



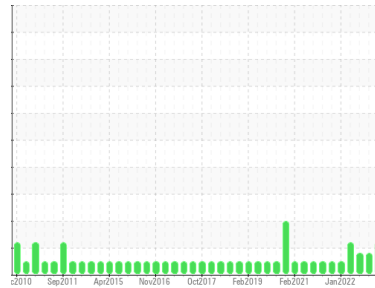
PROBLEM SUMMARY

Sample Rating Trend

FUEL

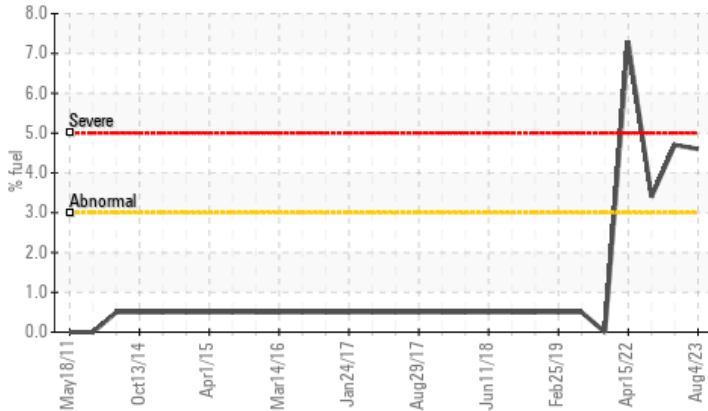


Machine Id
2363
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (60 QTS)

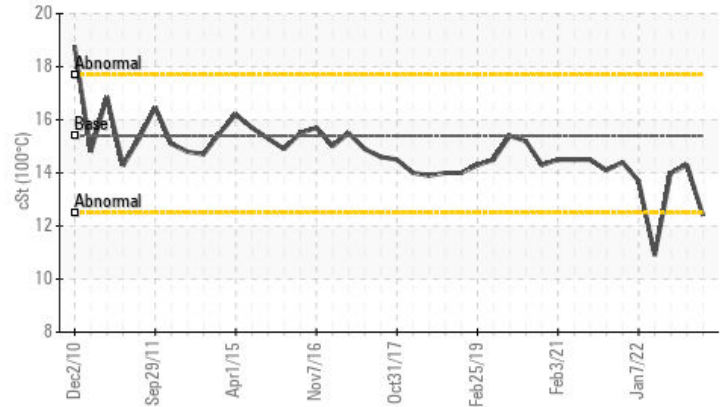


COMPONENT CONDITION SUMMARY

Fuel Dilution



Viscosity @ 100°C



RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: 1)

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	MARGINAL	ABNORMAL
Fuel	%	ASTM D3524	>3.0	▲ 4.6	▲ 4.7	▲ 3.4
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 12.4	14.3	14.0

Customer Id: GFL030
Sample No.: GFL0081015
Lab Number: 05922047
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	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

03 Mar 2023 Diag: Wes Davis

FUEL



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected 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](#)



21 Apr 2022 Diag: Wes Davis

FUEL



The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

[view report](#)



15 Apr 2022 Diag: Jonathan Hester

FUEL



We advise that you check the fuel injection system. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

[view report](#)





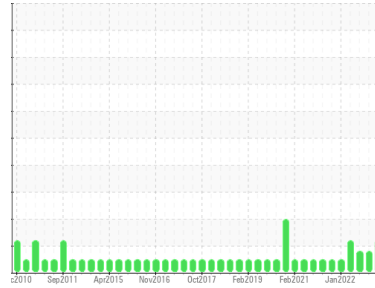
OIL ANALYSIS REPORT

Sample Rating Trend

FUEL



Machine Id
2363
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (60 QTS)



DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: 1)

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0081015	GFL0070792	GFL0041922
Sample Date	Client Info		04 Aug 2023	03 Mar 2023	21 Apr 2022
Machine Age	mls	Client Info	414900	414900	33362
Oil Age	mls	Client Info	600	600	573
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ABNORMAL	MARGINAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	19	47	26
Chromium	ppm	ASTM D5185m >20	<1	1	<1
Nickel	ppm	ASTM D5185m >5	<1	<1	0
Titanium	ppm	ASTM D5185m >2	0	<1	<1
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >20	3	6	4
Lead	ppm	ASTM D5185m >40	<1	17	1
Copper	ppm	ASTM D5185m >330	<1	3	1
Tin	ppm	ASTM D5185m >15	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	28	56	111
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	60	80	84
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	579	709	783
Calcium	ppm	ASTM D5185m 1070	1248	1245	1209
Phosphorus	ppm	ASTM D5185m 1150	866	812	823
Zinc	ppm	ASTM D5185m 1270	1071	1004	1002
Sulfur	ppm	ASTM D5185m 2060	3014	2419	2343

