



# CONSTRUCTION EQUIPMENT

## 659020 TUCKER PAVING VOLVO EC550EL 310196 - DIESEL ENGINE



**Sample No:** VCP428669  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** 659020 TUCKER PAVING



### SAMPLE INFORMATION

Sample Number	VCP428669	VCP414207	---	---
Sample Date	05 Jan 2024	07 Sep 2023	---	---
Machine Hours	1236	689	---	---
Oil Hours	500	689	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---

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### OIL CONDITION

Visc @ 100°C	cSt	▲ 12.1	▲ 10.7	---	---
Base Number (BN)	mg KOH/g	■ 8.2	■ 4.8	---	---
Oxidation (PA)	%	80	67	---	---

### 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 copper level has decreased, but is still abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal. 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

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.2	■ 0.3	---	---
Nitration (PA)	%	73	88	---	---
Sulfation (PA)	%	63	61	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	■ 1.0	---	---
Silicon	ppm	■ 17	■ 36	---	---
Sodium	ppm	■ 2	■ 2	---	---
Potassium	ppm	■ 0	■ 2	---	---



### WEAR METALS

Iron	ppm	■ 10	■ 15	---	---
Copper	ppm	▲ 87	▲ 206	---	---
Lead	ppm	■ <1	■ 2	---	---
Tin	ppm	■ 1	■ 3	---	---
Aluminum	ppm	■ 2	■ 4	---	---
Chromium	ppm	■ 0	■ 0	---	---
Molybdenum	ppm	■ 49	■ 88	---	---
Nickel	ppm	■ 4	■ 2	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	■ <1	■ 2	---	---
Vanadium	ppm	0	0	---	---



### ADDITIVES

Calcium	ppm	■ 1772	■ 2131	---	---
Magnesium	ppm	■ 432	54	---	---
Zinc	ppm	■ 1122	■ 1190	---	---
Phosphorus	ppm	■ 943	■ 944	---	---
Barium	ppm	■ 0	■ 0	---	---
Boron	ppm	■ 16	■ 7	---	---

**Depot:** VOLVO0093  
**Unique No:** 10861615  
**Signed:** Sean Felton  
**Report Date:** 06 Feb 2024

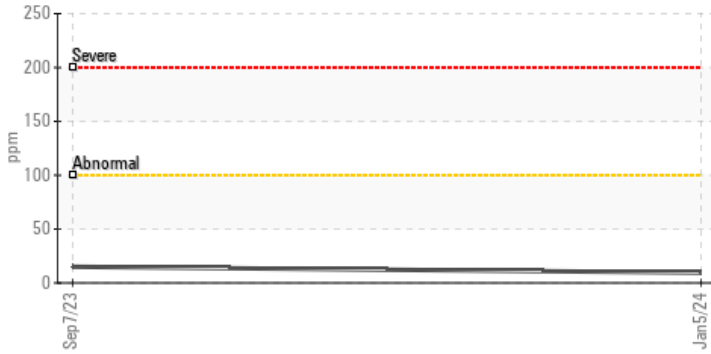


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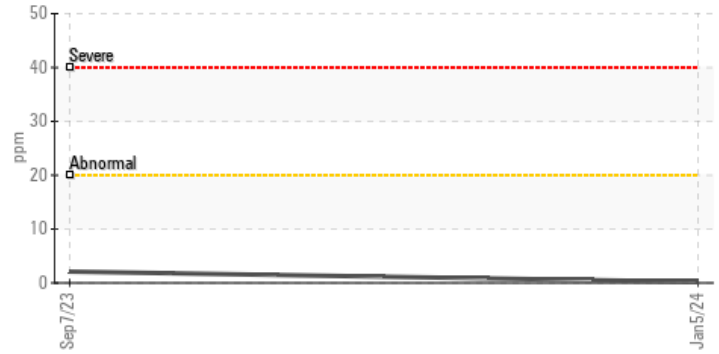


## GRAPHS

### Iron (ppm)



### Lead (ppm)



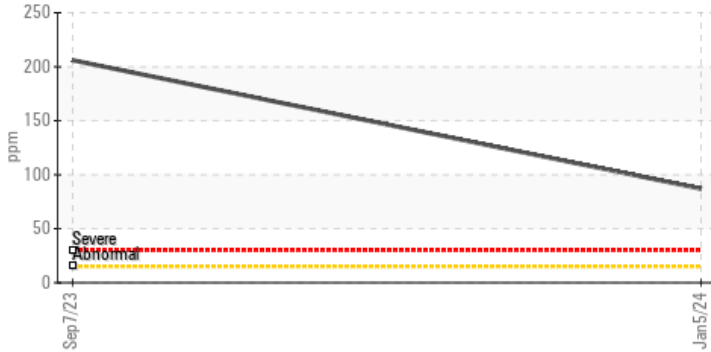
### Aluminum (ppm)



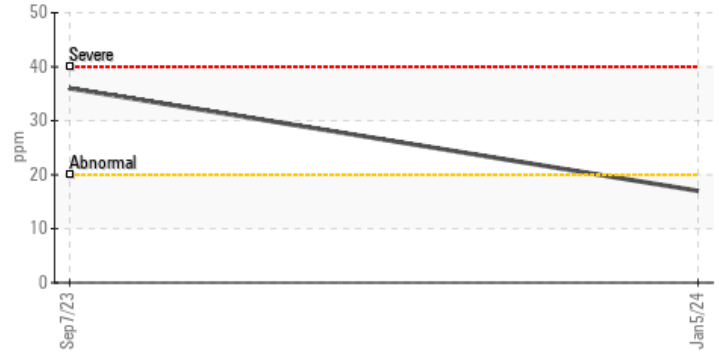
### Chromium (ppm)



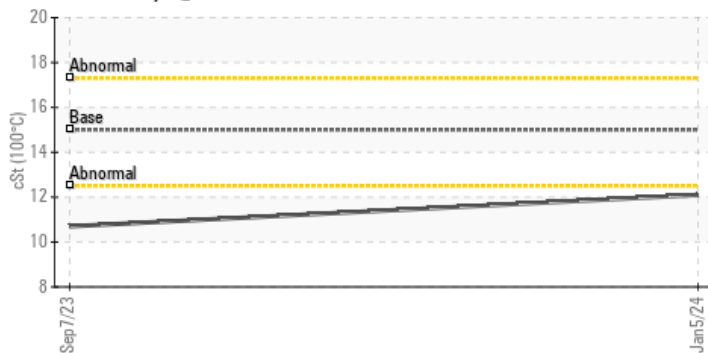
### ▲ Copper (ppm)



### Silicon (ppm)



### ▲ Viscosity @ 100°C



### Base Number

