



# CONSTRUCTION EQUIPMENT

## 5 VOLVO L110H 631235 - DIESEL ENGINE



**Sample No:** VCP438542  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 5



### SAMPLE INFORMATION

Sample Number	<b>VCP438542</b>	VCP439679	VCP429373D	VCP420252
Sample Date	<b>09 Jul 2024</b>	21 May 2024	17 Jan 2024	05 May 2023
Machine Hours	<b>10281</b>	12318	11636	10451
Oil Hours	<b>0</b>	500	0	500
Oil Changed	<b>N/A</b>	Changed	N/A	Changed
Sample Status	<b>NORMAL</b>	NORMAL	ABNORMAL	NORMAL

### RIPA AND ASSOCIATES

10149 FISHER AVENUE  
TAMPA, FL  
US 33619  
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T:  
F:



### OIL CONDITION

Visc @ 100°C	cSt	<b>13.3</b>	13.0	13.6	13.2
Base Number (BN)	mg KOH/g	<b>10.3</b>	9.9	7.2	10.0
Oxidation (PA)	%	<b>82</b>	81	69	86

### 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>0.3</b>	0.4	0.5	0.5
Nitration (PA)	%	<b>67</b>	71	85	86
Sulfation (PA)	%	<b>60</b>	60	57	61
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	6	▲ 27	6
Sodium	ppm	<b>10</b>	2	0	3
Potassium	ppm	<b>2</b>	<1	3	2



### WEAR METALS

Iron	ppm	<b>10</b>	49	▲ 132	15
Copper	ppm	<b>0</b>	<1	6	<1
Lead	ppm	<b>0</b>	0	0	<1
Tin	ppm	<b>0</b>	0	<1	1
Aluminum	ppm	<b>5</b>	2	● 6	5
Chromium	ppm	<b>0</b>	0	3	<1
Molybdenum	ppm	<b>40</b>	42	63	49
Nickel	ppm	<b>0</b>	0	<1	<1
Titanium	ppm	<b>0</b>	0	<1	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	0	0	<1
Vanadium	ppm	<b>0</b>	0	0	<1



### ADDITIVES

Calcium	ppm	<b>1759</b>	1783	1929	1717
Magnesium	ppm	<b>541</b>	410	234	582
Zinc	ppm	<b>1231</b>	1039	1196	1255
Phosphorus	ppm	<b>1026</b>	897	949	998
Barium	ppm	<b>0</b>	0	5	0
Boron	ppm	<b>31</b>	21	28	18

**Depot:** RIPTAM  
**Unique No:** 11116387  
**Signed:** Wes Davis  
**Report Date:** 11 Jul 2024



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## GRAPHS

