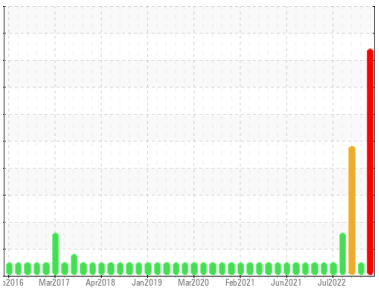
PROBLEM SUMMARY

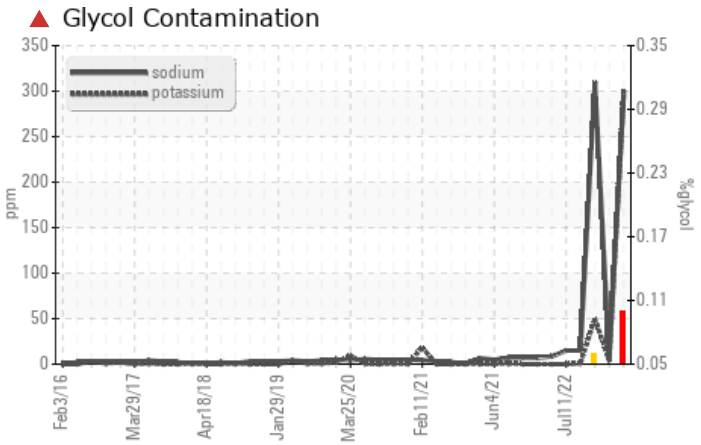
Sample Rating Trend



GLYCOL

Area
(YA122726)
Machine Id
3647C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (35 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	ABNORMAL
Sodium	ppm	ASTM D5185m		▲ **295**	8	● 310
Potassium	ppm	ASTM D5185m	>20	▲ **298**	4	▲ 50
Glycol	%	*ASTM D2982		▲ **0.10**	---	▲ 0.06

Customer Id: GFL005
Sample No.: GFL0109665
Lab Number: 06150037
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	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
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

NORMAL

04 Jan 2024 Diag: Jonathan Hester
Resample at the next service interval to monitor.All component wear rates are normal. No evidence of coolant present in the oil. 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

GLYCOL

29 Jun 2023 Diag: Doug Bogart
We advise that you check for possible coolant leak. 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 for time on oil. Sodium and/or potassium levels are high. Trace concentration of anti-freeze present in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

WEAR

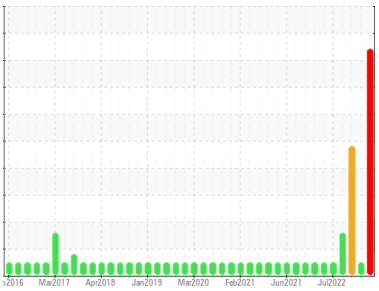
24 Jan 2023 Diag: Sean Felton
No corrective action is recommended at this time. Resample at the next service interval to monitor.Cylinder, crank, or cam shaft wear is indicated. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Area
(YA122726)
Machine Id
3647C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (35 GAL)

Sample Rating Trend



GLYCOL

DIAGNOSIS

Recommendation
We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

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		**GFL0109665**	GFL0092684	GFL0086421
Sample Date		Client Info		**10 Apr 2024**	04 Jan 2024	29 Jun 2023
Machine Age	hrs	Client Info		**0**	18265	18265
Oil Age	hrs	Client Info		**0**	313	762
Oil Changed		Client Info		**N/A**	Not Changd	Changed
Sample Status				**SEVERE**	NORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**26**	15	59
Chromium	ppm	ASTM D5185m	>4	**4**	2	7
Nickel	ppm	ASTM D5185m	>2	**0**	1	3
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>9	**3**	2	3
Lead	ppm	ASTM D5185m	>30	**1**	2	19
Copper	ppm	ASTM D5185m	>35	**4**	6	4
Tin	ppm	ASTM D5185m	>4	**1**	1	2
Vanadium	ppm	ASTM D5185m		**0**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**22**	4	9
Barium	ppm	ASTM D5185m	5	**<1**	0	1
Molybdenum	ppm	ASTM D5185m	50	**99**	61	105
Manganese	ppm	ASTM D5185m	0	**2**	2	3
Magnesium	ppm	ASTM D5185m	560	**767**	889	1196
Calcium	ppm	ASTM D5185m	1510	**1419**	1120	2281
Phosphorus	ppm	ASTM D5185m	780	**954**	841	1443
Zinc	ppm	ASTM D5185m	870	**1108**	1220	1775
Sulfur	ppm	ASTM D5185m	2040	**3222**	2898	3904

