

WEAR CONTAMINATION **FLUID CONDITION**

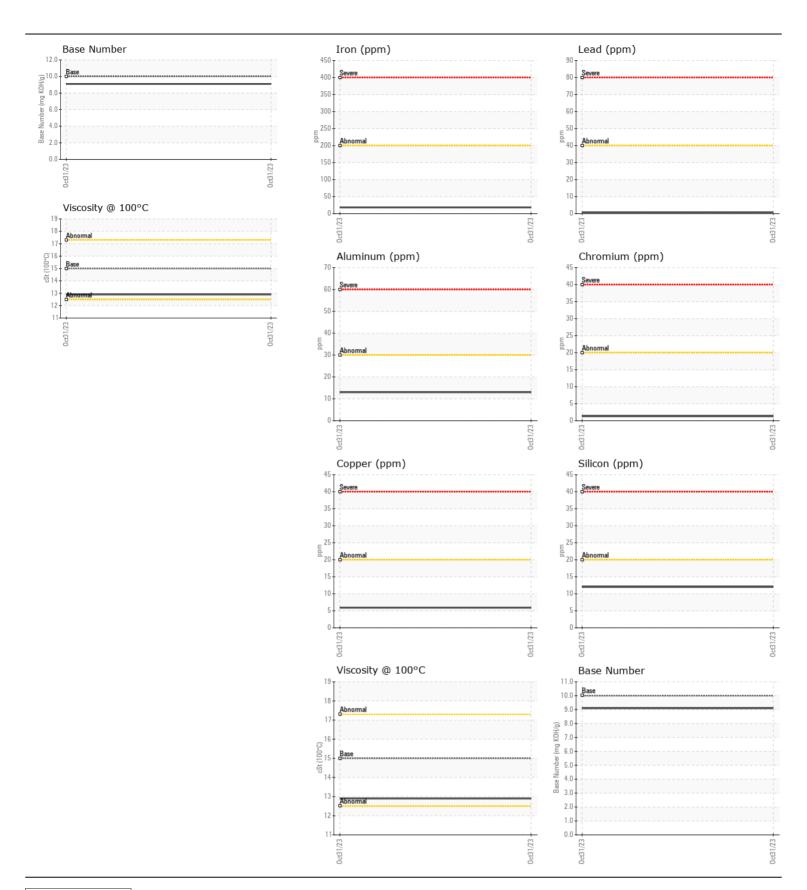
NORMAL NORMAL NORMAL



VOLVO L120H 633151

Component Diesel Engine

Machine Age hrs Client Info 0	VOLVO ULTRA DIESEL ENGIN	E OIL 15W4	0 VDS	S-3 (C	(TS)			
Sample Number Client Info VCP412777 Sample Date Client Info Store Client Info Sept Client Info	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Date Client Info Stein Info Client Info College Info Col		Sample Number		Client Info		VCP412777		
Collage	Resample at the next service interval to monitor.	Sample Date				31 Oct 2023		
Filter Age		Machine Age	hrs	Client Info		967		
Oil Changed Client Info Changed NA NA NA NA NA NA NA N		Oil Age	hrs	Client Info		0		
Oil Changed Client Info Changed NA NA NA NA NA NA NA N		Filter Age	hrs	Client Info		0		
Filter Changed Calient Info NA NA NA Sample Status		_				Changed		
VEAR		-		Client Info				
Chromium ppm ASTM D5186m >20 1		_				NORMAL		
Chromium ppm ASTM D5186m >20 1	WEAR	Iron	ppm	ASTM D5185m	>200	18		
Nickel ppm ASTM D6185m >5 <1	All component wear rates are normal.			ASTM D5185m	>20			
Titanium ppm ASTM 05185m <1								
Silver ppm					70			
Aluminum ppm ASTM D5165m >30 13					\2			
Lead								
Copper								
Tin								
Vanadium ppm ASTM 05185m <1 White Metal scalar Visual NONE NONE Yellow Metal scalar Visual NONE NONE Yellow Metal scalar Visual NONE NONE Yellow Metal scalar Visual NONE NONE Potassium ppm ASTM 05185m 20 4 Fuel WC Method >6.0 <1.0 Water WC Method >6.0 <1.0 With the metal WC Method >6.0 <1.0 Water WC Method >6.0 NEG Glycol WC Method >6.0 NEG Soot %								
White Metal Scalar Visual NONE NON					> <u>_</u> U			
Silicon ppm ASTM D5185m >20 12					NONE			
Silicon ppm ASTM D5185m >20 12 Potassium ppm ASTM D5185m >20 4 Potassium ppm ASTM D5185m >20 4 Fuel WC Method >6.0 <1.0 Water WC Method >6.0 <1.0 Without NEG Soot % % 'ASTM D7844 >3 0.2 Nitration Abs/cm 'ASTM D7845 >30 0.2 Silit scalar 'Visual NONE NONE Sand/Dirt scalar 'Visual NONE NONE Appearance scalar 'Visual NORML NORML NORML NORML Appearance scalar 'Visual NORML								
Potassium ppm ASTM D5185m >20 4		Yellow Metal	scalar	visuai	NONE	NONE		
Fuel WC Method So.0 WC Method NEG WC Method	CONTAMINATION							
Water WC Method S0.0 NEG Glycol WC Method S0.2 NEG Glycol WC Method NEG Soot %	There is no indication of any contamination in the oil.		ppm					
Glycol								
Soot %					>0.2			
Nitration Abs/cm *ASTM D7624 >20 7.6 Sulfation Abs/.tmm *ASTM D7415 >30 22.5 Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NON		-						
Sulfation Abs/.1mm *ASTM D7415 >30 22.5 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML			%		>3			
Silt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML NORML Sand/Dirt Scalar *Visual NORML NORML NORML Scalar *Visual NORML Scalar *Visual NORML NORML Scalar *Visual Scalar *Visual NORML NORML Scalar *Visual Scalar *Visual *Scalar *Visual Scalar *Scalar *Scalar *Visual Scalar *Scalar						7.6		
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NORML NORML NORML Scalar *Visual NORML			Abs/.1mm		>30	-		
Sand/Dirt Scalar *Visual NONE NONE Appearance Scalar *Visual NORML NORM		Silt	scalar	*Visual				
Appearance Scalar *Visual NORML NORML NORML Emulsified Water Scalar *Visual NORML NORML		Debris	scalar	*Visual	NONE	NONE		
Codor Scalar *Visual NORML N		Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Water scalar *Visual >0.2 NEG		Appearance	scalar	*Visual	NORML	NORML		
