



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
FREIGHTLINER CASCADIA 2016 18-INNT-01-038-M (S/N 1FUJGLCK68LY46697)

Component
DETROIT DD15 Front Diesel Engine

Fluid
MOBIL 15W40 (40 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	#3 Current	#2 History1	#1 History2
Sample Number				WC113943	WC113761	WC112678
Sample Date				04 Feb 2019	10 Oct 2018	26 Jul 2018
Machine Age	kms			827037	759779	718147
Oil Age	kms			67258	41632	20000
Filter Age	kms			67258	41632	20000
Oil Changed				Changed	Not Changd	Not Changd
Filter Changed				Changed	Not Changd	Not Changd
Sample Status				NORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185	>69	24	21	7
Chromium	ppm	ASTM D5185	>6	2	<1	<1
Nickel	ppm	ASTM D5185	>3	<1	<1	<1
Titanium	ppm	ASTM D5185		<1	0	0
Silver	ppm	ASTM D5185		0	0	0
Aluminum	ppm	ASTM D5185	>53	12	5	2
Lead	ppm	ASTM D5185	>11	<1	<1	0
Copper	ppm	ASTM D5185	>388	2	3	1
Tin	ppm	ASTM D5185	>6	0	0	0
Vanadium	ppm	ASTM D5185		<1	0	0

