



# CONSTRUCTION EQUIPMENT

## VOLVO A45G 352071 - DIESEL ENGINE



**Sample No:** VCP412987  
**Oil Type:** DIESEL ENGINE OIL SAE 15W40  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP412987</b>	VCP382594	VCP397932	VCP364226
Sample Date	<b>12 Jul 2023</b>	12 Apr 2023	09 Dec 2022	30 Aug 2022
Machine Hours	<b>6523</b>	6049	5545	4971
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>ATTENTION</b>	ATTENTION	ATTENTION	ATTENTION

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### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 12.4</b>	▲ 12.4	▲ 12.4	▲ 12.4
Base Number (BN)	mg KOH/g	<b>■ 10.1</b>	■ 8.7	■ 10.0	■ 11.4
Oxidation (PA)	%	<b>79</b>	73	69	81



### CONTAMINATION

Soot %	%	<b>■ 0.1</b>	■ 0.2	■ 0.2	■ 0.2
Nitration (PA)	%	<b>55</b>	54	69	62
Sulfation (PA)	%	<b>59</b>	53	58	63
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>■ 5</b>	■ 5	■ 3	■ 5
Sodium	ppm	<b>■ 3</b>	■ 2	■ 2	■ 1
Potassium	ppm	<b>■ 0</b>	■ <1	■ 0	■ 1



### WEAR METALS

Iron	ppm	<b>■ 4</b>	■ 6	■ 5	■ 5
Copper	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ <1
Lead	ppm	<b>■ 0</b>	■ <1	■ 1	■ <1
Tin	ppm	<b>■ 0</b>	■ <1	■ <1	■ <1
Aluminum	ppm	<b>■ &lt;1</b>	■ 0	■ 1	■ 2
Chromium	ppm	<b>■ 0</b>	■ <1	■ <1	■ <1
Molybdenum	ppm	<b>■ 41</b>	■ 43	■ 51	■ 44
Nickel	ppm	<b>■ 0</b>	■ 0	■ <1	■ <1
Titanium	ppm	<b>■ &lt;1</b>	■ 0	■ 0	■ 0
Silver	ppm	<b>■ 0</b>	■ 0	■ 0	■ <1
Manganese	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ <1
Vanadium	ppm	<b>&lt;1</b>	0	0	<1



### ADDITIVES

Calcium	ppm	<b>■ 1802</b>	■ 1566	■ 1293	■ 1577
Magnesium	ppm	<b>■ 539</b>	■ 525	■ 773	■ 483
Zinc	ppm	<b>■ 1139</b>	■ 1078	■ 1144	■ 1093
Phosphorus	ppm	<b>■ 964</b>	■ 911	■ 899	■ 907
Barium	ppm	<b>■ 0</b>	■ 0	■ 0	■ 0
Boron	ppm	<b>■ 70</b>	■ 53	■ 19	■ 50

### Diagnosis

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.

**Depot:** SAIBIR  
**Unique No:** 10573958  
**Signed:** Don Baldrige  
**Report Date:** 27 Jul 2023



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## VOLVO GRAPHS

