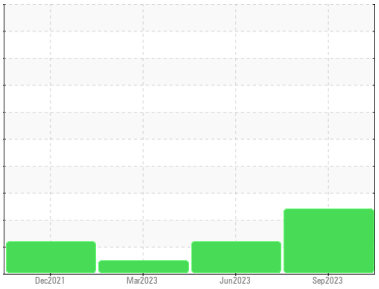
PROBLEM SUMMARY

Sample Rating Trend

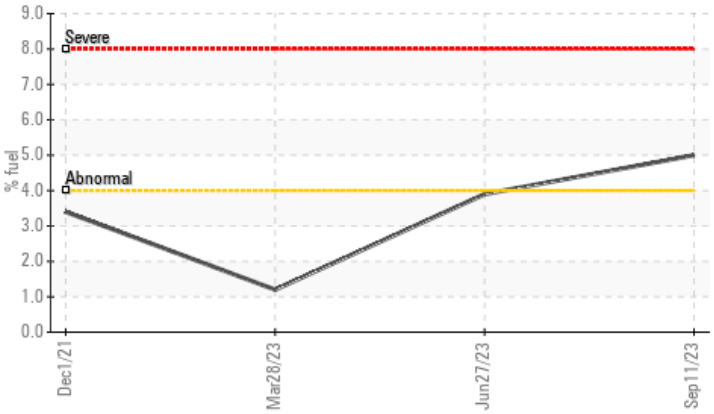


DEGRADATION

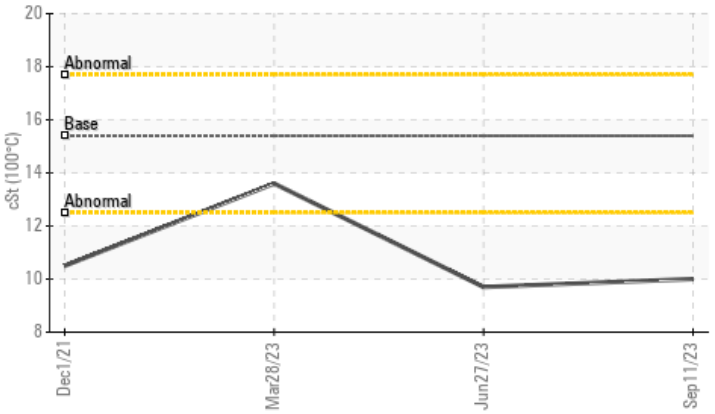
Machine Id
255001-838
Component
Gasoline Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

Fuel Dilution



Viscosity @ 100°C



RECOMMENDATION

We advise that you check the fuel injection system. The oil is near the end of it`s useful service life, recommend schedule an oil change. Resample at the next service interval to monitor. (Customer Sample Comment: Sample oil)

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	NORMAL
Fuel	%	ASTM D3524	>4.0	▲ **5.0**	▲ 3.9	1.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ **2.5**	4.5	4.0
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **10.0**	▲ 9.7	13.6

Customer Id: GFL625
Sample No.: GFL0088271
Lab Number: 05947783
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Service/change Fluid	---	---	?	The oil is near the end of it's useful service life, recommend schedule an oil change.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

27 Jun 2023 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

28 Mar 2023 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. Fuel content negligible. 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

01 Dec 2021 Diag: Don Baldridge

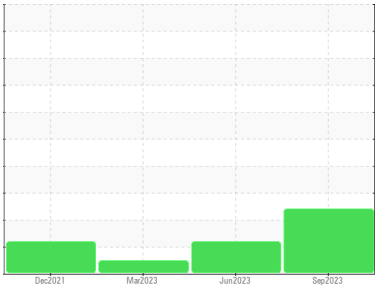
FUEL

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. Light fuel dilution occurring. 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



DEGRADATION

Machine Id
255001-838
Component
Gasoline Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

We advise that you check the fuel injection system. The oil is near the end of it`s useful service life, recommend schedule an oil change. Resample at the next service interval to monitor. (Customer Sample Comment: Sample oil)

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 level is low.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0088271**	GFL0077496	GFL0064446
Sample Date		Client Info		**11 Sep 2023**	27 Jun 2023	28 Mar 2023
Machine Age	mls	Client Info		**177458**	171656	168363
Oil Age	mls	Client Info		**7869**	2067	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Changed
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

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	>150	**16**	9	34
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	1
Nickel	ppm	ASTM D5185m	>5	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>40	**3**	<1	4
Lead	ppm	ASTM D5185m	>50	**0**	0	0
Copper	ppm	ASTM D5185m	>155	**<1**	<1	0
Tin	ppm	ASTM D5185m	>10	**<1**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	---
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	**25**	68	3
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**83**	67	74
Manganese	ppm	ASTM D5185m	0	**2**	<1	1
Magnesium	ppm	ASTM D5185m	1010	**506**	499	933
Calcium	ppm	ASTM D5185m	1070	**876**	865	1136
Phosphorus	ppm	ASTM D5185m	1150	**604**	598	924
Zinc	ppm	ASTM D5185m	1270	**675**	696	1235
Sulfur	ppm	ASTM D5185m	2060	**2566**	2497	3401

