



# CONSTRUCTION EQUIPMENT

## VOLVO A45G 352705 - DIESEL ENGINE



**Sample No:** VCP431050  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP431050</b>	VCP411895	VCP402783	VCP380766
Sample Date	<b>14 Nov 2023</b>	09 Aug 2023	14 Apr 2023	17 Jan 2023
Machine Hours	<b>5454</b>	4958	4480	3993
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>13.0</b>	12.4	12.5	12.7
Base Number (BN)	mg KOH/g	<b>9.0</b>	10.1	9.9	10.5
Oxidation (PA)	%	<b>60</b>	80	79	78



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.2</b>	0.2	0.2	0.3
Nitration (PA)	%	<b>56</b>	55	56	58
Sulfation (PA)	%	<b>52</b>	61	61	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>3</b>	5	5	5
Sodium	ppm	<b>2</b>	0	<1	0
Potassium	ppm	<b>3</b>	1	<1	0



### WEAR METALS

Iron	ppm	<b>6</b>	6	7	4
Copper	ppm	<b>4</b>	11	9	9
Lead	ppm	<b>1</b>	<1	<1	0
Tin	ppm	<b>1</b>	<1	<1	0
Aluminum	ppm	<b>2</b>	2	0	<1
Chromium	ppm	<b>1</b>	<1	<1	<1
Molybdenum	ppm	<b>48</b>	40	41	40
Nickel	ppm	<b>1</b>	<1	<1	0
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>&lt;1</b>	0	0	0
Manganese	ppm	<b>1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1150</b>	1629	1721	1593
Magnesium	ppm	<b>733</b>	461	524	483
Zinc	ppm	<b>1203</b>	1069	1131	972
Phosphorus	ppm	<b>893</b>	900	960	832
Barium	ppm	<b>0</b>	2	0	0
Boron	ppm	<b>14</b>	58	57	53

### 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 acceptable for the time in service.

**Depot:** SAIBIR  
**Unique No:** 10754004  
**Signed:** Angela Borella  
**Report Date:** 28 Nov 2023



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## GRAPHS

