

OIL ANALYSIS REPORT

VOLVO PENTA

JOHN GREGORY NORTHERN LIGHTS 8442-56906 - CENTER GENSET

Sample No: VPA056152
Oil Type: SHELL ROTELLA T4 15W40

SAMPLE INFORMATION

Sample Number	VPA056152	VPA044584	VPA040549	---
Sample Date	04 Jan 2024	22 Nov 2022	09 Dec 2021	---
Machine Hours	1596	1200	800	---
Oil Hours	200	100	200	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

GRAND BANKS
450 SW SALEM RD
STUART, FL
US 34994
Contact: ROBERT ANTONA
roberta@gbmarinegroup.com
T: (609)384-5290
F:

OIL CONDITION

Visc @ 100°C	cSt	12.8	13.4	13.6	---
Base Number (BN)	mg KOH/g	6.7	9.8	9.00	---
Oxidation (PA)	%	72	69	67	---

CONTAMINATION

Water	%	NEG	NEG	NEG	---
Soot %	%	0.1	0.1	0.1	---
Nitration (PA)	%	66	60	51	---
Sulfation (PA)	%	57	58	57	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	5	4	4	---
Sodium	ppm	2	2	3	---
Potassium	ppm	7	7	8	---

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

ADDITIVES

Calcium	ppm	2073	2098	2296	---
Magnesium	ppm	40	24	59	---
Zinc	ppm	1190	1108	1228	---
Phosphorus	ppm	933	896	1028	---
Barium	ppm	0	0	0	---
Boron	ppm	137	171	189	---

Depot: VP531377
Unique No: 10822418
Signed: Don Baldrige
Report Date: 11 Jan 2024

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GRAPHS

