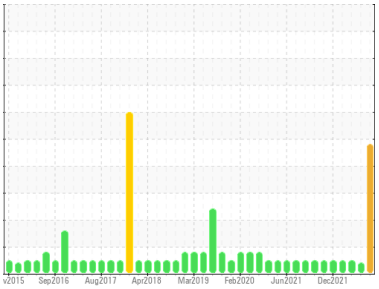
PROBLEM SUMMARY

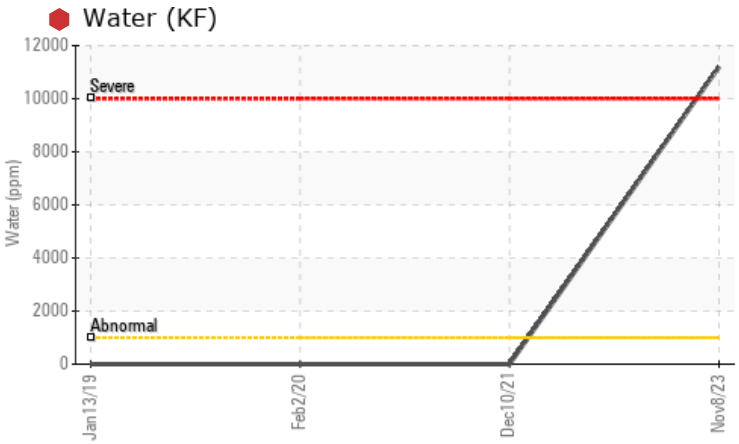
Sample Rating Trend

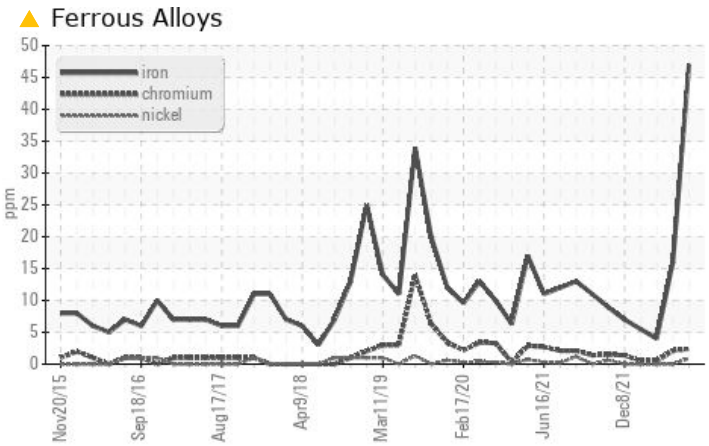


WATER

Machine Id
3630C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please note that there was too much water present in the oil to perform a viscosity test.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>50	▲ **47**	16	4
Water	%	ASTM D6304	>0.1	⬢ **1.12**	---	---
ppm Water	ppm	ASTM D6304	>1000	⬢ **11200**	---	---
Appearance	scalar	*Visual	NORML	▲ **MILKY**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	⬢ **0.2%**	NEG	NEG

Customer Id: GFL005
Sample No.: GFL0092729
Lab Number: 06009026
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	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Alert	---	---	?	Please note that there was too much water present in the oil to perform a viscosity test.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

24 Jan 2023 Diag: Sean Felton

VIS DEBRIS

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor.All component wear rates are normal. Moderate concentration of visible dirt/debris present 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

07 Jun 2022 Diag: Don Baldridge

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

10 Dec 2021 Diag: Don Baldridge

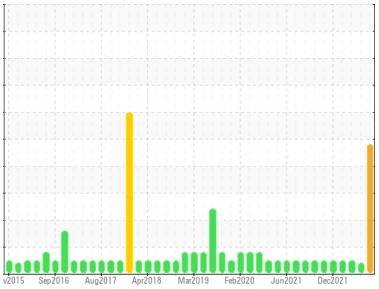
NORMAL

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

Sample Rating Trend



WATER

Machine Id
3630C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please note that there was too much water present in the oil to perform a viscosity test.

Wear

The iron level is abnormal.

Contamination

Appearance is unacceptable There is a high concentration of water present in the oil.

Fluid Condition

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0092729**	GFL0072391	GFL0048879
Sample Date		Client Info		**08 Nov 2023**	24 Jan 2023	07 Jun 2022
Machine Age	hrs	Client Info		**24885**	24885	0
Oil Age	hrs	Client Info		**198**	24452	137
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	▲ **47**	16	4
Chromium	ppm	ASTM D5185m	>4	**2**	2	<1
Nickel	ppm	ASTM D5185m	>2	**<1**	0	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m	>3	**0**	0	<1
Aluminum	ppm	ASTM D5185m	>9	**2**	3	1
Lead	ppm	ASTM D5185m	>30	**<1**	<1	<1
Copper	ppm	ASTM D5185m	>35	**17**	8	<1
Tin	ppm	ASTM D5185m	>4	**0**	<1	0
Antimony	ppm	ASTM D5185m		**---**	---	---
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**51**	39	72
Barium	ppm	ASTM D5185m	5	**7**	0	0
Molybdenum	ppm	ASTM D5185m	50	**52**	47	51
Manganese	ppm	ASTM D5185m	0	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	560	**539**	528	589
Calcium	ppm	ASTM D5185m	1510	**1369**	1420	1497
Phosphorus	ppm	ASTM D5185m	780	**814**	727	783
Zinc	ppm	ASTM D5185m	870	**881**	860	940
Sulfur	ppm	ASTM D5185m	2040	**2770**	2803	2681

