

OIL ANALYSIS REPORT

VOLVO PENTA

MORNING STAR MORNING STAR VOLVO PENTA 3100004870 - STERNDRIVE - PORT GEARBOX

Sample No: VPA058181

Oil Type: VOLVO API GL-5 SAE 75W90

SAMPLE INFORMATION

Sample Number	VPA058181	VPA056938	VPA034325	---
Sample Date	23 Jan 2024	01 Mar 2023	22 Jun 2022	---
Machine Hours	636	309	54	---
Oil Hours	334	250	54	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	SEVERE	NORMAL	NORMAL	---

North Harbor Diesel Inc

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F:

OIL CONDITION

Visc @ 40°C	cSt	█ 107	█ 102	█ 102	---
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CONTAMINATION

Water	%	▲ 0.875	NEG	NEG	---
Silicon	ppm	█ 3	█ 3	█ 3	---
Sodium	ppm	█ 103	█ 2	█ 6	---
Potassium	ppm	█ 9	█ 5	█ 9	---

WEAR METALS

PQ		█ 27	█ 19	█ 28	---
Iron	ppm	█ 363	█ 55	█ 26	---
Copper	ppm	█ 2	█ 1	█ <1	---
Lead	ppm	█ 0	█ <1	█ 0	---
Tin	ppm	█ 0	█ 0	█ 0	---
Aluminum	ppm	█ 5	█ 0	█ 1	---
Chromium	ppm	█ 2	█ <1	<1	---
Molybdenum	ppm	█ <1	█ <1	█ 0	---
Nickel	ppm	█ 2	█ <1	0	---
Titanium	ppm	<1	0	0	---
Silver	ppm	0	<1	<1	---
Manganese	ppm	█ 5	█ 3	█ 6	---
Vanadium	ppm	0	0	0	---

ADDITIVES

Calcium	ppm	█ 21	█ 8	█ 20	---
Magnesium	ppm	█ 24	52	█ 730	---
Zinc	ppm	█ 64	█ 0	█ 8	---
Phosphorus	ppm	█ 1248	█ 1265	█ 1531	---
Barium	ppm	█ <1	█ 0	█ <1	---
Boron	ppm	█ 254	█ 288	█ 520	---

Diagnosis

We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. There is a high concentration of water present in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: VP179089
Unique No: 10859288
Signed: Jonathan Hester
Report Date: 05 Feb 2024

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GRAPHS