Sodium ppm ASTM D5185m 2.5 229		Odor	scalar	*Visual	NORML	NORML		
Boron ppm ASTM D5185m 2.5 229 Barium ppm ASTM D5185m 0.0 7 Molybdenum ppm ASTM D5185m 0.0 7 Manganese ppm ASTM D5185m 0.0 <1 Magnesium ppm ASTM D5185m 0.0 <1 Calcium ppm ASTM D5185m 0.0 <1 Calcium ppm ASTM D5185m 0.0 <1 Calcium ppm ASTM D5185m 0.0 <1 Phosphorus ppm ASTM D5185m 0.0 <1 Sulfur ppm ASTM D5185m 1223 1003 Sulfur ppm ASTM D5185m 4079 3491 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1		Emulsified Water	scalar	*Visual	>0.2	NEG		
Boron ppm ASTM D5185m 2.5 229 Barium ppm ASTM D5185m 0.0 7 Molybdenum ppm ASTM D5185m 0.0 7 Manganese ppm ASTM D5185m 0.0 <1 Magnesium ppm ASTM D5185m 0.0 <1 Calcium ppm ASTM D5185m 0.0 <1 Calcium ppm ASTM D5185m 0.0 <1 Calcium ppm ASTM D5185m 0.0 <1 Phosphorus ppm ASTM D5185m 0.0 <1 Sulfur ppm ASTM D5185m 1223 1003 Sulfur ppm ASTM D5185m 4079 3491 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1	FLUID CONDITION	Sodium	ppm	ASTM D5185m		4		
Molybdenum ppm ASTM D5185m 0.0 7		Boron		ASTM D5185m	2.5	229		
Molybdenum ppm ASTM D5185m 0.7 102 Manganese ppm ASTM D5185m 0.0 <1 Magnesium ppm ASTM D5185m 0.0 <1 Calcium ppm ASTM D5185m 256 641 Phosphorus ppm ASTM D5185m 935 820 Zinc ppm ASTM D5185m 1223 1003 Sulfur ppm ASTM D5185m 4079 3491 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1	The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m	0.0	7		
Manganese ppm ASTM D5185m 0.0 <1 Magnesium ppm ASTM D5185m 256 641 Calcium ppm ASTM D5185m 2057 1597 Phosphorus ppm ASTM D5185m 935 820 Zinc ppm ASTM D5185m 1223 1003 Sulfur ppm ASTM D5185m 4079 3491 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1		Molybdenum		ASTM D5185m	0.7	102		
Magnesium ppm ASTM D5185m 256 641 Calcium ppm ASTM D5185m 2057 1597 Phosphorus ppm ASTM D5185m 935 820 Zinc ppm ASTM D5185m 1223 1003 Sulfur ppm ASTM D5185m 4079 3491 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1								
Calcium ppm ASTM D5185m 2057 1597 Phosphorus ppm ASTM D5185m 935 820 Zinc ppm ASTM D5185m 1223 1003 Sulfur ppm ASTM D5185m 4079 3491 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1		-		ASTM D5185m	256			
Phosphorus ppm ASTM D5185m 935 820 Zinc ppm ASTM D5185m 1223 1003 Sulfur ppm ASTM D5185m 4079 3491 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1								
Zinc ppm ASTM D5185m 1223 1003 Sulfur ppm ASTM D5185m 4079 3491 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1								
Sulfur ppm ASTM D5185m 4079 3491 Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1								
Oxidation Abs/.1mm *ASTM D7414 >25 17.4 Base Number (BN) mg KOH/g ASTM D2896 10 9.1								
Base Number (BN) mg KOH/g ASTM D2896 10 9.1								
1.55 @ 155 & 551		()						
		1.00 @ 100 0	551	. 10 1111 0 1110	10.0			





Certificate L2367

Laboratory Sample No.

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

: VCP412777 Lab Number : 05995361 Unique Number : 10723721

Test Package : MOB 1 (Additional Tests: TBN)

Tested : 02 Nov 2023 : 02 Nov 2023 - Don Baldridge Diagnosed

: 01 Nov 2023

403 - ASCENDUM MACHINERY INC - FARGO 3739 38TH ST SW, SUITE E

FARGO, ND US 58104

Contact: JESSE SCHEELE jesse.scheele@ascendummachinery.com

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.

Received

T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (701)356-4072