



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 752282 - DIESEL ENGINE



**Sample No:** VCP444378  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP444378</b>	VCP435827	VCP429777	VCP416194
Sample Date	<b>05 Jun 2024</b>	09 Feb 2024	09 Nov 2023	28 Aug 2023
Machine Hours	<b>5858</b>	5200	4706	4246
Oil Hours	<b>0</b>	0	0	500
Oil Changed	<b>Changed</b>	Changed	N/A	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	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>13.0</b>	12.5	12.8	12.7
Base Number (BN)	mg KOH/g	<b>8.3</b>	9.1	9.5	9.0
Oxidation (PA)	%	<b>83</b>	76	79	86

### 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.



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.2	0.2	0.3
Nitration (PA)	%	<b>78</b>	73	67	78
Sulfation (PA)	%	<b>62</b>	58	60	63
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>6</b>	5	8	5
Sodium	ppm	<b>&lt;1</b>	2	11	2
Potassium	ppm	<b>2</b>	<1	3	0



### WEAR METALS

Iron	ppm	<b>8</b>	4	28	7
Copper	ppm	<b>2</b>	2	1	4
Lead	ppm	<b>&lt;1</b>	<1	0	<1
Tin	ppm	<b>&lt;1</b>	<1	0	1
Aluminum	ppm	<b>3</b>	3	4	4
Chromium	ppm	<b>&lt;1</b>	0	<1	0
Molybdenum	ppm	<b>43</b>	44	29	42
Nickel	ppm	<b>&lt;1</b>	0	0	1
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1664</b>	1675	2705	1768
Magnesium	ppm	<b>527</b>	610	170	538
Zinc	ppm	<b>1134</b>	1186	1354	1177
Phosphorus	ppm	<b>926</b>	1056	1197	949
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>25</b>	28	31	17

**Depot:** RIPTAM  
**Unique No:** 11073546  
**Signed:** Wes Davis  
**Report Date:** 12 Jun 2024

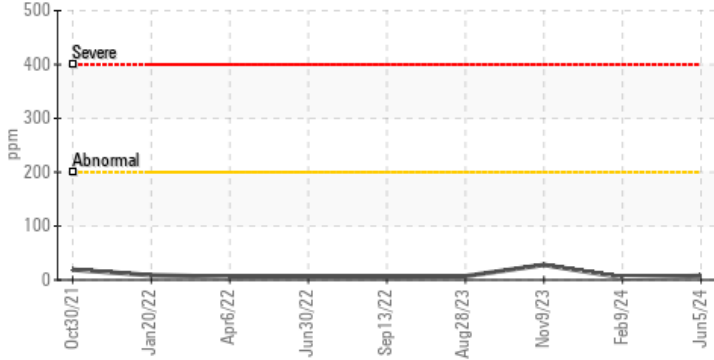


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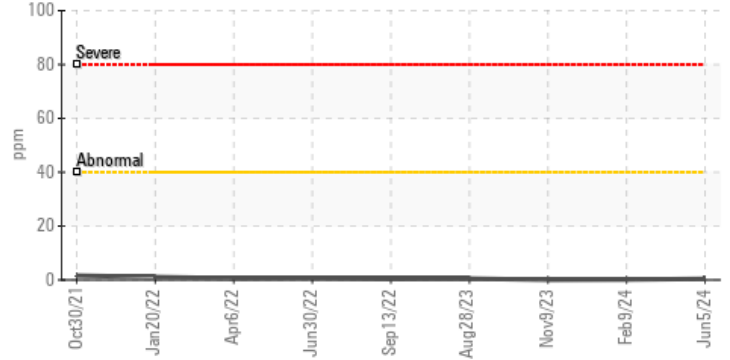


