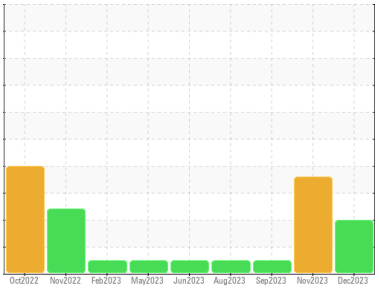
PROBLEM SUMMARY

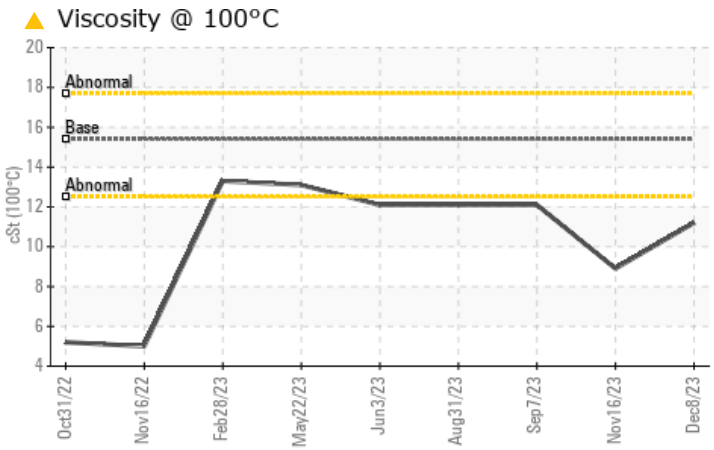
Machine Id
413044
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

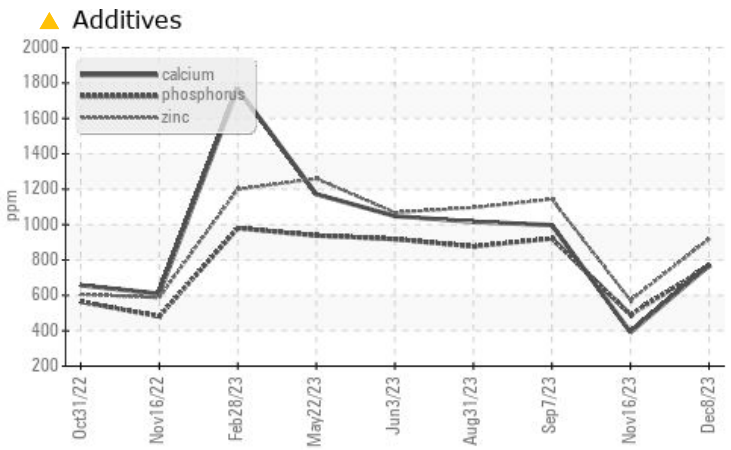
Sample Rating Trend



VISCOSITY

COMPONENT CONDITION SUMMARY





RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	ABNORMAL	NORMAL
Magnesium	ppm	ASTM D5185m	1010	▲ **648**	▲ 335	863
Calcium	ppm	ASTM D5185m	1070	▲ **768**	▲ 392	997
Phosphorus	ppm	ASTM D5185m	1150	▲ **765**	▲ 491	921
Zinc	ppm	ASTM D5185m	1270	▲ **919**	▲ 572	1143
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **11.2**	▲ 8.9	12.1

Customer Id: GFL095
Sample No.: GFL0074626
Lab Number: 06034081
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

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

16 Nov 2023 Diag: Jonathan Hester

DEGRADATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. The BN level is low. Confirm oil type.

view report

07 Sep 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

31 Aug 2023 Diag: Wes Davis

NORMAL

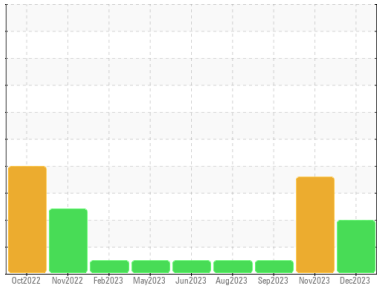
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Machine Id
413044
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (11 GAL)

Sample Rating Trend



VISCOSITY

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is no indication of any contamination in the oil.

Fluid Condition
The oil viscosity is lower than normal. Additive levels indicate the addition of a different brand, or type of oil. 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		**GFL0074626**	GFL0074636	GFL0092470
Sample Date		Client Info		**08 Dec 2023**	16 Nov 2023	07 Sep 2023
Machine Age	hrs	Client Info		**3074**	2394	2394
Oil Age	hrs	Client Info		**137**	542	603
Oil Changed		Client Info		**Not Changd**	Changed	Changed
Sample Status				**ATTENTION**	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	>120	**4**	10	12
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>5	**<1**	1	2
Titanium	ppm	ASTM D5185m	>2	**0**	<1	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**2**	3	8
Lead	ppm	ASTM D5185m	>40	**0**	<1	0
Copper	ppm	ASTM D5185m	>330	**<1**	2	3
Tin	ppm	ASTM D5185m	>15	**<1**	<1	<1
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	**7**	0	4
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**45**	22	56
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	▲ **648**	▲ 335	863
Calcium	ppm	ASTM D5185m	1070	▲ **768**	▲ 392	997
Phosphorus	ppm	ASTM D5185m	1150	▲ **765**	▲ 491	921
Zinc	ppm	ASTM D5185m	1270	▲ **919**	▲ 572	1143
Sulfur	ppm	ASTM D5185m	2060	**2269**	▲ 1171	3098

