

OIL ANALYSIS REPORT



502356 VOLVO PENTA 70112034710 - PORT DIESEL ENGINE

Sample No: VPA058352
Oil Type: CHEVRON DELO 400 MULTIGRADE 15W40

SAMPLE INFORMATION

Sample Number	VPA058352	VPA051866	---	---
Sample Date	20 Feb 2024	28 Aug 2023	---	---
Machine Hours	254	190	---	---
Oil Hours	65	190	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	ABNORMAL	---	---

North Harbor Diesel Inc
 720 30Th Street
 ANACORTES, WA
 US 98221
 Contact: ED MCFARLIN
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 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	█ 12.9	▲ 11.5	---	---
Base Number (BN)	mg KOH/g	█ 8.6	█ 8.8	---	---
Oxidation (PA)	%	49	56	---	---

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	█ 0.1	█ 0.2	---	---
Nitration (PA)	%	54	53	---	---
Sulfation (PA)	%	48	52	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	█ 1.4	▲ 5.3	---	---
Silicon	ppm	█ 10	● 34	---	---
Sodium	ppm	█ 3	█ 2	---	---
Potassium	ppm	█ 2	█ 2	---	---

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. 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.

WEAR METALS

Iron	ppm	█ 5	█ 9	---	---
Copper	ppm	█ 20	█ 67	---	---
Lead	ppm	█ <1	█ 2	---	---
Tin	ppm	█ <1	█ 1	---	---
Aluminum	ppm	█ 2	█ 2	---	---
Chromium	ppm	█ <1	█ 2	---	---
Molybdenum	ppm	█ 9	█ 65	---	---
Nickel	ppm	█ <1	█ <1	---	---
Titanium	ppm	█ <1	█ 0	---	---
Silver	ppm	█ 0	█ <1	---	---
Manganese	ppm	█ <1	█ 1	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	█ 1235	█ 1359	---	---
Magnesium	ppm	█ 727	█ 801	---	---
Zinc	ppm	█ 888	1272	---	---
Phosphorus	ppm	█ 766	█ 1041	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ 73	15	---	---

Depot: VP179089
Unique No: 10902237
Signed: Jonathan Hester
Report Date: 04 Mar 2024

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**VOLVO
PENTA**

GRAPHS

