

OIL ANALYSIS REPORT

VOLVO PENTA

JIM MERGARD 41769 VOLVO PENTA A310857 - CENTER DIESEL ENGINE

Sample No: VPA048031

Oil Type: CHEVRON DELO 400 MULTIGRADE 15W40

SAMPLE INFORMATION

Sample Number	VPA048031	VPA043518	---	---
Sample Date	05 Oct 2022	21 Dec 2021	---	---
Machine Hours	230	224	---	---
Oil Hours	0	0	---	---
Oil Changed	Not Changd	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

North Harbor Diesel Inc

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OIL CONDITION

Visc @ 100°C	cSt	14.1	13.9	---	---
Base Number (BN)	mg KOH/g	9.9	9	---	---
Oxidation (PA)	%	61	51	---	---

CONTAMINATION

Soot %	%	0.1	0.2	---	---
Nitration (PA)	%	49	61	---	---
Sulfation (PA)	%	62	49	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	7	8	---	---
Sodium	ppm	2	1	---	---
Potassium	ppm	2	<1	---	---

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.

WEAR METALS

Iron	ppm	14	21	---	---
Copper	ppm	2	5	---	---
Lead	ppm	<1	2	---	---
Tin	ppm	<1	<1	---	---
Aluminum	ppm	4	2	---	---
Chromium	ppm	<1	1	---	---
Molybdenum	ppm	82	8	---	---
Nickel	ppm	2	3	---	---
Titanium	ppm	<1	<1	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	<1	0	---	---

ADDITIVES

Calcium	ppm	1349	1211	---	---
Magnesium	ppm	662	647	---	---
Zinc	ppm	845	785	---	---
Phosphorus	ppm	704	658	---	---
Barium	ppm	0	<1	---	---
Boron	ppm	269	78	---	---

Depot: VP179089
Unique No: 10175773
Signed: Don Baldrige
Report Date: 15 Oct 2022

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GRAPHS

