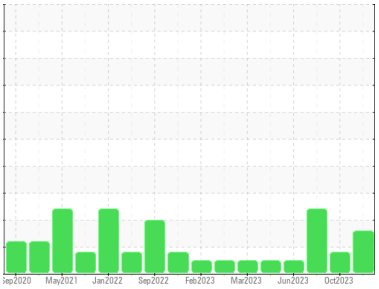
PROBLEM SUMMARY

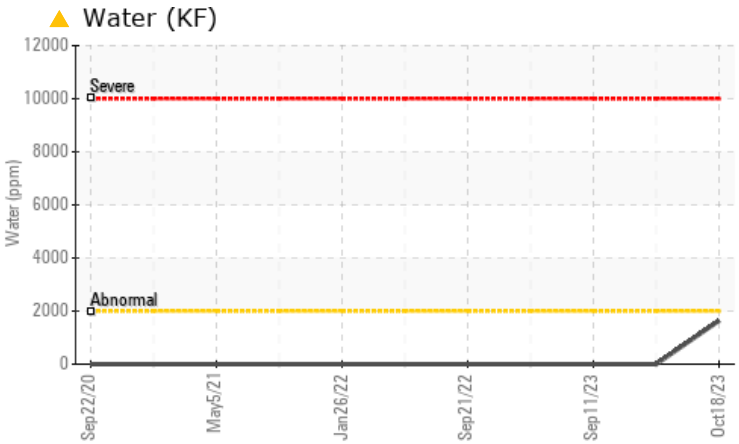
Sample Rating Trend



WATER

Machine Id
423013-408
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**MARGINAL**	ABNORMAL	SEVERE
Water	%	ASTM D6304	>0.2	▲ **0.164**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **1640**	---	---
Emulsified Water	scalar	*Visual	>0.2	▲ **0.2%**	NEG	NEG

Customer Id: GFL654
Sample No.: GFL0091804
Lab Number: 05986037
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

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

10 Oct 2023 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

11 Sep 2023 Diag: Wes Davis

FUEL

We advise that you check the fuel injection system. 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 high 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. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report

06 Jun 2023 Diag: Wes Davis

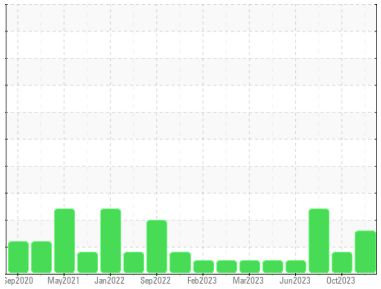
NORMAL

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

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
423013-408
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Fuel content negligible. There is a trace of moisture present in the oil. Test for glycol is negative.

Fluid Condition
The BN level is low. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0091804**	GFL0091822	GFL0086604
Sample Date		Client Info		**18 Oct 2023**	10 Oct 2023	11 Sep 2023
Machine Age	hrs	Client Info		**22570**	22527	22322
Oil Age	hrs	Client Info		**22570**	22527	0
Oil Changed		Client Info		**Not Changd**	Changed	Changed
Sample Status				**MARGINAL**	ABNORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	**2**	4	12
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>5	**<1**	<1	2
Titanium	ppm	ASTM D5185m	>2	**<1**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**2**	2	<1
Lead	ppm	ASTM D5185m	>40	**0**	<1	<1
Copper	ppm	ASTM D5185m	>330	**<1**	1	2
Tin	ppm	ASTM D5185m	>15	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**2**	2	1
Barium	ppm	ASTM D5185m	0	**0**	1	0
Molybdenum	ppm	ASTM D5185m	60	**51**	56	60
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**910**	877	966
Calcium	ppm	ASTM D5185m	1070	**941**	960	1098
Phosphorus	ppm	ASTM D5185m	1150	**892**	961	988
Zinc	ppm	ASTM D5185m	1270	**1150**	1140	1224
Sulfur	ppm	ASTM D5185m	2060	**2799**	3082	3492

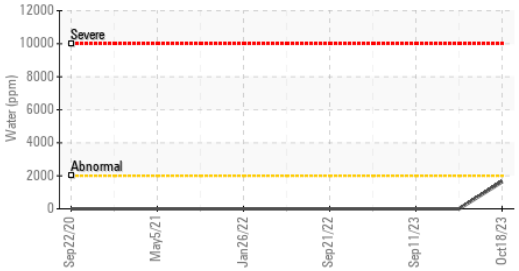
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**3**	3	4
Sodium	ppm	ASTM D5185m		**2**	<1	3
Potassium	ppm	ASTM D5185m	>20	**2**	<1	<1
Fuel	%	ASTM D3524	>3.0	**2.1**	▲ 3.6	⬢ 5.7
Water	%	ASTM D6304	>0.2	▲ **0.164**	---	---
ppm Water	ppm	ASTM D6304	>2000	▲ **1640**	---	---
Glycol	%	*ASTM D2982		**NEG**	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	**0.1**	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**4.9**	6.0	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**16.6**	17.9	18.7

