



OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
A245415

Component
Main Engine

Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (20 LTR)

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0753585	---	---
Sample Date	Client Info			11 Apr 2023	---	---
Machine Age	hrs	Client Info		1215	---	---
Oil Age	hrs	Client Info		0	---	---
Oil Changed	Client Info			Not Chngd	---	---
Sample Status				NORMAL	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method		>4.0	<1.0	---	---
Glycol	WC Method			NEG	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>75	20	---	---
Chromium	ppm	ASTM D5185(m)	>8	<1	---	---
Nickel	ppm	ASTM D5185(m)	>2	2	---	---
Titanium	ppm	ASTM D5185(m)	>3	<1	---	---
Silver	ppm	ASTM D5185(m)	>2	0	---	---
Aluminum	ppm	ASTM D5185(m)	>15	2	---	---
Lead	ppm	ASTM D5185(m)	>18	2	---	---
Copper	ppm	ASTM D5185(m)	>80	8	---	---
Tin	ppm	ASTM D5185(m)	>14	1	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	2.5	1	---	---
Barium	ppm	ASTM D5185(m)	0.0	0	---	---
Molybdenum	ppm	ASTM D5185(m)	0.7	63	---	---
Manganese	ppm	ASTM D5185(m)	0.0	<1	---	---
Magnesium	ppm	ASTM D5185(m)	256	1008	---	---
Calcium	ppm	ASTM D5185(m)	2057	1127	---	---
Phosphorus	ppm	ASTM D5185(m)	935	1125	---	---
Zinc	ppm	ASTM D5185(m)	1223	1251	---	---
Sulfur	ppm	ASTM D5185(m)	4079	2820	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

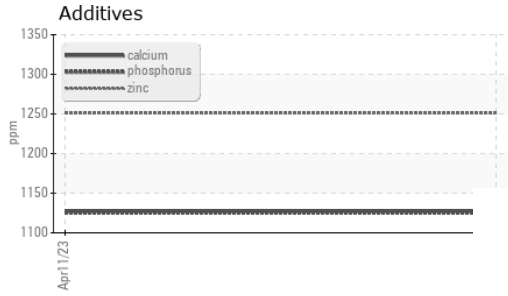
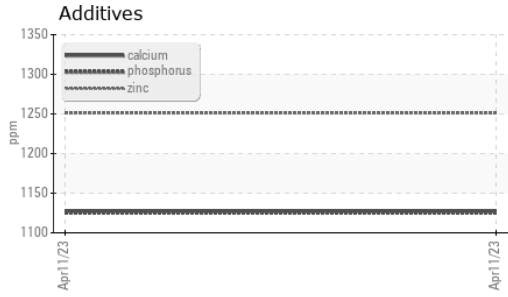
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	6	---	---
Sodium	ppm	ASTM D5185(m)	>75	2	---	---
Potassium	ppm	ASTM D5185(m)	>20	0	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		0.3	---	---
Nitration	Abs/cm	ASTM D7624*	>20	7.9	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.9	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.4	---	---



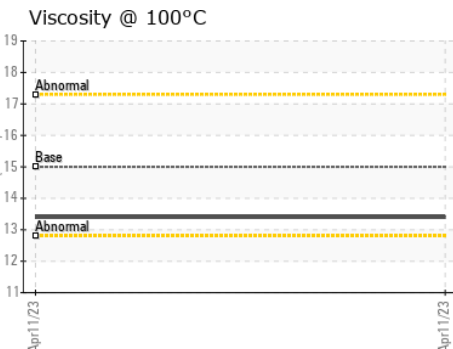
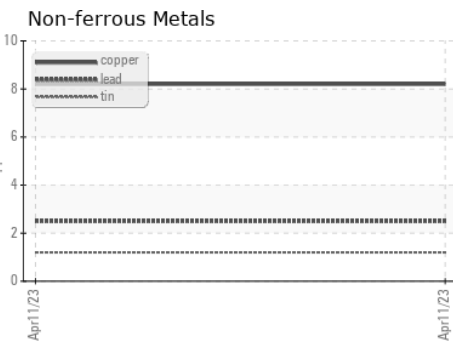
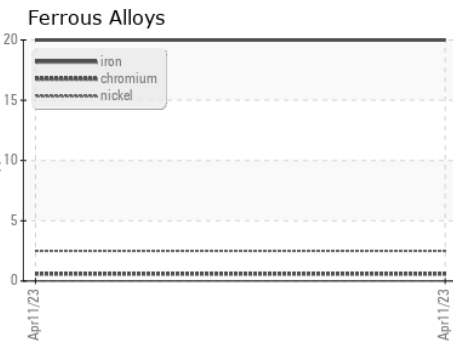
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VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---
Free Water	scalar	Visual*		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.0	13.4	---

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0753585 **Received** : 14 Apr 2023
Lab Number : 02551371 **Diagnosed** : 17 Apr 2023
Unique Number : 5564386 **Diagnostician** : Kevin Marson
Test Package : MAR 1

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 210 HILLYARD STREET
 HAMILTON, ON
 CA L8L 6B6
 Contact: Peter Bateman
 completmarine1st@gmail.com
 T: (905)973-7412
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.