



CONSTRUCTION EQUIPMENT

FLYWAY VOLVO EC220EL 310218 - SWING DRIVE



Sample No: VCP415395
Oil Type: VOLVO PREMIUM GEAR OIL 85W-140 GL-5
Job No: FLYWAY



SAMPLE INFORMATION

Sample Number	VCP415395	VCP331567	VCP292918	---
Sample Date	17 Nov 2023	24 Nov 2021	02 Nov 2020	---
Machine Hours	0	3927	2888	---
Oil Hours	0	1000	0	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	ATTENTION	NORMAL	ABNORMAL	---

HIGHWAY EQUIPMENT AND SUPPLY CO
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OIL CONDITION

Visc @ 40°C	cSt	▲ 59.2	■ 269	104	---
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CONTAMINATION

Water	%	NEG	NEG	▲ 0.501	---
Silicon	ppm	■ 8	■ 7	■ 7	---
Sodium	ppm	■ 0	■ 0	■ 0	---
Potassium	ppm	■ 2	■ 0	■ <1	---



WEAR METALS

Iron	ppm	■ 144	■ 76	■ 333	---
Copper	ppm	■ 7	■ 4	■ 13	---
Lead	ppm	■ 0	■ 0	■ 1	---
Tin	ppm	■ 0	0	<1	---
Aluminum	ppm	■ 1	0	<1	---
Chromium	ppm	■ <1	1	6	---
Molybdenum	ppm	■ <1	■ 2	■ <1	---
Nickel	ppm	■ 0	0	<1	---
Titanium	ppm	<1	<1	<1	---
Silver	ppm	0	0	8	---
Manganese	ppm	■ <1	■ <1	■ 5	---
Vanadium	ppm	0	0	<1	---



ADDITIVES

Calcium	ppm	■ 34	■ 101	■ 12	---
Magnesium	ppm	■ 11	■ 26	■ 5	---
Zinc	ppm	▲ 12	■ 52	■ 20	---
Phosphorus	ppm	▲ 2137	■ 1017	■ 1359	---
Barium	ppm	■ <1	■ 0	■ 1	---
Boron	ppm	▲ 266	■ 170	■ 251	---

Diagnosis

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. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.

Depot: INSEPH
Unique No: 10750326
Signed: Jonathan Hester
Report Date: 21 Nov 2023



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GRAPHS

