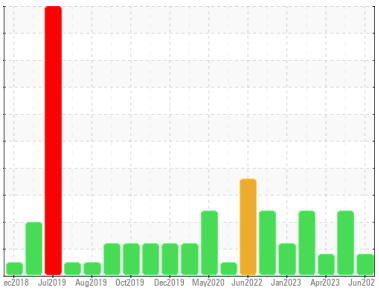
PROBLEM SUMMARY

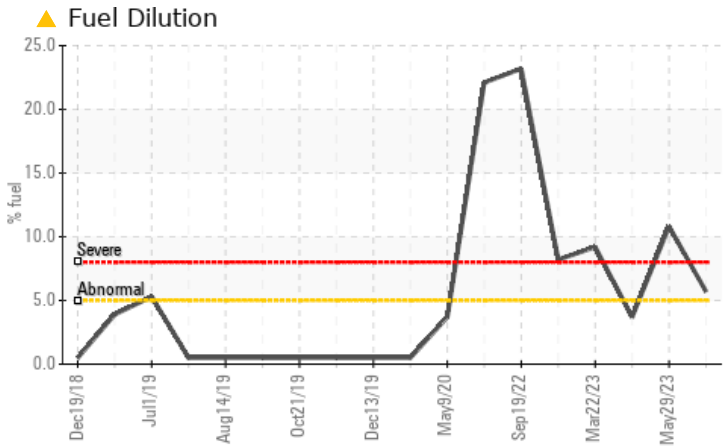
Sample Rating Trend



FUEL

Machine Id
727090-361682
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	SEVERE	MARGINAL
Fuel	%	ASTM D3524	>5	▲ **5.7**	⬢ 10.8	▲ 3.7

Customer Id: GFL865
Sample No.: GFL0083484
Lab Number: 05889996
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

29 May 2023 Diag: Don Baldridge

FUEL

We advise that you check the fuel injection system. Oil and filter 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 high 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

04 Apr 2023 Diag: Angela Borella

FUEL

We advise that you check the fuel injection system. We recommend an early resample to monitor this condition.Metal levels are typical for a new component breaking in. Light fuel dilution occurring. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

22 Mar 2023 Diag: Doug Bogart

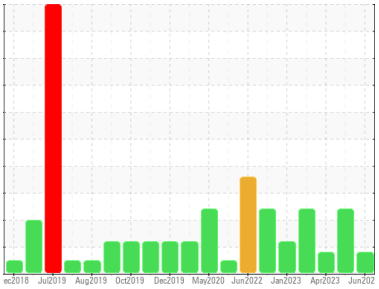
FUEL

We advise that you check the fuel injection system. Oil and filter 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 high 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
727090-361682
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation
The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition
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.

SAMPLE INFORMATION		method	limit/base	current	history 1	history 2
Sample Number		Client Info		**GFL0083484**	GFL0083505	GFL0065139
Sample Date		Client Info		**23 Jun 2023**	29 May 2023	04 Apr 2023
Machine Age	hrs	Client Info		**14707**	14592	14269
Oil Age	hrs	Client Info		**14707**	14592	14269
Oil Changed		Client Info		**Changed**	Changed	N/A
Sample Status				**ABNORMAL**	SEVERE	MARGINAL

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	>100	**9**	26	6
Chromium	ppm	ASTM D5185m	>20	**<1**	1	0
Nickel	ppm	ASTM D5185m	>4	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**<1**	2	1
Lead	ppm	ASTM D5185m	>40	**0**	0	0
Copper	ppm	ASTM D5185m	>330	**<1**	<1	0
Tin	ppm	ASTM D5185m	>15	**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	0	**2**	0	0
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**60**	56	51
Manganese	ppm	ASTM D5185m	0	**<1**	0	<1
Magnesium	ppm	ASTM D5185m	1010	**965**	902	802
Calcium	ppm	ASTM D5185m	1070	**1067**	1021	950
Phosphorus	ppm	ASTM D5185m	1150	**1052**	907	862
Zinc	ppm	ASTM D5185m	1270	**1299**	1133	1011
Sulfur	ppm	ASTM D5185m	2060	**3781**	3167	2585

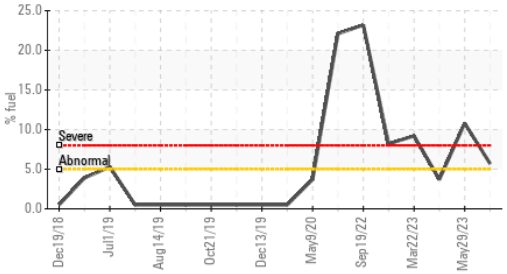
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	**3**	5	3
Sodium	ppm	ASTM D5185m		**7**	12	5
Potassium	ppm	ASTM D5185m	>20	**1**	1	0
Fuel	%	ASTM D3524	>5	▲ **5.7**	⬢ 10.8	▲ 3.7

