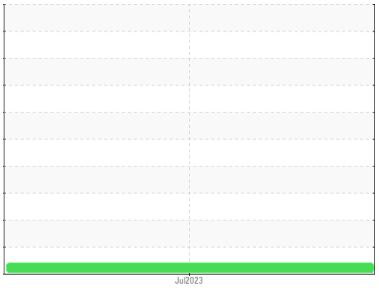
PROBLEM SUMMARY

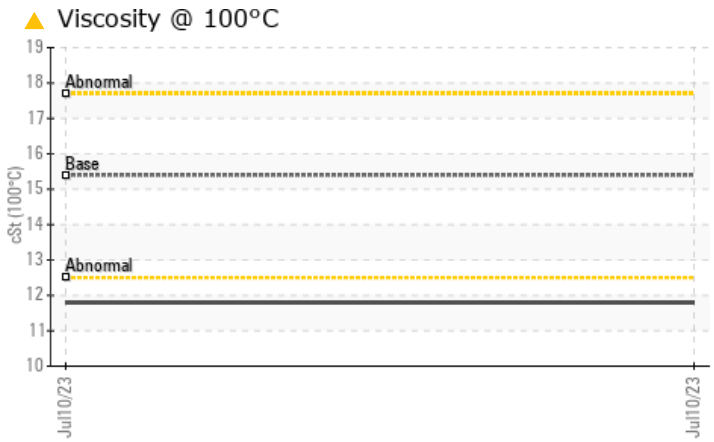
Sample Rating Trend

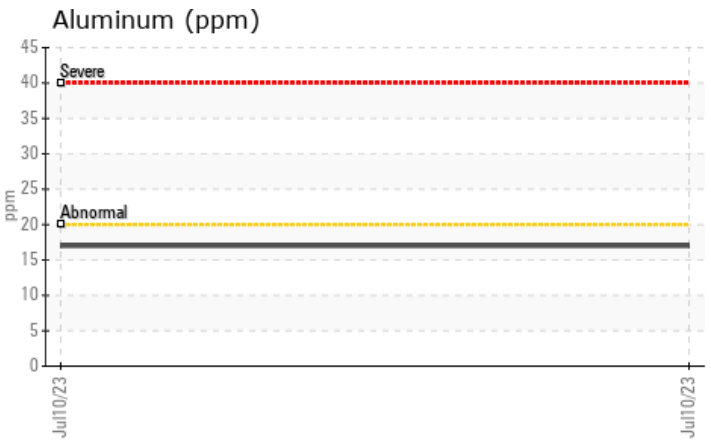


VISCOSITY

Machine Id
413132
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	---	---
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **11.8**	---	---

Customer Id: GFL983
Sample No.: GFL0085455
Lab Number: 05899610
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

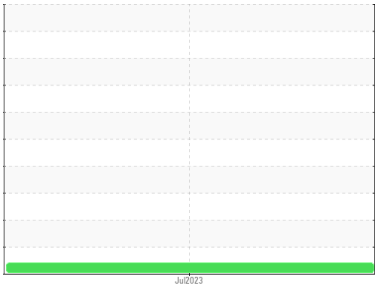
RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
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.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Machine Id
413132
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear
Metal levels are typical for a new component breaking in.

Contamination
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. The water content is negligible.

Fluid Condition
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0085455**	---	---
Sample Date		Client Info		**10 Jul 2023**	---	---
Machine Age	mls	Client Info		**15706**	---	---
Oil Age	mls	Client Info		**0**	---	---
Oil Changed		Client Info		**Changed**	---	---
Sample Status				**ATTENTION**	---	---

CONTAMINATION		method	limit/base	current	history1	history2
Glycol		WC Method		**NEG**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**67**	---	---
Chromium	ppm	ASTM D5185m	>20	**2**	---	---
Nickel	ppm	ASTM D5185m	>4	**<1**	---	---
Titanium	ppm	ASTM D5185m		**<1**	---	---
Silver	ppm	ASTM D5185m	>3	**<1**	---	---
Aluminum	ppm	ASTM D5185m	>20	**17**	---	---
Lead	ppm	ASTM D5185m	>40	**<1**	---	---
Copper	ppm	ASTM D5185m	>330	**13**	---	---
Tin	ppm	ASTM D5185m	>15	**1**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**29**	---	---
Barium	ppm	ASTM D5185m	0	**0**	---	---
Molybdenum	ppm	ASTM D5185m	60	**10**	---	---
Manganese	ppm	ASTM D5185m	0	**2**	---	---
Magnesium	ppm	ASTM D5185m	1010	**644**	---	---
Calcium	ppm	ASTM D5185m	1070	**1358**	---	---
Phosphorus	ppm	ASTM D5185m	1150	**716**	---	---
Zinc	ppm	ASTM D5185m	1270	**825**	---	---
Sulfur	ppm	ASTM D5185m	2060	**2693**	---	---

