



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
NADINE URCIUOLI [AL MOORAD]

Machine Id
VOLVO PENTA A640665

Component
Starboard Diesel Engine

Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (6 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA052718	VPA031937	---
Sample Date		Client Info		09 Jul 2024	02 Nov 2020	---
Machine Age	hrs	Client Info		357	219	---
Oil Age	hrs	Client Info		357	94	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Not Changd	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	11	26	---
Chromium	ppm	ASTM D5185m	>6	<1	<1	---
Nickel	ppm	ASTM D5185m	>2	1	4	---
Titanium	ppm	ASTM D5185m	>2	0	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>20	1	4	---
Lead	ppm	ASTM D5185m	>95	<1	6	---
Copper	ppm	ASTM D5185m	>85	4	20	---
Tin	ppm	ASTM D5185m	>9	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

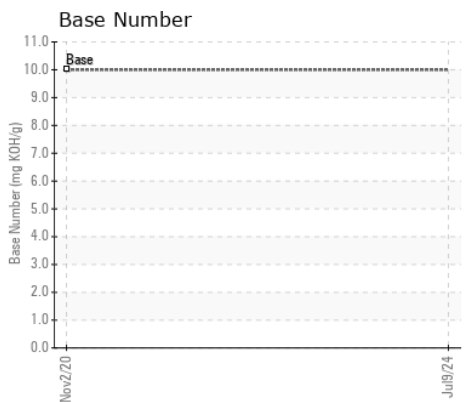
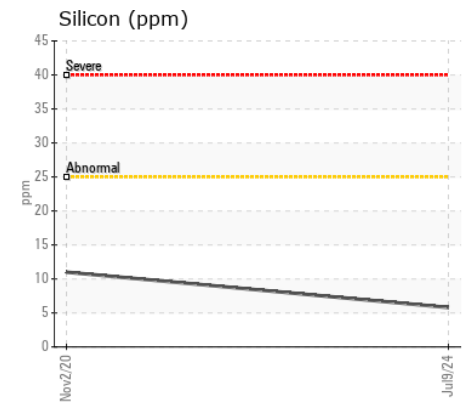
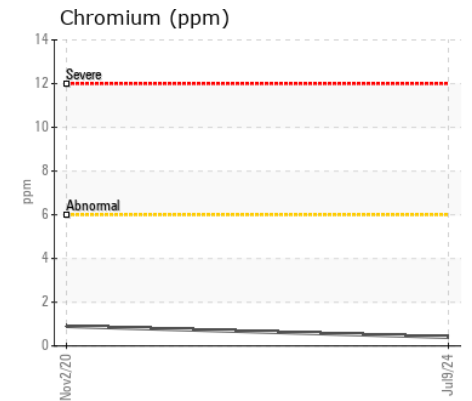
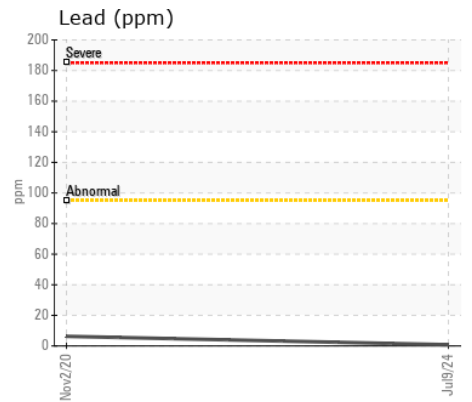
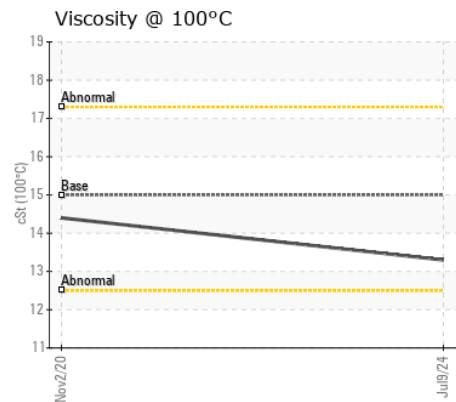
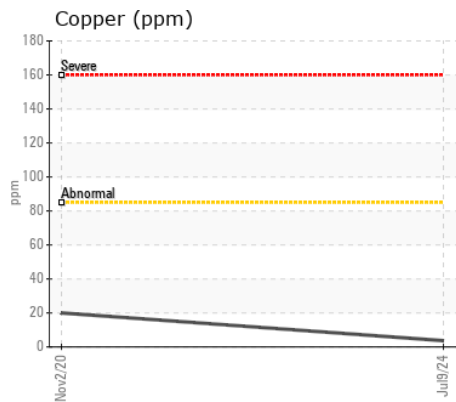
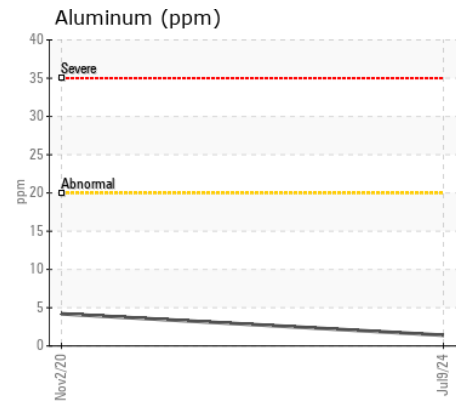
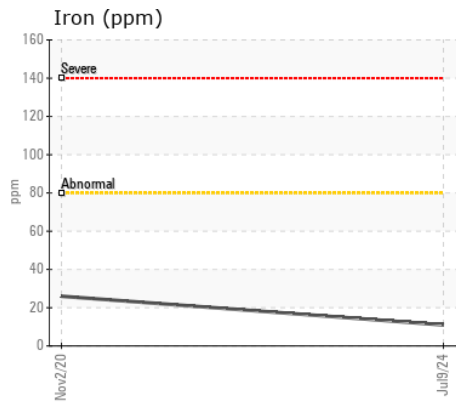
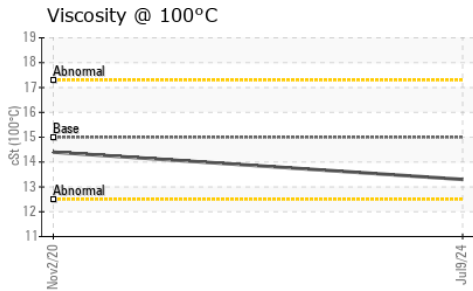
