



VOLVO

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area

[SW0071621 AZLAND]

Machine Id

VOLVO EC350EL 314549

Component

Diesel Engine

Fluid

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

RECOMMENDATION

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP443247	VCP430855	---
Sample Date		Client Info		07 May 2024	08 Dec 2023	---
Machine Age	hrs	Client Info		1951	1449	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ABNORMAL	SEVERE	---

WEAR

Iron	ppm	ASTM D5185m	>100	8	5	---
Chromium	ppm	ASTM D5185m	>10	<1	<1	---
Nickel	ppm	ASTM D5185m	>10	<1	<1	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>10	2	1	---
Lead	ppm	ASTM D5185m	>20	2	<1	---
Copper	ppm	ASTM D5185m	>15	▲ 21	▲ 41	---
Tin	ppm	ASTM D5185m	>10	2	1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

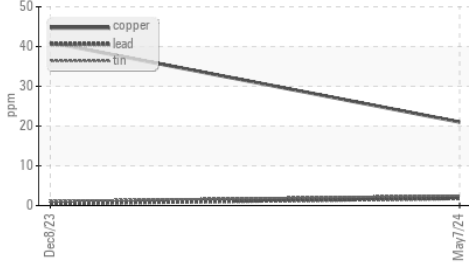
CONTAMINATION

Silicon	ppm	ASTM D5185m	>20	11	7	---
Potassium	ppm	ASTM D5185m	>20	2	2	---
Fuel	%	ASTM D3524	>6.0	1.1	▲ 13.7	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	8.4	7.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	19.1	---
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	---

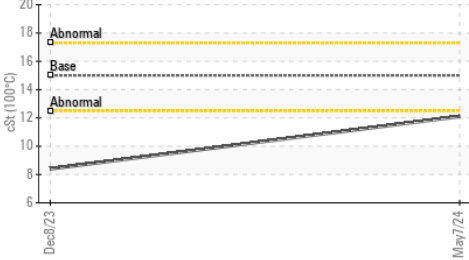
FLUID CONDITION

Sodium	ppm	ASTM D5185m		0	0	---
Boron	ppm	ASTM D5185m	2.5	46	61	---
Barium	ppm	ASTM D5185m	0.0	2	11	---
Molybdenum	ppm	ASTM D5185m	0.7	50	71	---
Manganese	ppm	ASTM D5185m	0.0	<1	<1	---
Magnesium	ppm	ASTM D5185m	256	476	462	---
Calcium	ppm	ASTM D5185m	2057	1684	1312	---
Phosphorus	ppm	ASTM D5185m	935	888	659	---
Zinc	ppm	ASTM D5185m	1223	1027	817	---
Sulfur	ppm	ASTM D5185m	4079	2886	2842	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.6	16.0	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.7	7.6	---
Visc @ 100°C	cSt	ASTM D445	15.0	● 12.1	▲ 8.4	---

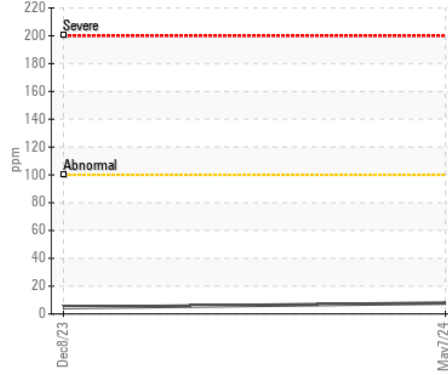
▲ Non-ferrous Metals



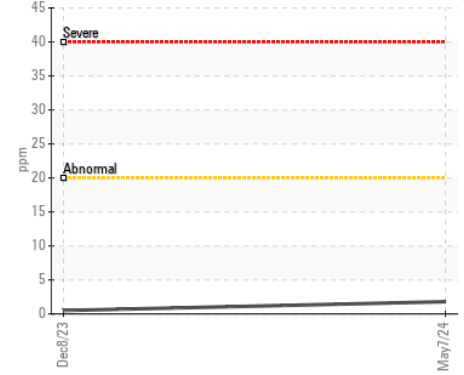
● Viscosity @ 100°C



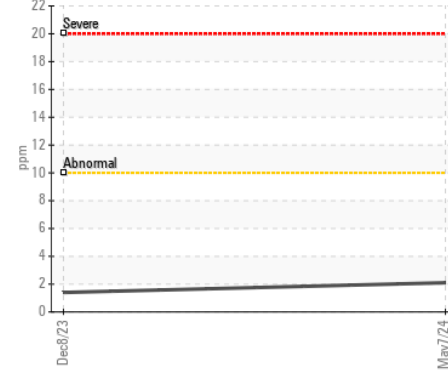
Iron (ppm)



