



# CONSTRUCTION EQUIPMENT

## SENNEBOGEN 870 870.0.1004 - DIESEL ENGINE



**Sample No:** VCP431373  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:**



### SAMPLE INFORMATION

Sample Number	VCP431373	VCP411563	---	---
Sample Date	27 Dec 2023	17 Jul 2023	---	---
Machine Hours	7688	6800	---	---
Oil Hours	500	500	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	SEVERE	---	---

**DONJON MARINE**  
 100 CENTRAL AVE  
 HILLSIDE, NJ  
 US 07205  
 Contact:

### OIL CONDITION

Visc @ 100°C	cSt	▲ 12.1	▲ 11.4	---	---
Base Number (BN)	mg KOH/g	■ 6.4	■ 9.3	---	---
Oxidation (PA)	%	114	88	---	---

T: (908)964-8812  
 F:

### Diagnosis

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of fuel present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity.

### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.2	■ 0.1	---	---
Nitration (PA)	%	105	83	---	---
Sulfation (PA)	%	69	61	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	▲ 5.8	● 7.8	---	---
Silicon	ppm	■ 3	■ 4	---	---
Sodium	ppm	■ 0	■ 3	---	---
Potassium	ppm	■ 10	■ 2	---	---

### WEAR METALS

Iron	ppm	■ 16	■ 7	---	---
Copper	ppm	■ 1	■ <1	---	---
Lead	ppm	■ 0	■ <1	---	---
Tin	ppm	■ 0	■ <1	---	---
Aluminum	ppm	■ 2	■ <1	---	---
Chromium	ppm	■ <1	■ 0	---	---
Molybdenum	ppm	■ 45	■ 48	---	---
Nickel	ppm	■ 0	■ 0	---	---
Titanium	ppm	■ 0	■ 0	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	■ 0	■ <1	---	---
Vanadium	ppm	0	<1	---	---

### ADDITIVES

Calcium	ppm	■ 1533	■ 1778	---	---
Magnesium	ppm	■ 633	■ 655	---	---
Zinc	ppm	■ 1187	■ 1295	---	---
Phosphorus	ppm	■ 928	■ 1020	---	---
Barium	ppm	■ 3	■ 0	---	---
Boron	ppm	■ 21	■ 38	---	---

**Depot:** DONHILNJ  
**Unique No:** 10835355  
**Signed:** Sean Felton  
**Report Date:** 22 Jan 2024



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## GRAPHS

