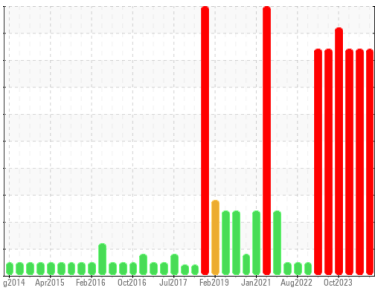
PROBLEM SUMMARY

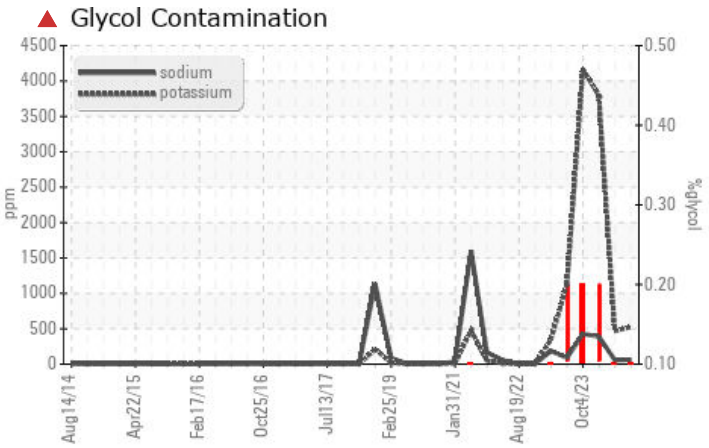
Sample Rating Trend



GLYCOL

Area
(YA119644)
Machine Id
10446
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: It`s a new unit to us mileage is 275874)

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Sodium	ppm	ASTM D5185m		▲ **61**	● 55	● 390
Potassium	ppm	ASTM D5185m	>20	▲ **525**	▲ 466	▲ 3798
Glycol	%	*ASTM D2982		▲ **0.10**	▲ 0.10	▲ 0.20

Customer Id: GFL031
Sample No.: GFL0124431
Lab Number: 06217865
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
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.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

GLYCOL

01 May 2024 Diag: Wes Davis

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition.All component wear rates are normal. Test for glycol is positive. There is a high concentration of glycol present 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

GLYCOL

07 Nov 2023 Diag: Doug Bogart

We advise that you check for the source of the coolant leak. Check for low coolant level. 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. Sodium and/or potassium levels are high. Test for glycol is positive. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

GLYCOL

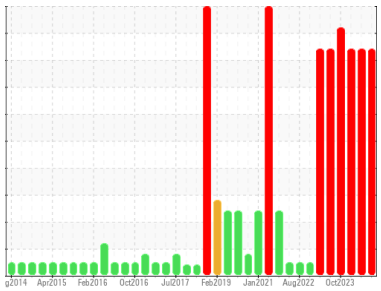
04 Oct 2023 Diag: Doug Bogart

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is positive. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Area
(YA119644)
Machine Id
10446
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (8 GAL)

DIAGNOSIS

Recommendation
We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. (Customer Sample Comment: It`s a new unit to us mileage is 275874)

Wear
All component wear rates are normal.

Contamination
Sodium and/or potassium levels are high. Test for glycol is positive.

Fluid Condition
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		**GFL0124431**	GFL0110388	GFL0089972
Sample Date		Client Info		**18 Jun 2024**	01 May 2024	07 Nov 2023
Machine Age	hrs	Client Info		**16759**	22501	59145
Oil Age	hrs	Client Info		**59145**	59145	59145
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**SEVERE**	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**8**	8	32
Chromium	ppm	ASTM D5185m	>20	**<1**	<1	1
Nickel	ppm	ASTM D5185m	>4	**<1**	0	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**<1**	0	0
Aluminum	ppm	ASTM D5185m	>20	**3**	1	5
Lead	ppm	ASTM D5185m	>40	**<1**	2	1
Copper	ppm	ASTM D5185m	>330	**14**	11	92
Tin	ppm	ASTM D5185m	>15	**<1**	<1	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**5**	3	2
Barium	ppm	ASTM D5185m	0	**1**	0	0
Molybdenum	ppm	ASTM D5185m	60	**61**	63	66
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**888**	958	904
Calcium	ppm	ASTM D5185m	1070	**1092**	1119	988
Phosphorus	ppm	ASTM D5185m	1150	**1024**	1097	941
Zinc	ppm	ASTM D5185m	1270	**1206**	1289	1213
Sulfur	ppm	ASTM D5185m	2060	**3104**	3781	2844

