



# CONSTRUCTION EQUIPMENT

## VOLVO SD115B 236870 - DIESEL ENGINE



**Sample No:** VCP400467  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	VCP400467	---	---	---
Sample Date	19 Jul 2023	---	---	---
Machine Hours	534	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

**WHITMIRE GRADING**  
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### OIL CONDITION

Visc @ 100°C	cSt	▲ 12.4	---	---	---
Base Number (BN)	mg KOH/g	■ 9.3	---	---	---
Oxidation (PA)	%	77	---	---	---

### 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. Piston, ring and cylinder wear is indicated. All other metal levels are typical for a new component breaking in. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



### CONTAMINATION

Soot %	%	■ 0.3	---	---	---
Nitration (PA)	%	63	---	---	---
Sulfation (PA)	%	60	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 0.5	---	---	---
Silicon	ppm	■ 23	---	---	---
Sodium	ppm	■ 5	---	---	---
Potassium	ppm	■ 33	---	---	---



### WEAR METALS

Iron	ppm	▲ 148	---	---	---
Copper	ppm	■ 28	---	---	---
Lead	ppm	■ 2	---	---	---
Tin	ppm	■ 3	---	---	---
Aluminum	ppm	▲ 106	---	---	---
Chromium	ppm	■ 18	---	---	---
Molybdenum	ppm	■ 44	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 5	---	---	---
Vanadium	ppm	<1	---	---	---



### ADDITIVES

Calcium	ppm	■ 1718	---	---	---
Magnesium	ppm	■ 561	---	---	---
Zinc	ppm	■ 1143	---	---	---
Phosphorus	ppm	■ 919	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 51	---	---	---

**Depot:** WHIBRE  
**Unique No:** 10564324  
**Signed:** Don Baldrige  
**Report Date:** 21 Jul 2023

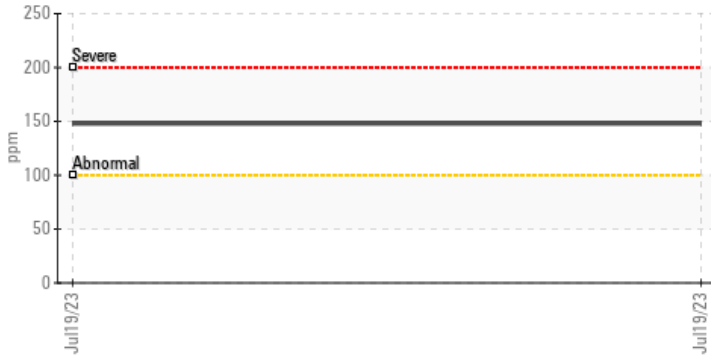


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## GRAPHS

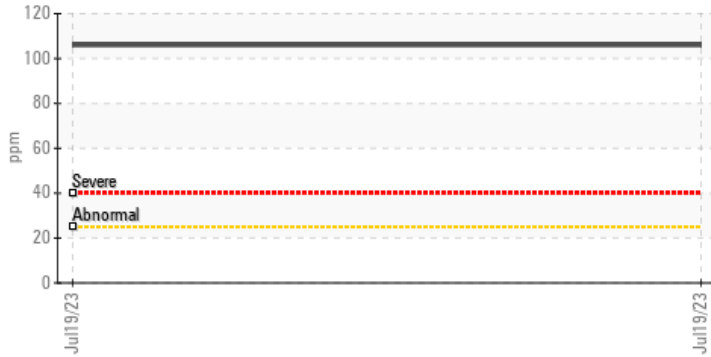
### ▲ Iron (ppm)



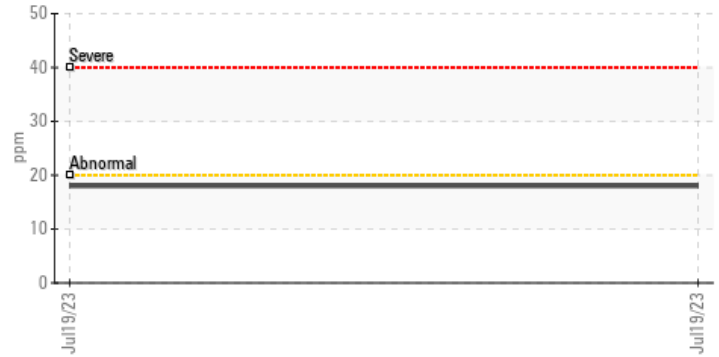
### Lead (ppm)



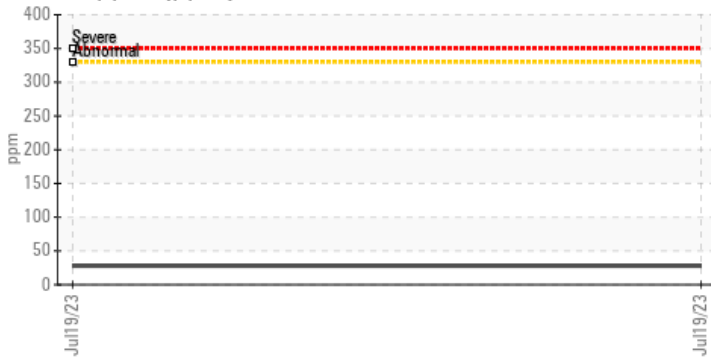
### ▲ Aluminum (ppm)



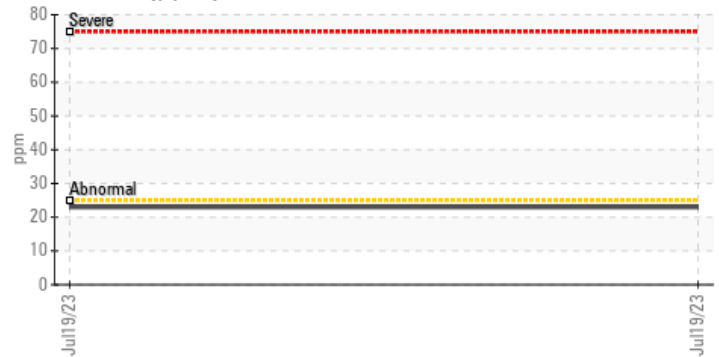
### Chromium (ppm)



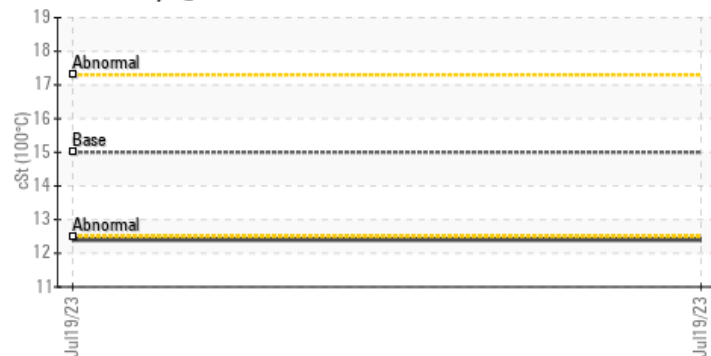
### Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### Base Number

