



# CONSTRUCTION EQUIPMENT

646642 STONE CO VOLVO L350H 1149 - DIESEL ENGINE



**Sample No:** VCP452291  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 646642 STONE CO



## SAMPLE INFORMATION

Sample Number	<b>VCP452291</b>	VCP431521	VCP424550	VCP382866
Sample Date	<b>19 Dec 2023</b>	11 Oct 2023	09 Aug 2023	06 Feb 2023
Machine Hours	<b>4837</b>	4362	3913	3424
Oil Hours	<b>0</b>	450	500	500
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**ALTA EQUIPMENT COMPANY - METRO WEST**  
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## OIL CONDITION

Visc @ 100°C	cSt	<b>13.1</b>	13.6	13.9	13.9
Base Number (BN)	mg KOH/g	<b>8.2</b>	8.7	8.0	8.0
Oxidation (PA)	%	<b>63</b>	61	61	63

## 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 acceptable for the time in service.

## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.6</b>	0.7	0.7	0.6
Nitration (PA)	%	<b>72</b>	68	73	70
Sulfation (PA)	%	<b>57</b>	56	57	58
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	3	4	4
Sodium	ppm	<b>2</b>	2	<1	0
Potassium	ppm	<b>2</b>	2	1	0

## WEAR METALS

Iron	ppm	<b>7</b>	6	11	9
Copper	ppm	<b>2</b>	2	7	3
Lead	ppm	<b>&lt;1</b>	<1	1	1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>1</b>	2	<1	1
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>61</b>	57	63	70
Nickel	ppm	<b>&lt;1</b>	<1	3	1
Titanium	ppm	<b>0</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>1081</b>	1060	1186	1121
Magnesium	ppm	<b>985</b>	1026	1068	911
Zinc	ppm	<b>1288</b>	1144	1384	1175
Phosphorus	ppm	<b>1069</b>	1028	1082	944
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>13</b>	0	<1	48

**Depot:** VOLVO2990  
**Unique No:** 10822401  
**Signed:** Don Baldrige  
**Report Date:** 11 Jan 2024



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## GRAPHS

