



# CONSTRUCTION EQUIPMENT

W14889 VOLVO L220H 2820 - DIESEL ENGINE



**Sample No:** VCP380815  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** W14889



## SAMPLE INFORMATION

Sample Number	<b>VCP380815</b>	VCP410538	VCP402600	VCP382406
Sample Date	<b>31 Oct 2023</b>	15 Aug 2023	31 May 2023	07 Dec 2022
Machine Hours	<b>9548</b>	9046	8553	8016
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>12.6</b>	12.3	12.9	13.0
Base Number (BN)	mg KOH/g	<b>9.5</b>	9.3	9.2	11.2
Oxidation (PA)	%	<b>76</b>	76	82	88

## CONTAMINATION

Soot %	%	<b>0.1</b>	0.1	0.2	0.2
Nitration (PA)	%	<b>53</b>	50	57	60
Sulfation (PA)	%	<b>59</b>	58	62	66
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.4	<1.0	<1.0
Silicon	ppm	<b>6</b>	5	6	5
Sodium	ppm	<b>1</b>	2	5	2
Potassium	ppm	<b>&lt;1</b>	0	<1	0

## WEAR METALS

Iron	ppm	<b>3</b>	4	4	4
Copper	ppm	<b>6</b>	<1	<1	1
Lead	ppm	<b>0</b>	0	0	2
Tin	ppm	<b>&lt;1</b>	0	0	<1
Aluminum	ppm	<b>2</b>	<1	1	2
Chromium	ppm	<b>0</b>	0	0	<1
Molybdenum	ppm	<b>49</b>	40	40	41
Nickel	ppm	<b>0</b>	0	0	<1
Titanium	ppm	<b>0</b>	<1	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	<1	0	0

## ADDITIVES

Calcium	ppm	<b>1636</b>	1702	1782	1693
Magnesium	ppm	<b>536</b>	490	513	514
Zinc	ppm	<b>1037</b>	959	946	940
Phosphorus	ppm	<b>835</b>	784	758	734
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>53</b>	47	48	41

## 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:** 10727900  
**Signed:** Wes Davis  
**Report Date:** 07 Nov 2023



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## VOLVO GRAPHS

