



# CONSTRUCTION EQUIPMENT

X21386 CRH VOLVO L220H 2898 - DIESEL ENGINE



**Sample No:** VCP409928  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** X21386 CRH



## SAMPLE INFORMATION

Sample Number	<b>VCP409928</b>	VCP404661	VCP405868	VCP385027
Sample Date	<b>26 Oct 2023</b>	24 Aug 2023	31 May 2023	20 Oct 2022
Machine Hours	<b>6315</b>	6028	5556	4994
Oil Hours	<b>0</b>	500	500	500
Oil Changed	<b>N/A</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**HOUSBY HEAVY EQUIPMENT**  
 PO BOX 1846  
 CEDAR RAPIDS, IA  
 US 52406  
 Contact: JUSTIN JOHNSON  
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 T:  
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## OIL CONDITION

Visc @ 100°C	cSt	<b>12.6</b>	12.3	12.6	12.8
Base Number (BN)	mg KOH/g	<b>8.5</b>	9.6	9.3	9.1
Oxidation (PA)	%	<b>73</b>	82	85	92

## CONTAMINATION

Soot %	%	<b>0.1</b>	0.2	0.2	0.4
Nitration (PA)	%	<b>39</b>	63	65	80
Sulfation (PA)	%	<b>57</b>	61	63	67
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	0.4	<1.0	<1.0
Silicon	ppm	<b>9</b>	7	7	9
Sodium	ppm	<b>2</b>	4	3	2
Potassium	ppm	<b>2</b>	<1	<1	0

## 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.

## WEAR METALS

Iron	ppm	<b>5</b>	7	8	10
Copper	ppm	<b>2</b>	2	1	2
Lead	ppm	<b>0</b>	0	0	0
Tin	ppm	<b>0</b>	<1	<1	<1
Aluminum	ppm	<b>2</b>	1	2	2
Chromium	ppm	<b>0</b>	<1	0	<1
Molybdenum	ppm	<b>35</b>	42	38	35
Nickel	ppm	<b>&lt;1</b>	<1	<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	<1

## ADDITIVES

Calcium	ppm	<b>1427</b>	1771	1708	1649
Magnesium	ppm	<b>481</b>	533	488	506
Zinc	ppm	<b>881</b>	1048	898	915
Phosphorus	ppm	<b>724</b>	845	718	721
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>62</b>	34	31	17

**Depot:** VOLVO0074  
**Unique No:** 10722514  
**Signed:** Wes Davis  
**Report Date:** 31 Oct 2023



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## VOLVO GRAPHS

