

OIL ANALYSIS REPORT

VOLVO PENTA

MISS DODIE MISS DODIE VOLVO PENTA A 195541 - PORT DIESEL ENGINE

Sample No: VPA058267

Oil Type: CHEVRON DELO 400 MULTIGRADE 15W40

SAMPLE INFORMATION

Sample Number	VPA058267	VPA042956	VPA038518	VPA257736
Sample Date	09 Nov 2023	19 Jul 2022	01 Oct 2021	16 Nov 2020
Machine Hours	1340	1145	1105	1035
Oil Hours	180	0	70	0
Oil Changed	Changed	Not Changd	Changed	N/A
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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ANACORTES, WA
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OIL CONDITION

Visc @ 100°C	cSt	14.0	14.0	14.0	13.9
Base Number (BN)	mg KOH/g	8.6	9.3	---	---
Oxidation (PA)	%	55	51	50	55

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.1	0.1	0.2
Nitration (PA)	%	77	61	62	71
Sulfation (PA)	%	52	52	50	53
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	11	3	4	4
Sodium	ppm	2	2	3	2
Potassium	ppm	2	2	4	2

WEAR METALS

Iron	ppm	12	6	14	17
Copper	ppm	9	1	3	7
Lead	ppm	1	<1	<1	2
Tin	ppm	1	<1	0	1
Aluminum	ppm	4	0	4	2
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	2	<1	<1	9
Nickel	ppm	1	<1	<1	1
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	<1	<1	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	0	0	0

ADDITIVES

Calcium	ppm	1373	1351	1323	1364
Magnesium	ppm	787	682	721	743
Zinc	ppm	866	777	724	875
Phosphorus	ppm	763	669	695	781
Barium	ppm	0	0	0	0
Boron	ppm	77	109	82	75

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: VP179089
Unique No: 10749748
Signed: Doug Bogart
Report Date: 07 Dec 2023

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GRAPHS