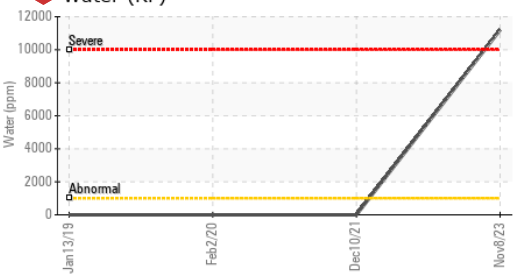
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**29**	10	11
Sodium	ppm	ASTM D5185m		**4**	6	4
Potassium	ppm	ASTM D5185m	>20	**2**	0	<1
Water	%	ASTM D6304	>0.1	⬢ **1.12**	---	---
ppm Water	ppm	ASTM D6304	>1000	⬢ **11200**	---	---
Glycol	%	*ASTM D2982		**0.0**	---	---

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	**8.1**	6.7	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**15.1**	18.3	18.5

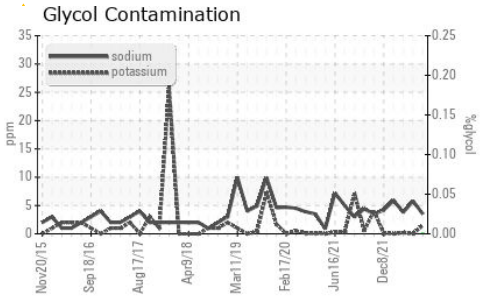
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**14.8**	14.5	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**11.0**	8.3	8.9

OIL ANALYSIS REPORT

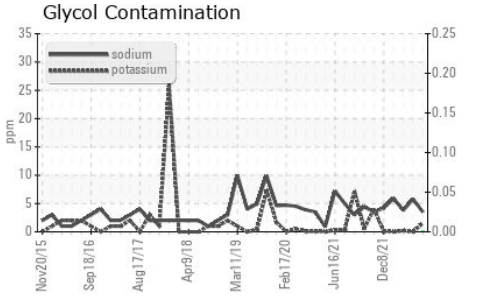
Water (KF)



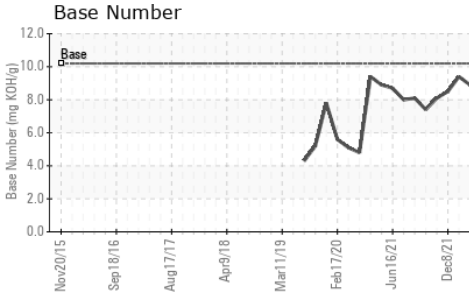
Glycol Contamination



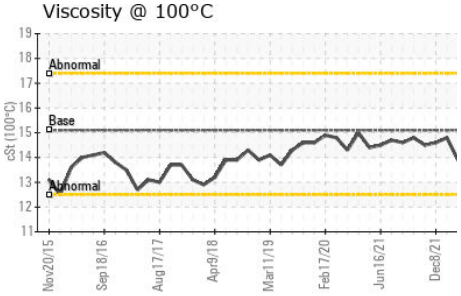
Glycol Contamination



Base Number



Viscosity @ 100°C

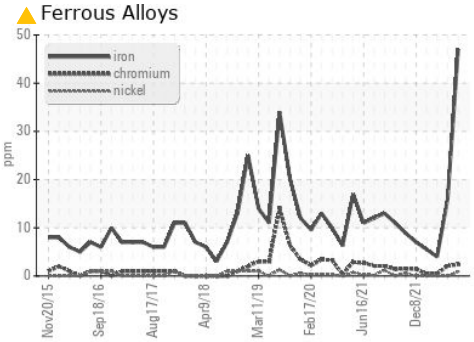


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ **MILKY**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	⬢ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

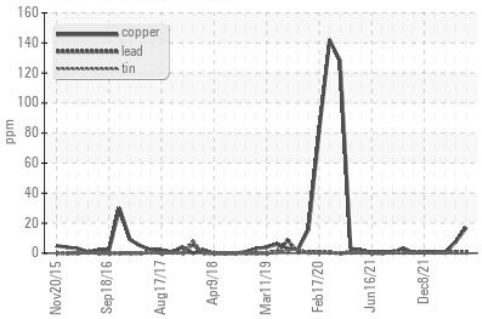
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**---**	14.0	13.9

GRAPHS

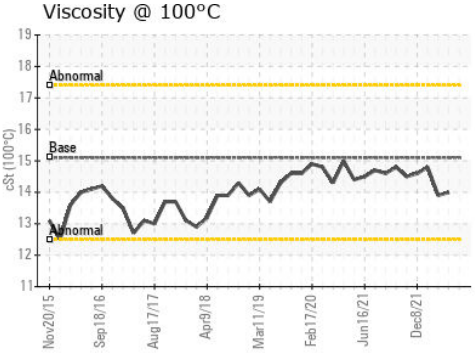
▲ Ferrous Alloys



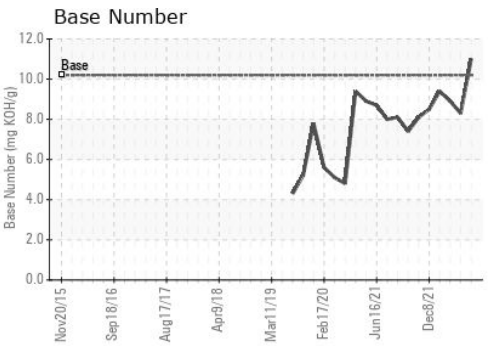
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0092729 **Received** : 15 Nov 2023
Lab Number : 06009026 **Diagnosed** : 30 Nov 2023
Unique Number : 10742788 **Diagnostician** : Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol, KF)

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: