



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR

**ABNORMAL**

CONTAMINATION

**NORMAL**

FLUID CONDITION

**NORMAL**



Area

**Joshua Campbell**

Machine Id

**VOLVO A45G 342716**

Component

**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>ASC0009763</b>	VCP408522	VCP420483
Sample Date		Client Info		<b>17 Jun 2024</b>	23 Jun 2023	28 Apr 2023
Machine Age	hrs	Client Info		<b>11045</b>	0	0
Oil Age	hrs	Client Info		<b>4049</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

### WEAR

Valve wear is indicated.

Iron	ppm	ASTM D5185m	>100	<b>10</b>	4	6
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>2	<b>▲ 7</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	<1	<1
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>85</b>	2	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

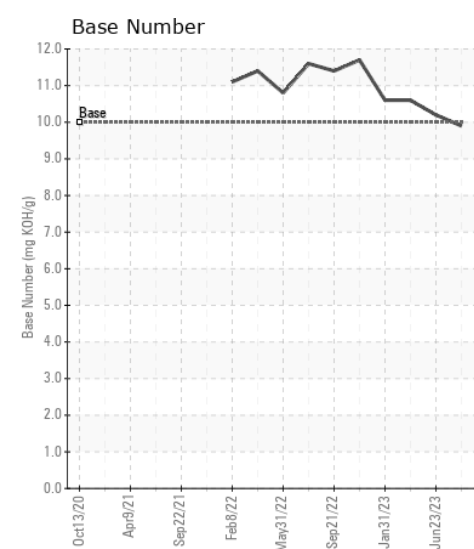
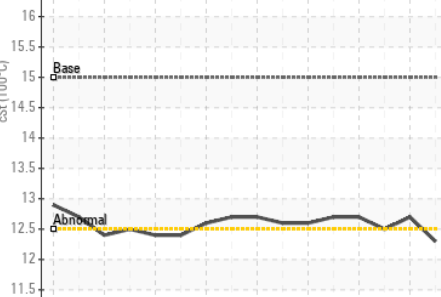
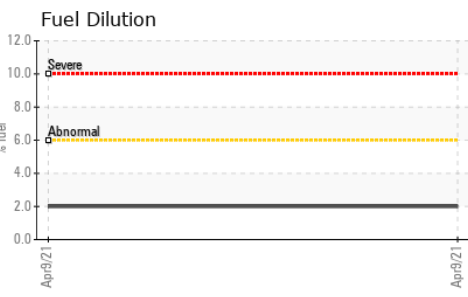
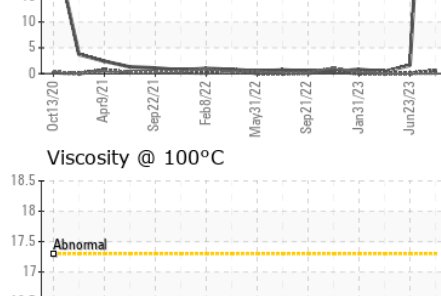
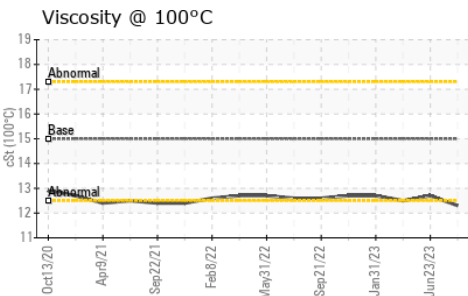
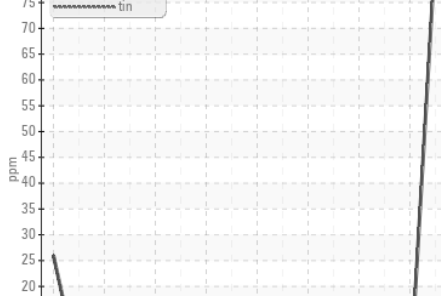
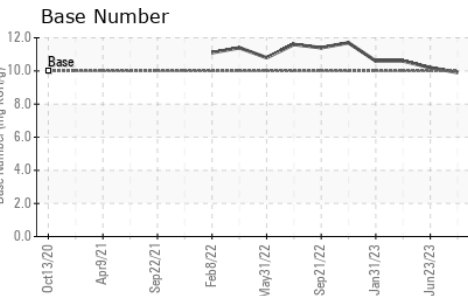
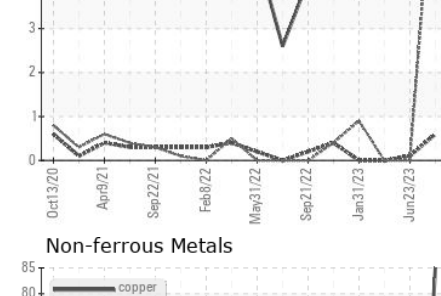
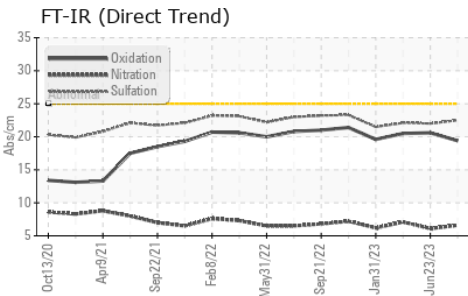
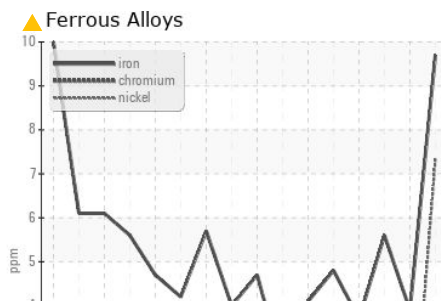
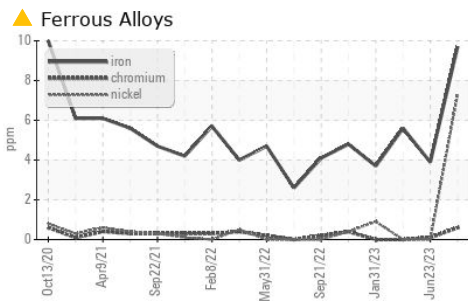
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	0
Fuel	%	ASTM D3524	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.6</b>	6.1	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.5</b>	22.0	22.1
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

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.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	2	3
Boron	ppm	ASTM D5185m	2.5	<b>52</b>	56	46
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>43</b>	45	40
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	256	<b>502</b>	546	508
Calcium	ppm	ASTM D5185m	2057	<b>1667</b>	1775	1767
Phosphorus	ppm	ASTM D5185m	935	<b>970</b>	987	915
Zinc	ppm	ASTM D5185m	1223	<b>1131</b>	1202	1115
Sulfur	ppm	ASTM D5185m	4079	<b>2973</b>	3774	3251
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.4</b>	20.6	20.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>9.9</b>	10.2	10.6
Visc @ 100°C	cSt	ASTM D445	15.0	<b>12.3</b>	12.7	12.5



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0009763 **Received** : 21 Jun 2024  
**Lab Number** : 06216557 **Tested** : 24 Jun 2024  
**Unique Number** : 11089421 **Diagnosed** : 24 Jun 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, 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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