## GRAPHS

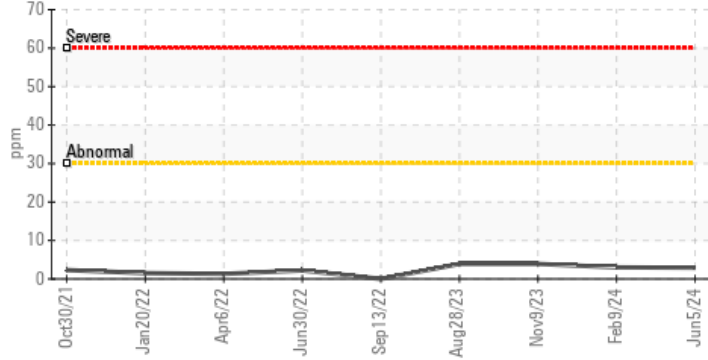
### Iron (ppm)



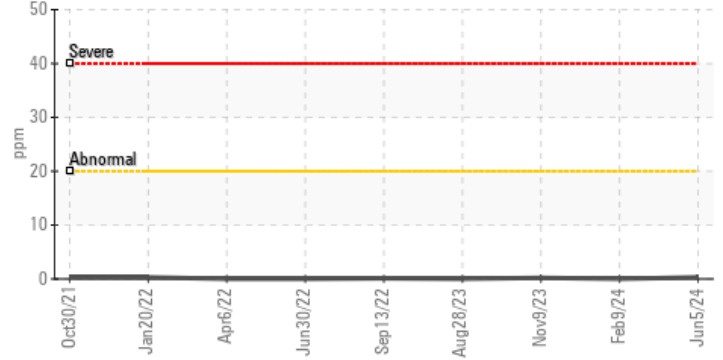
### Lead (ppm)



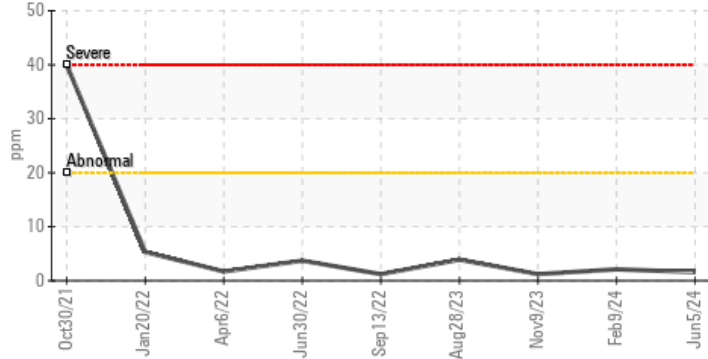
### Aluminum (ppm)



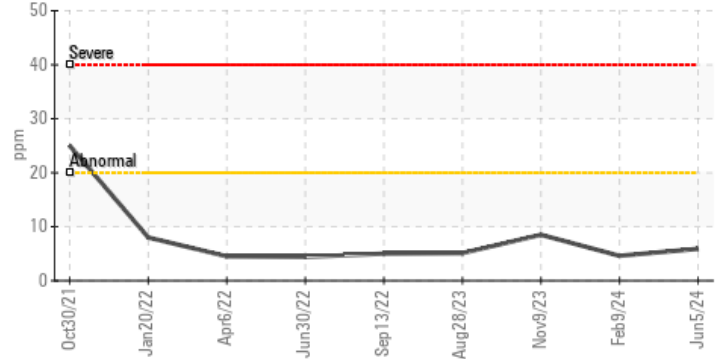
### Chromium (ppm)



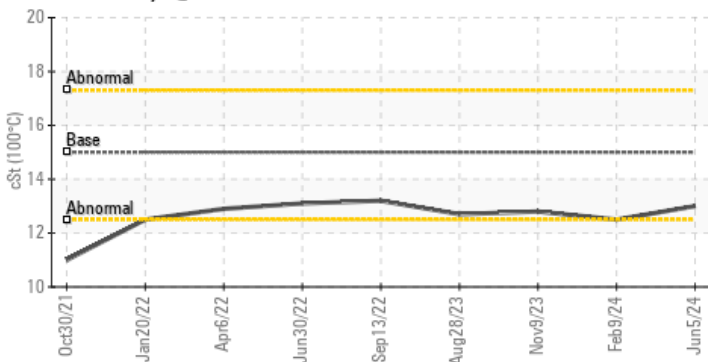
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

