

Machine Id

VOLVO L120E 64803

Diesel Engine

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

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-5 (GAL)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		VCP447340	VCP354017	VCP276993
Resample at the next service interval to monitor.	Sample Date		Client Info		25 Jun 2024		10 Aug 2020
	Machine Age	hrs	Client Info		25380	25046	16935
	Oil Age	hrs	Client Info		0	500	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	13	14	9
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1	<1	0
	Nickel	ppm	ASTM D5185m		0	0	0
	Titanium	ppm	ASTM D5185m		<1	0	<1
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m		2	3	0
	Lead	ppm	ASTM D5185m		<1	<1	0
	Copper	ppm	ASTM D5185m		<1	1	<1
	Tin	ppm	ASTM D5185m	>10	<1	<1	<1
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon		ASTM D5185m	× 20	4	4	3
CONTAMINATION	Potassium	ppm ppm	ASTM D5185m		0	2	<1
There is no indication of any contamination in the oil.	Fuel	ррпі	WC Method	>6.0	<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.1	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	1.5	1.7	0.8
	Nitration	Abs/cm	*ASTM D7624	>20	12.0	12.9	7.3
	Sulfation	Abs/.1mm	*ASTM D7415		21.7	23.3	18.9
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		4	3	2
	Boron	ppm	ASTM D5185m	2.5	40	45	7
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	0
	Molybdenum	ppm	ASTM D5185m		80	86	47
	Manganese	ppm	ASTM D5185m		<1	0	0
	Magnesium	ppm	ASTM D5185m		50	93	785
	Calcium	ppm	ASTM D5185m		2268	2159	890
	Phosphorus	ppm	ASTM D5185m	935	1019	1012	854
	Zinc	ppm	ASTM D5185m	1223	1246	1188	1053
	Sulfur	ppm	ASTM D5185m	4079	4289	4072	2618
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.3	17.5	13
	Base Number (BN)	mg KOH/g	ASTM D2896	10	6.8	8.5	
	Vier C 10000	- 04		100	40.0	445	10.0

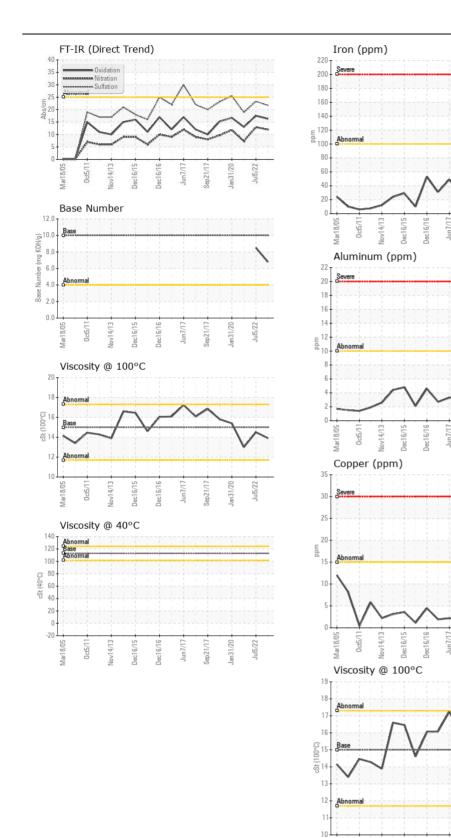
Visc @ 100°C cSt

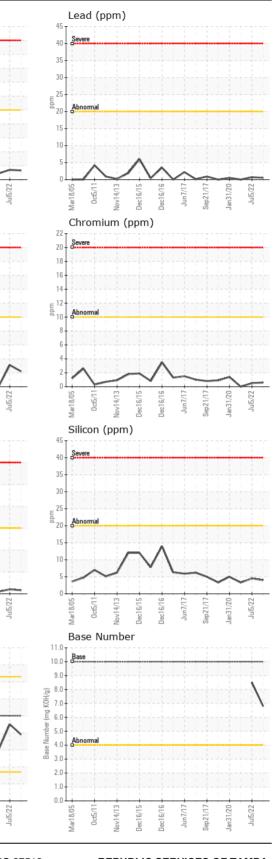
ASTM D445 15.0

14.5

13.0

13.9





REPUBLIC SERVICES OF TAMPA Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : VCP447340 Received 2702 E 2ND AVENUE : 01 Jul 2024 Lab Number : 06224272 Tested TAMPA, FL : 02 Jul 2024 Unique Number : 11102469 : 02 Jul 2024 - Jonathan Hester US 33605-5501 Diagnosed Test Package : MOB 1 (Additional Tests: KV40, TBN) Contact: SERVICE MANAGER Certificate L2367 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. T: (813)248-6435 F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Mar18/05

0ct5/11 Nov14/13 Dec16/15 ep21/17 an31/20

p21/17

ep21/17 an31/20

Jan31/20

Jun7/17 Sep21/17

Jec16/16

Contact/Location: SERVICE MANAGER - REPTAM Page 2 of 2