OIL ANALYSIS REPORT

VOLVO PENTA

MARKO FRANK DANIEL/502691 VOLVO PENTA A310190 - CENTER DIESEL ENGINE

Sample No: VPA059196

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

SAMPLE INFORMATION

Sample Number		**VPA059196**	---	---	---
Sample Date		**13 Mar 2024**	---	---	---
Machine Hours		**723**	---	---	---
Oil Hours		**0**	---	---	---
Oil Changed		**Changed**	---	---	---
Sample Status		**NORMAL**	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	**13.6**	---	---	---
Base Number (BN)	mg KOH/g	**9.2**	---	---	---
Oxidation (PA)	%	**60**	---	---	---

CONTAMINATION

Water	%	**NEG**	---	---	---
Soot %	%	**0.2**	---	---	---
Nitration (PA)	%	**63**	---	---	---
Sulfation (PA)	%	**56**	---	---	---
Glycol	%	**NEG**	---	---	---
Fuel	%	**<1.0**	---	---	---
Silicon	ppm	**9**	---	---	---
Sodium	ppm	**0**	---	---	---
Potassium	ppm	**5**	---	---	---

WEAR METALS

Iron	ppm	**51**	---	---	---
Copper	ppm	**19**	---	---	---
Lead	ppm	**1**	---	---	---
Tin	ppm	**<1**	---	---	---
Aluminum	ppm	**6**	---	---	---
Chromium	ppm	**3**	---	---	---
Molybdenum	ppm	**67**	---	---	---
Nickel	ppm	**3**	---	---	---
Titanium	ppm	**<1**	---	---	---
Silver	ppm	**0**	---	---	---
Manganese	ppm	**<1**	---	---	---
Vanadium	ppm	**<1**	---	---	---

ADDITIVES

Calcium	ppm	**1353**	---	---	---
Magnesium	ppm	**797**	---	---	---
Zinc	ppm	**991**	---	---	---
Phosphorus	ppm	**837**	---	---	---
Barium	ppm	**0**	---	---	---
Boron	ppm	**159**	---	---	---

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Diagnosis

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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: VP794951
Unique No: 10928145
Signed: Don Baldridge
Report Date: 18 Mar 2024

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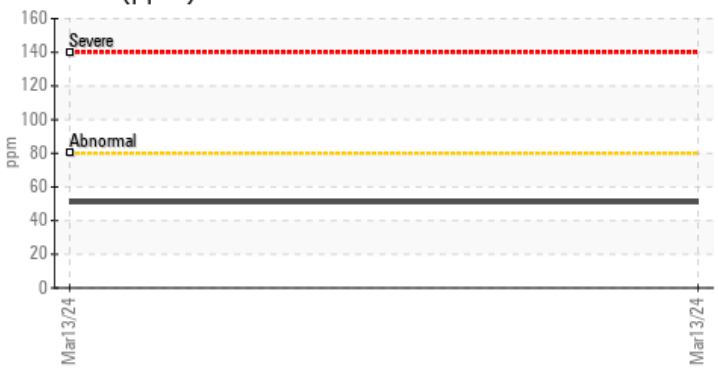
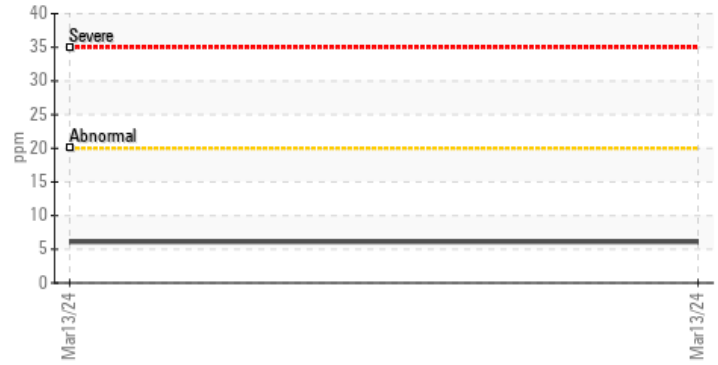
GRAPHS

