



ASCENDUM

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

Ascendum Machinery/500 Hour CSA

Machine Id

VOLVO EC350E 2162 (S/N 314241)

Component

Diesel Engine

Fluid

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ASC0009933	ASC0000078	VCP0006388
Sample Date		Client Info		08 May 2024	21 Jun 2023	30 Mar 2023
Machine Age	hrs	Client Info		4988	3568	3027
Oil Age	hrs	Client Info		1420	541	423
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	5	5	6
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	<1	<1
Lead	ppm	ASTM D5185m	>20	0	<1	<1
Copper	ppm	ASTM D5185m	>15	7	<1	4
Tin	ppm	ASTM D5185m	>10	<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

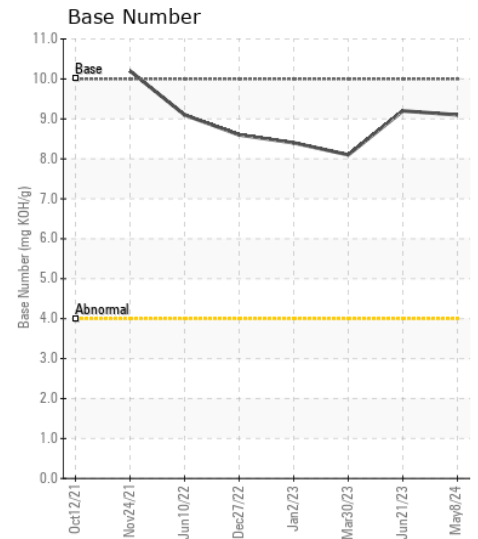
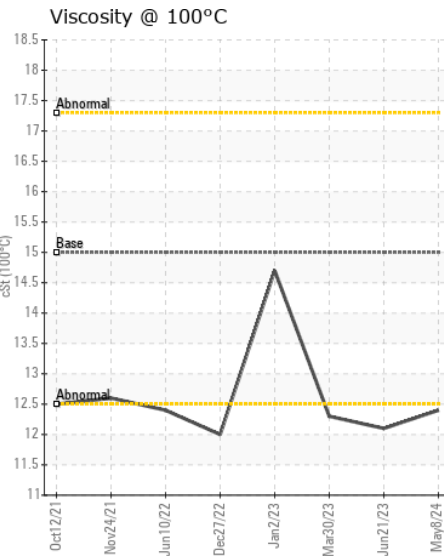
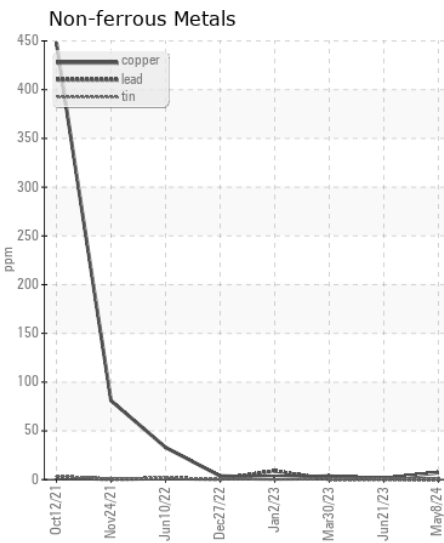
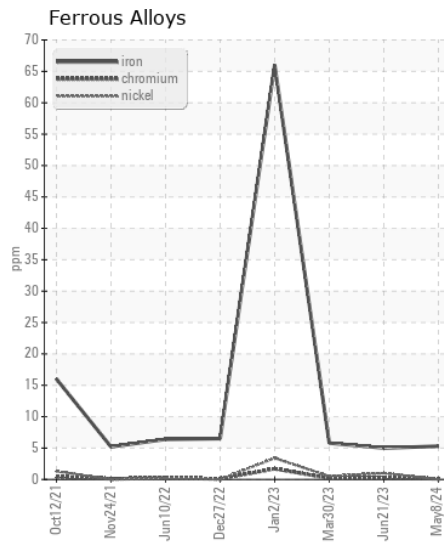
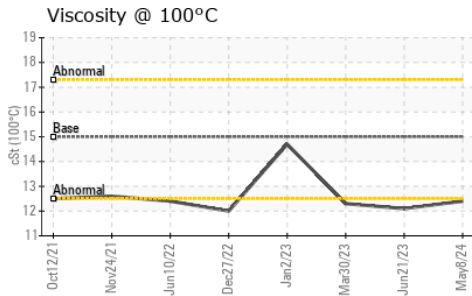
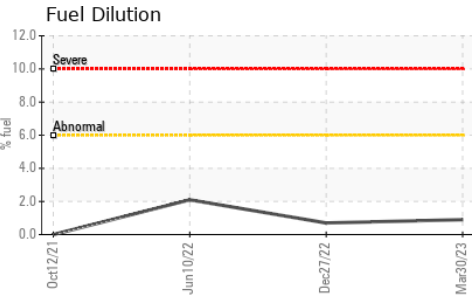
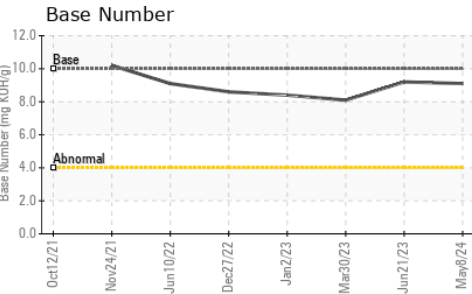
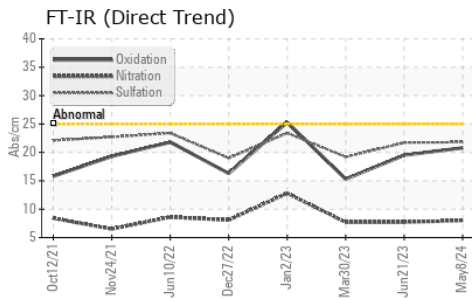
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	6	6	5
Potassium	ppm	ASTM D5185m	>20	0	2	<1
Fuel	%	ASTM D3524	>6.0	<1.0	<1.0	0.9
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.0	7.7	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	21.7	19.2
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	>0.1	NEG	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		3	2	1
Boron	ppm	ASTM D5185m	2.5	41	28	9
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	41	41	60
Manganese	ppm	ASTM D5185m	0.0	2	<1	<1
Magnesium	ppm	ASTM D5185m	256	529	589	933
Calcium	ppm	ASTM D5185m	2057	1692	1636	1287
Phosphorus	ppm	ASTM D5185m	935	969	954	1056
Zinc	ppm	ASTM D5185m	1223	1133	1192	1320
Sulfur	ppm	ASTM D5185m	4079	3329	3646	4084
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.8	19.5	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.1	9.2	8.1
Visc @ 100°C	cSt	ASTM D445	15.0	12.4	12.1	12.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0009933
Lab Number : 06176689
Unique Number : 11022742
Test Package : CONST (Additional Tests: FuelDilution, TBN)

Received : 13 May 2024
Tested : 14 May 2024
Diagnosed : 14 May 2024 - Sean Felton

TRIANGLE GRADING AND PAVING INC
 1521 Huffman Mill Rd
 BURLINGTON, NC
 US 27216
 Contact: ADAM CORBETT
 wacorbett@trianglegradingpaving.com

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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