



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id  
**VOLVO A45G FS 352473**  
Component  
**Diesel Engine**  
Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0011323	ASC0006173	VCP414040
Sample Date		Client Info		21 May 2024	19 Jan 2024	11 Oct 2023
Machine Age	hrs	Client Info		6509	6051	5578
Oil Age	hrs	Client Info		458	473	0
Filter Age	hrs	Client Info		0	473	0
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	4	4	4
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	2	2
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	8	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

### CONTAMINATION

There is no indication of any contamination in the oil.

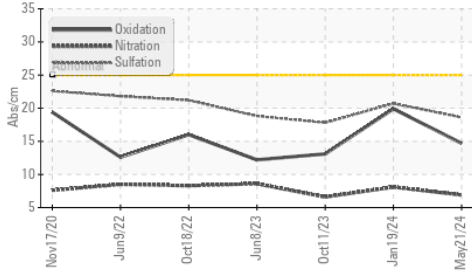
Silicon	ppm	ASTM D5185m	>25	4	5	3
Potassium	ppm	ASTM D5185m	>20	2	<1	<1
Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.9	8.1	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.6	20.7	17.8
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

### FLUID CONDITION

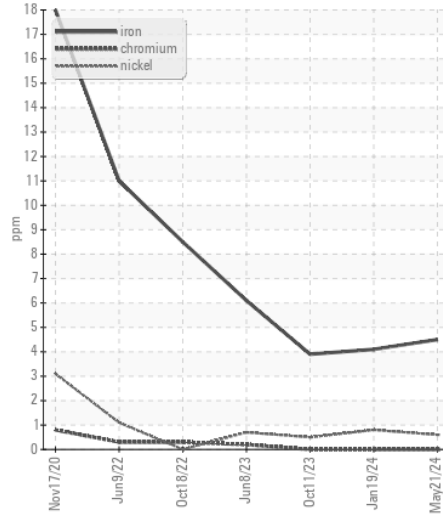
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		2	2	<1
Boron	ppm	ASTM D5185m	2.5	11	39	2
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	55	41	56
Manganese	ppm	ASTM D5185m	0.0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	256	866	549	951
Calcium	ppm	ASTM D5185m	2057	1165	1558	1111
Phosphorus	ppm	ASTM D5185m	935	1025	940	1104
Zinc	ppm	ASTM D5185m	1223	1188	1141	1295
Sulfur	ppm	ASTM D5185m	4079	3410	2851	3226
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	19.9	13.1
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.8	11.4	8.1
Visc @ 100°C	cSt	ASTM D445	15.0	13.1	14.1	13.1

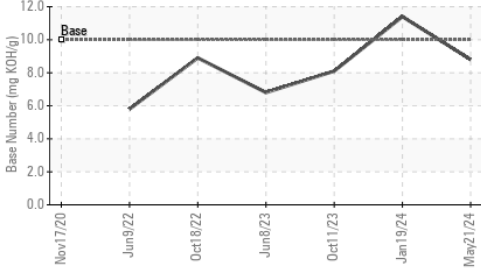
**FT-IR (Direct Trend)**



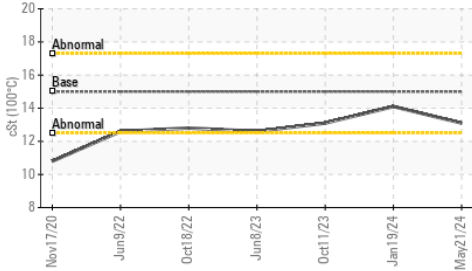
**Ferrous Alloys**



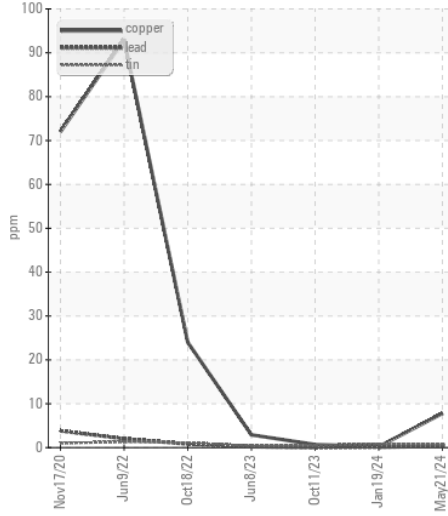
**Base Number**



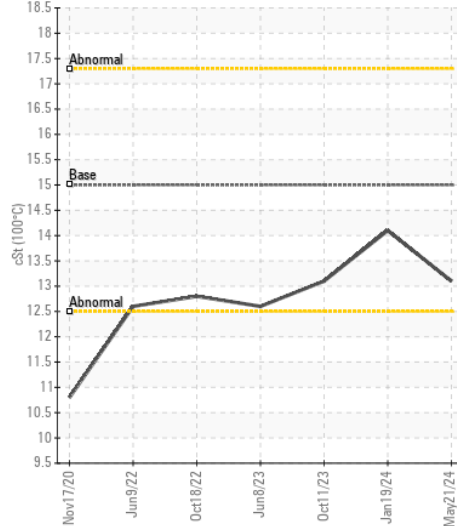
**Viscosity @ 100°C**



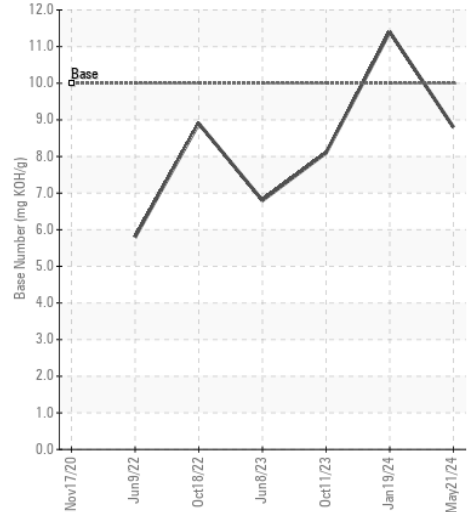
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : ASC0011323

**Lab Number** : 06193758

**Unique Number** : 11050510

**Test Package** : CONST ( Additional Tests: TBN )

**Received** : 29 May 2024

**Tested** : 30 May 2024

**Diagnosed** : 30 May 2024 - Sean Felton

**117 - ASCENDUM MACHINERY INC - GREENVILLE**

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US 27834

Contact: BRANDON JENKINS

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T:

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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