WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL ATTENTION

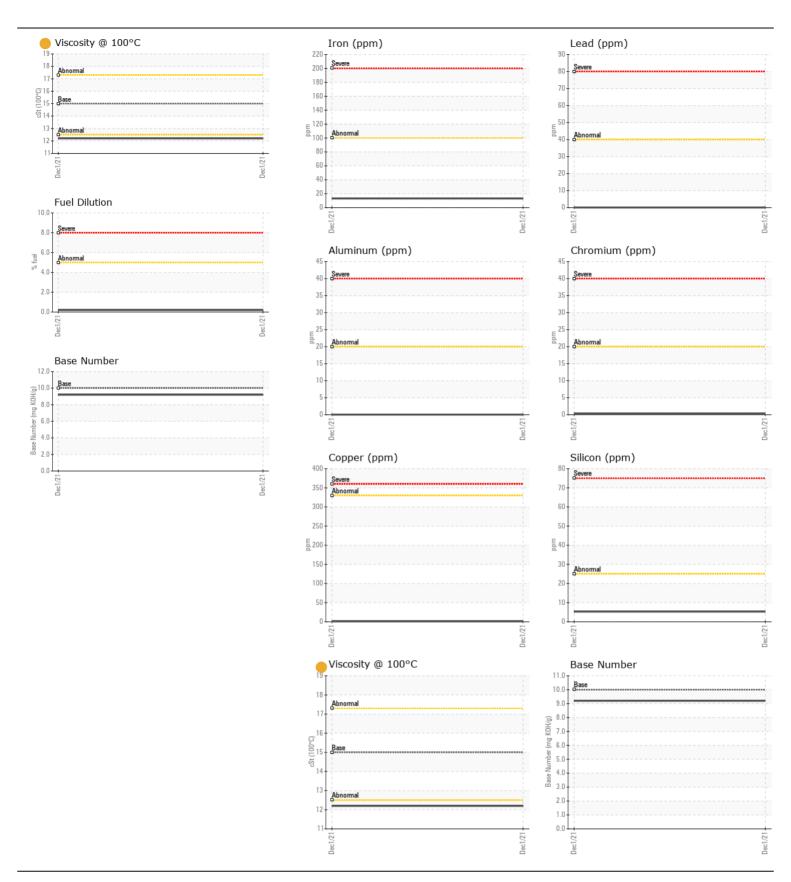
[332161 GT RECYCLING]

SENNEBOGEN 825 825.5.3312

Component Diesel Engine

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

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
RECOMMENDATION	Sample Number	UOIVI	Client Info	LIIIII(/AU(I	VCP312718		mistory2
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.	Sample Date		Client Info		01 Dec 2021		
	Machine Age	hrs	Client Info		2809		
	Oil Age	hrs	Client Info		500		
	Filter Age	hrs	Client Info		0		
	Oil Changed	1110	Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status		Onone inio		ATTENTION		
VEAR	Iron	ppm	ASTM D5185m	>100	13		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1		
	Nickel	ppm	ASTM D5185m	>4	0		
	Titanium	ppm	ASTM D5185m		0		
	Silver	ppm	ASTM D5185m	>3	0		
	Aluminum	ppm	ASTM D5185m	>20	0		
	Lead	ppm	ASTM D5185m	>40	0		
	Copper	ppm	ASTM D5185m	>330	1		
	Tin	ppm	ASTM D5185m	>15	<1		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m		5		
Fuel content negligible. There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		<1		
	Fuel	%	ASTM D3524		0.2		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	7.7		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22		
	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	>0.2	NEG		
LUID CONDITION	Sodium	nnm	ASTM D5185m		1		
LOID CONDITION	Sodium Boron	ppm	ASTM D5185m	2.5	34		
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		3		
	Molybdenum	ppm ppm	ASTM D5185m		49		
	Manganese		ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m		656		
	Calcium	ppm	ASTM D5185m	2057	1629		
		ppm	ASTM D5185m		986		
	Phoenhorus	ppm					
	Phosphorus	nnm	ACTM DE10E~	1222	11/17		
	Zinc	ppm	ASTM D5185m		1147		
	Zinc Sulfur	ppm	ASTM D5185m	4079	2359		
	Zinc	ppm Abs/.1mm	ASTM D5185m *ASTM D7414	4079 >25			





Certificate L2367

Laboratory Sample No.

Lab Number : 05413853

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP312718

Unique Number : 9763041

Received : 03 Dec 2021 : 07 Dec 2021 **Tested** Diagnosed

: 07 Dec 2021 - Jonathan Hester Test Package: MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

ALTA EQUIPMENT COMPANY - METRO WEST 56195 PONTIAC TRAIL NEW HUDSON, MI US 48165 Contact: PAUL CONZ

paul.conz@altg.com T:

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)

F: (248)356-2029

Contact/Location: PAUL CONZ - VOLVO2990