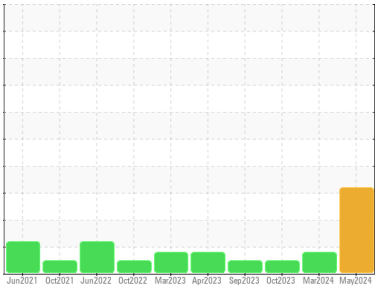
PROBLEM SUMMARY

Sample Rating Trend

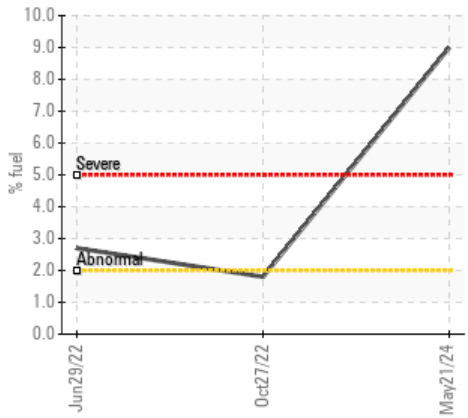


FUEL

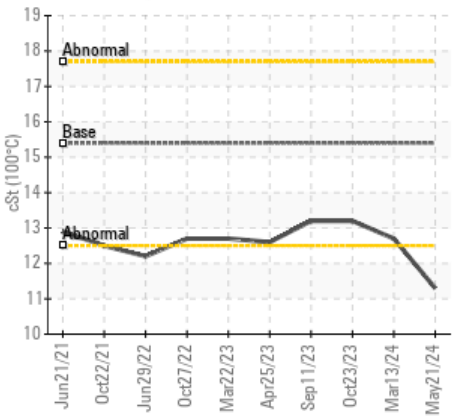
Machine Id
411015
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY

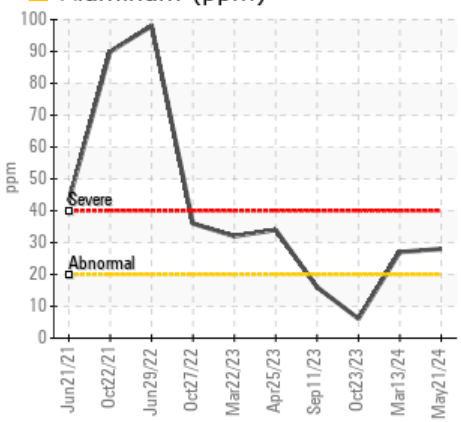
▲ Fuel Dilution



▲ Viscosity @ 100°C



▲ Aluminum (ppm)



RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. Resample at the next service interval to monitor. (Customer Sample Comment: Sample only)

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	NORMAL
Aluminum	ppm	ASTM D5185m	>20	▲ **28**	▲ 27	6
Fuel	%	ASTM D3524	>2.0	▲ **9.0**	<1.0	<1.0
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **11.3**	12.7	13.2

Customer Id: GFL625
Sample No.: GFL0116298
Lab Number: 06191622
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@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	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

WEAR

13 Mar 2024 Diag: Jonathan Hester
No corrective action is recommended at this time. Resample at the next service interval to monitor.The aluminum level is abnormal. All other 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

NORMAL

23 Oct 2023 Diag: Sean Felton
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

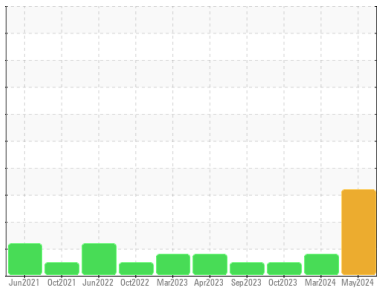
NORMAL

11 Sep 2023 Diag: Wes Davis
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



FUEL

Machine Id
411015
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 from the component if this has not already been done. Resample at the next service interval to monitor. (Customer Sample Comment: Sample only)

Wear
The aluminum level is abnormal. All other component wear rates are normal.

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0116298**	GFL0101654	GFL0088298
Sample Date		Client Info		**21 May 2024**	13 Mar 2024	23 Oct 2023
Machine Age	hrs	Client Info		**5016**	4793	4430
Oil Age	hrs	Client Info		**171**	364	182
Oil Changed		Client Info		**Not Changd**	Not Changd	Changed
Sample Status				**SEVERE**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**44**	33	12
Chromium	ppm	ASTM D5185m	>20	**1**	2	<1
Nickel	ppm	ASTM D5185m	>4	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ **28**	▲ 27	6
Lead	ppm	ASTM D5185m	>40	**0**	0	0
Copper	ppm	ASTM D5185m	>330	**5**	6	<1
Tin	ppm	ASTM D5185m	>15	**0**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**4**	3	3
Barium	ppm	ASTM D5185m	0	**0**	0	3
Molybdenum	ppm	ASTM D5185m	60	**58**	63	63
Manganese	ppm	ASTM D5185m	0	**<1**	<1	0
Magnesium	ppm	ASTM D5185m	1010	**876**	979	900
Calcium	ppm	ASTM D5185m	1070	**1007**	1134	1075
Phosphorus	ppm	ASTM D5185m	1150	**962**	1148	973
Zinc	ppm	ASTM D5185m	1270	**1162**	1302	1214
Sulfur	ppm	ASTM D5185m	2060	**3011**	3481	3243