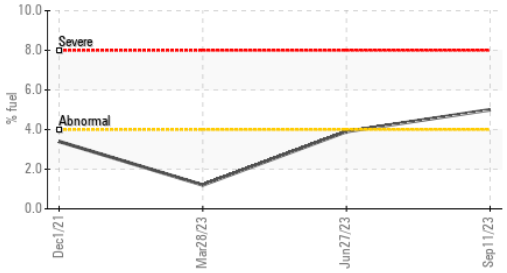
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	**12**	8	10
Sodium	ppm	ASTM D5185m	>400	**4**	3	5
Potassium	ppm	ASTM D5185m	>20	**1**	2	3
Fuel	%	ASTM D3524	>4.0	**▲ 5.0**	▲ 3.9	1.2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**13.1**	9.7	15.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	**27.6**	20.3	29.1

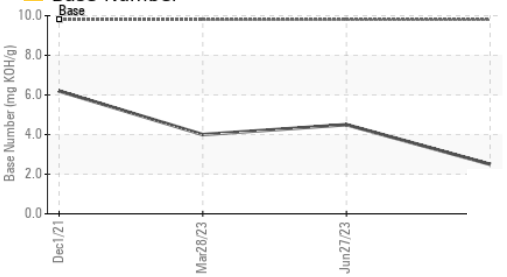
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**24.3**	14.4	27.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**▲ 2.5**	4.5	4.0

OIL ANALYSIS REPORT

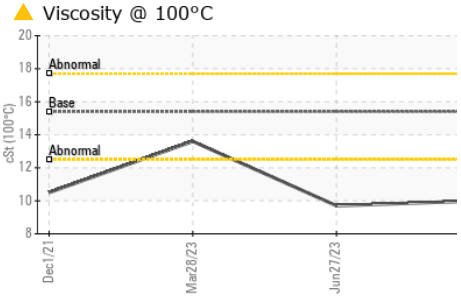
Fuel Dilution



Base Number



Viscosity @ 100°C

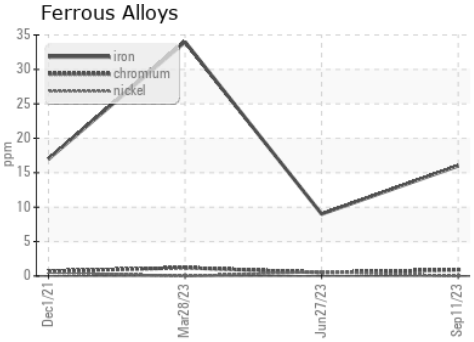


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

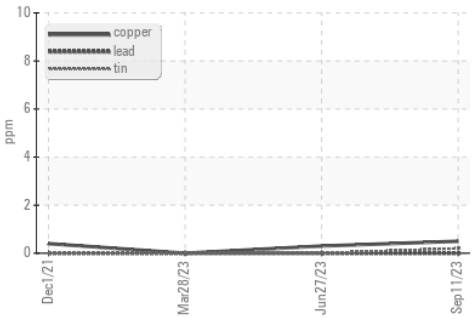
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **10.0**	▲ 9.7	13.6

GRAPHS

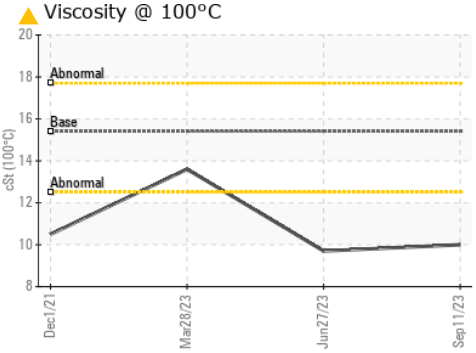
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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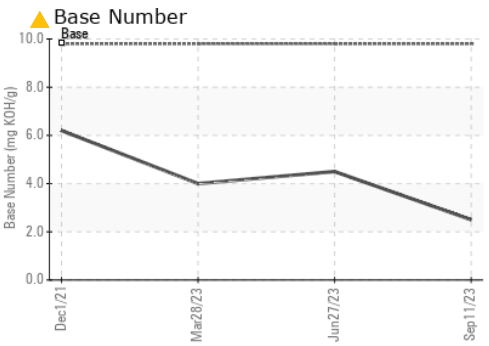

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0088271 **Received** : 12 Sep 2023
Lab Number : 05947783 **Diagnosed** : 14 Sep 2023
Unique Number : 10643742 **Diagnostician** : Jonathan Hester
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 - 625 - Harrison Hauling
4102 Industrial Pkwy
Harrison, MI
US 48625
Contact: Glenda Standen
gstanden@gflenv.com
T:
F:

Report Id: GFL625 [WUSCAR] 05947783 (Generated: 09/14/2023 09:45:40) Rev: 1

Submitted By: also GFL632 and GFL638 - Glenda Standen