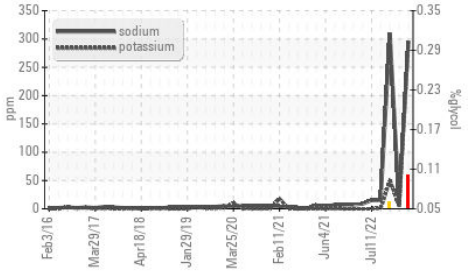
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**18**	13	16
Sodium	ppm	ASTM D5185m		▲ **295**	8	● 310
Potassium	ppm	ASTM D5185m	>20	▲ **298**	4	▲ 50
Glycol	%	*ASTM D2982		▲ **0.10**	---	▲ 0.06

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**7.9**	4.6	13.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.2**	16.9	33.0

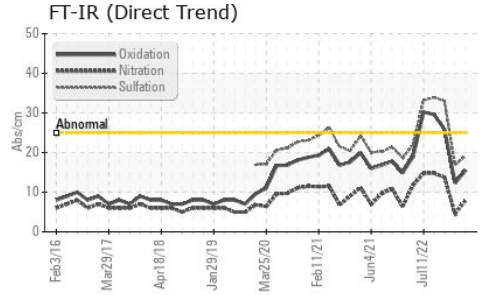
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**15.5**	12.3	25.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**8.8**	9.2	6.2

OIL ANALYSIS REPORT

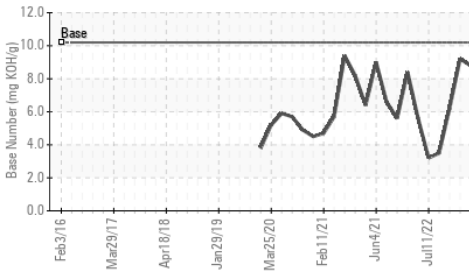
Glycol Contamination



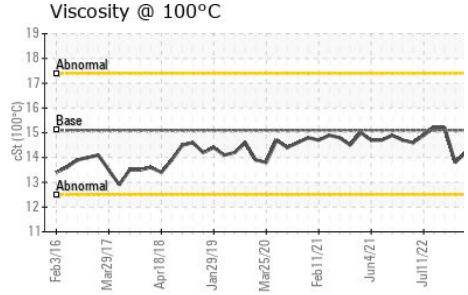
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

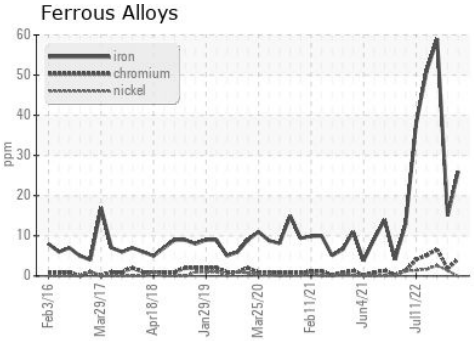


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

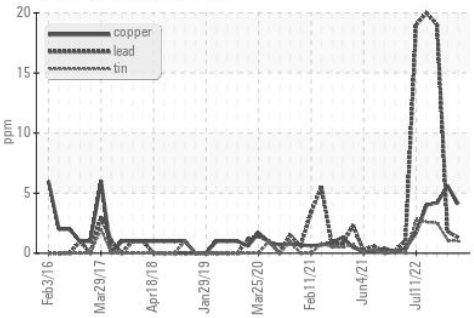
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**14.2**	13.8	15.2

GRAPHS

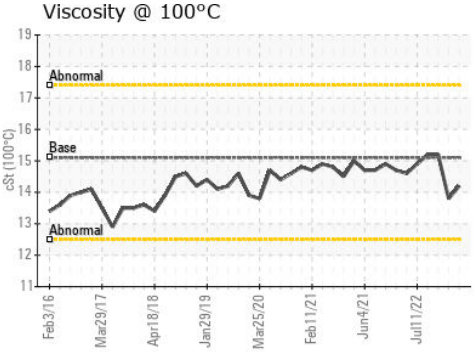
Ferrous Alloys



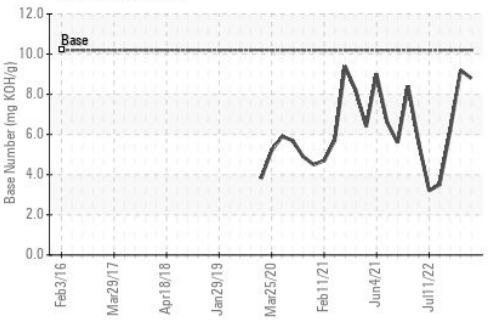
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0109665
Lab Number : 06150037
Unique Number : 10980115
Test Package : FLEET (Additional Tests: Glycol)

Received : 16 Apr 2024
Tested : 17 Apr 2024
Diagnosed : 18 Apr 2024 - 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)

GFL Environmental - 005 - Wilson/Tri-East(CNG)
2810 Contentnea Road S
Wilson, NC
US 27893-8501
Contact: SPENCER LIGGON
spencer.liggon@gflenv.com
T: (800)207-6618
F:

Report Id: GFL005 [WUSCAR] 06150037 (Generated: 04/18/2024 18:47:53) Rev: 1

Submitted By: WALTER SKOKOWSKI