



# CONSTRUCTION EQUIPMENT

## VOLVO A40G 352449 - DIESEL ENGINE



**Sample No:** VCP450877  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP450877</b>	VCP455455	VCP376050	VCP412015
Sample Date	<b>18 Jun 2024</b>	02 May 2024	25 Oct 2023	16 Aug 2023
Machine Hours	<b>8146</b>	8038	7451	7072
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.5</b>	13.0	12.4	12.5
Base Number (BN)	mg KOH/g	<b>10.5</b>	9.2	9.4	10.4
Oxidation (PA)	%	<b>72</b>	62	76	76



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.1</b>	0.2	0.2	0.1
Nitration (PA)	%	<b>46</b>	55	53	51
Sulfation (PA)	%	<b>57</b>	53	58	59
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>3</b>	3	4	4
Sodium	ppm	<b>2</b>	<1	2	2
Potassium	ppm	<b>1</b>	2	0	0



### WEAR METALS

Iron	ppm	<b>0</b>	5	1	3
Copper	ppm	<b>&lt;1</b>	1	0	<1
Lead	ppm	<b>0</b>	<1	0	<1
Tin	ppm	<b>0</b>	<1	0	<1
Aluminum	ppm	<b>2</b>	2	1	<1
Chromium	ppm	<b>&lt;1</b>	<1	0	0
Molybdenum	ppm	<b>41</b>	54	50	50
Nickel	ppm	<b>0</b>	<1	0	<1
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	<1



### ADDITIVES

Calcium	ppm	<b>1548</b>	1086	1411	1727
Magnesium	ppm	<b>528</b>	836	491	557
Zinc	ppm	<b>1121</b>	1180	979	1105
Phosphorus	ppm	<b>863</b>	1033	925	923
Barium	ppm	<b>0</b>	0	4	0
Boron	ppm	<b>55</b>	10	51	59

### 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:** VOLVO0090  
**Unique No:** 11098972  
**Signed:** Wes Davis  
**Report Date:** 27 Jun 2024

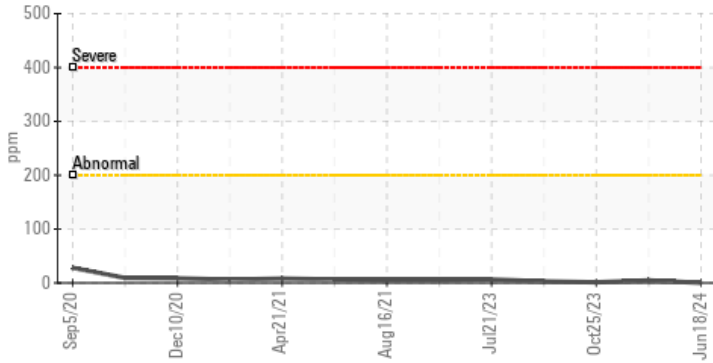


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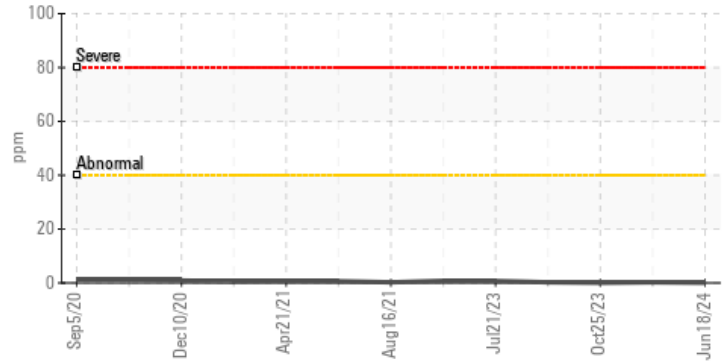


