



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area  
**GREGORY BYRD [SAM/503107]**

Machine Id  
**VOLVO PENTA 7008446502**

Component  
**Port Diesel Engine**

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

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VPA058914</b>	VPA043215	---
Sample Date		Client Info		<b>20 May 2024</b>	01 Feb 2023	---
Machine Age	hrs	Client Info		<b>45</b>	986	---
Oil Age	hrs	Client Info		<b>45</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>Changed</b>	Not Changd	---
Filter Changed		Client Info		<b>Changed</b>	Not Changd	---
Sample Status				<b>ATTENTION</b>	NORMAL	---

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>80	<b>8</b>	6	---
Chromium	ppm	ASTM D5185m	>6	<b>&lt;1</b>	1	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	1	---
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	<1	---
Lead	ppm	ASTM D5185m	>95	<b>&lt;1</b>	2	---
Copper	ppm	ASTM D5185m	>85	<b>13</b>	12	---
Tin	ppm	ASTM D5185m	>9	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

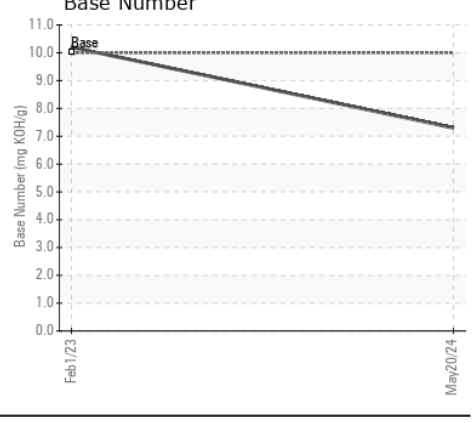
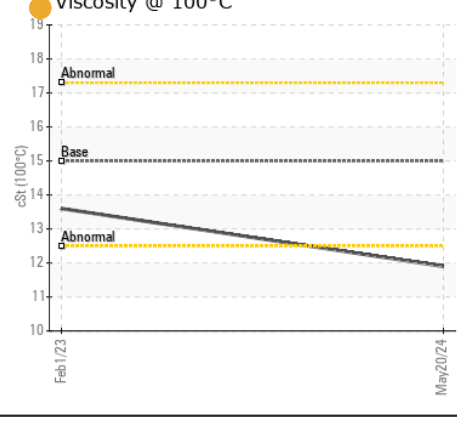
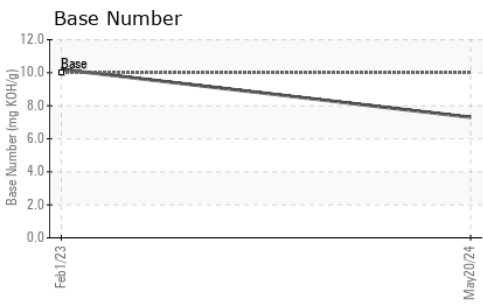
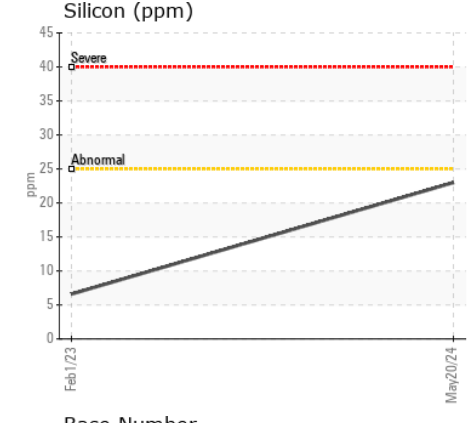
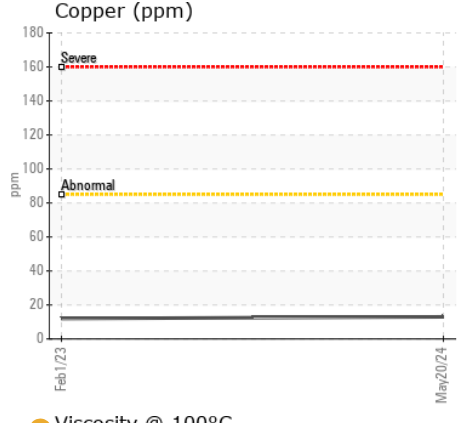
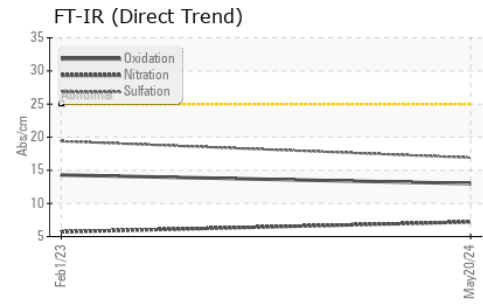
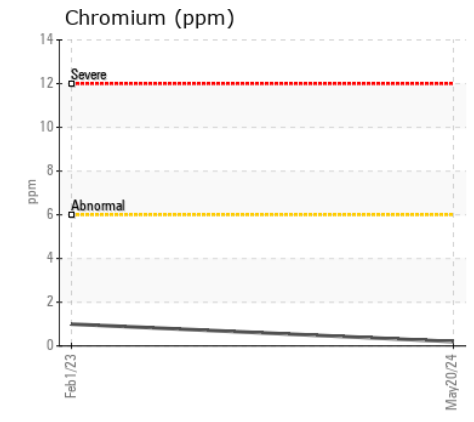
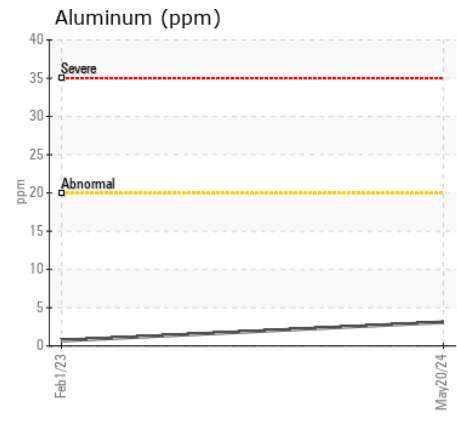
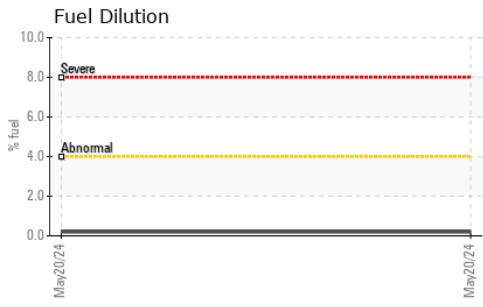
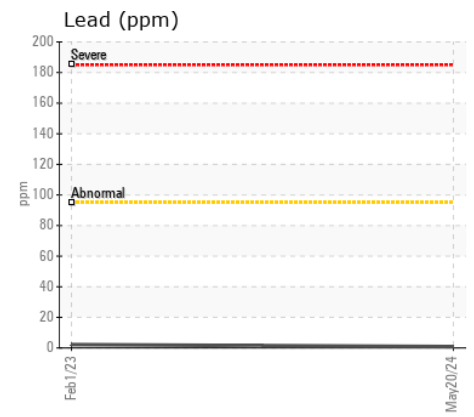
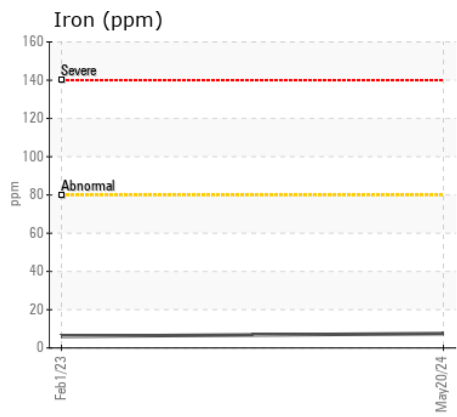
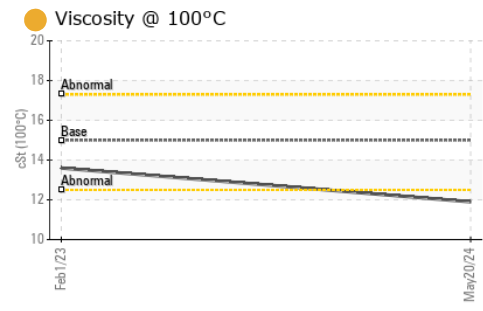
