



# CONSTRUCTION EQUIPMENT

536961 VOLVO SD115 236019 - DIESEL ENGINE



**Sample No:** VCP447089  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 536961



## SAMPLE INFORMATION

Sample Number	<b>VCP447089</b>	VCP413238	VCP385160	---
Sample Date	<b>16 Apr 2024</b>	11 Aug 2023	24 Oct 2022	---
Machine Hours	<b>5649</b>	5001	4470	---
Oil Hours	<b>0</b>	0	0	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>ABNORMAL</b>	ABNORMAL	NORMAL	---

**WLW CONSTRUCTION**  
 PO BOX 377  
 MT DORA, FL  
 US 32756-0377  
 Contact: ELAINE STULTZ  
 elaine@wlwconstruction.com  
 T: (352)383-7305  
 F:



## OIL CONDITION

Visc @ 100°C	cSt	<b>12.6</b>	12.4	13.0	---
Base Number (BN)	mg KOH/g	<b>9.7</b>	10.1	10.2	---
Oxidation (PA)	%	<b>87</b>	88	62	---

## Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The aluminum level is abnormal. All other component wear rates are normal. Fuel content negligible. 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	---
Soot %	%	<b>0.6</b>	0.4	0.3	---
Nitration (PA)	%	<b>85</b>	76	62	---
Sulfation (PA)	%	<b>59</b>	61	55	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>2.6</b>	4.7	<1.0	---
Silicon	ppm	<b>19</b>	8	6	---
Sodium	ppm	<b>2</b>	3	1	---
Potassium	ppm	<b>7</b>	2	3	---



## WEAR METALS

Iron	ppm	<b>48</b>	21	16	---
Copper	ppm	<b>7</b>	4	3	---
Lead	ppm	<b>1</b>	<1	<1	---
Tin	ppm	<b>3</b>	1	<1	---
Aluminum	ppm	<b>30</b>	17	13	---
Chromium	ppm	<b>4</b>	2	1	---
Molybdenum	ppm	<b>44</b>	45	56	---
Nickel	ppm	<b>&lt;1</b>	<1	0	---
Titanium	ppm	<b>&lt;1</b>	<1	<1	---
Silver	ppm	<b>0</b>	<1	0	---
Manganese	ppm	<b>2</b>	1	<1	---
Vanadium	ppm	<b>&lt;1</b>	<1	<1	---



## ADDITIVES

Calcium	ppm	<b>1645</b>	1724	1470	---
Magnesium	ppm	<b>546</b>	575	838	---
Zinc	ppm	<b>1162</b>	1149	1343	---
Phosphorus	ppm	<b>984</b>	944	1112	---
Barium	ppm	<b>2</b>	0	2	---
Boron	ppm	<b>25</b>	27	6	---

**Depot:** WLWMOU  
**Unique No:** 10996696  
**Signed:** Don Baldrige  
**Report Date:** 02 May 2024



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## GRAPHS

