



# CONSTRUCTION EQUIPMENT

W14603 VOLVO L220H 2884 - DIESEL ENGINE



**Sample No:** VCP374123  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** W14603



## SAMPLE INFORMATION

Sample Number	<b>VCP374123</b>	VCP405888	VCP398350	VCP384053
Sample Date	<b>31 Aug 2023</b>	02 Jun 2023	13 Feb 2023	05 Oct 2022
Machine Hours	<b>9538</b>	8994	8521	7990
Oil Hours	<b>500</b>	500	500	500
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>12.3</b>	12.4	12.5	12.7
Base Number (BN)	mg KOH/g	<b>9.1</b>	9.9	8.3	10.7
Oxidation (PA)	%	<b>73</b>	82	64	86



## CONTAMINATION

Soot %	%	<b>0.2</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>59</b>	57	58	64
Sulfation (PA)	%	<b>56</b>	62	55	65
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.6	<1.0	<1.0
Silicon	ppm	<b>4</b>	4	4	5
Sodium	ppm	<b>3</b>	2	3	2
Potassium	ppm	<b>0</b>	0	0	<1



## WEAR METALS

Iron	ppm	<b>3</b>	3	4	3
Copper	ppm	<b>&lt;1</b>	0	<1	6
Lead	ppm	<b>0</b>	0	<1	<1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>1</b>	2	0	1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>43</b>	42	42	39
Nickel	ppm	<b>0</b>	0	1	<1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0



## ADDITIVES

Calcium	ppm	<b>1825</b>	1766	1648	1665
Magnesium	ppm	<b>499</b>	536	512	518
Zinc	ppm	<b>993</b>	1094	910	964
Phosphorus	ppm	<b>830</b>	889	746	804
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>44</b>	60	57	52

## 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:** VOLVO0080  
**Unique No:** 10634942  
**Signed:** Wes Davis  
**Report Date:** 08 Sep 2023



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## GRAPHS