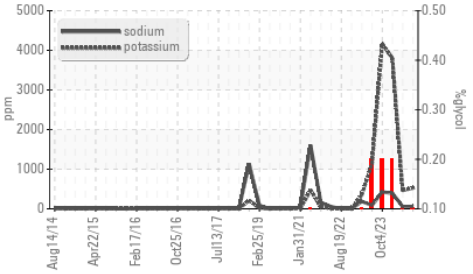
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**6**	6	17
Sodium	ppm	ASTM D5185m		▲ **61**	● 55	● 390
Potassium	ppm	ASTM D5185m	>20	▲ **525**	▲ 466	▲ 3798
Glycol	%	*ASTM D2982		▲ **0.10**	▲ 0.10	▲ 0.20

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.1**	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**5.7**	5.5	12.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	**17.6**	17.8	25.7

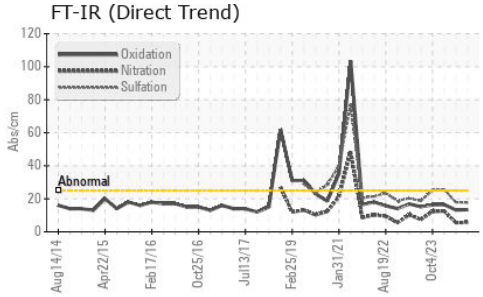
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**13.4**	13.2	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**10.0**	10.3	12.3

OIL ANALYSIS REPORT

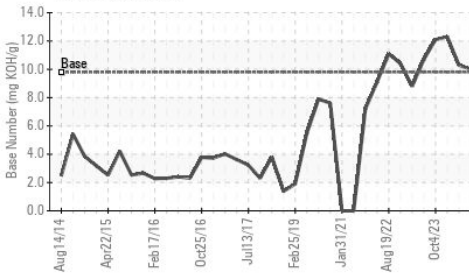
Glycol Contamination



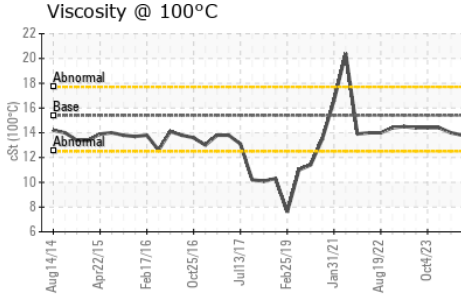
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

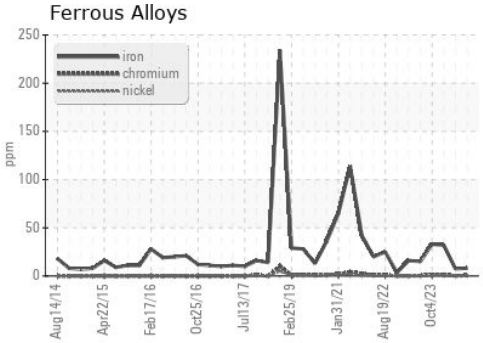


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

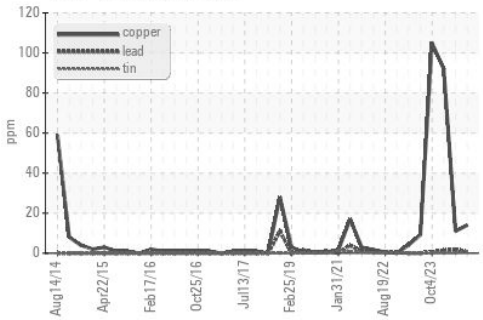
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**13.8**	14.0	14.4

GRAPHS

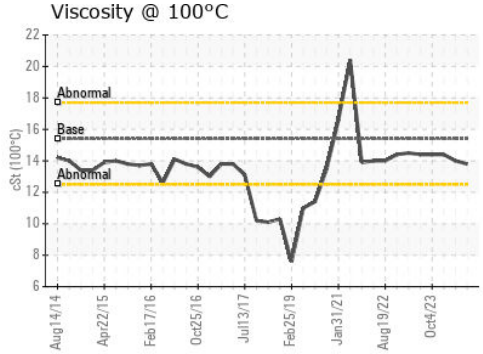
Ferrous Alloys



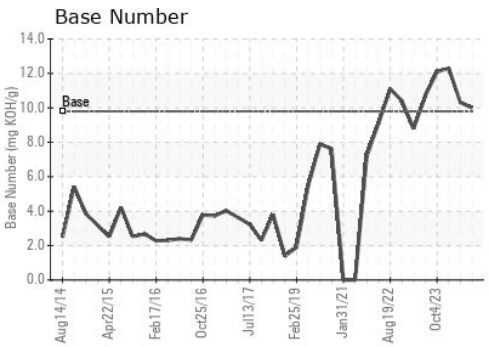
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0124431
Lab Number : 06217865
Unique Number : 11096062
Test Package : FLEET

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Jonathan Hester

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 - 031 - Greenville/Spartanburg
1635 Antioch Church Rd
Piedmont, SC
US 29673
Contact: TECHNICIAN ACCOUNT
catherine.anastasio@wearcheck.com
T:
F: