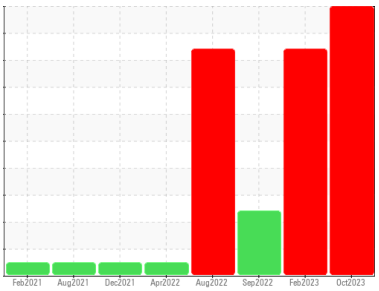
PROBLEM SUMMARY

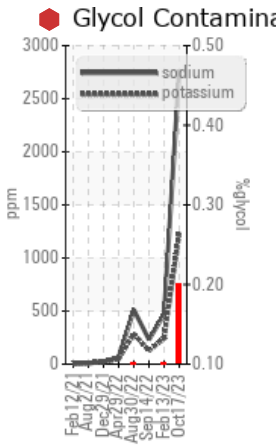
Sample Rating Trend

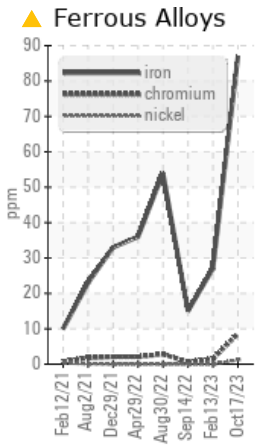


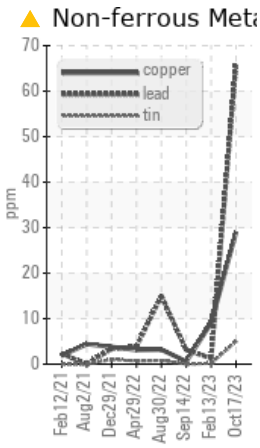
GLYCOL

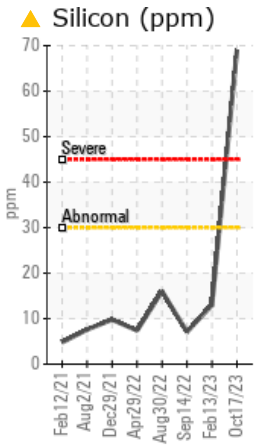
Machine Id
828036-1046
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

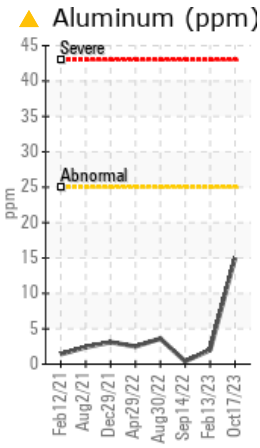
COMPONENT CONDITION SUMMARY











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.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	ABNORMAL
Chromium	ppm	ASTM D5185m	>4	▲ **9**	2	<1
Aluminum	ppm	ASTM D5185m	>25	▲ **15**	2	<1
Lead	ppm	ASTM D5185m	>45	▲ **66**	1	3
Silicon	ppm	ASTM D5185m	>30	▲ **69**	13	7
Sodium	ppm	ASTM D5185m		▲ **2767**	▲ 467	▲ 232
Potassium	ppm	ASTM D5185m	>20	▲ **1235**	▲ 243	▲ 128
Glycol	%	*ASTM D2982		⬢ **0.20**	⬢ 0.10	NEG

Customer Id: GFL660
Sample No.: GFL0085575
Lab Number: 05986099
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

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

13 Feb 2023 Diag: Wes Davis

GLYCOL

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.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

14 Sep 2022 Diag: Jonathan Hester

GLYCOL

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels remain high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

30 Aug 2022 Diag: Wes Davis

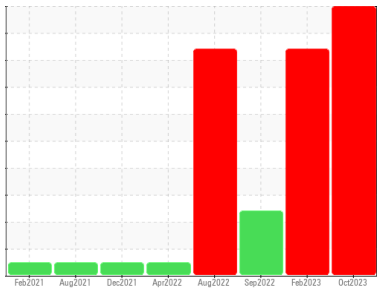
GLYCOL

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.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

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
828036-1046
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- 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.

Wear
The chromium level is abnormal. The lead level is abnormal.

Contamination
Sodium and/or potassium levels are high. Test for glycol is positive. There is a high concentration of glycol present in the oil.

Fluid Condition
The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0085575**	GFL0060448	GFL0053283
Sample Date		Client Info		**17 Oct 2023**	13 Feb 2023	14 Sep 2022
Machine Age	hrs	Client Info		**12452**	11317	127317
Oil Age	hrs	Client Info		**600**	600	0
Oil Changed		Client Info		**Changed**	Changed	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	**87**	27	15
Chromium	ppm	ASTM D5185m	>4	▲ **9**	2	<1
Nickel	ppm	ASTM D5185m	>2	**1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>2	**<1**	0	0
Aluminum	ppm	ASTM D5185m	>25	▲ **15**	2	<1
Lead	ppm	ASTM D5185m	>45	▲ **66**	1	3
Copper	ppm	ASTM D5185m	>85	**29**	9	<1
Tin	ppm	ASTM D5185m	>4	**5**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**49**	2	14
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	60	**215**	84	65
Manganese	ppm	ASTM D5185m	0	**2**	<1	<1
Magnesium	ppm	ASTM D5185m	1010	**876**	908	745
Calcium	ppm	ASTM D5185m	1070	**1192**	1121	1187
Phosphorus	ppm	ASTM D5185m	1150	**1121**	1042	910
Zinc	ppm	ASTM D5185m	1270	**1348**	1228	1084
Sulfur	ppm	ASTM D5185m	2060	**3411**	3400	3258

