



# CONSTRUCTION EQUIPMENT

## VOLVO L110H 631289 - DIESEL ENGINE



**Sample No:** VCP408284  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP408284</b>	VCP375985	VCP336908	VCP324604
Sample Date	<b>05 Jun 2023</b>	14 Jun 2022	08 Dec 2021	29 Jun 2021
Machine Hours	<b>7680</b>	6226	5684	5184
Oil Hours	<b>500</b>	500	1500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**RIPA AND ASSOCIATES**  
 10149 FISHER AVENUE  
 TAMPA, FL  
 US 33619  
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 T:  
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### OIL CONDITION

Visc @ 100°C	cSt	█ <b>12.1</b>	█ 13.2	█ 13.1	█ 13.2
Base Number (BN)	mg KOH/g	█ <b>10.3</b>	█ 11.4	█ 11.5	---
Oxidation (PA)	%	<b>81</b>	86	84	84

### 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

Soot %	%	█ <b>0.5</b>	█ 0.4	█ 0.4	█ 0.4
Nitration (PA)	%	<b>72</b>	70	71	71
Sulfation (PA)	%	<b>61</b>	63	64	65
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	█ 5	█ 5
Sodium	ppm	█ <b>2</b>	█ 2	█ 2	█ 2
Potassium	ppm	█ <b>0</b>	█ 0	█ 0	█ <1

### WEAR METALS

Iron	ppm	█ <b>11</b>	█ 13	█ 11	█ 12
Copper	ppm	█ <b>1</b>	█ 2	█ 1	█ 2
Lead	ppm	█ <b>0</b>	█ <1	█ <1	█ <1
Tin	ppm	█ <b>&lt;1</b>	█ 2	█ 1	█ 2
Aluminum	ppm	█ <b>3</b>	█ 5	█ 4	█ 0
Chromium	ppm	█ <b>&lt;1</b>	█ <1	█ <1	█ <1
Molybdenum	ppm	█ <b>43</b>	█ 40	█ 37	█ 42
Nickel	ppm	█ <b>0</b>	█ <1	█ <1	█ <1
Titanium	ppm	<b>0</b>	<1	<1	<1
Silver	ppm	█ <b>0</b>	<1	0	0
Manganese	ppm	█ <b>&lt;1</b>	█ <1	█ <1	█ <1
Vanadium	ppm	<b>&lt;1</b>	0	0	0

### ADDITIVES

Calcium	ppm	█ <b>1559</b>	█ 1689	█ 1507	█ 1584
Magnesium	ppm	█ <b>478</b>	█ 503	█ 544	█ 510
Zinc	ppm	█ <b>1019</b>	█ 1078	█ 1019	█ 1010
Phosphorus	ppm	█ <b>837</b>	█ 894	█ 882	█ 908
Barium	ppm	█ <b>0</b>	█ 0	█ 0	█ 0
Boron	ppm	█ <b>27</b>	█ 37	█ 24	█ 32

**Depot:** RIPTAM  
**Unique No:** 10551666  
**Signed:** Wes Davis  
**Report Date:** 12 Jul 2023



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## GRAPHS

