



# CONSTRUCTION EQUIPMENT

## VOLVO L90H 623865 - DIESEL ENGINE



**Sample No:** VCP432493  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	<b>VCP432493</b>	VCP411050	VCP399114	VCP354120
Sample Date	<b>30 Oct 2023</b>	17 May 2023	10 Jan 2023	06 Sep 2022
Machine Hours	<b>7761</b>	7224	6705	6239
Oil Hours	<b>0</b>	0	500	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  
 Contact: PM Services  
 PMServices@ripaconstruction.com  
 T:  
 F:



### OIL CONDITION

Visc @ 100°C	cSt	<b>12.5</b>	14.3	13.9	13.8
Base Number (BN)	mg KOH/g	<b>8.3</b>	9.6	9.6	11.8
Oxidation (PA)	%	<b>75</b>	69	84	93

### 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>0.9</b>	0.9	1	0.9
Nitration (PA)	%	<b>82</b>	95	88	93
Sulfation (PA)	%	<b>58</b>	58	62	68
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	6	6	8
Sodium	ppm	<b>0</b>	0	3	3
Potassium	ppm	<b>2</b>	2	<1	2



### WEAR METALS

Iron	ppm	<b>17</b>	19	21	17
Copper	ppm	<b>1</b>	1	1	<1
Lead	ppm	<b>&lt;1</b>	<1	<1	0
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>4</b>	6	7	5
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>40</b>	63	44	43
Nickel	ppm	<b>&lt;1</b>	<1	<1	0
Titanium	ppm	<b>&lt;1</b>	<1	<1	2
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0



### ADDITIVES

Calcium	ppm	<b>1295</b>	1201	1789	1772
Magnesium	ppm	<b>487</b>	887	549	512
Zinc	ppm	<b>1106</b>	1252	1158	1146
Phosphorus	ppm	<b>786</b>	1057	958	948
Barium	ppm	<b>&lt;1</b>	0	0	0
Boron	ppm	<b>12</b>	<1	21	21

**Depot:** RIPTAM  
**Unique No:** 10870782  
**Signed:** Wes Davis  
**Report Date:** 08 Feb 2024



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## GRAPHS