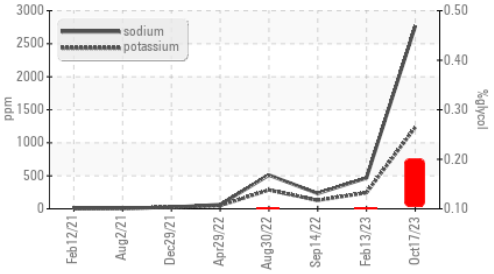
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	▲ **69**	13	7
Sodium	ppm	ASTM D5185m		▲ **2767**	▲ 467	▲ 232
Potassium	ppm	ASTM D5185m	>20	▲ **1235**	▲ 243	▲ 128
Glycol	%	*ASTM D2982		⬢ **0.20**	⬢ 0.10	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**1.2**	0.5	0.3
Nitration	Abs/cm	*ASTM D7624	>20	**21.4**	9.8	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	**32.7**	23.1	21.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**23.0**	17.1	17.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	**14.8**	8.7	10.3

OIL ANALYSIS REPORT

Glycol Contamination

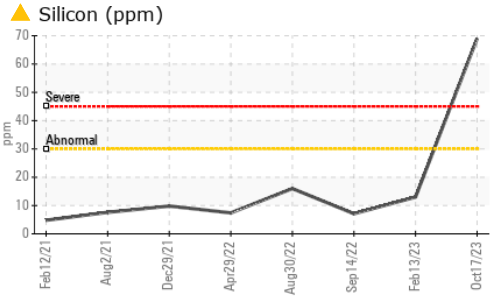


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

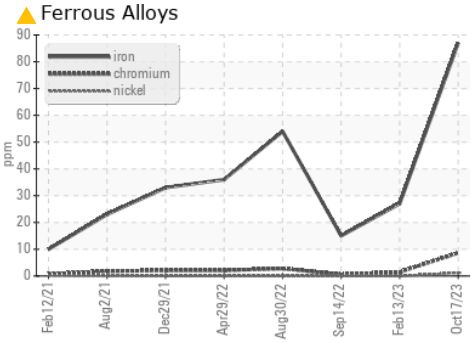
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	**15.0**	13.1	13.5

GRAPHS

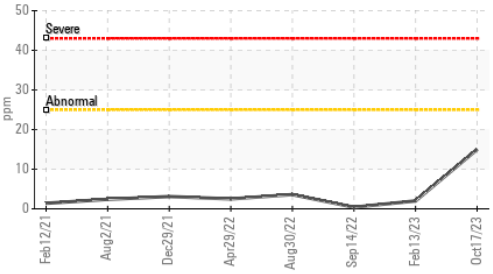
Silicon (ppm)



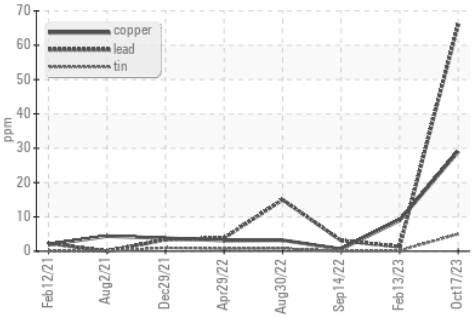
Ferrous Alloys



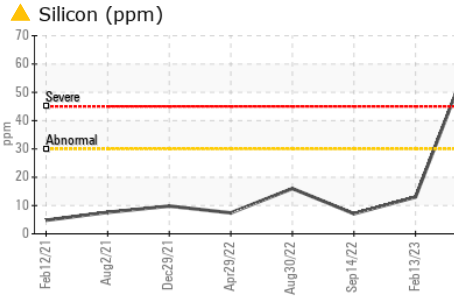
Aluminum (ppm)



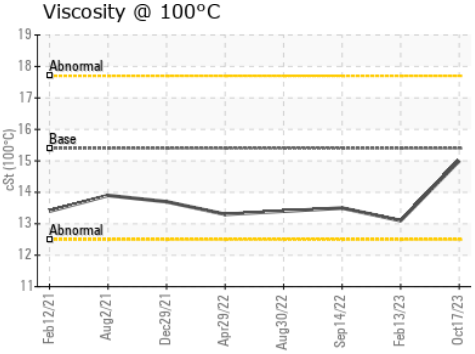
Non-ferrous Metals



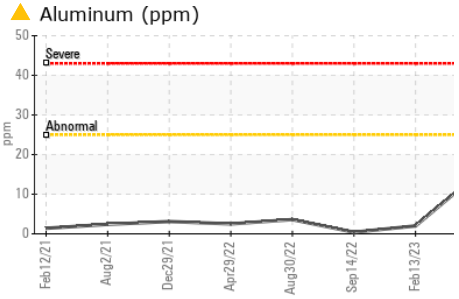
Silicon (ppm)



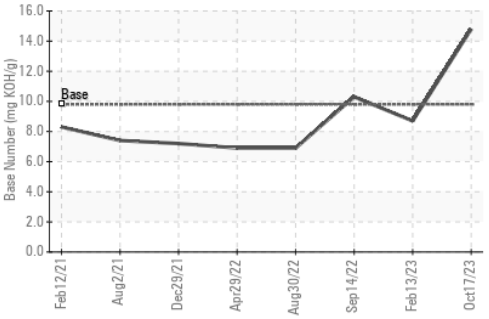
Viscosity @ 100°C



Aluminum (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0085575
Lab Number : 05986099
Unique Number : 10708761
Test Package : FLEET

Received : 23 Oct 2023
Diagnosed : 25 Oct 2023
Diagnostician : Don Baldridge

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)

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