

OIL ANALYSIS REPORT

VOLVO PENTA

ALASKA LUXURY TOURS CLIF/FORGE PORT VOLVO PENTA 2006016956 - PORT DIESEL ENGINE

Sample No: VPA036546
Oil Type: KIRKLAND 15W40

SAMPLE INFORMATION

Sample Number	VPA036546	VPA056356	VPA055120	VPA035061
Sample Date	09 Aug 2023	04 Jul 2023	07 Jun 2023	12 Aug 2022
Machine Hours	3550	3321	2325	1941
Oil Hours	230	185	200	202
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Sundance Mfg Inc
570 N.E. Tomahawk Isl. Dr.
Portland, OR
US 97217
Contact: CLARK HOLMES
clark@sundanceyachts.com
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F:

OIL CONDITION

Visc @ 100°C	cSt	15.2	15.2	15.3	15.3
Base Number (BN)	mg KOH/g	9.3	10.1	9.8	10.1
Oxidation (PA)	%	68	71	69	71

CONTAMINATION

Soot %	%	0.4	0.3	0.3	0.4
Nitration (PA)	%	73	75	73	83
Sulfation (PA)	%	57	59	58	60
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	3	2	3	3
Sodium	ppm	2	<1	2	2
Potassium	ppm	<1	2	2	1

WEAR METALS

Iron	ppm	12	10	15	12
Copper	ppm	4	3	4	4
Lead	ppm	6	5	4	5
Tin	ppm	1	<1	<1	1
Aluminum	ppm	3	6	10	11
Chromium	ppm	<1	<1	1	<1
Molybdenum	ppm	62	59	58	63
Nickel	ppm	<1	<1	0	<1
Titanium	ppm	<1	<1	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	0	0

ADDITIVES

Calcium	ppm	1147	1128	1231	1103
Magnesium	ppm	1034	974	1043	943
Zinc	ppm	1327	1285	1329	1222
Phosphorus	ppm	1082	1003	1057	1015
Barium	ppm	0	0	0	0
Boron	ppm	<1	1	7	10

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: VP154394
Unique No: 10609110
Signed: Sean Felton
Report Date: 22 Aug 2023

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GRAPHS

