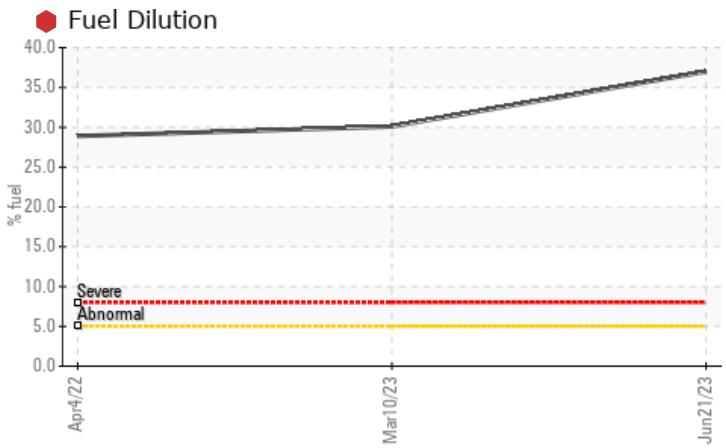
PROBLEM SUMMARY

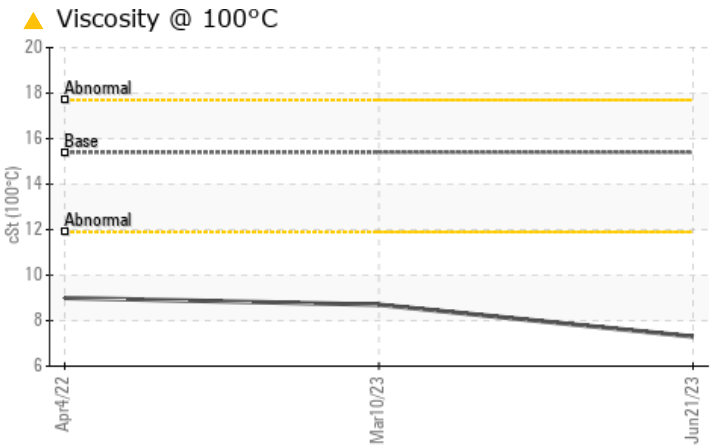
Sample Rating Trend

FUEL

Machine Id
727020-1168
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- 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. (Customer Sample Comment: Sampled oil)

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Fuel	%	ASTM D3524	>5	**37.0**	30.1	28.9
Visc @ 100°C	cSt	ASTM D445	15.4	**7.3**	8.7	9

Customer Id: GFL622
Sample No.: GFL0083930
Lab Number: 05883859
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +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

10 Mar 2023 Diag: Jonathan Hester

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.Metal levels are typical for a new component breaking in. 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. The oil is no longer serviceable due to the presence of contaminants.

view report

04 Apr 2022 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.Metal levels are typical for a new component breaking in. 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
727020-1168
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- 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. (Customer Sample Comment: Sampled oil)

Wear

Metal levels are typical for a new component breaking in.

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 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		**GFL0083930**	GFL0071392	GFL0042773
Sample Date		Client Info		**21 Jun 2023**	10 Mar 2023	04 Apr 2022
Machine Age	hrs	Client Info		**148621**	14694	142824
Oil Age	hrs	Client Info		**0**	0	10000
Oil Changed		Client Info		**Not Changd**	Changed	Changed
Sample Status				**SEVERE**	SEVERE	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	>100	**12**	13	26
Chromium	ppm	ASTM D5185m	>20	**0**	1	1
Nickel	ppm	ASTM D5185m	>4	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**3**	2	2
Lead	ppm	ASTM D5185m	>40	**<1**	2	6
Copper	ppm	ASTM D5185m	>330	**<1**	1	2
Tin	ppm	ASTM D5185m	>15	**0**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	**7**	48	69
Barium	ppm	ASTM D5185m	0	**4**	0	0
Molybdenum	ppm	ASTM D5185m	60	**36**	48	45
Manganese	ppm	ASTM D5185m	0	**0**	1	<1
Magnesium	ppm	ASTM D5185m	1010	**531**	756	231
Calcium	ppm	ASTM D5185m	1070	**630**	624	572
Phosphorus	ppm	ASTM D5185m	1150	**583**	672	274
Zinc	ppm	ASTM D5185m	1270	**726**	862	345
Sulfur	ppm	ASTM D5185m	2060	**2079**	2437	796

