



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**VOLVO D13 2012 17-INNT-01-011-M (S/N 4V4NC9EJDN133467)**

Component  
**Front Diesel Engine**

Fluid  
**MOBIL 15W40 (40 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	#6 Current	#5 History1	#4 History2
Sample Number				WC0323763	WC113770	WC113343
Sample Date				09 May 2019	29 Nov 2018	20 Sep 2018
Machine Age	kms			1388190	1364125	1352340
Oil Age	kms			24065	11785	21319
Filter Age	kms			24065	11785	21319
Oil Changed				Not Changd	Not Changd	Not Changd
Filter Changed				Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185	>80	50	11	21
Chromium	ppm	ASTM D5185	>6	<1	0	<1
Nickel	ppm	ASTM D5185	>2	1	<1	<1
Titanium	ppm	ASTM D5185	>2	<1	<1	0
Silver	ppm	ASTM D5185	>2	0	0	0
Aluminum	ppm	ASTM D5185	>20	8	3	4
Lead	ppm	ASTM D5185	>95	2	<1	1
Copper	ppm	ASTM D5185	>85	2	1	3
Tin	ppm	ASTM D5185	>9	<1	0	<1
Vanadium	ppm	ASTM D5185		0	0	0

**CONTAMINATION**

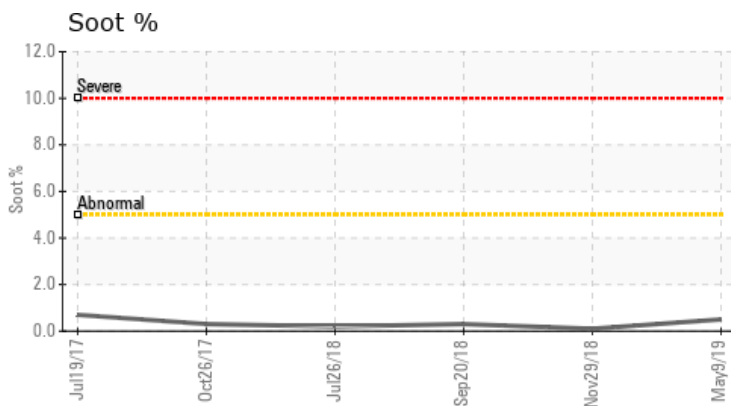
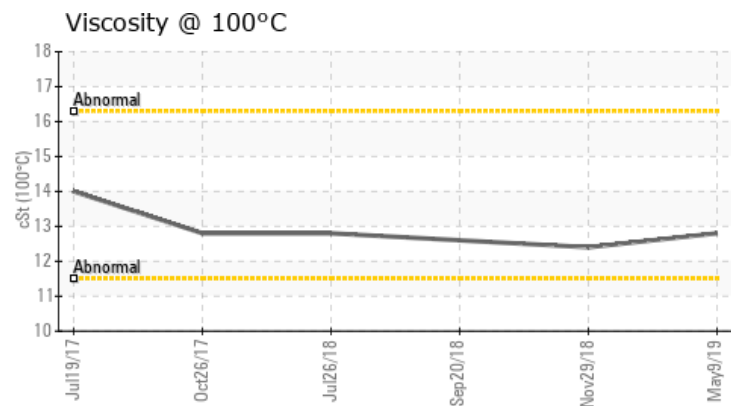
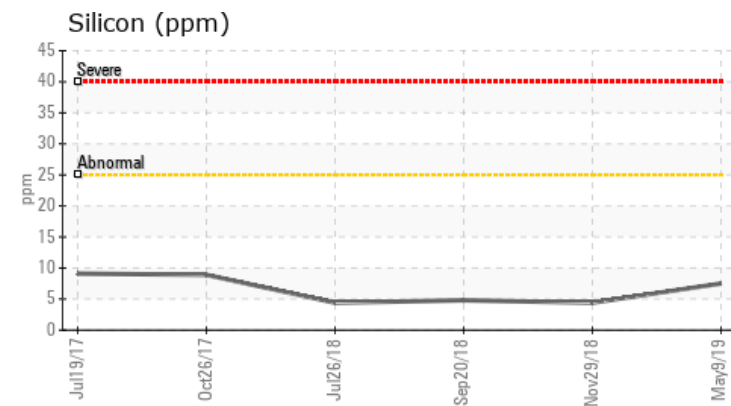
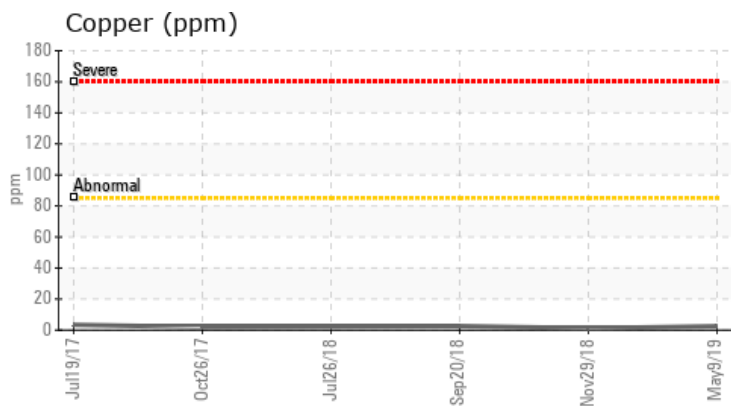
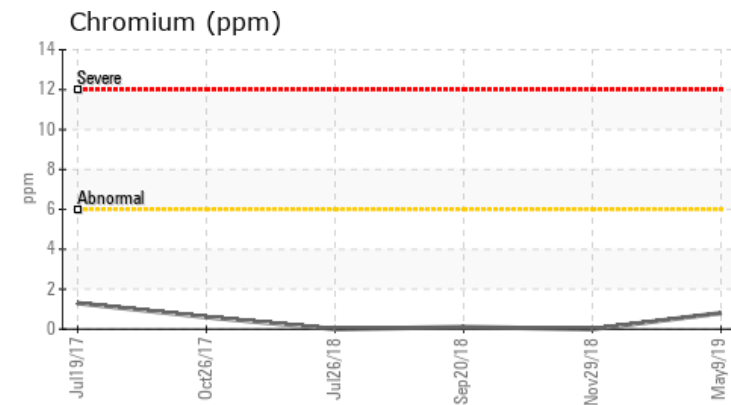
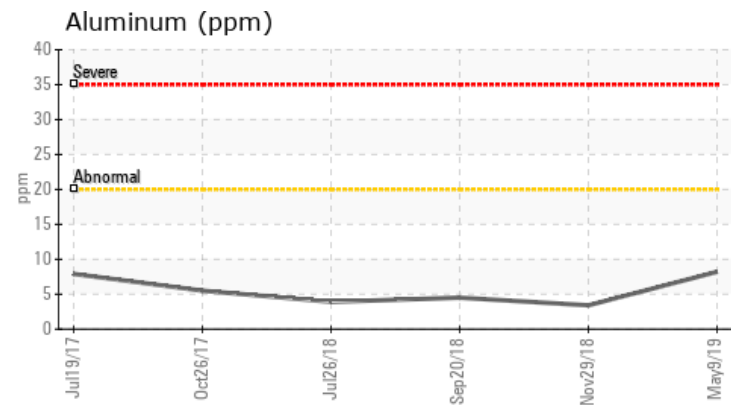
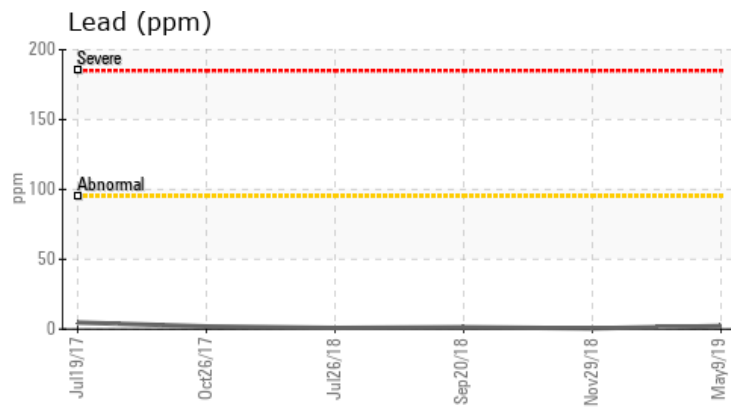
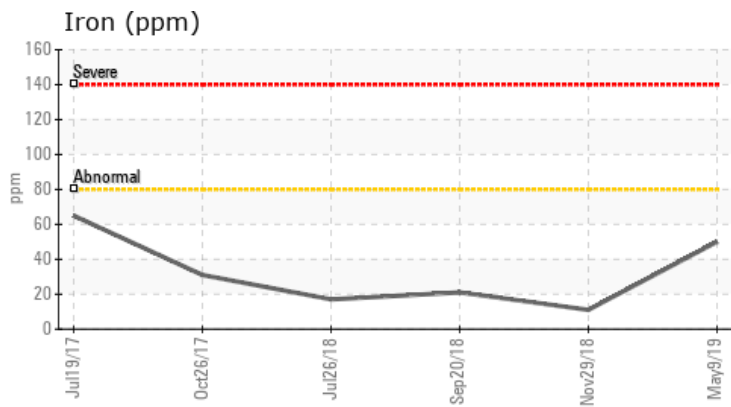
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185	>25	8	4	5
Potassium	ppm	ASTM D5185	>20	5	2	3
Fuel		ASTM D3524	>4.0	<1.0	<1.0	<1.0
Glycol		ASTM D2982		NEG	NEG	NEG
Soot %	%	ASTM D7686		0.5	0.1	0.3
Nitration	Abs/cm	ASTM D7624	>20	14.5	10.0	11.7
Sulfation	Abs/.1mm	ASTM D7415	>30	26.7	22.2	23.0
Emulsified Water	scalar	Visual	>0.1	NEG	NEG	NEG