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>23</b>	7	---
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	8	---
Fuel	%	ASTM D3524	>4.0	<b>0.2</b>	<1.0	---
Water		WC Method	>0.1	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844		<b>0.2</b>	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.2</b>	5.7	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>16.9</b>	19.4	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	---

**FLUID CONDITION**

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>4</b>	2	---
Boron	ppm	ASTM D5185m	2.5	<b>77</b>	4	---
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	0.7	<b>82</b>	43	---
Manganese	ppm	ASTM D5185m	0.0	<b>1</b>	<1	---
Magnesium	ppm	ASTM D5185m	256	<b>98</b>	771	---
Calcium	ppm	ASTM D5185m	2057	<b>2081</b>	796	---
Phosphorus	ppm	ASTM D5185m	935	<b>1014</b>	779	---
Zinc	ppm	ASTM D5185m	1223	<b>1178</b>	1021	---
Sulfur	ppm	ASTM D5185m	4079	<b>4463</b>	2897	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.0</b>	14.3	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>7.3</b>	10.2	---
Visc @ 100°C	cSt	ASTM D445	15.0	<b>11.9</b>	13.6	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA058914 **Received** : 22 May 2024  
**Lab Number** : 06187231 **Tested** : 28 May 2024  
**Unique Number** : 11043983 **Diagnosed** : 28 May 2024 - Jonathan Hester  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, PercentFuel, TBN )

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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)