WEAR
CONTAMINATION
FLUID CONDITION

NORMAL NORMAL ATTENTION

Area

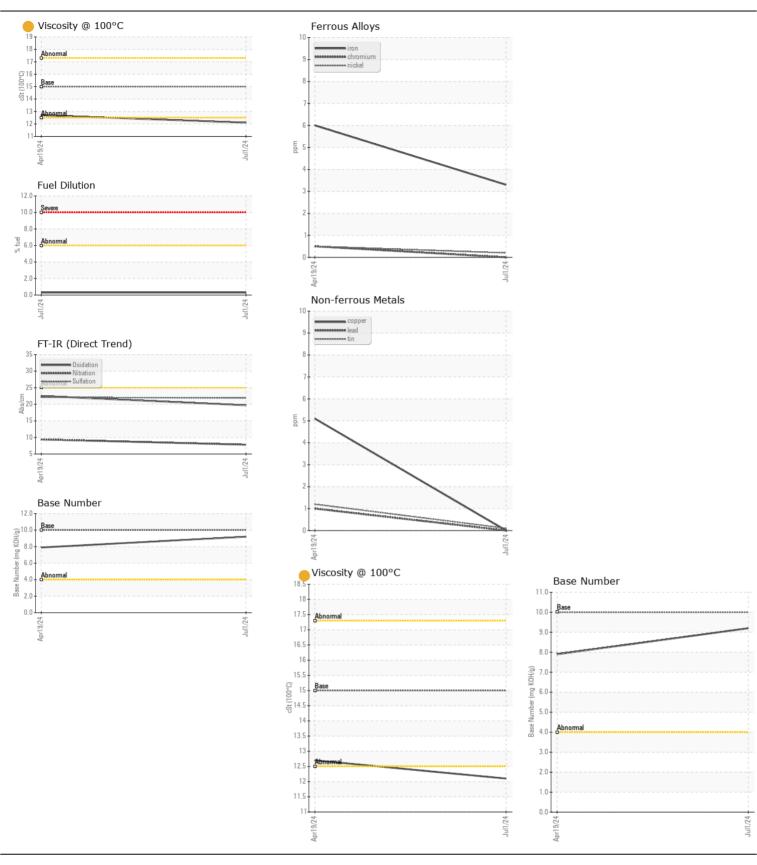
[W02008478]

VOLVO EC350E 314326

Diesel Engine

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

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		ML0002371	ML0001216	
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: W02008478)	Sample Date		Client Info		01 Jul 2024	19 Apr 2024	
	Machine Age	hrs	Client Info		3761	3434	
	Oil Age	hrs	Client Info		327	3434	
	Filter Age	hrs	Client Info		0	3434	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				ATTENTION	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	3	6	
	Chromium	ppm	ASTM D5185m		0	<1	
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		<1	<1	
	Titanium	ppm	ASTM D5185m	>10	0	<1	
	Silver		ASTM D5185m	\2	0	0	
	Aluminum	ppm	ASTM D5185m		2	2	
	Lead	ppm	ASTM D5185m		0	1	
		ppm	ASTM D5185m		0	5	
	Copper Tin	ppm	ASTM D5185m		<1	1	
	Vanadium	ppm	ASTM D5185m	>10	0	<1	
	White Metal	ppm	*Visual	NONE	NONE	NONE	
		scalar					
<u></u>	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	6	7	
Fuel content negligible. There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	<1	2	
	Fuel	%	ASTM D3524	>6.0	0.3	<1.0	
	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	7.8	9.4	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	22.1	
	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	
LUID CONDITION	Sodium	nnm	ASTM D5185m		2	2	
FLUID CONDITION	Boron	ppm	ASTM D5185m	25	61	47	
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Barium	ppm	ASTM D5185m		0	2	
	Molybdenum	ppm	ASTM D5185m		47	48	
	Manganese	ppm	ASTM D5185m		<1	40 <1	
		ppm			< 1 565		
	Magnesium Calcium	ppm	ASTM D5185m ASTM D5185m	2057	1650	515 1734	
		ppm	ASTM D5165III		944	776	
	Phosphorus	ppm					
	Zinc	ppm		1223	1089	933	
	Sulfur	ppm Abo/1mm	ASTM D5185m		3413	2768	
	Oxidation	Abs/.1mm	*ASTM D7414	>25	19.7	22.5	
	Base Number (BN)	mg KOH/g	ASTM D2896	10	9.2	7.9	







Certificate L2367

Laboratory Sample No.

Lab Number : 06226856 Unique Number : 11110349

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : ML0002371

Received **Tested**

: 08 Jul 2024 Diagnosed : 08 Jul 2024 - Don Baldridge

Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN) To discuss this sample report, contact Customer Service at 1-800-237-1369.

: 02 Jul 2024

US 20153 Contact: SERVICE MANAGER jimmy_elswick@wahazel.com T: (703)378-8300

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

F:

WILLIAM HAZEL

CHANTILLY, VA

PO BOX 600