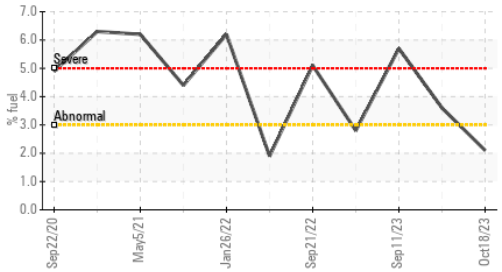
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**13.1**	14.2	15.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**9.0**	8.9	6.4

OIL ANALYSIS REPORT

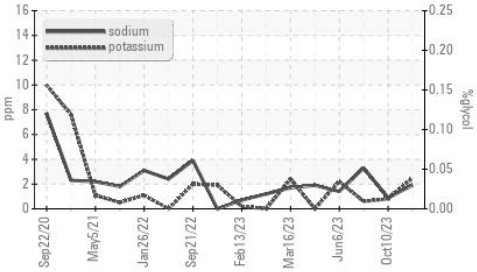
Water (KF)



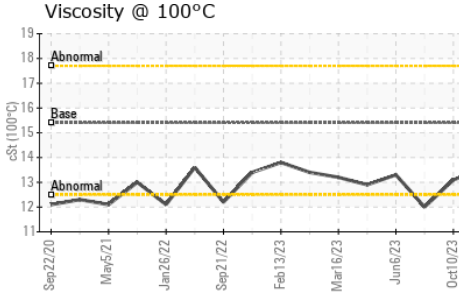
Fuel Dilution



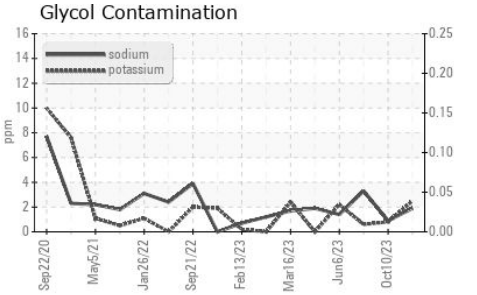
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

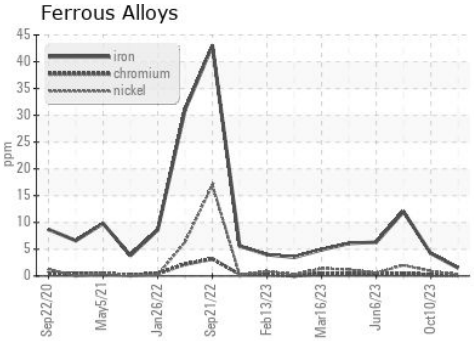


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	NONE
Sand/Dirt	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	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

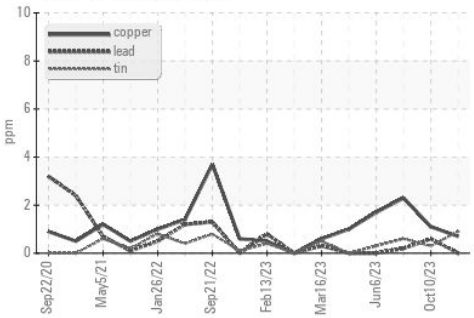
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**13.5**	13.1	▲ 12.0

GRAPHS

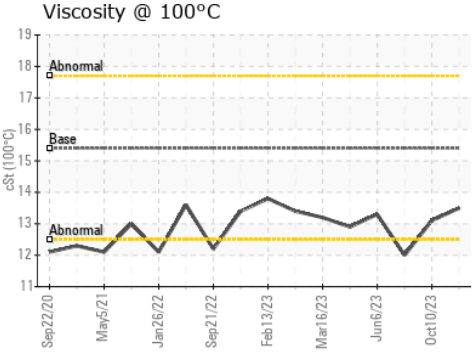
Ferrous Alloys



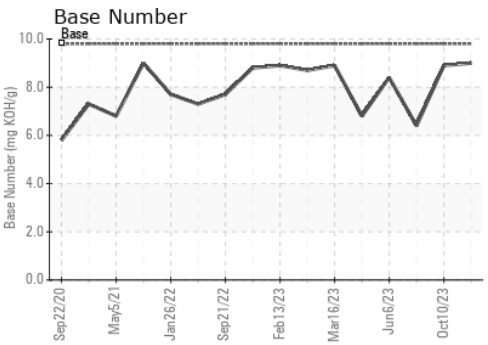
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0091804 **Received** : 23 Oct 2023
Lab Number : 05986037 **Diagnosed** : 25 Oct 2023
Unique Number : 10708699 **Diagnostician** : Doug Bogart
Test Package : FLEET (Additional Tests: Glycol, KF, 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 - 654 - Richmond Hauling
11800 Lewis Road
Chester, VA
US 23831
Contact: Jimmy Mayes
jmayes@gflenv.com
T:
F:

Report Id: GFL654 [WUSCAR] 05986037 (Generated: 10/25/2023 17:43:46) Rev: 1

Submitted By: TECHNICIAN ACCOUNT