



# CONSTRUCTION EQUIPMENT

## S50601522 IAA FREMON VOLVO L90H 623642 - DIESEL ENGINE



**Sample No:** VCP428951  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** S50601522 IAA FREMON



### SAMPLE INFORMATION

Sample Number	<b>VCP428951</b>	VCP345491	VCP369642	VCP363844
Sample Date	<b>18 Dec 2023</b>	03 Aug 2023	25 Apr 2023	04 Jan 2023
Machine Hours	<b>11933</b>	11467	10944	10471
Oil Hours	<b>0</b>	0	0	0
Oil Changed	<b>Changed</b>	Changed	Changed	Not Changd
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL



### VCES- VOLVO CONSTRUCTION EQUIPMENT

1944 MARINA BLVD  
 SAN LEANDRO, CA  
 US 94577

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.8</b>	13.7	13.3	13.8
Base Number (BN)	mg KOH/g	<b>10.0</b>	10.3	9.3	10.2
Oxidation (PA)	%	<b>86</b>	87	83	85



### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.4</b>	0.4	0.3	0.4
Nitration (PA)	%	<b>62</b>	68	62	67
Sulfation (PA)	%	<b>63</b>	63	58	62
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>9</b>	6	6	9
Sodium	ppm	<b>3</b>	2	2	3
Potassium	ppm	<b>&lt;1</b>	1	0	0



### WEAR METALS

Iron	ppm	<b>8</b>	9	7	9
Copper	ppm	<b>&lt;1</b>	<1	0	<1
Lead	ppm	<b>0</b>	<1	0	<1
Tin	ppm	<b>&lt;1</b>	<1	0	<1
Aluminum	ppm	<b>4</b>	2	4	6
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>43</b>	41	39	46
Nickel	ppm	<b>0</b>	0	0	0
Titanium	ppm	<b>0</b>	<1	0	0
Silver	ppm	<b>0</b>	<1	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	<1	0



### ADDITIVES

Calcium	ppm	<b>1718</b>	1720	1721	1920
Magnesium	ppm	<b>533</b>	506	513	566
Zinc	ppm	<b>1160</b>	1132	1185	1317
Phosphorus	ppm	<b>1013</b>	918	960	1105
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>43</b>	30	34	35

### 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.

**Depot:** VOLVO4487  
**Unique No:** 10796590  
**Signed:** Wes Davis  
**Report Date:** 22 Dec 2023



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## VOLVO GRAPHS

