm	<b>■ 9</b>	■ 5	■ 8	■ 8
Sodium	ppm	<b>▲ 69</b>	■ 5	■ 14	■ 16
Potassium	ppm	<b>▲ 162</b>	■ 8	■ 11	■ 8



### WEAR METALS

Iron	ppm	<b>■ 24</b>	■ 4	■ 22	■ 20
Copper	ppm	<b>■ 3</b>	■ <1	■ 8	■ 6
Lead	ppm	<b>■ &lt;1</b>	■ <1	■ 2	■ <1
Tin	ppm	<b>■ &lt;1</b>	■ <1	■ 1	■ <1
Aluminum	ppm	<b>■ 10</b>	■ 2	■ 11	■ 13
Chromium	ppm	<b>■ &lt;1</b>	■ 0	■ <1	■ <1
Molybdenum	ppm	<b>■ 73</b>	■ 78	■ 42	■ 10
Nickel	ppm	<b>■ &lt;1</b>	■ 0	■ 1	■ 2
Titanium	ppm	<b>&lt;1</b>	0	<1	0
Silver	ppm	<b>■ 0</b>	■ <1	0	0
Manganese	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ <1
Vanadium	ppm	<b>&lt;1</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>■ 1646</b>	■ 1898	■ 1528	■ 1266
Magnesium	ppm	<b>■ 545</b>	■ 214	■ 580	■ 608
Zinc	ppm	<b>■ 1138</b>	■ 1158	■ 1055	■ 721
Phosphorus	ppm	<b>■ 960</b>	■ 981	■ 938	■ 642
Barium	ppm	<b>■ 0</b>	■ 0	■ 0	■ 0
Boron	ppm	<b>■ 20</b>	■ 66	■ 37	■ 23

### Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

**Depot:** RIPTAM  
**Unique No:** 10609124  
**Signed:** Jonathan Hester  
**Report Date:** 22 Aug 2023



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## GRAPHS