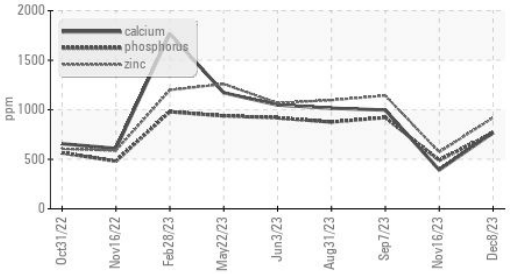
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**3**	2	5
Sodium	ppm	ASTM D5185m		**1**	4	5
Potassium	ppm	ASTM D5185m	>20	**3**	6	18
Fuel	%	ASTM D3524	>3.0	**<1.0**	0.2	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>4	**0.1**	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**4.9**	5.1	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**16.1**	15.0	18.5

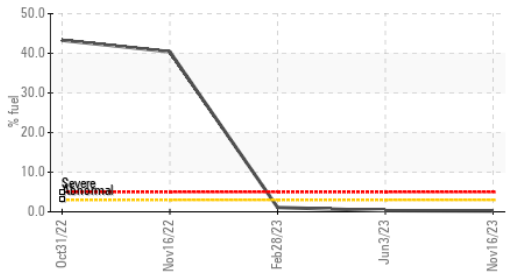
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**11.0**	8.8	14.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**5.9**	▲ 2.6	6.7

OIL ANALYSIS REPORT

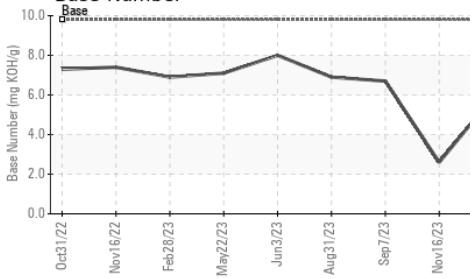
▲ Additives



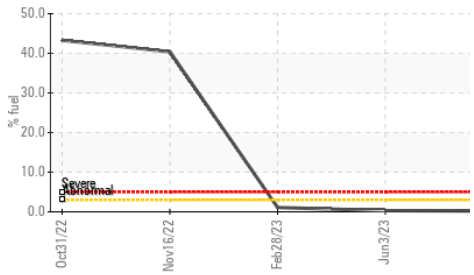
Fuel Dilution



Base Number



Fuel Dilution

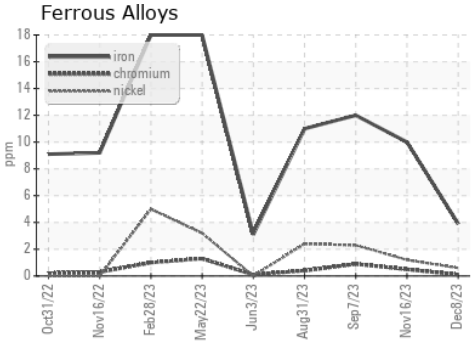


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

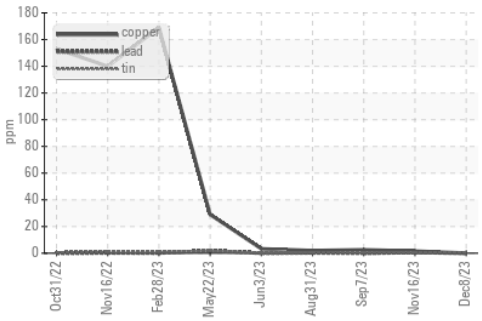
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	▲ **11.2**	▲ 8.9	12.1

GRAPHS

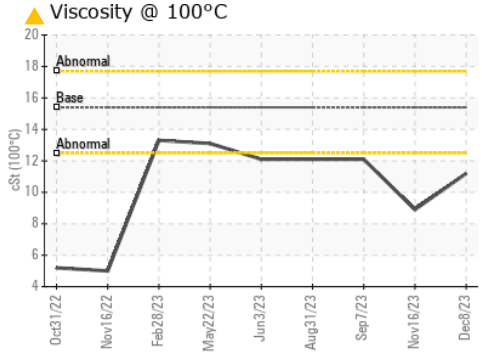
Ferrous Alloys



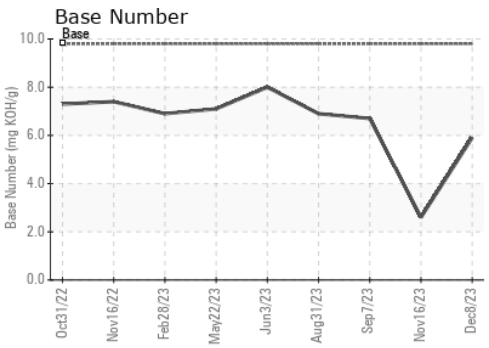
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0074626 **Recieved** : 13 Dec 2023
Lab Number : 06034081 **Diagnosed** : 18 Dec 2023
Unique Number : 10789310 **Diagnostician** : Don Baldridge
Test Package : FLEET (Additional Tests: FuelDilution)

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 - 095 - Atlanta West
2699 Cochran Industrial Blvd
Douglasville, GA
US 30127-1332
Contact: Darrell Welch
darrell.welch@gflenv.com
T: (800)207-6618
F: