



# CONSTRUCTION EQUIPMENT

## VOLVO L110H 631862 - DIESEL ENGINE



**Sample No:** VCP412569  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP412569</b>	VCP432510	---	---
Sample Date	<b>08 Nov 2023</b>	15 Sep 2023	---	---
Machine Hours	<b>3626</b>	3492	---	---
Oil Hours	<b>134</b>	0	---	---
Oil Changed	<b>Not Chngd</b>	Changed	---	---
Sample Status	<b>ABNORMAL</b>	SEVERE	---	---

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### OIL CONDITION

Visc @ 100°C	cSt	<b>14.6</b>	15.3	---	---
Base Number (BN)	mg KOH/g	<b>9.8</b>	9.5	---	---
Oxidation (PA)	%	<b>67</b>	73	---	---



### CONTAMINATION

Soot %	%	<b>0.3</b>	0.7	---	---
Nitration (PA)	%	<b>63</b>	73	---	---
Sulfation (PA)	%	<b>58</b>	63	---	---
Glycol	%	<b>NEG</b>	NEG	---	---
Fuel	%	<b>&lt;1.0</b>	<1.0	---	---
Silicon	ppm	<b>▲ 21</b>	78	---	---
Sodium	ppm	<b>1</b>	3	---	---
Potassium	ppm	<b>2</b>	6	---	---



### WEAR METALS

Iron	ppm	<b>63</b>	▲ 127	---	---
Copper	ppm	<b>2</b>	14	---	---
Lead	ppm	<b>&lt;1</b>	2	---	---
Tin	ppm	<b>1</b>	4	---	---
Aluminum	ppm	<b>▲ 4</b>	▲ 21	---	---
Chromium	ppm	<b>4</b>	▲ 17	---	---
Molybdenum	ppm	<b>61</b>	72	---	---
Nickel	ppm	<b>&lt;1</b>	2	---	---
Titanium	ppm	<b>&lt;1</b>	1	---	---
Silver	ppm	<b>0</b>	<1	---	---
Manganese	ppm	<b>&lt;1</b>	2	---	---
Vanadium	ppm	<b>0</b>	<1	---	---



### ADDITIVES

Calcium	ppm	<b>1254</b>	1717	---	---
Magnesium	ppm	<b>1064</b>	1001	---	---
Zinc	ppm	<b>1428</b>	1564	---	---
Phosphorus	ppm	<b>1117</b>	1287	---	---
Barium	ppm	<b>0</b>	0	---	---
Boron	ppm	<b>10</b>	14	---	---

### Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

**Depot:** VOLVO8770  
**Unique No:** 10736454  
**Signed:** Sean Felton  
**Report Date:** 10 Nov 2023



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## GRAPHS