**FLUID CONDITION**

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185	>118	11	10	8
Boron	ppm	ASTM D5185		31	34	15
Barium	ppm	ASTM D5185		0	0	0
Molybdenum	ppm	ASTM D5185		70	70	42
Manganese	ppm	ASTM D5185		<1	<1	<1
Magnesium	ppm	ASTM D5185		451	445	450
Calcium	ppm	ASTM D5185		1620	1585	1612
Phosphorus	ppm	ASTM D5185		727	691	705
Zinc	ppm	ASTM D5185		860	812	849
Sulfur	ppm	ASTM D5185		2074	2037	2151
Oxidation	Abs/.1mm	ASTM D7414	>25	29.2	22.1	24.0
Visc @ 100°C	cSt	ASTM D7279		12.8	12.4	12.6



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0323763      **Received** : 16 May 2019  
**Lab Number** : 02285450      **Diagnosed** : 16 May 2019  
**Unique Number** : 4864694      **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1

**Adrenalube - 9042628 Canada Inc**  
 3755 - E Boul Matte  
 Brossard, QC  
 Canada J4Y 2P4  
 Contact: Pierre Beauchamp  
 support-tech@adrenalube.com  
 T: (514)999-5546  
 F:

To discuss diagnosis or test data, contact Technical Support at 1-800-268-2131.  
 To change component or sample information, contact Customer Service at 1-800-268-2131.