



# CONSTRUCTION EQUIPMENT

## SWO-068028 VOLVO A45G 352915 - DIESEL ENGINE



**Sample No:** VCP428823  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWO-068028



### SAMPLE INFORMATION

Sample Number	<b>VCP428823</b>	VCP413514	VCP414246	VCP397704
Sample Date	<b>06 Dec 2023</b>	15 Aug 2023	26 May 2023	19 Jan 2023
Machine Hours	<b>2854</b>	2344	1912	1420
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>13.2</b>	12.6	12.8	12.8
Base Number (BN)	mg KOH/g	<b>9.7</b>	10.2	10.0	10.7
Oxidation (PA)	%	<b>70</b>	79	80	77

### 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>0.2</b>	0.4	0.4	0.3
Nitration (PA)	%	<b>52</b>	57	59	60
Sulfation (PA)	%	<b>56</b>	61	62	60
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>6</b>	7	7	7
Sodium	ppm	<b>3</b>	3	1	2
Potassium	ppm	<b>&lt;1</b>	0	0	0



### WEAR METALS

Iron	ppm	<b>8</b>	10	12	17
Copper	ppm	<b>&lt;1</b>	1	3	5
Lead	ppm	<b>0</b>	<1	0	2
Tin	ppm	<b>0</b>	<1	2	2
Aluminum	ppm	<b>2</b>	2	0	<1
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>49</b>	41	42	45
Nickel	ppm	<b>&lt;1</b>	<1	<1	3
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0



### ADDITIVES

Calcium	ppm	<b>1453</b>	1763	1777	1969
Magnesium	ppm	<b>623</b>	507	534	564
Zinc	ppm	<b>1152</b>	1107	1154	1253
Phosphorus	ppm	<b>986</b>	938	957	995
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>47</b>	48	59	55

**Depot:** SAIBIR  
**Unique No:** 10780128  
**Signed:** Don Baldrige  
**Report Date:** 13 Dec 2023

**VOLVO** **GRAPHS**

