



# CONSTRUCTION EQUIPMENT

SW-23755-2 CASTLE VA VOLVO EC220EL 310178 - REAR RIGHT FINAL DRIVE



**Sample No:** VCP412192  
**Oil Type:** VOLVO PREMIUM GEAR OIL 80W-90 GL-5  
**Job No:** SW-23755-2 CASTLE VA



## SAMPLE INFORMATION

Sample Number	<b>VCP412192</b>	VCP299757	VCP277666	---
Sample Date	<b>07 Sep 2023</b>	23 Nov 2021	28 Aug 2020	---
Machine Hours	<b>6228</b>	3908	1965	---
Oil Hours	<b>2000</b>	2000	1965	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>ABNORMAL</b>	NORMAL	ABNORMAL	---

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## OIL CONDITION

Visc @ 40°C	cSt	<b>136</b>	138	137	---
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## CONTAMINATION

Silicon	ppm	<b>▲ 76</b>	35	▲ 80	---
Sodium	ppm	<b>■ &lt;1</b>	0	3	---
Potassium	ppm	<b>■ 3</b>	0	0	---



## WEAR METALS

Iron	ppm	<b>■ 347</b>	171	372	---
Copper	ppm	<b>■ 1</b>	<1	1	---
Lead	ppm	<b>■ &lt;1</b>	0	0	---
Tin	ppm	<b>■ &lt;1</b>	0	0	---
Aluminum	ppm	<b>▲ 10</b>	9	21	---
Chromium	ppm	<b>■ 6</b>	2	3	---
Molybdenum	ppm	<b>■ &lt;1</b>	0	0	---
Nickel	ppm	<b>■ &lt;1</b>	0	2	---
Titanium	ppm	<b>&lt;1</b>	<1	1	---
Silver	ppm	<b>0</b>	0	<1	---
Manganese	ppm	<b>■ 3</b>	1	3	---
Vanadium	ppm	<b>0</b>	0	0	---



## ADDITIVES

Calcium	ppm	<b>■ 15</b>	24	9	---
Magnesium	ppm	<b>■ 6</b>	0	4	---
Zinc	ppm	<b>10</b>	16	11	---
Phosphorus	ppm	<b>■ 961</b>	949	908	---
Barium	ppm	<b>■ 0</b>	0	<1	---
Boron	ppm	<b>■ 200</b>	157	120	---

## Diagnosis

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.

**Depot:** VOLVO8770  
**Unique No:** 10649001  
**Signed:** Sean Felton  
**Report Date:** 19 Sep 2023



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## GRAPHS

