



# CONSTRUCTION EQUIPMENT

RSO036603 VOLVO EC220EL 315042 - DIESEL ENGINE



**Sample No:** VCP415142  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** RSO036603



## SAMPLE INFORMATION

Sample Number	VCP415142	---	---	---
Sample Date	04 Jan 2024	---	---	---
Machine Hours	550	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### COWIN EQUIPMENT COMPANY

7950 PITTMAN AVE  
 PENSACOLA, FL  
 US 32534

Contact: HUGH DOBBS  
 HDOBBS@COWIN.COM  
 T: (850)479-3004  
 F: (850)474-1602



## OIL CONDITION

Visc @ 100°C	cSt	█ 13.0	---	---	---
Base Number (BN)	mg KOH/g	█ 4.8	---	---	---
Oxidation (PA)	%	43	---	---	---

### Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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	%	NEG	---	---	---
Soot %	%	█ 0.1	---	---	---
Nitration (PA)	%	61	---	---	---
Sulfation (PA)	%	53	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 19	---	---	---
Sodium	ppm	█ 1	---	---	---
Potassium	ppm	█ 3	---	---	---



## WEAR METALS

Iron	ppm	█ 38	---	---	---
Copper	ppm	█ 9	---	---	---
Lead	ppm	█ 1	---	---	---
Tin	ppm	█ 2	---	---	---
Aluminum	ppm	█ 6	---	---	---
Chromium	ppm	█ 2	---	---	---
Molybdenum	ppm	█ 3	---	---	---
Nickel	ppm	█ 7	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	█ <1	---	---	---
Manganese	ppm	█ 4	---	---	---
Vanadium	ppm	<1	---	---	---



## ADDITIVES

Calcium	ppm	█ 2289	---	---	---
Magnesium	ppm	79	---	---	---
Zinc	ppm	█ 1167	---	---	---
Phosphorus	ppm	█ 933	---	---	---
Barium	ppm	█ <1	---	---	---
Boron	ppm	█ 0	---	---	---

**Depot:** VOLVO8247  
**Unique No:** 10830444  
**Signed:** Wes Davis  
**Report Date:** 12 Jan 2024

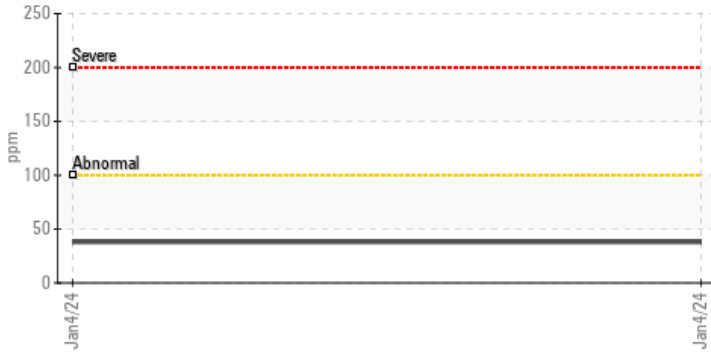


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## GRAPHS

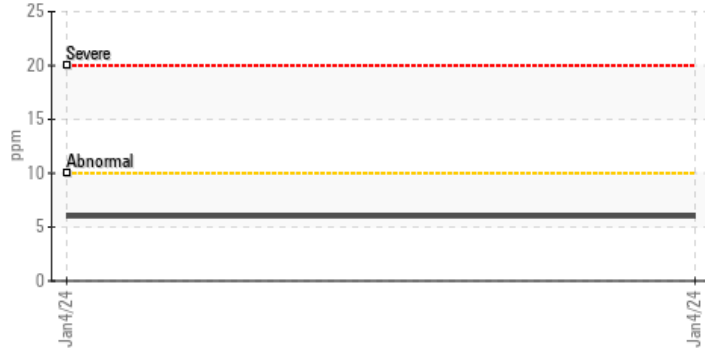
### Iron (ppm)



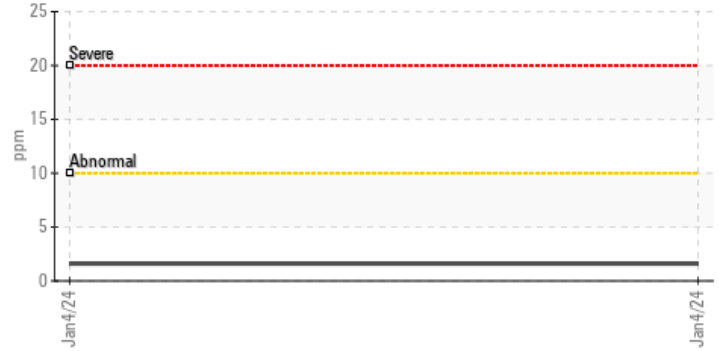
### Lead (ppm)



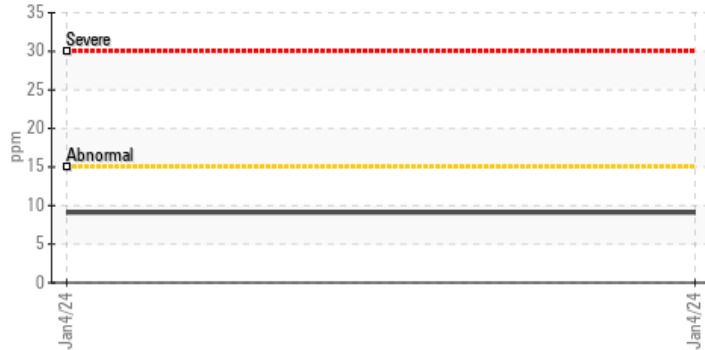
### Aluminum (ppm)



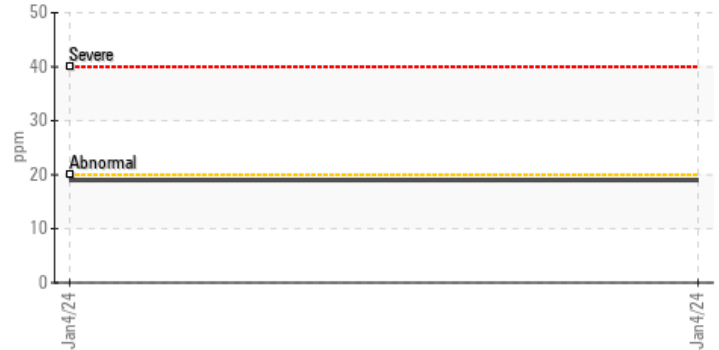
### Chromium (ppm)



### Copper (ppm)



### Silicon (ppm)



### Viscosity @ 100°C



### Base Number