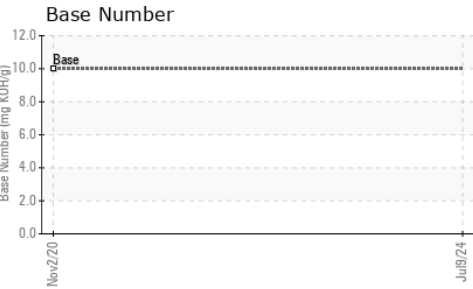
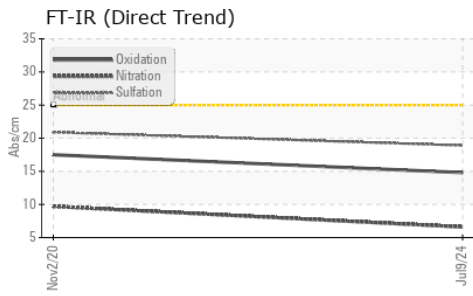
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	11	---
Potassium	ppm	ASTM D5185m	>20	2	7	---
Fuel		WC Method	>4.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844		0.1	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	6.6	9.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.9	20.9	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	4	---
Boron	ppm	ASTM D5185m	2.5	5	81	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.7	59	15	---
Manganese	ppm	ASTM D5185m	0.0	<1	<1	---
Magnesium	ppm	ASTM D5185m	256	876	491	---
Calcium	ppm	ASTM D5185m	2057	1116	2076	---
Phosphorus	ppm	ASTM D5185m	935	1032	948	---
Zinc	ppm	ASTM D5185m	1223	1169	1021	---
Sulfur	ppm	ASTM D5185m	4079	3474	3116	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	17.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.6	---	---
Visc @ 100°C	cSt	ASTM D445	15.0	13.3	14.4	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA052718 **Received** : 18 Jul 2024
Lab Number : 06239957 **Tested** : 18 Jul 2024
Unique Number : 11128791 **Diagnosed** : 19 Jul 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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