WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Area

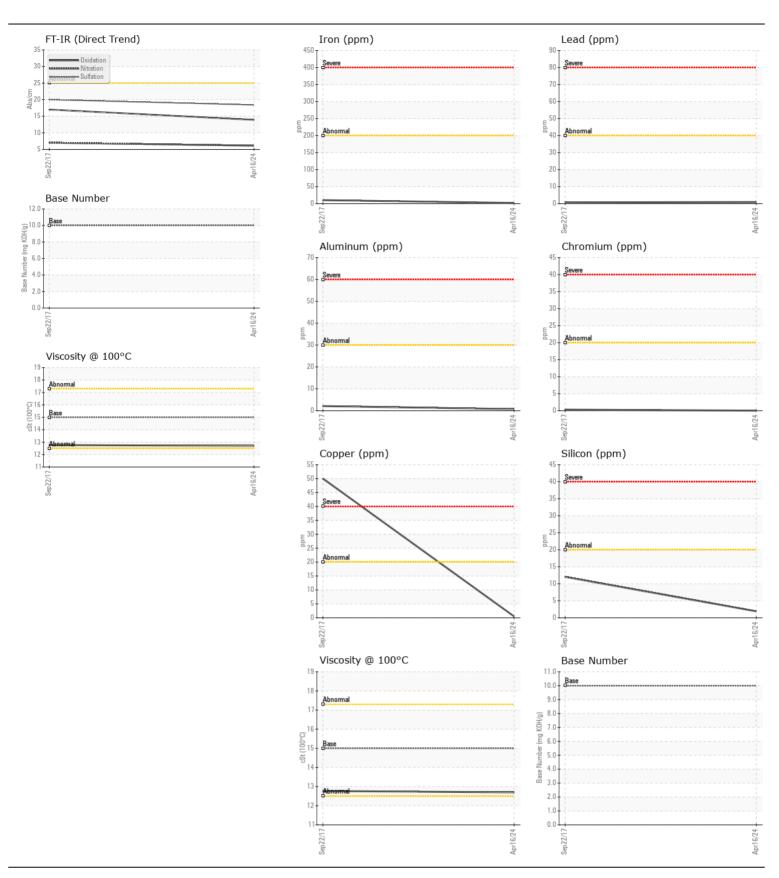
[SWA530860]

VOLVO L220H 2541



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

	T	11014	NA-AL-	1.59741	(a	118-4- 4	111-7 0
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VCP438863		
	Sample Date	lawa	Client Info		16 Apr 2024	22 Sep 2017	
	Machine Age	hrs	Client Info		12474	707	
	Oil Age	hrs	Client Info		0	0	
	Filter Age Oil Changed	hrs	Client Info		Ohammad	0 Changed	
			Client Info		Changed	Changed	
	Filter Changed Sample Status		Client Info		Changed NORMAL	Changed NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>200	2	10	
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m	>20	0	<1	
	Nickel	ppm	ASTM D5185m		0	0	
	Titanium	ppm	ASTM D5185m		0	<1	
	Silver	ppm	ASTM D5185m	>2	0	0	
	Aluminum	ppm	ASTM D5185m		<1	2	
	Lead	ppm	ASTM D5185m		<1	- <1	
	Copper	ppm	ASTM D5185m		<1	50	
	Tin	ppm	ASTM D5185m		<1	0	
	Vanadium	ppm	ASTM D5185m	7 = 0	<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	2	12	
	Potassium	ppm	ASTM D5185m		0	0	
There is no indication of any contamination in the oil.	Fuel	ррпп	WC Method	>6.0	<1.0	<1.0	
	Water		WC Method		NEG	NEG	
	Glycol		WC Method	>0.2	NEG	NEG	
	Soot %	%	*ASTM D7844	. 2	0.1	0	
	Nitration		*ASTM D7624	>20	6.1	7.	
	Sulfation	Abs/.1mm	*ASTM D7624		18.4	20.	
	Silt		*Visual		NONE		
		scalar		NONE		NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		<1	3	
The condition of the cil is accontable for the time in convice	Boron	ppm	ASTM D5185m	2.5	0	29	
The condition of the oil is acceptable for the time in service.	Barium	ppm	ASTM D5185m	0.0	0	0	
	Molybdenum	ppm	ASTM D5185m	0.7	58	48	
	Manganese	ppm	ASTM D5185m	0.0	0	1	
	Magnesium	ppm	ASTM D5185m	256	973	607	
	Calcium	ppm	ASTM D5185m	2057	1107	1655	
	Phosphorus	ppm	ASTM D5185m	935	1026	829	
	Zinc	ppm	ASTM D5185m	1223	1185	921	
	Sulfur	ppm	ASTM D5185m	4079	3569	2356	
	Oxidation	Abs/.1mm	*ASTM D7414		13.9	17.	
	Base Number (BN)	mg KOH/g	ASTM D2896	10	9.4		
	Visc @ 100°C	cSt	ASTM D445		12.7	12.77	







Laboratory

Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : VCP438863 Lab Number : 06153898

Unique Number : 10989321

Received **Tested**

: 19 Apr 2024 Diagnosed Test Package : MOB 1 (Additional Tests: TBN)

: 23 Apr 2024

: 23 Apr 2024 - Angela Borella

PREFERRED MATERIALS 4636 SCARBOROUGH DR LUTZ, FL US 33559

Contact: Service Manager

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:

T: (850)479-3004