CONTAMINATION

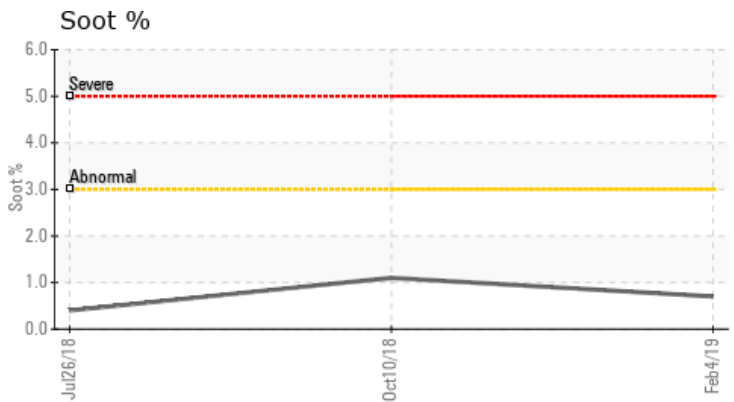
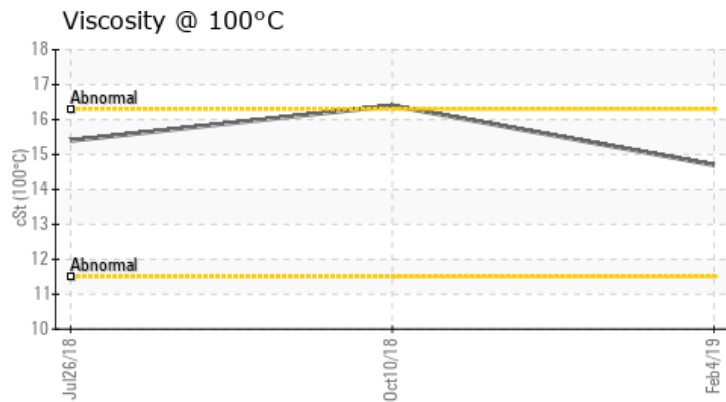
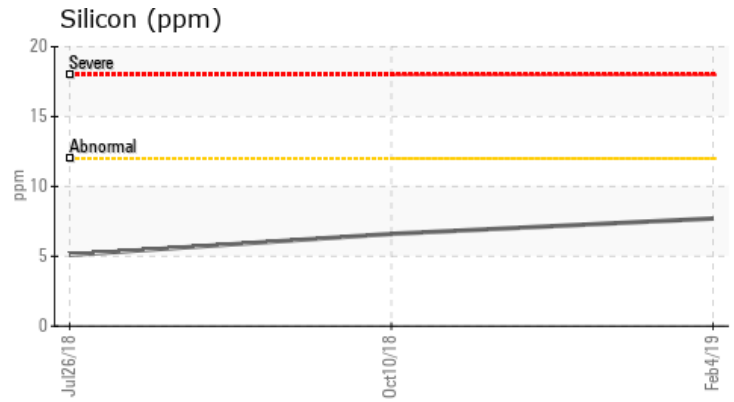
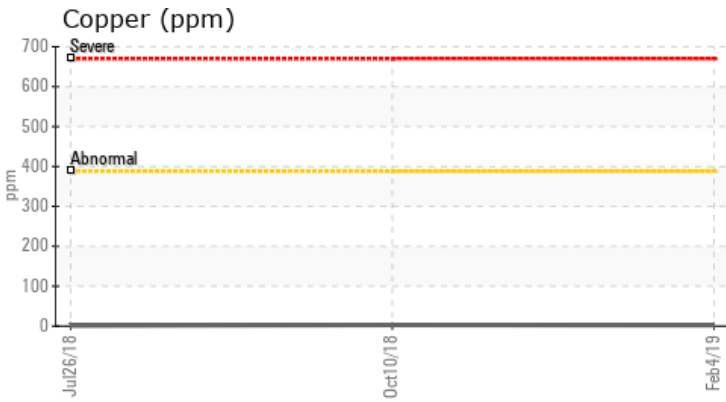
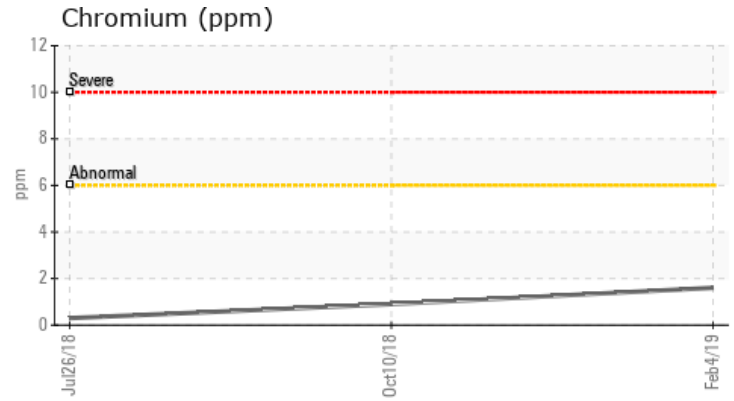
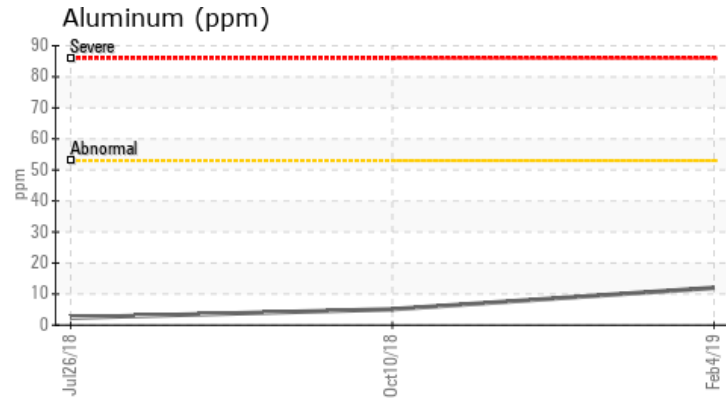
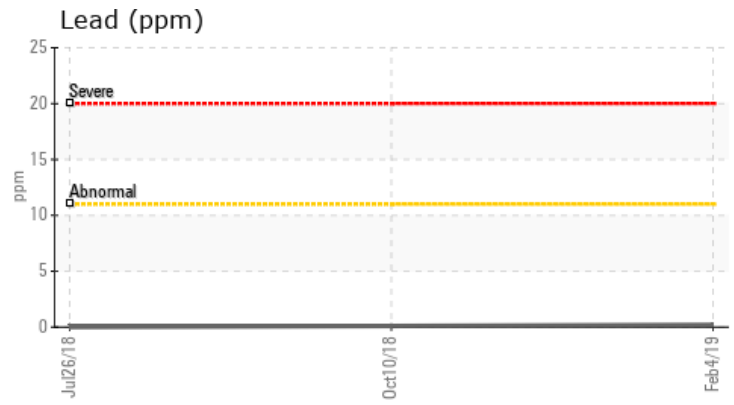
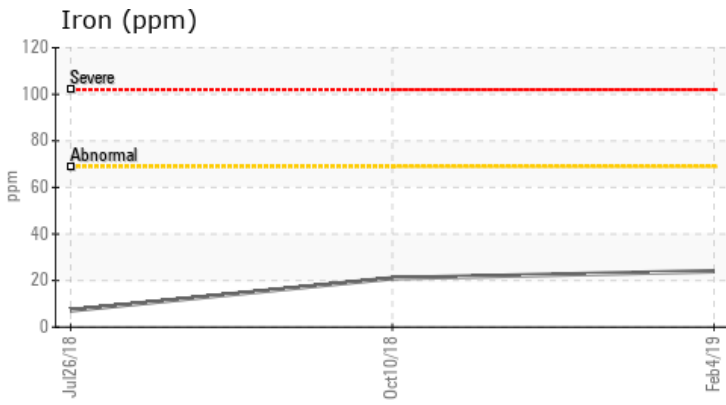
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185	>12	8	7	5
Potassium	ppm	ASTM D5185	>20	2	8	7
Fuel		ASTM D3524	>3.0	<1.0	<1.0	<1.0
Glycol		ASTM D2982		NEG	NEG	NEG
Soot %	%	ASTM D7686	>3	0.7	1.1	0.4
Nitration	Abs/cm	ASTM D7624	>20	11.7	11.9	9.2
Sulfation	Abs/.1mm	ASTM D7415	>30	25.4	29.6	23.3
Emulsified Water	scalar	Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185	>118	12	6	2
Boron	ppm	ASTM D5185		45	22	90
Barium	ppm	ASTM D5185		0	0	0
Molybdenum	ppm	ASTM D5185		71	27	27
Manganese	ppm	ASTM D5185		<1	<1	<1
Magnesium	ppm	ASTM D5185		467	90	86
Calcium	ppm	ASTM D5185		1771	2264	2170
Phosphorus	ppm	ASTM D5185		748	903	991
Zinc	ppm	ASTM D5185		916	1187	1141
Sulfur	ppm	ASTM D5185		2128	2757	2929
Oxidation	Abs/.1mm	ASTM D7414	>25	25.5	25.9	19.1
Visc @ 100°C	cSt	ASTM D7279		14.7	▲ 16.4	15.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC113943 **Received** : 08 Feb 2019
Lab Number : 02266816 **Diagnosed** : 08 Feb 2019
Unique Number : 4822047 **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.