



CONSTRUCTION EQUIPMENT

VOLVO L180H 5387 - DIESEL ENGINE



Sample No: VCP422513
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP422513	---	---	---
Sample Date	25 Sep 2023	---	---	---
Machine Hours	4132	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

MILL CREEK DOLOMITE
 9915 WEST AMOS CONLEY RD
 MILL CREEK, OK
 US 74856
 Contact: BILL ROGERS
 billm@min-ad.com
 T:
 F:



OIL CONDITION

Visc @ 100°C	cSt	▲ 12.2	---	---	---
Base Number (BN)	mg KOH/g	■ 7.9	---	---	---
Oxidation (PA)	%	83	---	---	---

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. All other component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Confirm oil type.



CONTAMINATION

Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	61	---	---	---
Sulfation (PA)	%	62	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	■ 0.5	---	---	---
Silicon	ppm	■ 5	---	---	---
Sodium	ppm	■ 6	---	---	---
Potassium	ppm	■ 4	---	---	---



WEAR METALS

Iron	ppm	■ 10	---	---	---
Copper	ppm	▲ 75	---	---	---
Lead	ppm	■ 1	---	---	---
Tin	ppm	■ 1	---	---	---
Aluminum	ppm	■ <1	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 48	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ 2	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	■ 1817	---	---	---
Magnesium	ppm	■ 591	---	---	---
Zinc	ppm	■ 1257	---	---	---
Phosphorus	ppm	■ 1028	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 32	---	---	---

Depot: MILMILOK
Unique No: 10672666
Signed: Jonathan Hester
Report Date: 04 Oct 2023

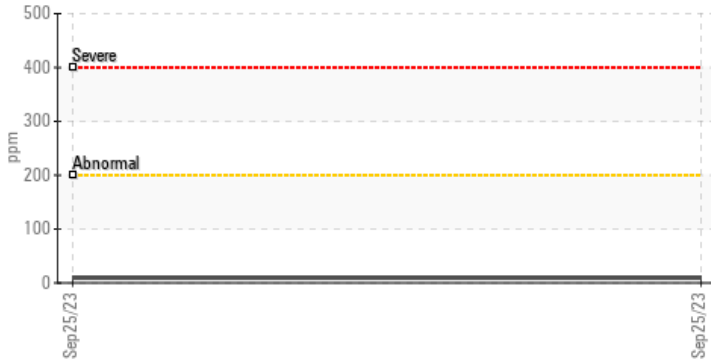


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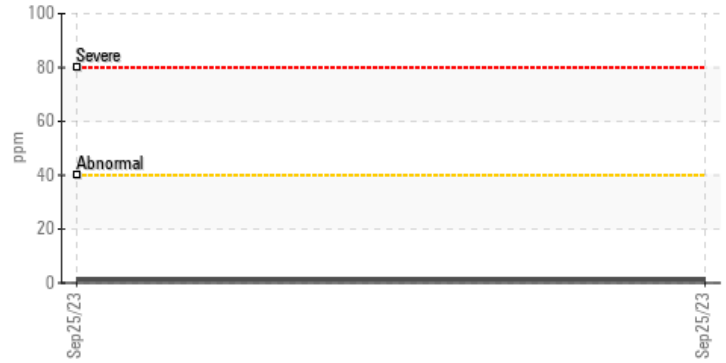


GRAPHS

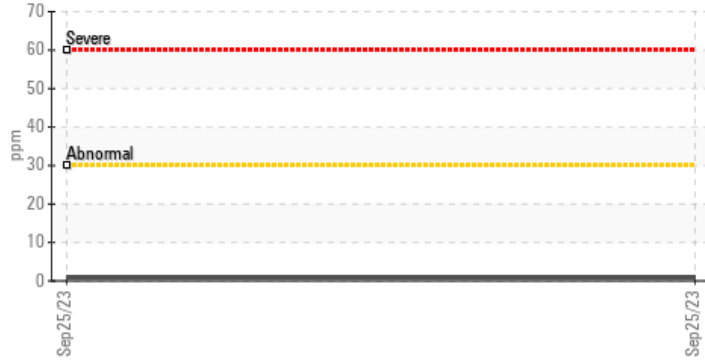
Iron (ppm)



Lead (ppm)



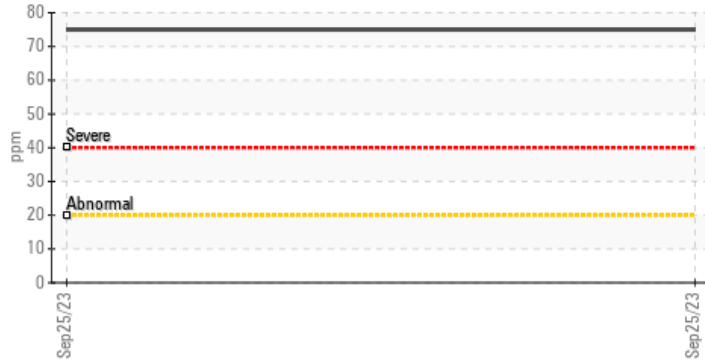
Aluminum (ppm)



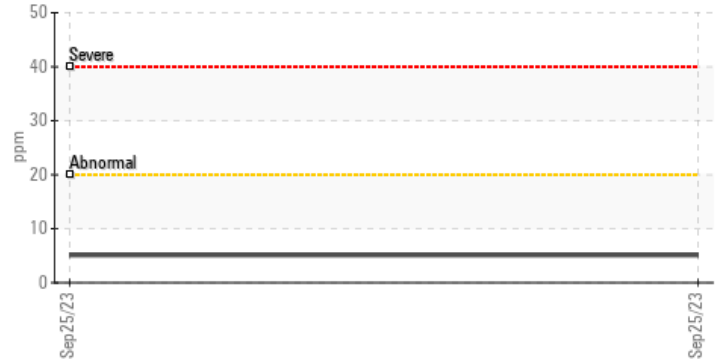
Chromium (ppm)



▲ Copper (ppm)



Silicon (ppm)



▲ Viscosity @ 100°C



Base Number

