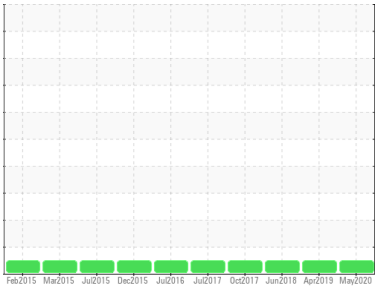
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
FREIGHTLINER 8157
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 10W30 (44 QTS)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the component.

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION	method	limit/base	current	history 1	history 2
Sample Number			**PCA0009963**	PCAMF019389	PCAMF020510
Sample Date			**04 May 2020**	19 Apr 2019	20 Jun 2018
Machine Age	mls		**594476**	559699	530826
Oil Age	mls		**34777**	28846	32341
Oil Changed			**Changed**	Changed	Changed
Sample Status			**NORMAL**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history 1	history 2
Fuel		ASTM D3524	>3.0	**<1.0**	<1.0	<1.0
Glycol		ASTM D2982		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m	>69	**37**	22	20
Chromium	ppm	ASTM D5185m	>6	**2**	1	1
Nickel	ppm	ASTM D5185m	>3	**<1**	<1	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>53	**8**	7	6
Lead	ppm	ASTM D5185m	>11	**2**	<1	<1
Copper	ppm	ASTM D5185m	>388	**6**	5	6
Tin	ppm	ASTM D5185m	>6	**0**	0	0
Antimony	ppm	ASTM D5185m		**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m		**3**	8	3
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**71**	56	38
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**1218**	760	571
Calcium	ppm	ASTM D5185m		**1418**	1206	1564
Phosphorus	ppm	ASTM D5185m		**1170**	882	914
Zinc	ppm	ASTM D5185m		**1430**	1131	1191
Sulfur	ppm	ASTM D5185m		**2628**	2207	2588

CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>12	**5**	3	5
Sodium	ppm	ASTM D5185m		**5**	3	4
Potassium	ppm	ASTM D5185m	>20	**8**	12	0

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7686	>3	**1.6**	1.6	1
Nitration	Abs/cm	*ASTM D7624	>20	**11.3**	10.4	9.
Sulfation	Abs/.1mm	*ASTM D7415	>30	**24.2**	22.8	21.

FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**20**	17.6	16.
Base Number (BN)	mg KOH/g	ASTM D2896		**7.3**	7.4	5.77

Report Id: CUSANY [WUSCAR] 01234567 (Generated: 10/20/2020 13:21:17)

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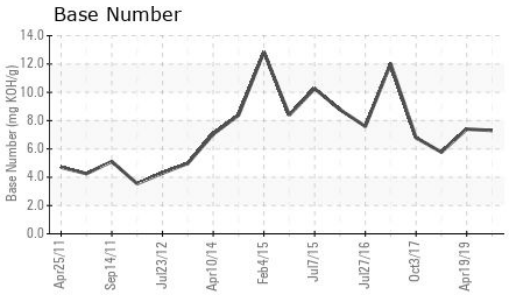
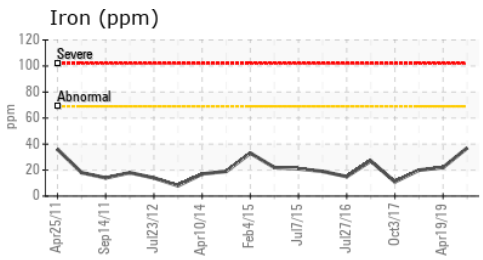
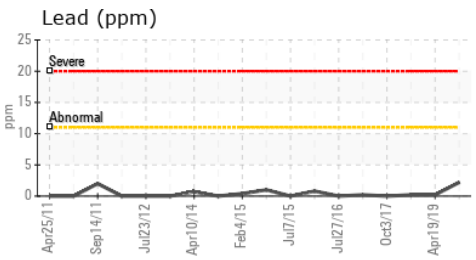


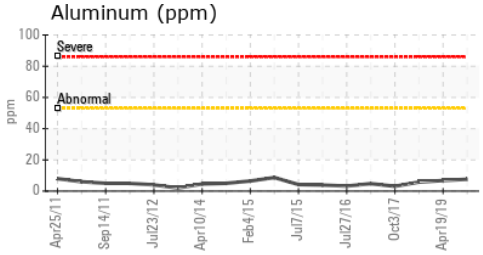
VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

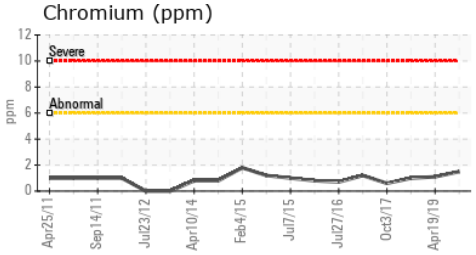
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445		**11.9**	12.0	12.02

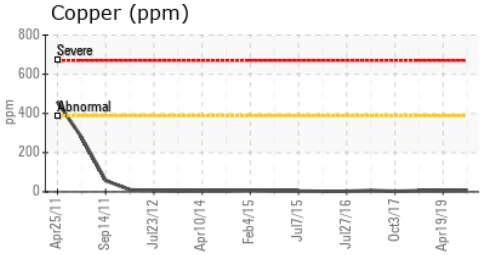
GRAPHS

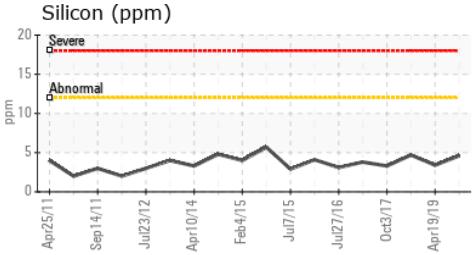


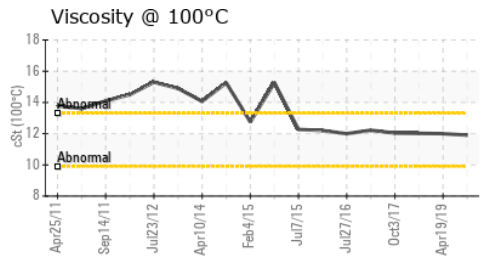


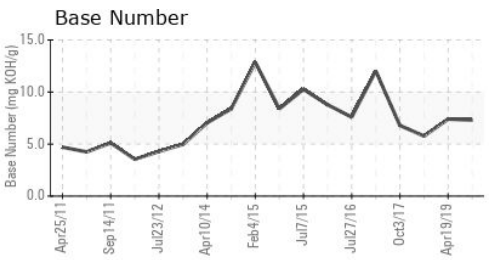












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC1234567
Lab Number : 01234567
Unique Number : 12345678
Test Package : MOB1+

Received : 28 May 2020
Diagnosed : 30 May 2020
Diagnostician : Don Baldridge

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.*
Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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