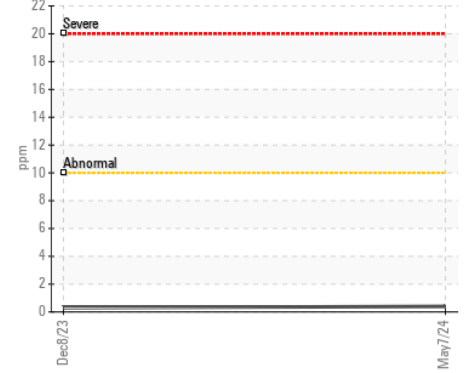
Lead (ppm)



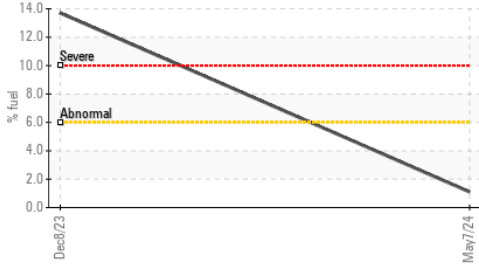
Aluminum (ppm)



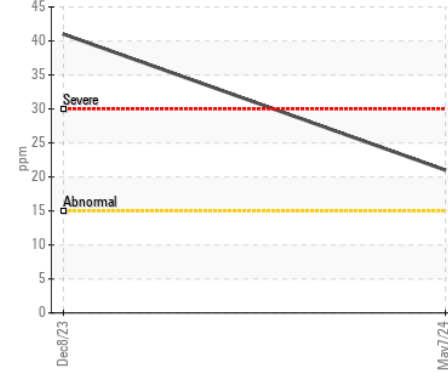
Chromium (ppm)



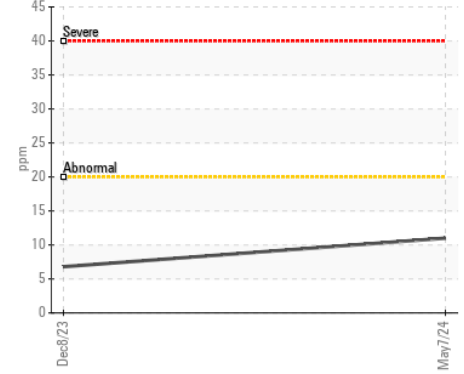
Fuel Dilution



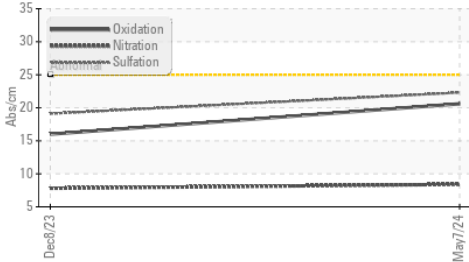
▲ Copper (ppm)



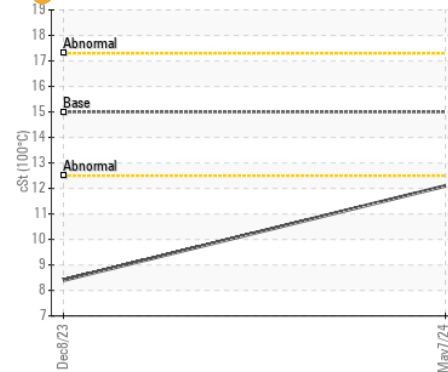
Silicon (ppm)



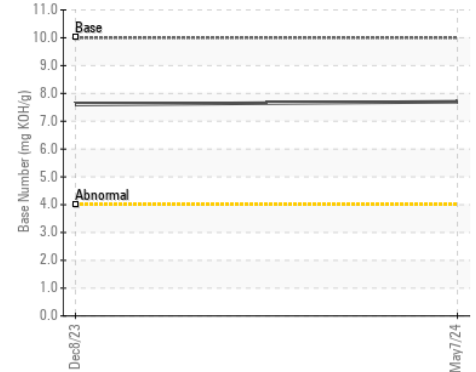
FT-IR (Direct Trend)



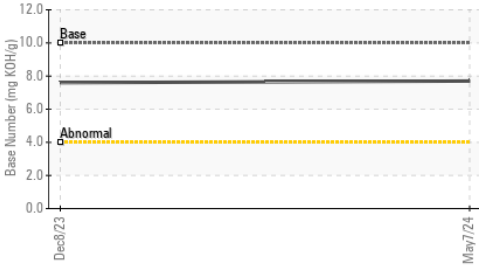
● Viscosity @ 100°C



Base Number



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : VCP443247
 Lab Number : 06176437
 Unique Number : 11022490
 Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

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 PENSACOLA, FL
 US 32534
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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)