CONSTRUCTION EQUIPMENT
1775 C&W FARMING   VOLVO EC250EL 316616 - DIESEL ENGINE

Sample No: VCP442965

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

Job No: 1775 C&W FARMING

SAMPLE INFORMATION

Sample Number		VCP442965	---	---	---
Sample Date		21 Mar 2024	---	---	---
Machine Hours		670	---	---	---
Oil Hours		0	---	---	---
Oil Changed		Changed	---	---	---
Sample Status		ABNORMAL	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	🟠 11.9	---	---	---
Base Number (BN)	mg KOH/g	🟩 6.2	---	---	---
Oxidation (PA)	%	69	---	---	---

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	🟩 0.1	---	---	---
Nitration (PA)	%	84	---	---	---
Sulfation (PA)	%	54	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	🟩 0.3	---	---	---
Silicon	ppm	🟩 14	---	---	---
Sodium	ppm	🟩 4	---	---	---
Potassium	ppm	🟩 8	---	---	---

WEAR METALS

Iron	ppm	🟩 10	---	---	---
Copper	ppm	🔺 554	---	---	---
Lead	ppm	🟩 6	---	---	---
Tin	ppm	🟩 0	---	---	---
Aluminum	ppm	🟩 4	---	---	---
Chromium	ppm	🟩 <1	---	---	---
Molybdenum	ppm	🟩 75	---	---	---
Nickel	ppm	🟩 <1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	🟩 <1	---	---	---
Manganese	ppm	🟩 1	---	---	---
Vanadium	ppm	<1	---	---	---

ADDITIVES

Calcium	ppm	🟩 2233	---	---	---
Magnesium	ppm	🟩 295	---	---	---
Zinc	ppm	🟩 1296	---	---	---
Phosphorus	ppm	🟩 1052	---	---	---
Barium	ppm	🟩 1	---	---	---
Boron	ppm	🟩 38	---	---	---

VCES- VOLVO CONSTRUCTION EQUIPMENT
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T:
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Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor.The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). 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.

Depot:	VOLVO4485
Unique No:	10966855
Signed:	Jonathan Hester
Report Date:	11 Apr 2024

GRAPHS

Iron (ppm)

Severe — 200
Abnormal — 100

Mar21/24 — Mar21/24

Lead (ppm)

Severe — 40
Abnormal — 20

Mar21/24 — Mar21/24

Aluminum (ppm)

Severe — 20
Abnormal — 10

Mar21/24 — Mar21/24

Chromium (ppm)

Severe — 20
Abnormal — 10

Mar21/24 — Mar21/24

⚠ Copper (ppm)

Severe
Abnormal

Mar21/24 — Mar21/24

Silicon (ppm)

Severe — 40
Abnormal — 20

Mar21/24 — Mar21/24

🟠 Viscosity @ 100°C

Abnormal
Base
Abnormal

Mar21/24 — Mar21/24

Base Number

Base — 10.0
Abnormal — 4.0

Mar21/24 — Mar21/24