



CONSTRUCTION EQUIPMENT

W14836 VOLVO A40G 353426 - DIESEL ENGINE



Sample No: VCP442625
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: W14836



SAMPLE INFORMATION

Sample Number	VCP442625	---	---	---
Sample Date	13 Oct 2023	---	---	---
Machine Hours	966	---	---	---
Oil Hours	1000	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

HOUSBY HEAVY EQUIPMENT, LLC
4410 SE 4 MILE DR
ANKENY, IA
US 50021
Contact: RANDY VANDERLEEST
rvanderleest@housby.com
T:
F: (515)964-2865



OIL CONDITION

Visc @ 100°C	cSt	▲ 10.9	---	---	---
Base Number (BN)	mg KOH/g	■ 4.6	---	---	---
Oxidation (PA)	%	■ 61	---	---	---



CONTAMINATION

Soot %	%	■ 0.3	---	---	---
Nitration (PA)	%	■ 79	---	---	---
Sulfation (PA)	%	■ 61	---	---	---
Glycol	%	■ NEG	---	---	---
Fuel	%	■ 0.7	---	---	---
Silicon	ppm	■ 28	---	---	---
Sodium	ppm	■ 4	---	---	---
Potassium	ppm	■ 4	---	---	---



WEAR METALS

Iron	ppm	■ 19	---	---	---
Copper	ppm	▲ 249	---	---	---
Lead	ppm	■ 0	---	---	---
Tin	ppm	■ 3	---	---	---
Aluminum	ppm	■ 3	---	---	---
Chromium	ppm	■ 0	---	---	---
Molybdenum	ppm	■ 85	---	---	---
Nickel	ppm	■ 2	---	---	---
Titanium	ppm	■ 0	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 3	---	---	---
Vanadium	ppm	■ 0	---	---	---



ADDITIVES

Calcium	ppm	■ 2167	---	---	---
Magnesium	ppm	■ 55	---	---	---
Zinc	ppm	■ 1253	---	---	---
Phosphorus	ppm	■ 1031	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 22	---	---	---

Diagnosis

Oil and filter 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: VOLVO0080
Unique No: 10701658
Signed: Jonathan Hester
Report Date: 24 Oct 2023



CONSTRUCTION EQUIPMENT



GRAPHS

