



# CONSTRUCTION EQUIPMENT

SWA329757-20 VOLVO L220H 2823 - DIESEL ENGINE



**Sample No:** VCP407431  
**Oil Type:** VOLVO VDS-4.5 Premium Motor Oil 15W40  
**Job No:** SWA329757-20



## SAMPLE INFORMATION

Sample Number	<b>VCP407431</b>	VCP330847	VCP306170	VCP306389
Sample Date	<b>09 Sep 2023</b>	16 Sep 2022	02 Feb 2022	05 Aug 2021
Machine Hours	<b>9460</b>	7531	6156	5330
Oil Hours	<b>0</b>	1300	500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	ATTENTION

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

## OIL CONDITION

Visc @ 100°C	cSt	<b>12.8</b>	12.3	12.2	▲ 12.3
Base Number (BN)	mg KOH/g	<b>8.2</b>	8.3	9.5	---
Oxidation (PA)	%	<b>85</b>	96	88	65

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

Water	%	---	0.11	---	0.105
Soot %	%	<b>0.2</b>	0.3	0.2	0.2
Nitration (PA)	%	<b>72</b>	93	78	68
Sulfation (PA)	%	<b>61</b>	68	65	60
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	0.5
Silicon	ppm	<b>7</b>	7	5	5
Sodium	ppm	<b>3</b>	2	<1	2
Potassium	ppm	<b>&lt;1</b>	0	0	1

## WEAR METALS

Iron	ppm	<b>9</b>	12	6	5
Copper	ppm	<b>2</b>	13	2	3
Lead	ppm	<b>1</b>	1	<1	<1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>2</b>	2	1	1
Chromium	ppm	<b>0</b>	<1	0	<1
Molybdenum	ppm	<b>41</b>	45	40	64
Nickel	ppm	<b>0</b>	0	0	<1
Titanium	ppm	<b>&lt;1</b>	<1	0	<1
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>1867</b>	1682	1685	1459
Magnesium	ppm	<b>556</b>	468	488	457
Zinc	ppm	<b>1208</b>	1078	1028	1050
Phosphorus	ppm	<b>965</b>	894	925	896
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>18</b>	22	47	256

**Depot:** CALEAS  
**Unique No:** 10649634  
**Signed:** Wes Davis  
**Report Date:** 20 Sep 2023

**VOLVO** GRAPHS

