# **OIL ANALYSIS REPORT**

#### BERNARD GOODIN 3723/55-15 VOLVO PENTA 2013660339 - STARBOARD DIESEL ENGINE

Sample No: VPA053516

**Oil Type:** VOLVO VDS-4.5 Premium Motor Oil 15W40

ample Number		VPA053516			
Sample Number			VPA047956 19 Jan 2023	 	GR
Sample Date Machine Hours		08 Apr 2024 700	800	 	450
Dil Hours		0	150	 	ST
Dil Changed				 	US
Sample Status		Changed NORMAL	Changed NORMAL	 	Co
Sample Status		NORMAL	NORMAL	 	ro
OIL CONDITION					T: F:
isc @ 100°C	cSt	13.3	13.0	 	1.
ase Number (BN)	mg KOH/g	9.4	9.7	 	
Dxidation (PA)	%	53	55	 	D
CONTAMINATION					R
CONTAMINATION					a to
Water	%	NEG	NEG	 	ar
Soot %	%	0.2	0.2	 	re
Nitration (PA)	%	46	57	 	al
Sulfation (PA)	%	50	52	 	co th
Slycol	%	NEG	NEG	 	tr
uel	%	<1.0	<1.0	 	
ilicon	ppm	2	6	 	
Sodium	ppm	<b>  </b> <1	1	 	
otassium	ppm	0	3	 	
WEAR METALS					
ron	ppm	<b>1</b> 1	17	 	
Copper	ppm	2	3	 	
ead	ppm	■ <1	2	 	
ïn	ppm	<b>1</b>	1	 	
luminum	ppm	5	25	 	
Chromium	ppm	■<1	2	 	
Molybdenum	ppm	61	68	 	
lickel	ppm	0	<b></b> <1	 	
itanium	ppm	0	0	 	
ilver	ppm	0	<1	 	
/langanese	ppm	<b>□</b> <1	<b></b> <1	 	
/anadium	ppm	<1	0	 	
ADDITIVES					
Calcium	ppm	<b>1061</b>	1213	 	
Aagnesium	ppm	973	1063	 	
Zinc	ppm	1170	1453	 	
Phosphorus	ppm	1008	1433	 	
Barium	ppm		0	 	
Boron	ppm	0	0	 	De
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					Si

### GRAND BANKS

150 SW SALEM RD STUART, FL JS 34994 Contact: ROBERT ANTONA oberta@gbmarinegroup.com 1: (609)384-5290 .

## 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.

Signed: Sean Felton Report Date: 23 Apr 2024 Contact/Location: ROBERT ANTONA - VP531377

VP531377

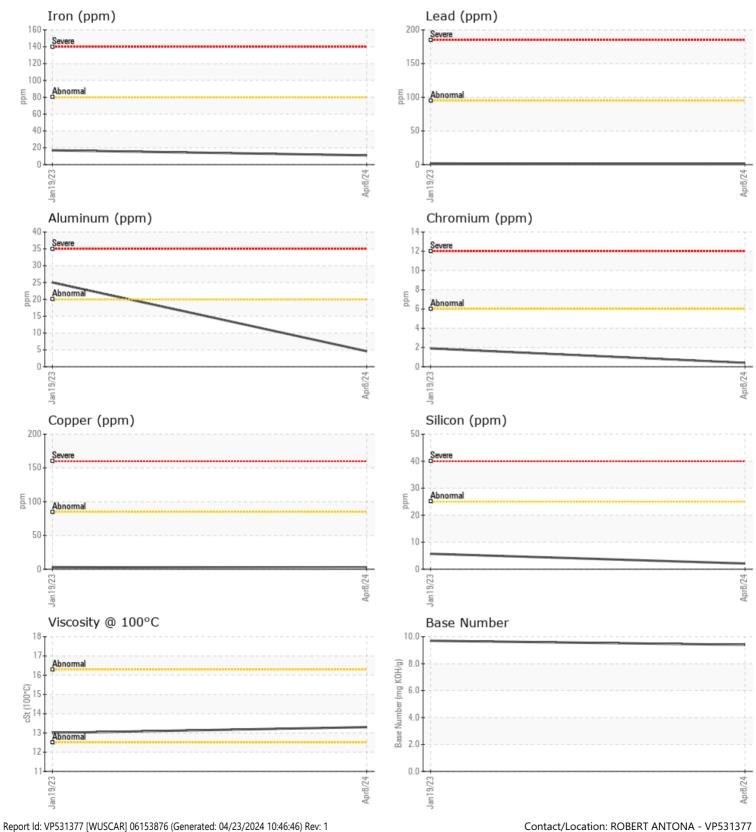
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# **OIL ANALYSIS REPORT**



### GRAPHS



Contact/Location: ROBERT ANTONA - VP531377