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	11	7
Sodium	ppm	ASTM D5185m	<1	9	1
Potassium	ppm	ASTM D5185m >20	2	10	4
Fuel	%	ASTM D3524 >3.0	▲ 4.6	▲ 4.7	▲ 3.4

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	2	3.9	3
Nitration	Abs/cm	*ASTM D7624 >20	7.2	11.1	9.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.1	27.4	26.7

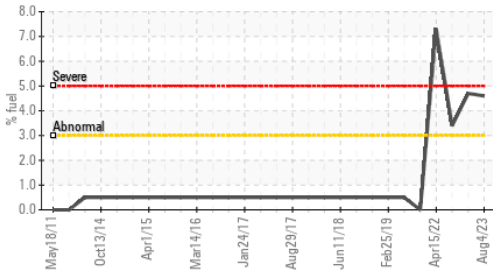
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	12.0	17.0	17.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	7.8	6.3	10.1

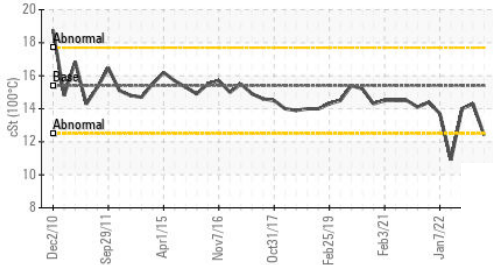


OIL ANALYSIS REPORT

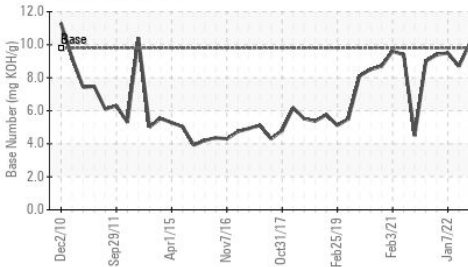
▲ Fuel Dilution



▲ Viscosity @ 100°C



Base Number

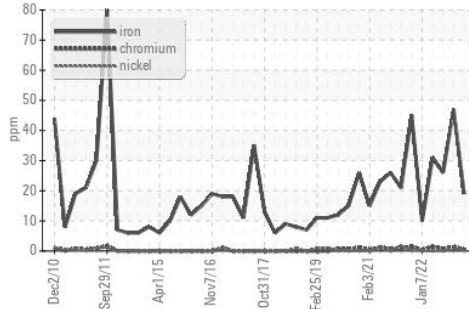


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

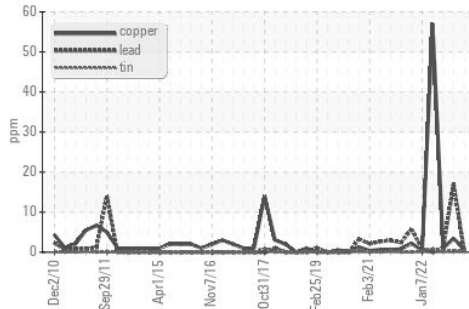
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 12.4	14.3	14.0

GRAPHS

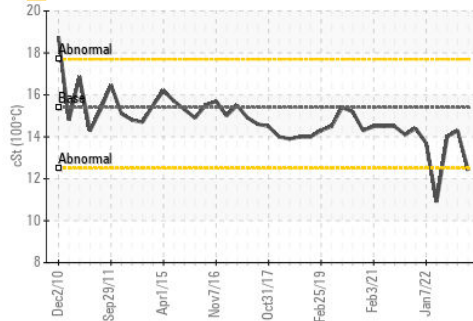
Ferrous Alloys



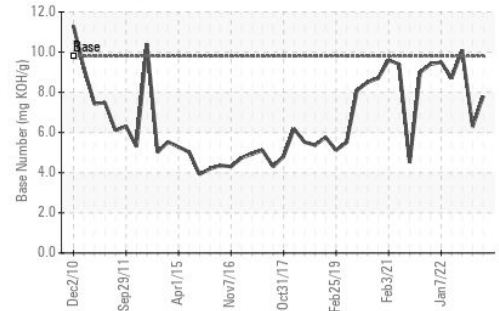
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0081015 **Received** : 11 Aug 2023
Lab Number : 05922047 **Diagnosed** : 14 Aug 2023
Unique Number : 10601994 **Diagnostician** : Don Baldridge
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 030 - Conway Myrtle Beach
 3010 HWY 378
 Conway, SC
 US 29527
 Contact: CHET STROSCHINE
 cstroschine@gflenv.com

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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