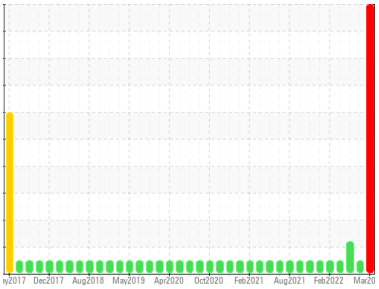
PROBLEM SUMMARY

Sample Rating Trend

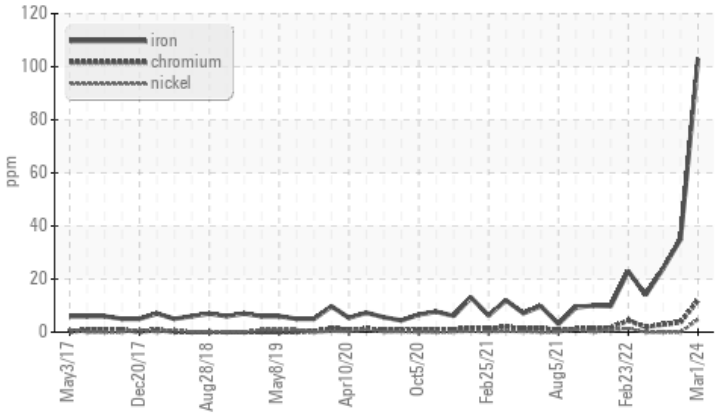


WEAR

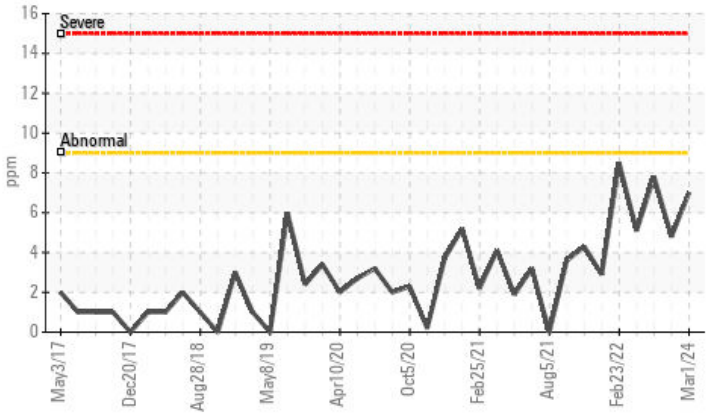
Area
(UA66756)
Machine Id
3744C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (7 GAL)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



▲ Aluminum (ppm)



RECOMMENDATION

We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>50	▲ **103**	35	24
Chromium	ppm	ASTM D5185m	>4	▲ **12**	4	3
Nickel	ppm	ASTM D5185m	>2	▲ **5**	0	0
Aluminum	ppm	ASTM D5185m	>9	▲ **7**	5	8

Customer Id: GFL045
Sample No.: GFL0112159
Lab Number: 06107141
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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
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.

HISTORICAL DIAGNOSIS

22 Dec 2022 Diag: Angela Borella

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

20 Sep 2022 Diag: Jonathan Hester

COOL CHEMICALS

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 negative. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

view report

10 May 2022 Diag: Don Baldridge

NORMAL

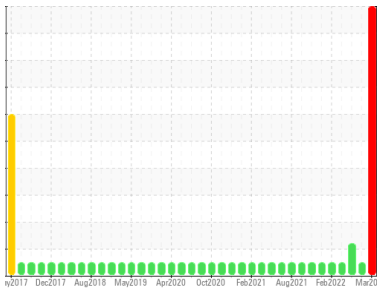
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Area
(UA66756)
Machine Id
3744C
Component
Natural Gas Engine
Fluid
PETRO CANADA DURON GEO LD 15W40 (7 GAL)

Sample Rating Trend



WEAR

DIAGNOSIS

▲ Recommendation
We recommend that you drain the oil and perform a filter service on this component if not already done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

▲ Wear
Piston, ring and cylinder wear is indicated. Valve wear is indicated.

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

Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**GFL0112159**	GFL0060126	GFL0052191
Sample Date		Client Info		**01 Mar 2024**	22 Dec 2022	20 Sep 2022
Machine Age	hrs	Client Info		**12196**	12196	12196
Oil Age	hrs	Client Info		**12196**	16036	15472
Oil Changed		Client Info		**N/A**	Not Changd	Changed
Sample Status				**SEVERE**	NORMAL	ATTENTION

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	▲ **103**	35	24
Chromium	ppm	ASTM D5185m	>4	▲ **12**	4	3
Nickel	ppm	ASTM D5185m	>2	▲ **5**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>9	▲ **7**	5	8
Lead	ppm	ASTM D5185m	>30	**<1**	1	8
Copper	ppm	ASTM D5185m	>35	**3**	2	2
Tin	ppm	ASTM D5185m	>4	**0**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	50	**10**	4	8
Barium	ppm	ASTM D5185m	5	**0**	0	0
Molybdenum	ppm	ASTM D5185m	50	**57**	64	69
Manganese	ppm	ASTM D5185m	0	**1**	<1	<1
Magnesium	ppm	ASTM D5185m	560	**541**	543	540
Calcium	ppm	ASTM D5185m	1510	**1508**	1667	1585
Phosphorus	ppm	ASTM D5185m	780	**813**	720	730
Zinc	ppm	ASTM D5185m	870	**943**	958	937
Sulfur	ppm	ASTM D5185m	2040	**2378**	3102	2873

