WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

[716771 HILLSBOROUGH]

VOLVO EW160E 323446

Diesel Engine

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

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VCP451486		
	Sample Date		Client Info		23 May 2024		
	Machine Age	hrs	Client Info		8720		
	Oil Age	hrs	Client Info		500		
	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	25		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m	72	0		
	Silver	ppm	ASTM D5185m	>2	0		
	Aluminum	ppm	ASTM D5185m		3		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		2		
	Tin	ppm	ASTM D5185m		0		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	6		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	6		
	Fuel		WC Method		<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0.4		
	Nitration	Abs/cm	*ASTM D7624		12.6		
	Sulfation	Abs/.1mm	*ASTM D7415		25.8		
	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		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		4		
	Boron	ppm	ASTM D5185m	2.5	5		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m	0.7	64		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m	256	915		
	Calcium	ppm	ASTM D5185m		1166		
	Phosphorus	ppm	ASTM D5185m	935	986		
	Zinc	ppm	ASTM D5185m	1223	1219		
	Sulfur	ppm	ASTM D5185m	4079	3718		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	24.7		
	Base Number (BN)	mg KOH/g	ASTM D2896	10	5.2		
	Visc @ 100°C	cSt	ASTM D445	15.0	13.2		





Report Id: VOLVO0093 [WUSCAR] 06214326 (Generated: 06/21/2024 13:14:57) Rev: 1

Laboratory Sample No.

: VCP451486 Lab Number : 06214326 Unique Number : 11087190

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

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

Diagnosed Test Package : MOB 1 (Additional Tests: TBN)

: 19 Jun 2024 : 20 Jun 2024 : 21 Jun 2024 - Don Baldridge

ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC 8418 PALM RIVER ROAD TAMPA, FL

US 33619 Contact: JOHN FARDELLA

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. john.fardella@altg.com T: (813)630-0077 F: (813)630-2233