

OIL ANALYSIS REPORT

**VOLVO
PENTA**

MCCULLY 23-2779 VOLVO PENTA 2006019938 - PORT DIESEL ENGINE

Sample No: VPA021807

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

SAMPLE INFORMATION

Sample Number	VPA021807	VPA012265	---	---
Sample Date	06 Dec 2023	01 Aug 2018	---	---
Machine Hours	1428	671	---	---
Oil Hours	200	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	MARGINAL	NORMAL	---	---

Outstanding Marine

PO Box 274
GALENA, MD
US 21635
Contact: Ronda Bolinger
rlwb@verizon.net
T:
F:

OIL CONDITION

Visc @ 100°C	cSt	▲ 12.4	■ 14.88	---	---
Base Number (BN)	mg KOH/g	■ 8.3	---	---	---
Oxidation (PA)	%	53	■ 72	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.2	■ 0.2	---	---
Nitration (PA)	%	56	■ 66	---	---
Sulfation (PA)	%	53	■ 59	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	■ 2.0	<1.0	---	---
Silicon	ppm	■ 7	■ 4	---	---
Sodium	ppm	■ 2	■ 3	---	---
Potassium	ppm	■ 3	■ 5	---	---

WEAR METALS

Iron	ppm	■ 10	■ 11	---	---
Copper	ppm	■ 12	■ 7	---	---
Lead	ppm	■ 2	■ 1	---	---
Tin	ppm	■ 1	■ 0	---	---
Aluminum	ppm	■ 2	■ 2	---	---
Chromium	ppm	■ <1	■ <1	---	---
Molybdenum	ppm	■ 24	■ 9	---	---
Nickel	ppm	■ 1	■ <1	---	---
Titanium	ppm	■ <1	■ <1	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	■ <1	■ <1	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	■ 1878	■ 1973	---	---
Magnesium	ppm	■ 250	■ 142	---	---
Zinc	ppm	■ 950	■ 1106	---	---
Phosphorus	ppm	■ 802	■ 946	---	---
Barium	ppm	■ 15	■ 0	---	---
Boron	ppm	■ 26	■ 122	---	---

Diagnosis

Oil and filter change at the time of sampling has been noted. All component wear rates are normal. 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: VP153685
Unique No: 10782819
Signed: Angela Borella
Report Date: 20 Dec 2023

OIL ANALYSIS REPORT

**VOLVO
PENTA**

GRAPHS