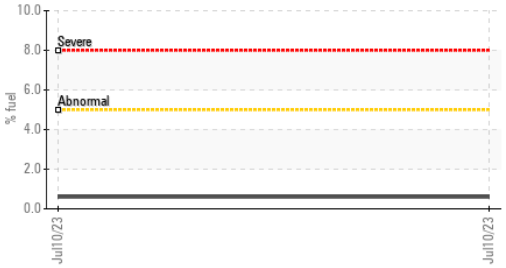
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**13**	---	---
Sodium	ppm	ASTM D5185m		**3**	---	---
Potassium	ppm	ASTM D5185m	>20	**60**	---	---
Fuel	%	ASTM D3524	>5	**0.6**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.3**	---	---
Nitration	Abs/cm	*ASTM D7624	>20	**10.4**	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.8**	---	---

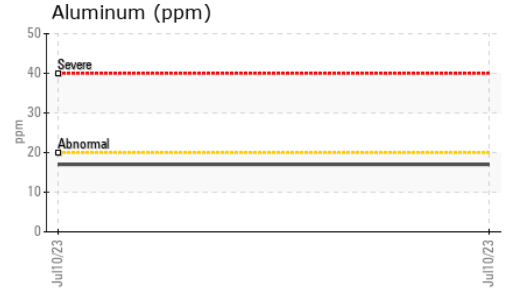
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**17.1**	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**6.2**	---	---

OIL ANALYSIS REPORT

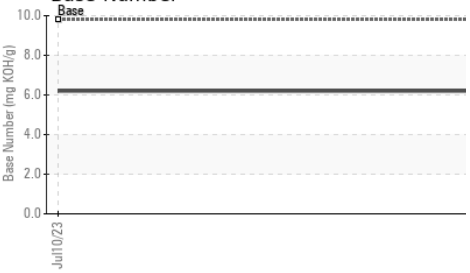
Fuel Dilution



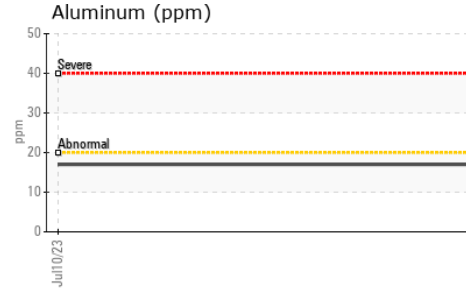
Aluminum (ppm)



Base Number



Aluminum (ppm)

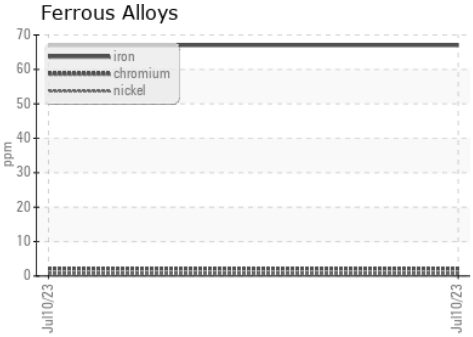


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.2	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

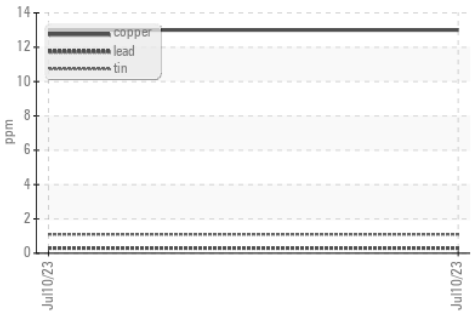
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **11.8**	---	---

GRAPHS

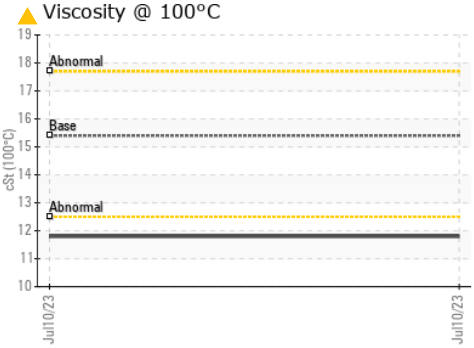
Ferrous Alloys



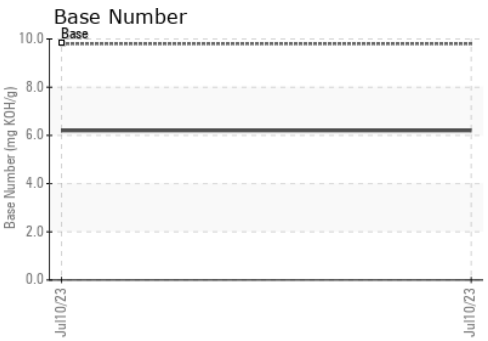
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0085455 **Received** : 17 Jul 2023
Lab Number : 05899610 **Diagnosed** : 18 Jul 2023
Unique Number : 10560966 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: FuelDilution, 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 - 983 - Sugar Land Hauling
16011 West Belfort Street
Sugar Land, TX
US 77498
Contact: Gino Griego
ggriego@gflenv.com
T:
F:

Report Id: GFL983 [WUSCAR] 05899610 (Generated: 07/18/2023 20:36:08) Rev: 1

Submitted By: TECHNICIAN ACCOUNT