



# CONSTRUCTION EQUIPMENT

## 5838 JL VOLVO L90H 624200 - DIESEL ENGINE



**Sample No:** VCP417335  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 5838 JL



### SAMPLE INFORMATION

Sample Number	<b>VCP417335</b>	VCP362972	VCP319714	VCP208018
Sample Date	<b>08 Dec 2023</b>	24 May 2022	15 Sep 2021	08 Jun 2018
Machine Hours	<b>4997</b>	4028	3468	531
Oil Hours	<b>500</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	N/A
Sample Status	<b>NORMAL</b>	ABNORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.8</b>	13.3	13.2	12.7
Base Number (BN)	mg KOH/g	<b>5.9</b>	10.6	---	---
Oxidation (PA)	%	<b>57</b>	90	86	80

### 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	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.4</b>	0.4	0.3	0.4
Nitration (PA)	%	<b>71</b>	78	68	67
Sulfation (PA)	%	<b>56</b>	65	63	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>8</b>	16	8	29
Sodium	ppm	<b>2</b>	3	2	4
Potassium	ppm	<b>0</b>	0	0	12



### WEAR METALS

Iron	ppm	<b>9</b>	14	9	36
Copper	ppm	<b>&lt;1</b>	2	<1	7
Lead	ppm	<b>0</b>	0	<1	<1
Tin	ppm	<b>0</b>	1	<1	0
Aluminum	ppm	<b>4</b>	▲ 11	4	8
Chromium	ppm	<b>0</b>	1	<1	3
Molybdenum	ppm	<b>64</b>	38	40	30
Nickel	ppm	<b>0</b>	<1	<1	0
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	<1	0
Manganese	ppm	<b>0</b>	<1	<1	5
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1569</b>	1617	1704	1519
Magnesium	ppm	<b>360</b>	428	521	523
Zinc	ppm	<b>1014</b>	1025	1182	919
Phosphorus	ppm	<b>802</b>	849	940	756
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>125</b>	37	39	42

**Depot:** VOLVO9010  
**Unique No:** 10805134  
**Signed:** Wes Davis  
**Report Date:** 27 Dec 2023



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## GRAPHS

