



CONSTRUCTION EQUIPMENT

W07013009-1 SHADE TR AVANT 420 751891450 - DIESEL ENGINE



Sample No: VCP418131
Oil Type: SHELL 10W30
Job No: W07013009-1 SHADE TR



SAMPLE INFORMATION

Sample Number	VCP418131	---	---	---
Sample Date	07 Jul 2023	---	---	---
Machine Hours	1435	---	---	---
Oil Hours	250	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

McClung-Logan Virginia LLC- RICHMOND
1345 MOUNTAIN ROAD
GLEN ALLEN, VA
US 23060
Contact: KYLE RATLIFFE
KRATLIFFE@MCCLUNG-LOGAN.COM
T:
F: (804)266-1611



OIL CONDITION

Visc @ 100°C	cSt	▲ 17.4	---	---	---
Base Number (BN)	mg KOH/g	■ 5.7	---	---	---
Oxidation (PA)	%	■ 130	---	---	---



CONTAMINATION

Soot %	%	■ 2.3	---	---	---
Nitration (PA)	%	■ 143	---	---	---
Sulfation (PA)	%	■ 107	---	---	---
Glycol	%	■ NEG	---	---	---
Fuel	%	■ <1.0	---	---	---
Silicon	ppm	▲ 59	---	---	---
Sodium	ppm	■ 3	---	---	---
Potassium	ppm	■ 17	---	---	---

Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Cylinder, crank, or cam shaft wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil viscosity is higher than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.



WEAR METALS

Iron	ppm	▲ 160	---	---	---
Copper	ppm	■ 6	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ <1	---	---	---
Aluminum	ppm	▲ 32	---	---	---
Chromium	ppm	■ 5	---	---	---
Molybdenum	ppm	■ 2	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	■ 2	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 2	---	---	---
Vanadium	ppm	■ 0	---	---	---



ADDITIVES

Calcium	ppm	■ 2845	---	---	---
Magnesium	ppm	■ 20	---	---	---
Zinc	ppm	■ 1403	---	---	---
Phosphorus	ppm	■ 1118	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 117	---	---	---

Depot: VOLVO8882
Unique No: 10551294
Signed: Doug Bogart
Report Date: 13 Jul 2023

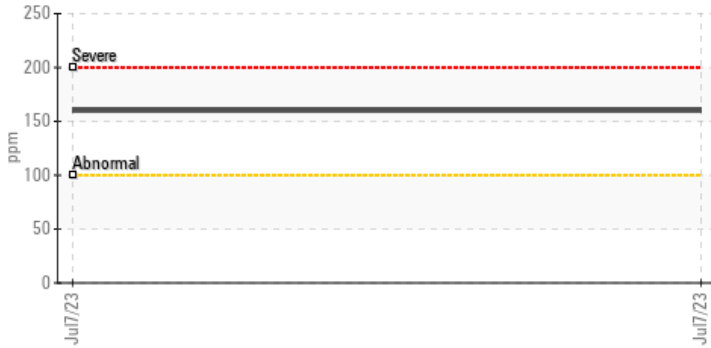


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GRAPHS

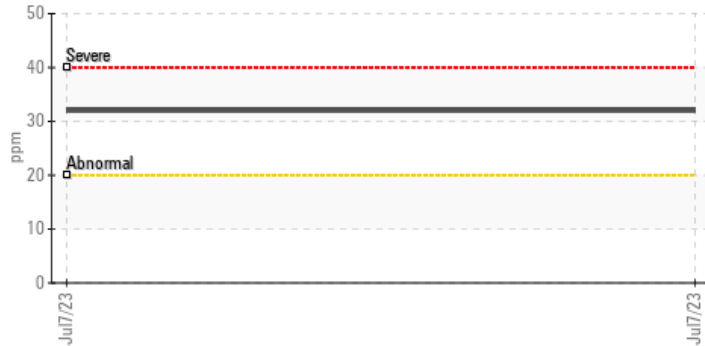
▲ Iron (ppm)



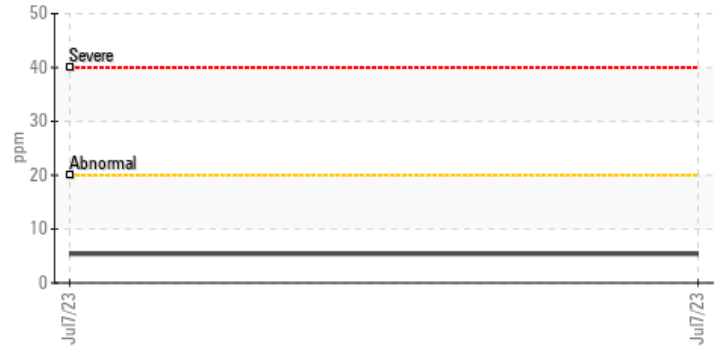
Lead (ppm)



▲ Aluminum (ppm)



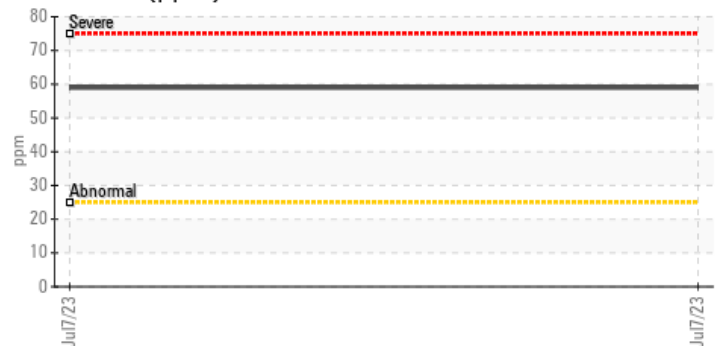
Chromium (ppm)



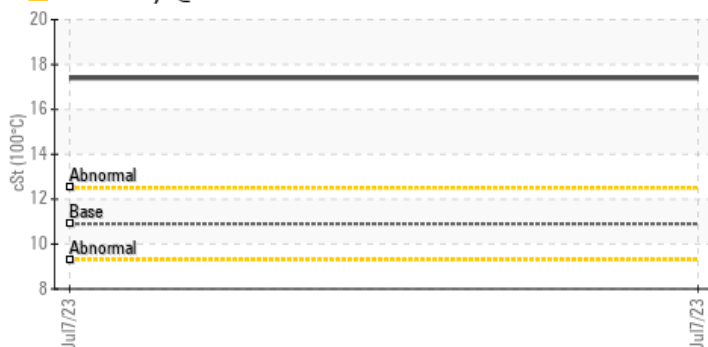
Copper (ppm)



▲ Silicon (ppm)



▲ Viscosity @ 100°C



Base Number

