

OIL ANALYSIS REPORT



SHARON MIHALIK H14621 VOLVO PENTA A197019 - PORT DIESEL ENGINE

Sample No: VPA050835

Oil Type: SHELL ROTELLA T 15W40

SAMPLE INFORMATION

Sample Number	VPA050835	VPA033740	VPA024756	VPA011924
Sample Date	25 Sep 2023	11 Jan 2021	07 Jan 2019	23 Sep 2016
Machine Hours	417	354	250	145
Oil Hours	0	0	85	75
Oil Changed	N/A	N/A	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Walstrom Marine

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HARBOR SPRINGS, MI
US 49740
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OIL CONDITION

Visc @ 100°C	cSt	14.3	14.8	13.83	15.5
Base Number (BN)	mg KOH/g	8.6	---	---	---
Oxidation (PA)	%	68	69	65	60

CONTAMINATION

Soot %	%	0.1	0.2	0.3	0
Nitration (PA)	%	53	53	54	42
Sulfation (PA)	%	57	59	53	50
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	3	4	7	7
Sodium	ppm	2	2	2	3
Potassium	ppm	9	8	6	11

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 acceptable for the time in service.

WEAR METALS

Iron	ppm	6	7	13	7
Copper	ppm	1	2	4	2
Lead	ppm	<1	2	3	0
Tin	ppm	<1	<1	2	0
Aluminum	ppm	<1	1	1	1
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	<1	2	<1	<1
Nickel	ppm	0	1	1	<1
Titanium	ppm	0	<1	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	<1

ADDITIVES

Calcium	ppm	2266	2508	2632	2320
Magnesium	ppm	12	14	9	20
Zinc	ppm	1299	1108	1107	1144
Phosphorus	ppm	1040	1009	1049	975
Barium	ppm	0	0	0	0
Boron	ppm	225	168	29	35

Depot: VP154879
Unique No: 10669737
Signed: Sean Felton
Report Date: 29 Sep 2023

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**VOLVO
PENTA**

GRAPHS

