



# CONSTRUCTION EQUIPMENT

701295 PRIMORIS VOLVO A40G 352509 - DIESEL ENGINE



**Sample No:** VCP445547  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 701295 PRIMORIS



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## SAMPLE INFORMATION

Sample Number	<b>VCP445547</b>	VCP452332	VCP425807	VCP398023
Sample Date	<b>12 Apr 2024</b>	16 Nov 2023	13 Jul 2023	25 Apr 2023
Machine Hours	<b>6123</b>	5500	4873	4282
Oil Hours	<b>500</b>	500	500	500
Oil Changed	<b>Changed</b>	Changed	N/A	Changed
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	NORMAL



## OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 12.2</b>	12.2	12.7	12.8
Base Number (BN)	mg KOH/g	<b>7.6</b>	8.9	8.9	9.0
Oxidation (PA)	%	<b>76</b>	80	81	84



## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.3</b>	0.3	0.3	0.4
Nitration (PA)	%	<b>83</b>	79	78	83
Sulfation (PA)	%	<b>58</b>	58	60	62
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.8	<1.0	<1.0
Silicon	ppm	<b>6</b>	6	5	4
Sodium	ppm	<b>▲ 173</b>	4	2	0
Potassium	ppm	<b>4</b>	0	<1	1



## WEAR METALS

Iron	ppm	<b>10</b>	8	8	7
Copper	ppm	<b>2</b>	3	1	2
Lead	ppm	<b>1</b>	<1	<1	<1
Tin	ppm	<b>1</b>	<1	1	1
Aluminum	ppm	<b>4</b>	2	1	1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>48</b>	47	44	55
Nickel	ppm	<b>2</b>	2	2	4
Titanium	ppm	<b>0</b>	0	<1	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	<1	0



## ADDITIVES

Calcium	ppm	<b>1542</b>	1721	1795	1735
Magnesium	ppm	<b>629</b>	504	529	504
Zinc	ppm	<b>1180</b>	1116	1166	1148
Phosphorus	ppm	<b>943</b>	941	957	953
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>17</b>	21	21	22

## Diagnosis

We advise that you check for possible coolant leak. Check for low coolant level. 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. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

**Depot:** VOLVO0093  
**Unique No:** 11046912  
**Signed:** Jonathan Hester  
**Report Date:** 30 May 2024



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## GRAPHS

