

## Machine Id

VOLVO EC350EL 314575 **Diesel Engine** 

VALVOLINE 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Oil and filter change at the time of sampling has been noted. Resample	Sample Number		Client Info		VCP452638	VCP436477	VCP439474
	Sample Date		Client Info		21 Jun 2024		10 Jan 2024
at the next service interval to monitor.	Machine Age	hrs	Client Info		0	0	1057
	Oil Age	hrs	Client Info		0	0	235
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				ATTENTION	ATTENTION	ATTENTION
WEAR	Iron	ppm	ASTM D5185m		3	4	4
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		0	<1	0
	Nickel Titanium	ppm	ASTM D5185m ASTM D5185m	>10	0	<1 <1	0
	Silver	ppm	ASTM D5185m	. 2	0	0	0
	Aluminum	ppm	ASTM D5185m		0 2	2	<1
	Lead	ppm ppm	ASTM D5185m		0	0	<1
	Copper	ppm	ASTM D5185m		11	11	27
	Tin	ppm	ASTM D5185m		<1	<1	<1
	Vanadium	ppm	ASTM D5185m	210	0	0	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	5	5	5
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	2	2	0
	Fuel		WC Method	>6.0	<1.0	<1.0	<1.0
	Water		WC Method	>0.1	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0.1	0.1	0
	Nitration	Abs/cm	*ASTM D7624	>20	6.1	6.0	6.0
	Sulfation	Abs/.1mm	*ASTM D7415		15.6	18.9	15.8
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt Appearance	scalar scalar	*Visual *Visual	NONE NORML	NONE NORML	NONE NORML	NONE
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
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FLUID CONDITION	Sodium	ppm	ASTM D5185m		<1	0	<1
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.	Boron	ppm	ASTM D5185m	39	29	25	27
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		50	25	45
	Manganese	ppm	ASTM D5185m		0	<1	<1
	Magnesium	ppm	ASTM D5185m		197	157	139
	Calcium	ppm	ASTM D5185m	1554	1946	1921	2069
	Phosphorus	ppm	ASTM D5185m		876	854	867
	Zinc	ppm		1069	1021	957	995
	Sulfur	ppm	ASTM D5185m		3991	3499	3436
	Oxidation	Abs/.1mm	*ASTM D7414		8.5	13.7	8.9
	Base Number (BN)	mg KOH/g	ASTM D2896	6.9	6.1	8.2	6.5

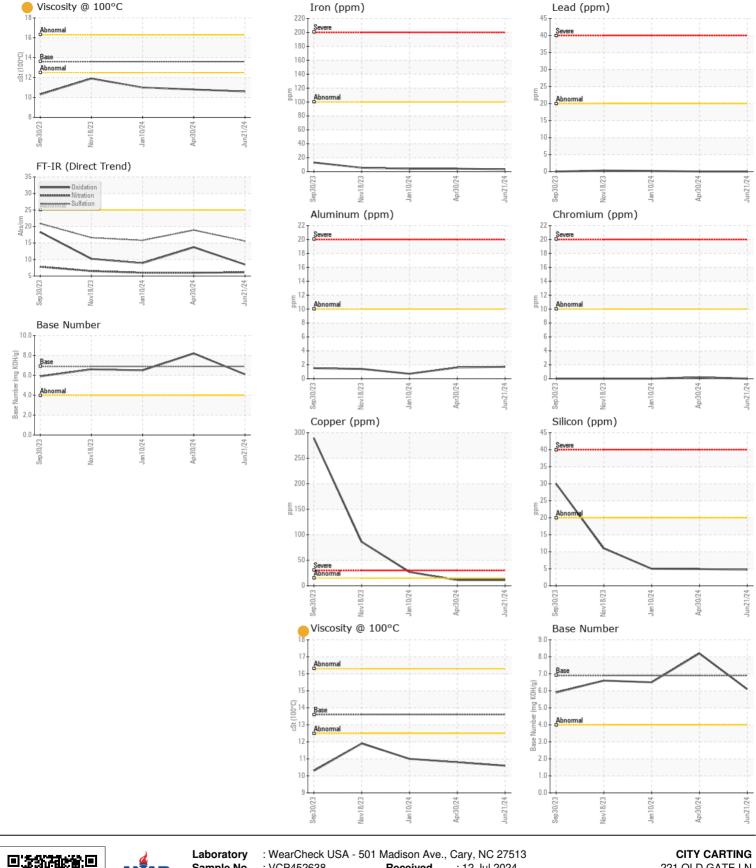
ASTM D445 13.6

Visc @ 100°C cSt

10.8

11.0

10.6



Sample No. : VCP452638 Received 221 OLD GATE LN : 12 Jul 2024 Lab Number : 06234407 Tested MILFORD, CT : 12 Jul 2024 Unique Number : 11123241 Diagnosed : 14 Jul 2024 - Don Baldridge US 06460 Test Package : MOB 1 (Additional Tests: TBN) Contact: TAVINS BANKS Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. tavins@citycart.net \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (203)223-3885 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Contact/Location: TAVINS BANKS - CITMILCON Page 2 of 2