



# CONSTRUCTION EQUIPMENT

## VOLVO L180H 5035 - DIESEL ENGINE



**Sample No:** VCP402154  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP402154</b>	VCP415987	VCP343005	VCP336297
Sample Date	<b>16 Aug 2023</b>	20 Jun 2023	09 Nov 2021	17 Sep 2021
Machine Hours	<b>11420</b>	11050	0	6743
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>12.2</b>	12.6	12.7	12.8
Base Number (BN)	mg KOH/g	<b>10.0</b>	10.7	---	---
Oxidation (PA)	%	<b>78</b>	76	80	76



### CONTAMINATION

Soot %	%	<b>0.2</b>	0.1	0.2	0.1
Nitration (PA)	%	<b>56</b>	47	54	49
Sulfation (PA)	%	<b>59</b>	60	62	60
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>3</b>	4	3	4
Sodium	ppm	<b>2</b>	2	3	1
Potassium	ppm	<b>0</b>	2	<1	0



### WEAR METALS

Iron	ppm	<b>3</b>	3	3	3
Copper	ppm	<b>&lt;1</b>	<1	<1	<1
Lead	ppm	<b>&lt;1</b>	1	<1	<1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>&lt;1</b>	0	1	<1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>45</b>	46	49	42
Nickel	ppm	<b>0</b>	<1	0	<1
Titanium	ppm	<b>&lt;1</b>	<1	<1	<1
Silver	ppm	<b>0</b>	<1	<1	<1
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1695</b>	1762	1718	1730
Magnesium	ppm	<b>542</b>	566	502	490
Zinc	ppm	<b>1083</b>	1147	1017	1139
Phosphorus	ppm	<b>903</b>	961	971	929
Barium	ppm	<b>0</b>	4	0	0
Boron	ppm	<b>40</b>	62	47	69

### 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:** 10615946  
**Signed:** Wes Davis  
**Report Date:** 22 Aug 2023



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## GRAPHS