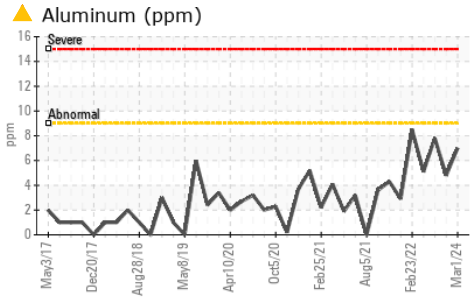
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	**18**	6	6
Sodium	ppm	ASTM D5185m		**10**	27	● 117
Potassium	ppm	ASTM D5185m	>20	**4**	3	4

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0.1**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**10.6**	12.8	14.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.0**	23.5	25.7

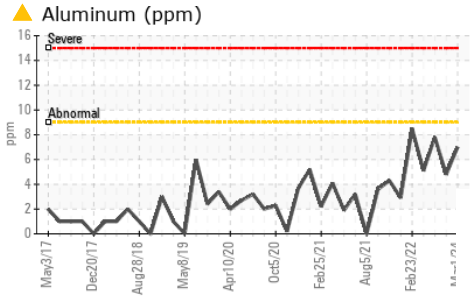
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**17.6**	19.7	20.6
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	**4.9**	4.7	4.9

OIL ANALYSIS REPORT

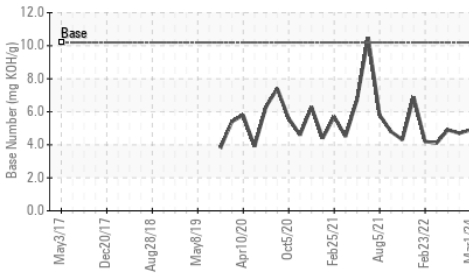
Aluminum (ppm)



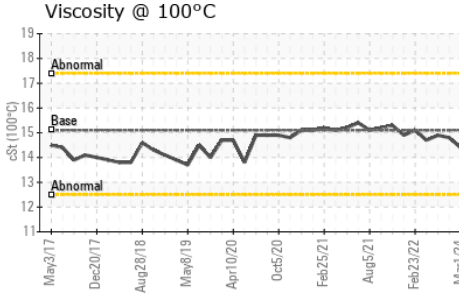
Aluminum (ppm)



Base Number



Viscosity @ 100°C

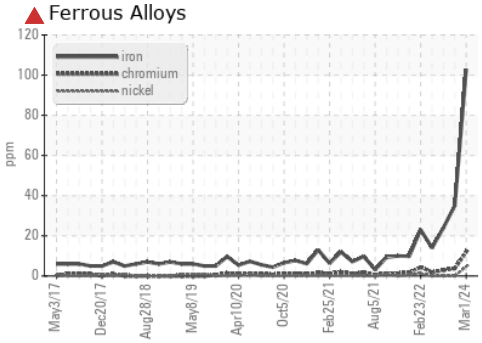


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

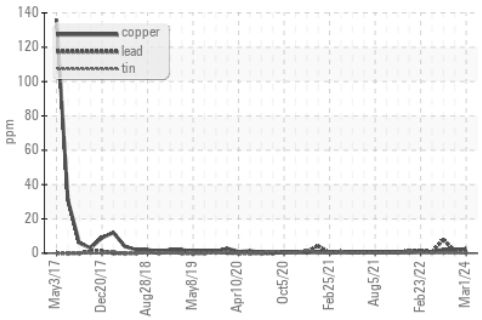
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	**14.4**	14.8	14.9

GRAPHS

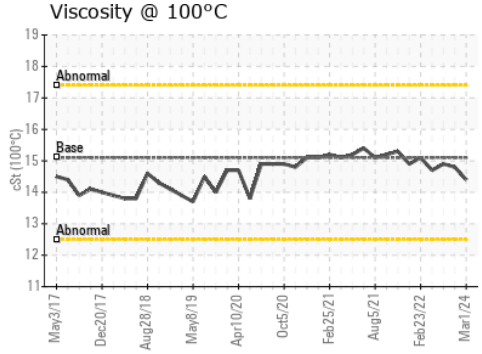
Ferrous Alloys



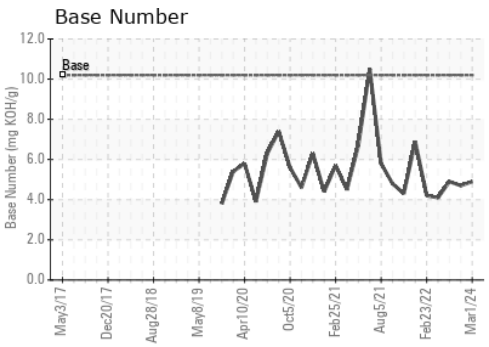
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0112159
Lab Number : 06107141
Unique Number : 10910638
Test Package : FLEET

Received : 04 Mar 2024
Tested : 05 Mar 2024
Diagnosed : 06 Mar 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 - 045 - Tidewater
3821 Cook Blvd.
Chesapeake, VA
US 23323
Contact: ELVIN RODRIGUEZ
elvinrodriguez@gflenv.com
T:
F:

Report Id: GFL045 [WUSCAR] 06107141 (Generated: 03/09/2024 09:35:30) Rev: 1

Submitted By: Matt oversee 654, 654S, 659 - Matthew Shinault