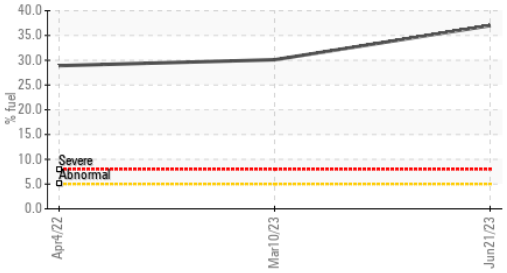
CONTAMINANTS		method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m	>25	**4**	9	5
Sodium	ppm	ASTM D5185m		**1**	3	1
Potassium	ppm	ASTM D5185m	>20	**<1**	1	3
Fuel	%	ASTM D3524	>5	**37.0**	30.1	28.9

INFRA-RED		method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	>3	**0.7**	0.5	1.6
Nitration	Abs/cm	*ASTM D7624	>20	**11.4**	11.6	16.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.4**	20.6	28.1

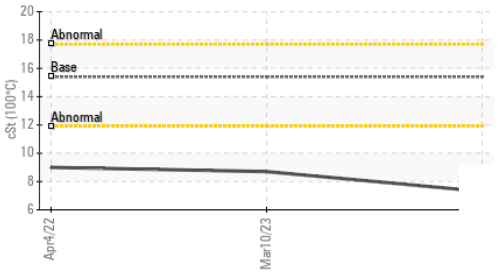
FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**20.3**	20.6	31.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**9.0**	9.4	8.7

OIL ANALYSIS REPORT

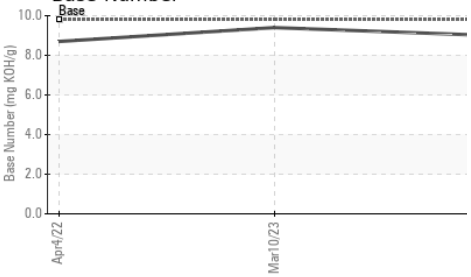
Fuel Dilution



Viscosity @ 100°C



Base Number

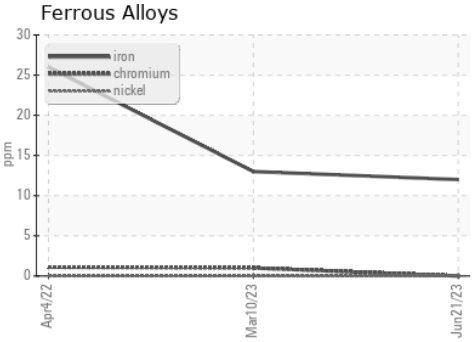


VISUAL		method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

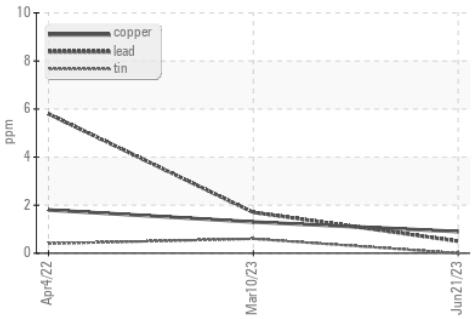
FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **7.3**	▲ 8.7	▲ 9

GRAPHS

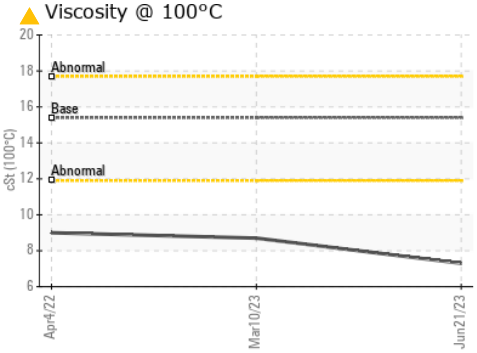
Ferrous Alloys



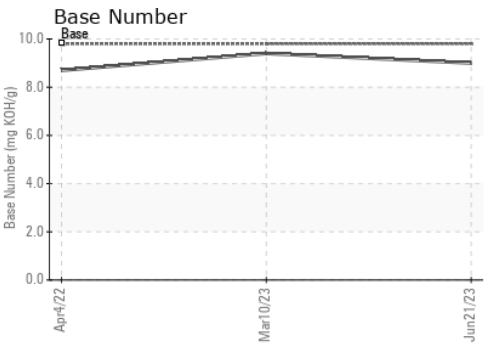
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0083930 **Received** : 26 Jun 2023
Lab Number : 05883859 **Diagnosed** : 29 Jun 2023
Unique Number : 10534342 **Diagnostician** : Don Baldridge
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 - 622 - Traverse City Hauling
160 Hughes Dr
Traverse City, MI
US 49686
Contact: GARY BREWER
T:
F:

Report Id: GFL622 [WUSCAR] 05883859 (Generated: 06/30/2023 08:26:16) Rev: 1

Submitted By: TECHNICIAN ACCOUNT