



PROBLEM SUMMARY

Sample Rating Trend

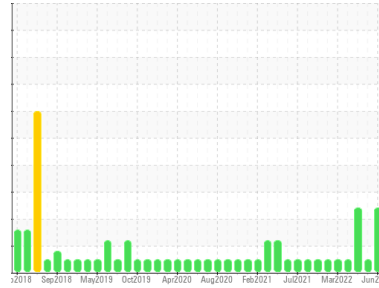
FUEL



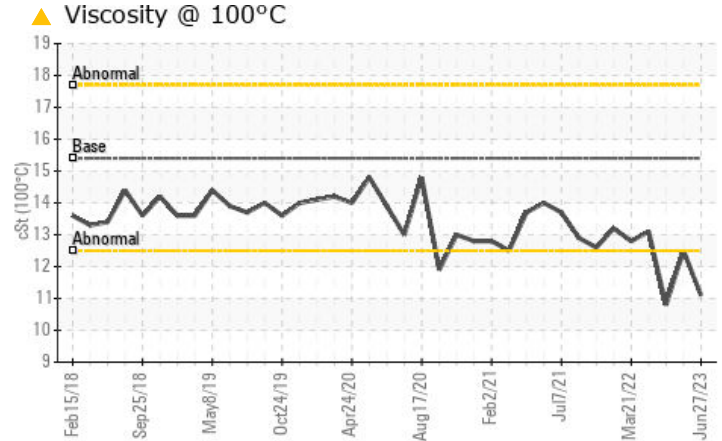
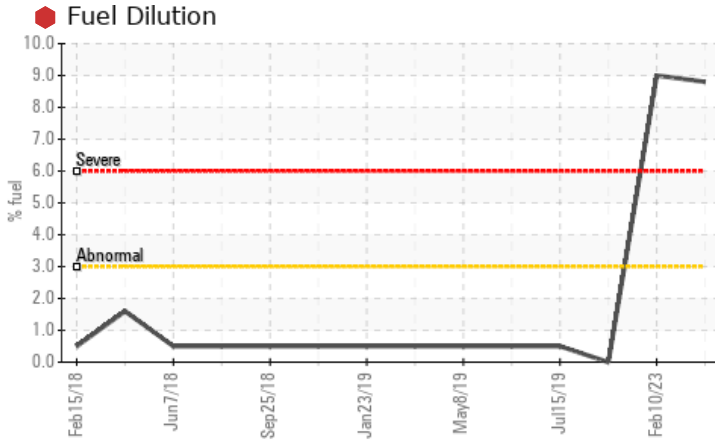
Machine Id
CUMMINS 10851

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	SEVERE
Fuel	%	ASTM D3524	>3.0	8.8	<1.0	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	11.1	12.5	10.8

Customer Id: GFL009
 Sample No.: GFL0057565
 Lab Number: 05887684
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

25 May 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 30. Please confirm. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



10 Feb 2023 Diag: Don Baldrige

FUEL



We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable.

view report



05 Apr 2022 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

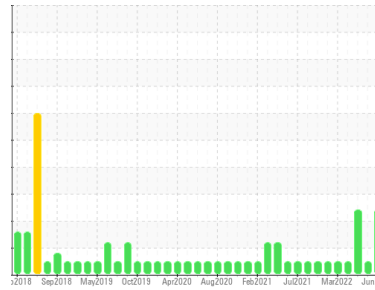
view report





OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
CUMMINS 10851

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a high amount of fuel present in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		GFL0057565	GFL0057613	GFL0057624
Sample Date	Client Info		27 Jun 2023	25 May 2023	10 Feb 2023
Machine Age	hrs	Client Info	14830	11975	11975
Oil Age	hrs	Client Info	14830	14690	13458
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			SEVERE	NORMAL	SEVERE

CONTAMINATION

	method	limit/base	current	history 1	history 2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >75	8	34	23
Chromium	ppm	ASTM D5185m >5	0	2	1
Nickel	ppm	ASTM D5185m >4	0	<1	0
Titanium	ppm	ASTM D5185m >2	<1	<1	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >15	<1	4	2
Lead	ppm	ASTM D5185m >25	0	0	0
Copper	ppm	ASTM D5185m >100	<1	2	2
Tin	ppm	ASTM D5185m >4	0	<1	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 0	17	28	9
Barium	ppm	ASTM D5185m 0	14	0	1
Molybdenum	ppm	ASTM D5185m 60	60	82	56
Manganese	ppm	ASTM D5185m 0	0	<1	<1
Magnesium	ppm	ASTM D5185m 1010	771	1020	664
Calcium	ppm	ASTM D5185m 1070	982	1290	916
Phosphorus	ppm	ASTM D5185m 1150	887	1184	769
Zinc	ppm	ASTM D5185m 1270	1107	1459	974
Sulfur	ppm	ASTM D5185m 2060	3202	3805	2403

