



# CONSTRUCTION EQUIPMENT

SPM566534 VOLVO L180H 5412 - DIESEL ENGINE



**Sample No:** VCP423025  
**Oil Type:** VOLVO VDS-4.5 Premium Motor Oil 15W40  
**Job No:** SPM566534



## SAMPLE INFORMATION

Sample Number	<b>VCP423025</b>	VCP396097	VCP373356	VCP342754
Sample Date	<b>30 Jun 2023</b>	01 Feb 2023	18 Jun 2022	08 Dec 2021
Machine Hours	<b>5936</b>	6657	4250	3605
Oil Hours	<b>0</b>	700	500	600
Oil Changed	<b>N/A</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**CALLANAN**  
 RT 32 677 FLATBUSH RD  
 EAST KINGSTON, NY  
 US 12401  
 Contact:

## OIL CONDITION

Visc @ 100°C	cSt	<b>13.0</b>	12.7	12.8	12.9
Base Number (BN)	mg KOH/g	<b>10.1</b>	9.3	10.9	10.1
Oxidation (PA)	%	<b>84</b>	82	85	86

T:  
F:

## 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

Soot %	%	<b>0.2</b>	0.1	0.2	0.2
Nitration (PA)	%	<b>51</b>	67	65	68
Sulfation (PA)	%	<b>63</b>	61	63	64
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	4	5
Sodium	ppm	<b>3</b>	3	2	2
Potassium	ppm	<b>2</b>	0	0	0

## WEAR METALS

Iron	ppm	<b>3</b>	6	6	6
Copper	ppm	<b>&lt;1</b>	<1	2	2
Lead	ppm	<b>&lt;1</b>	<1	<1	2
Tin	ppm	<b>&lt;1</b>	<1	1	1
Aluminum	ppm	<b>&lt;1</b>	<1	<1	<1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>38</b>	41	40	40
Nickel	ppm	<b>0</b>	<1	<1	0
Titanium	ppm	<b>0</b>	0	<1	<1
Silver	ppm	<b>0</b>	0	0	5
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>1757</b>	1705	1621	1734
Magnesium	ppm	<b>492</b>	508	493	519
Zinc	ppm	<b>1137</b>	1099	1149	1158
Phosphorus	ppm	<b>920</b>	920	885	1004
Barium	ppm	<b>&lt;1</b>	0	0	0
Boron	ppm	<b>56</b>	46	51	36

**Depot:** CALEAS  
**Unique No:** 10546808  
**Signed:** Wes Davis  
**Report Date:** 06 Jul 2023



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## GRAPHS

