



# CONSTRUCTION EQUIPMENT

## 24971 VOLVO L120H 632562 - DIESEL ENGINE



**Sample No:** VCP441869  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 24971



### SAMPLE INFORMATION

Sample Number	<b>VCP441869</b>	VCP376756	VCP303841	VCP323638
Sample Date	<b>09 Feb 2024</b>	27 Jul 2022	04 Feb 2022	21 Jul 2021
Machine Hours	<b>4478</b>	2694	2062	1531
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	N/A	N/A	N/A
Sample Status	<b>ABNORMAL</b>	NORMAL	NORMAL	ABNORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>▲ 11.5</b>	■ 13.2	■ 13.5	■ 13.5
Base Number (BN)	mg KOH/g	<b>■ 9.1</b>	■ 11.2	■ 11.2	---
Oxidation (PA)	%	<b>79</b>	85	84	90



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>■ 1.4</b>	■ 1.2	■ 0.9	■ 1.5
Nitration (PA)	%	<b>78</b>	79	76	95
Sulfation (PA)	%	<b>63</b>	68	67	71
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>▲ 5.8</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>■ 10</b>	■ 7	■ 8	■ 12
Sodium	ppm	<b>■ 1</b>	■ 1	■ 0	■ 2
Potassium	ppm	<b>■ 3</b>	■ 0	■ <1	■ 2



### WEAR METALS

Iron	ppm	<b>■ 28</b>	■ 15	■ 26	■ 49
Copper	ppm	<b>■ 2</b>	■ 1	■ 4	■ 13
Lead	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ 2
Tin	ppm	<b>■ 1</b>	■ 1	■ 2	■ 4
Aluminum	ppm	<b>■ 8</b>	■ 10	■ 16	<b>▲ 59</b>
Chromium	ppm	<b>■ 1</b>	■ <1	■ 2	■ 4
Molybdenum	ppm	<b>■ 40</b>	■ 46	■ 47	■ 44
Nickel	ppm	<b>■ 0</b>	■ 0	■ 0	■ <1
Titanium	ppm	<b>&lt;1</b>	■ 0	■ <1	■ <1
Silver	ppm	<b>■ 0</b>	<1	<1	<1
Manganese	ppm	<b>■ &lt;1</b>	■ <1	■ <1	■ 2
Vanadium	ppm	<b>0</b>	0	0	<1



### ADDITIVES

Calcium	ppm	<b>■ 1569</b>	■ 1635	■ 1856	■ 1623
Magnesium	ppm	<b>■ 473</b>	■ 513	■ 576	■ 490
Zinc	ppm	<b>■ 1065</b>	■ 1105	■ 1036	■ 1048
Phosphorus	ppm	<b>■ 820</b>	■ 875	■ 987	■ 853
Barium	ppm	<b>■ 11</b>	■ 0	■ 0	■ <1
Boron	ppm	<b>■ 21</b>	■ 31	■ 42	■ 49

### Diagnosis

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

**Depot:** VOLVO3387  
**Unique No:** 10882786  
**Signed:** Jonathan Hester  
**Report Date:** 19 Feb 2024



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## GRAPHS