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	5	19	8
Sodium	ppm	ASTM D5185m	28	36	61
Potassium	ppm	ASTM D5185m >20	2	2	2
Fuel	%	ASTM D3524 >3.0	8.8	<1.0	9.0

INFRA-RED

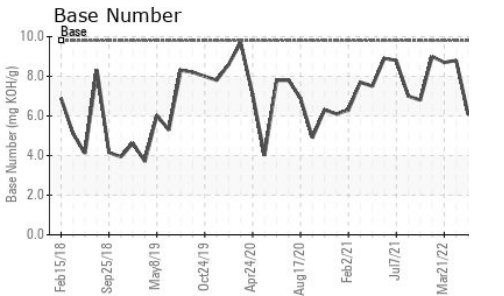
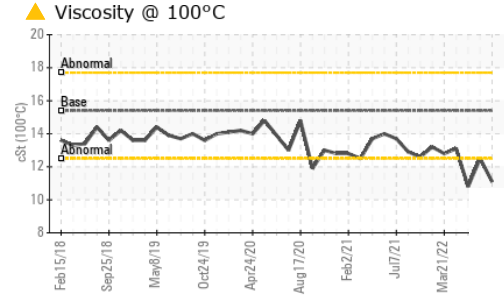
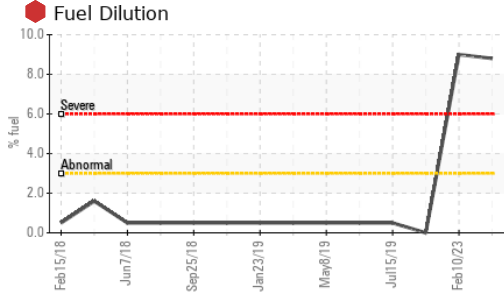
	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844 >6	0.3	0.5	0.3
Nitration	Abs/cm	*ASTM D7624 >20	9.9	13.1	10.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.2	23.4	19.8

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.0	24.3	16.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.1	6.1	6.1



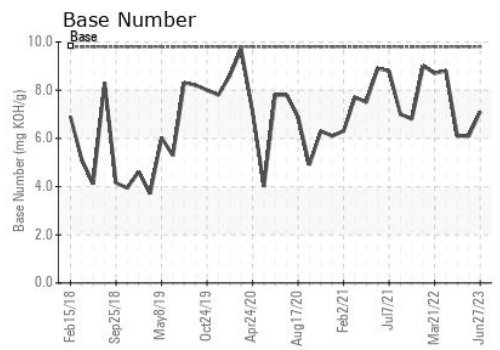
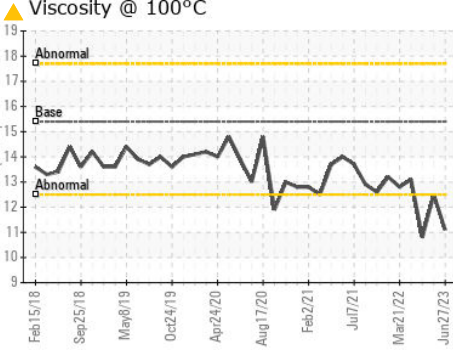
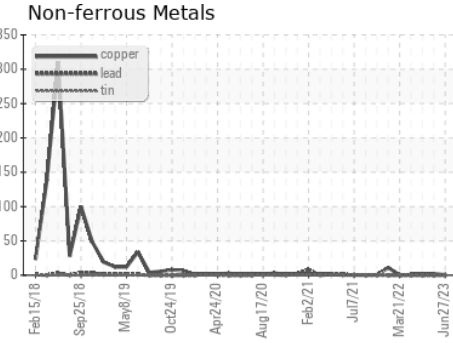
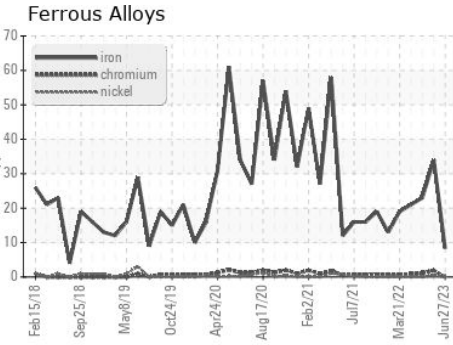
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	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
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	▲ 11.1	12.5	▲ 10.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0057565 **Received** : 30 Jun 2023
Lab Number : 05887684 **Diagnosed** : 04 Jul 2023
Unique Number : 10538167 **Diagnostician** : Don Baldrige
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 009 - Fairburn
 6905 Roosevelt Hwy
 Fairburn, GA
 US 30213
 Contact: Eric Jones
 erjones@gflenv.com
 T: (678)630-9927
 F:

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)