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	**0.8**	1.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**9.3**	14.2	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.4**	25.5	19.1

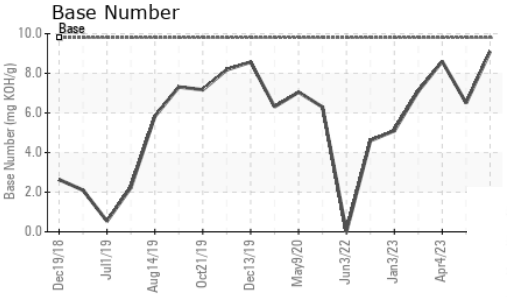
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**18.6**	24.0	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**9.1**	6.5	8.6

OIL ANALYSIS REPORT

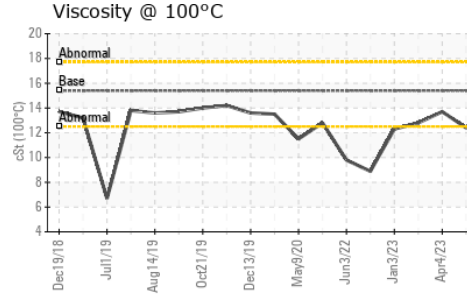
Fuel Dilution



Base Number



Viscosity @ 100°C

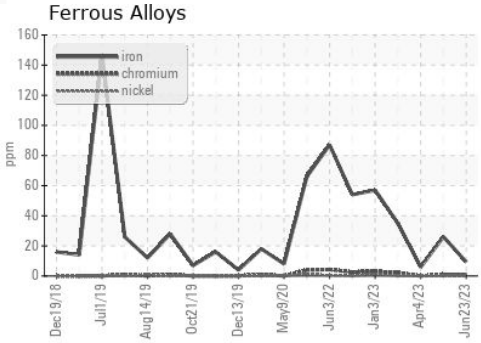


VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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

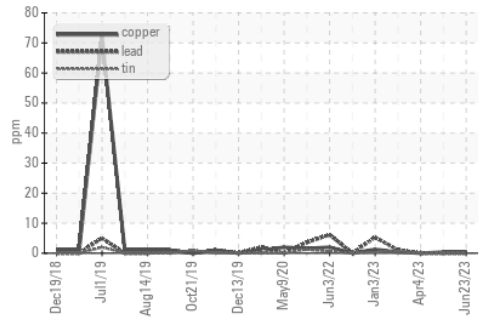
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	**13.6**	▲ 12.4	13.7

GRAPHS

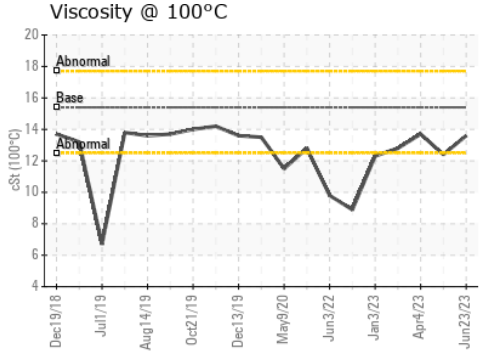
Ferrous Alloys



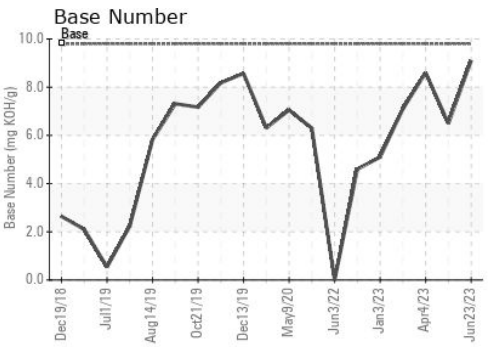
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0083484 **Received** : 05 Jul 2023
Lab Number : 05889996 **Diagnosed** : 06 Jul 2023
Unique Number : 10545806 **Diagnostician** : Wes Davis
Test Package : FLEET (Additional Tests: PercentFuel)

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)

GFL Environmental - 865 - East Mount Hauling
7213 East Mount Houston Road
Houston, TX
US 77050
Contact: Saul Castillo
saul.castillo@gflenv.com
T:
F:

Report Id: GFL865 [WUSCAR] 05889996 (Generated: 07/06/2023 09:32:13) Rev: 1

Submitted By: TECHNICIAN ACCOUNT