



# CONSTRUCTION EQUIPMENT

SW0068187 A2 LAND VOLVO EC350EL 3 14549 - DIESEL ENGINE



**Sample No:** VCP430855  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SWO068187 A2 LAND



## SAMPLE INFORMATION

Sample Number	VCP430855	---	---	---
Sample Date	08 Dec 2023	---	---	---
Machine Hours	1449	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	SEVERE	---	---	---

## COWIN EQUIPMENT COMPANY

7950 PITTMAN AVE  
 PENSACOLA, FL  
 US 32534

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 HDOBBS@COWIN.COM  
 T: (850)479-3004  
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## OIL CONDITION

Visc @ 100°C	cSt	8.4	---	---	---
Base Number (BN)	mg KOH/g	7.6	---	---	---
Oxidation (PA)	%	64	---	---	---

## CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	0.1	---	---	---
Nitration (PA)	%	65	---	---	---
Sulfation (PA)	%	53	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	13.7	---	---	---
Silicon	ppm	7	---	---	---
Sodium	ppm	0	---	---	---
Potassium	ppm	2	---	---	---

## WEAR METALS

Iron	ppm	5	---	---	---
Copper	ppm	41	---	---	---
Lead	ppm	<1	---	---	---
Tin	ppm	1	---	---	---
Aluminum	ppm	1	---	---	---
Chromium	ppm	<1	---	---	---
Molybdenum	ppm	71	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	<1	---	---	---
Vanadium	ppm	0	---	---	---

## ADDITIVES

Calcium	ppm	1312	---	---	---
Magnesium	ppm	462	---	---	---
Zinc	ppm	817	---	---	---
Phosphorus	ppm	659	---	---	---
Barium	ppm	11	---	---	---
Boron	ppm	61	---	---	---

## Diagnosis

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. The copper level is abnormal. All other component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

**Depot:** VOLV08247  
**Unique No:** 10782839  
**Signed:** Jonathan Hester  
**Report Date:** 21 Dec 2023



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## GRAPHS

