

OIL ANALYSIS REPORT



KELLY VOLVO PENTA 2006015810 - PORT DIESEL ENGINE

Sample No: VPA058969
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

SAMPLE INFORMATION

Sample Number	VPA058969	VPA058994	VPA035651	---
Sample Date	09 Dec 2023	08 Dec 2023	05 Nov 2021	---
Machine Hours	1400	1400	1200	---
Oil Hours	0	0	75	---
Oil Changed	N/A	Changed	Not Changd	---
Sample Status	NORMAL	MARGINAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	13.7	13.6	13.8	---
Base Number (BN)	mg KOH/g	9.6	9.7	---	---
Oxidation (PA)	%	61	61	59	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.2	0.2	0.1	---
Nitration (PA)	%	54	53	48	---
Sulfation (PA)	%	54	54	53	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	4	5	3	---
Sodium	ppm	4	2	2	---
Potassium	ppm	2	2	0	---

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	14	21	16	---
Copper	ppm	9	4	3	---
Lead	ppm	16	2	<1	---
Tin	ppm	2	<1	<1	---
Aluminum	ppm	5	▲ 32	20	---
Chromium	ppm	2	2	1	---
Molybdenum	ppm	58	60	56	---
Nickel	ppm	1	1	<1	---
Titanium	ppm	<1	<1	0	---
Silver	ppm	0	0	<1	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	0	<1	0	---

ADDITIVES

Calcium	ppm	1055	1021	1050	---
Magnesium	ppm	910	949	906	---
Zinc	ppm	1207	1215	1094	---
Phosphorus	ppm	1019	1009	1010	---
Barium	ppm	11	11	0	---
Boron	ppm	6	<1	5	---

Depot: VP1298996
Unique No: 10782376
Signed: Sean Felton
Report Date: 15 Dec 2023

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GRAPHS

