



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area
(YA163198)

Machine Id
10369C

Component
Natural Gas Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (30 GAL)

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0082483	GFL0082401	GFL0050806
Sample Date		Client Info		14 Nov 2023	14 Jun 2023	30 Nov 2022
Machine Age	hrs	Client Info		79446	0	7127
Oil Age	hrs	Client Info		79446	0	1177
Filter Age	hrs	Client Info		79446	0	1177
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	SEVERE	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	13	▲ 51	26
Chromium	ppm	ASTM D5185m	>4	1	▲ 12	3
Nickel	ppm	ASTM D5185m	>2	<1	2	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	8	3
Lead	ppm	ASTM D5185m	>30	2	16	6
Copper	ppm	ASTM D5185m	>35	15	6	2
Tin	ppm	ASTM D5185m	>4	<1	2	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

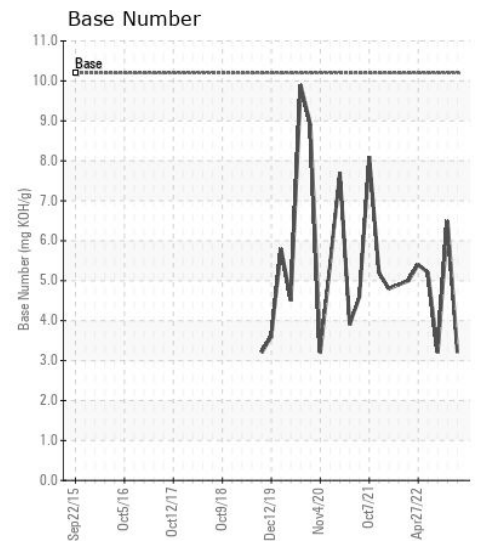
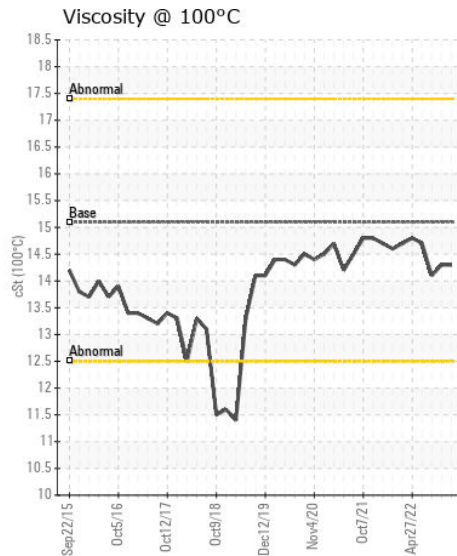
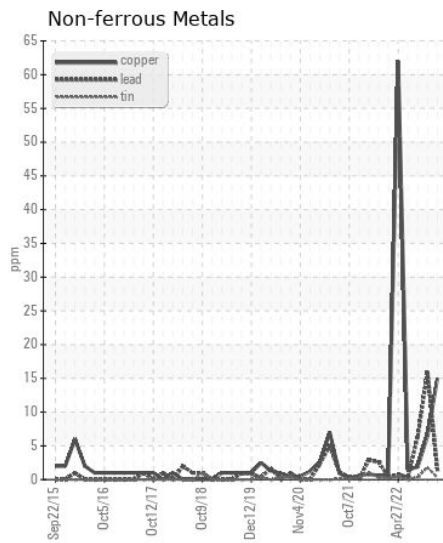
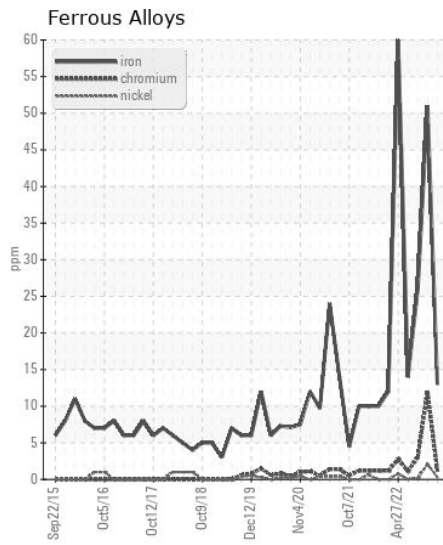
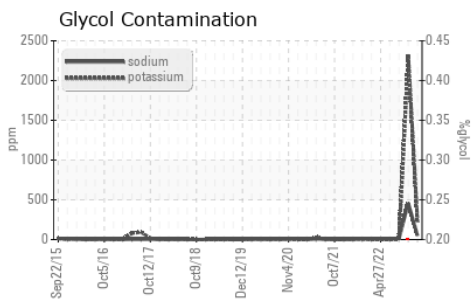
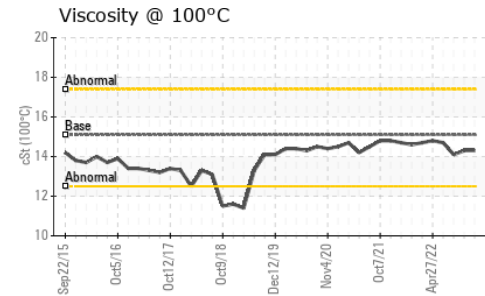
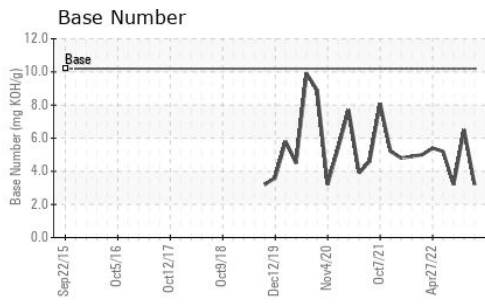
Sodium and/or potassium levels remain high.

Silicon	ppm	ASTM D5185m	>+100	2	16	4
Potassium	ppm	ASTM D5185m	>20	▲ 233	▲ 2309	1
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol	%	*ASTM D2982		---	0.20	---
Soot %	%	*ASTM D7844		0	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.8	14.5	13.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.8	24.9	27.3
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

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		▲ 51	▲ 459	12
Boron	ppm	ASTM D5185m	50	<1	11	4
Barium	ppm	ASTM D5185m	5	<1	0	0
Molybdenum	ppm	ASTM D5185m	50	55	72	55
Manganese	ppm	ASTM D5185m	0	<1	2	<1
Magnesium	ppm	ASTM D5185m	560	519	550	546
Calcium	ppm	ASTM D5185m	1510	1481	1695	1692
Phosphorus	ppm	ASTM D5185m	780	651	737	712
Zinc	ppm	ASTM D5185m	870	912	1055	933
Sulfur	ppm	ASTM D5185m	2040	2310	3153	2901
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.1	20.4	21.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	3.2	6.5	3.2
Visc @ 100°C	cSt	ASTM D445	15.1	14.3	14.3	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0082483
Lab Number : 06083461
Unique Number : 10870906
Test Package : FLEET

Received : 08 Feb 2024
Tested : 12 Feb 2024
Diagnosed : 12 Feb 2024 - Jonathan Hester

GFL Environmental - 007 - Brunswick
 2809 Galloway Road
 Bolivia, NC
 US 28422
 Contact: DONALD CRAVEN
 dcraven@gflenv.com

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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