**WEAR** CONTAMINATION **FLUID CONDITION**  **NORMAL NORMAL** NORMAL



VOLVO EC300 316492

DIESEL ENGINE OIL SAE 40 (	GAL)						
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info	LITTIOTION	VCP429875		
	Sample Date		Client Info		12 Jan 2024		
	Machine Age	hrs	Client Info		1861		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	ppm	ASTM D5185m	>100	1		
WEAT	Chromium	ppm	ASTM D5185m		0		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		<1		
	Titanium	ppm	ASTM D5185m		<1		
	Silver	ppm	ASTM D5185m	>2	0		
	Aluminum	ppm	ASTM D5185m		2		
	Lead	ppm	ASTM D5185m		- <1		
	Copper	ppm	ASTM D5185m	>15	15		
	Tin	ppm	ASTM D5185m	>10	<1		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	3		
	Potassium	ppm	ASTM D5185m	>20	3		
There is no indication of any contamination in the oil.	Fuel	1-1-	WC Method	>6.0	<1.0		
	Water		WC Method	>0.1	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	6.8		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	16.4		
	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		
<u></u>	Emulsified Water	scalar	"VISUAI	>0.1	NEG		
LUID CONDITION	Sodium	ppm	ASTM D5185m	>216	0		
The BN result indicates that there is suitable alkalinity remaining in the	Boron	ppm	ASTM D5185m		55		
oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m	-	<1		
	Molybdenum	ppm	ASTM D5185m	100	75		
	Manganese	ppm	ASTM D5185m	1=6	<1		
	Magnesium	ppm	ASTM D5185m		222		
	Calcium	ppm	ASTM D5185m	3000	1722		
	Phosphorus	ppm	ASTM D5185m		926		
	Zinc	ppm	ASTM D5185m	1350	1122		
	Sulfur Oxidation	ppm Abc/1mm	ASTM D5185m		3484		
	Base Number (BN)	Abs/.1mm mg KOH/g	*ASTM D7414 ASTM D2896		11.8 7.5		
	Dase Mulliber (DIN)	nig NOR/g	79 LINI D5030		1.5		
	Visc @ 100°C	cSt	ASTM D445	1///	13.0		





Certificate L2367

Report Id: FRESAR [WUSCAR] 06083334 (Generated: 02/09/2024 17:58:47) Rev: 1

Laboratory Sample No.

Lab Number : 06083334 Unique Number : 10870779

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP429875

Received **Tested** Diagnosed Test Package : MOB 1 ( Additional Tests: TBN )

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

: 09 Feb 2024 : 09 Feb 2024 - Don Baldridge

: 08 Feb 2024

SARASOTA, FL US 34230 Contact: ROBERT TENNANT

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. ROBERT@FREDERICKDERRCOMPANY.COM T: (941)355-8575

FREDERICK DERR AND COMPANY

Contact/Location: ROBERT TENNANT - fresar

F:

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