Iron (ppm)

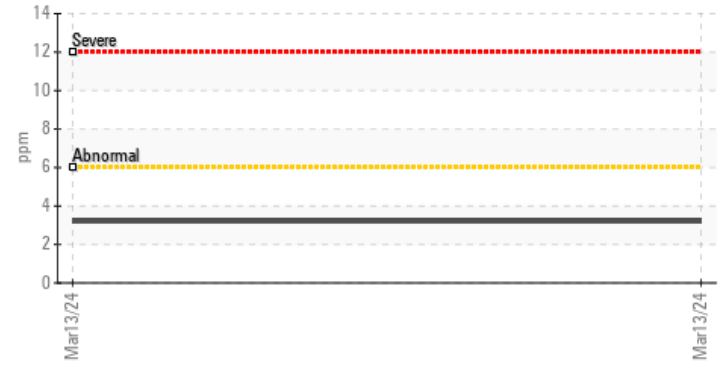


Lead (ppm)

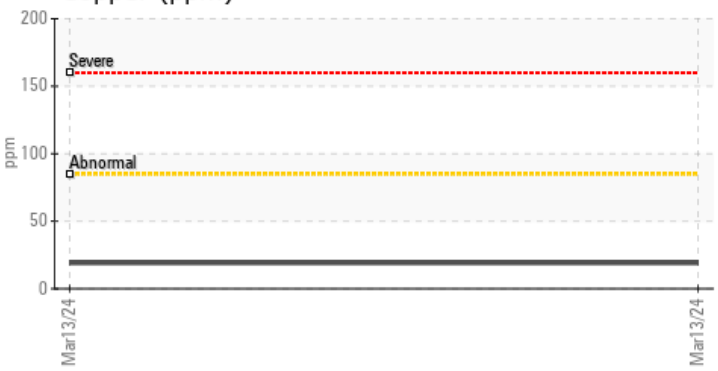
Aluminum (ppm)



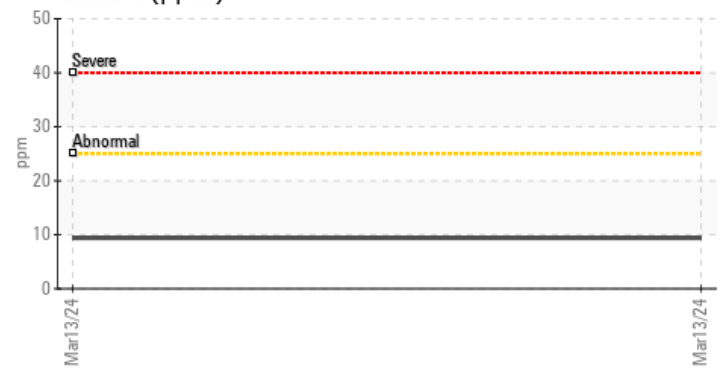
Chromium (ppm)



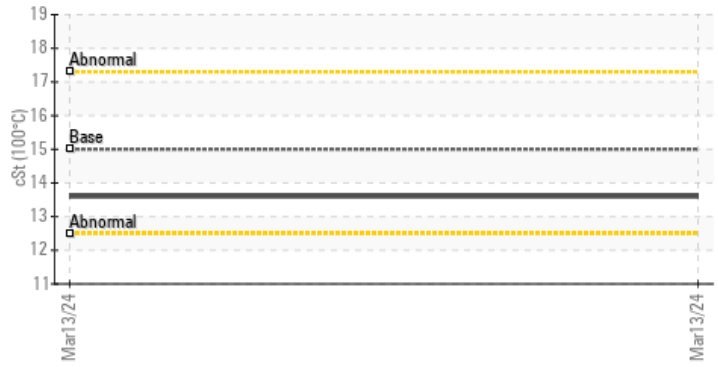
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number