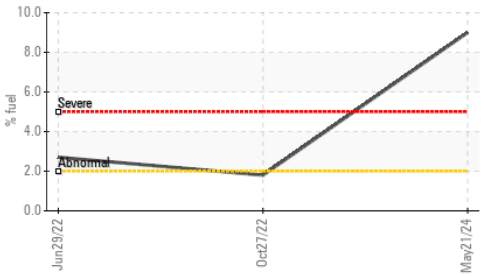
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**5**	6	3
Sodium	ppm	ASTM D5185m		**2**	3	0
Potassium	ppm	ASTM D5185m	>20	**17**	16	9
Fuel	%	ASTM D3524	>2.0	▲ **9.0**	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**1**	0.7	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**12.4**	10.6	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	**22.5**	19.6	18.5

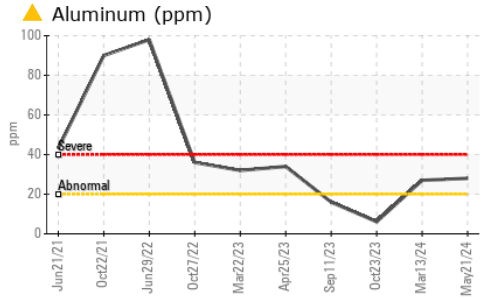
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**20.8**	17.2	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**6.8**	7.5	8.2

OIL ANALYSIS REPORT

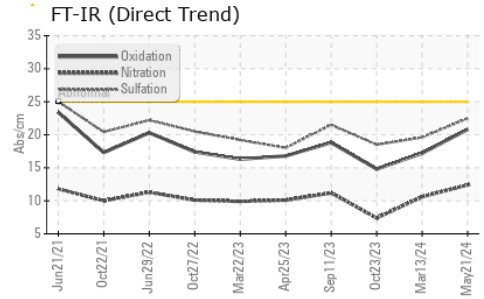
Fuel Dilution



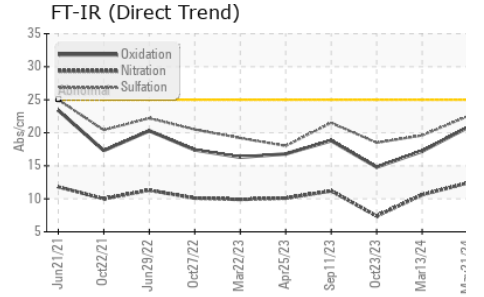
Aluminum (ppm)



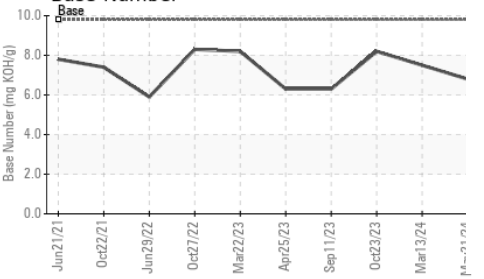
FT-IR (Direct Trend)



FT-IR (Direct Trend)



Base Number

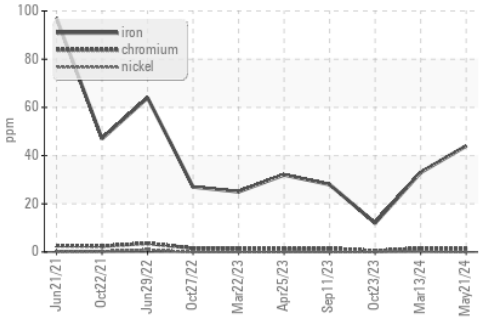


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

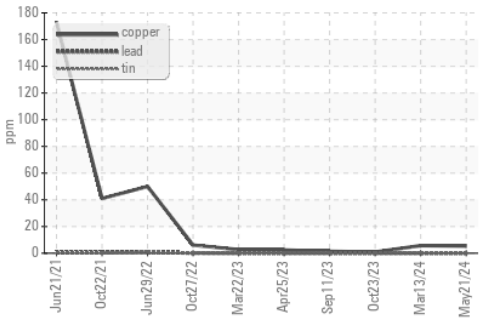
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **11.3**	12.7	13.2

GRAPHS

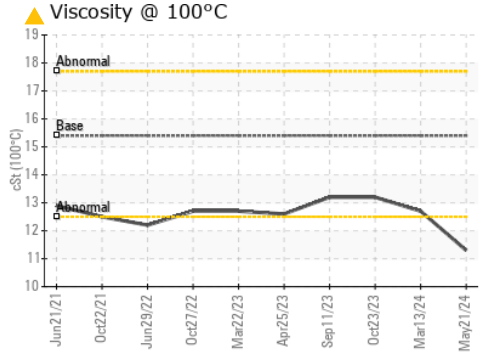
Ferrous Alloys



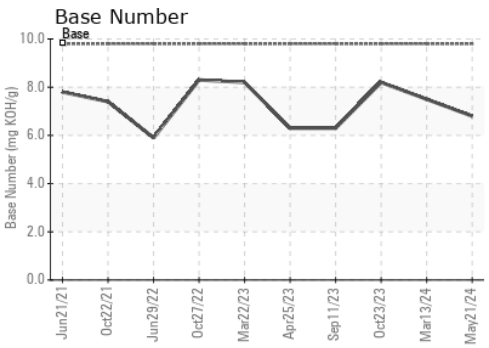
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116298
Lab Number : 06191622
Unique Number : 11048374
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 24 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Angela Borella

GFL Environmental - 625 - Harrison Hauling
2480 S Clare Ave
Clare, MI
US 48617
Contact: Glenda Standen
gstanden@gflenv.com
T:
F:

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)

Report Id: GFL625 [WUSCAR] 06191622 (Generated: 05/29/2024 18:34:23) Rev: 1

Submitted By: also GFL632 and GFL638 - Glenda Standen