## GRAPHS

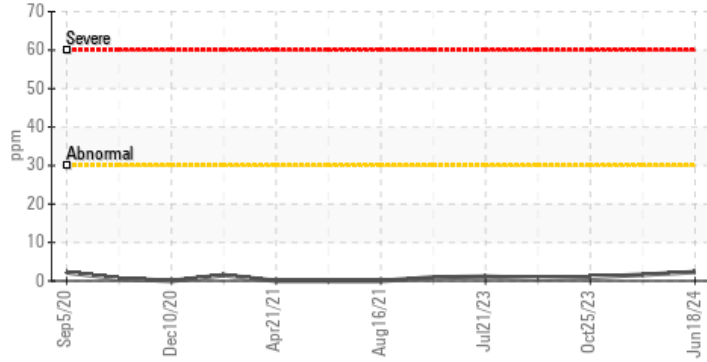
### Iron (ppm)



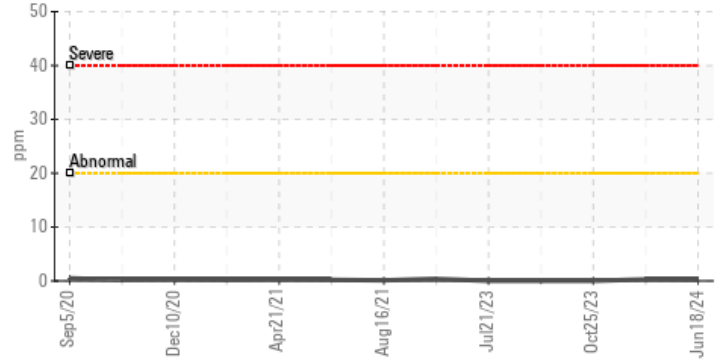
### Lead (ppm)



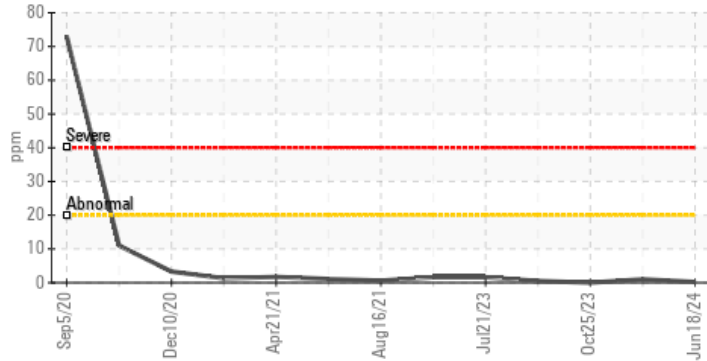
### Aluminum (ppm)



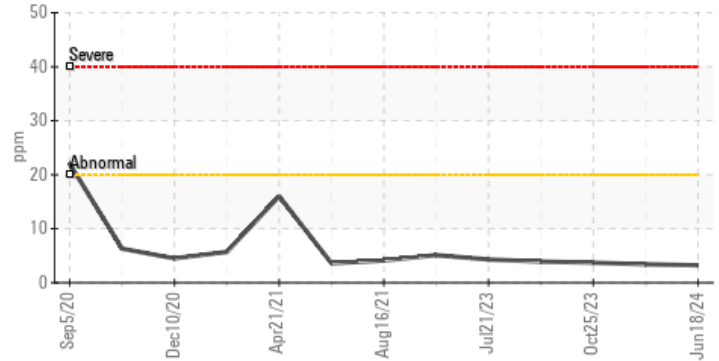
### Chromium (ppm)



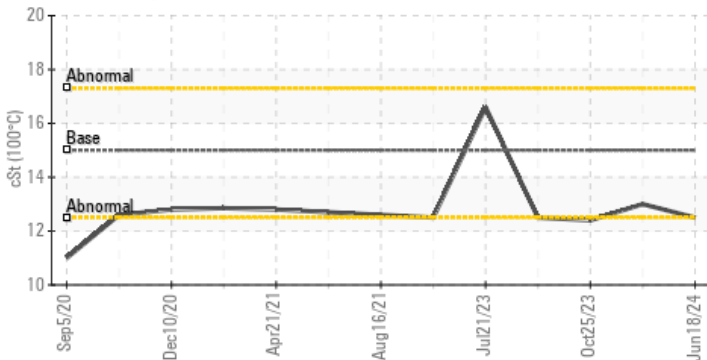
### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

