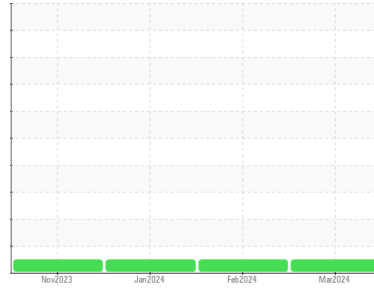




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
(TJY0185)

Machine Id
934067

Component
Natural Gas Engine

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. No other contaminants were detected in the oil.

Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0114449	GFL0103945	GFL0103930
Sample Date	Client Info	20 Mar 2024	15 Feb 2024	11 Jan 2024
Machine Age	hrs	1790	1494	1184
Oil Age	hrs	296	1494	579
Oil Changed	Client Info	Changed	Not Changd	Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>50	27	15	20
Chromium	ppm	ASTM D5185m	>4	3	1	1
Nickel	ppm	ASTM D5185m	>2	1	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	84	50	39
Lead	ppm	ASTM D5185m	>30	1	0	<1
Copper	ppm	ASTM D5185m	>35	2	<1	3
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	50	7	14	9
Barium	ppm	ASTM D5185m	5	0	0	<1
Molybdenum	ppm	ASTM D5185m	50	59	52	55
Manganese	ppm	ASTM D5185m	0	2	<1	2
Magnesium	ppm	ASTM D5185m	560	650	567	618
Calcium	ppm	ASTM D5185m	1510	1923	1581	1557
Phosphorus	ppm	ASTM D5185m	780	829	790	791
Zinc	ppm	ASTM D5185m	870	1068	951	1018
Sulfur	ppm	ASTM D5185m	2040	3237	2475	2518

CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>+100	8	6	9
Sodium	ppm	ASTM D5185m		7	7	7
Potassium	ppm	ASTM D5185m	>20	209	125	130

INFRA-RED

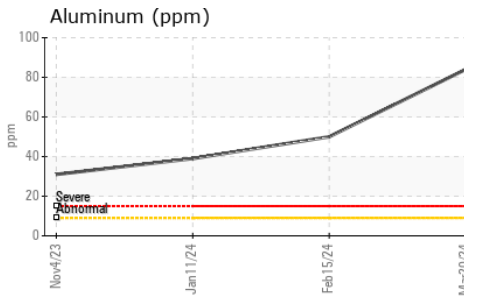
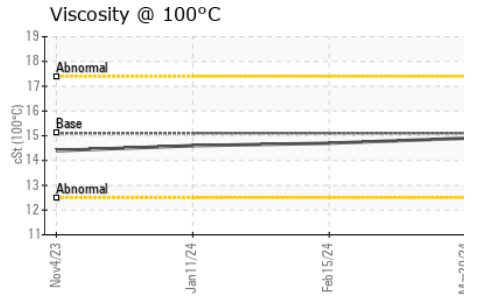
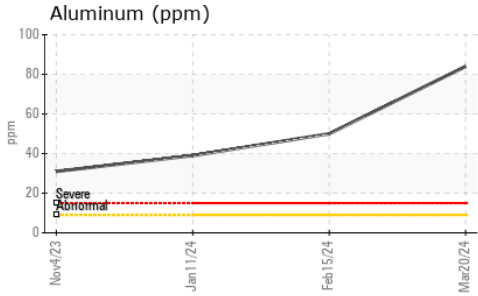
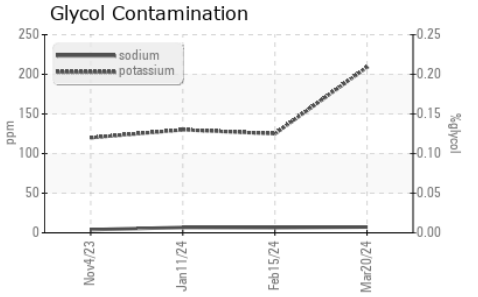
method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844		0	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	11.6	7.1	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	16.9	21.0

FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	13.4	18.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	4.4	6.8	4.7



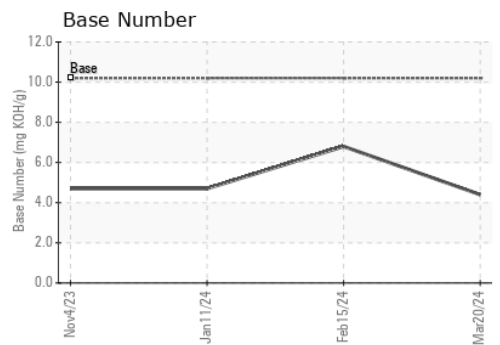
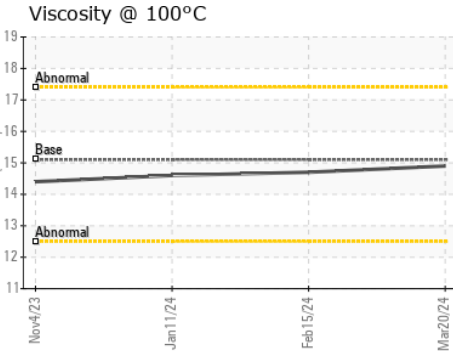
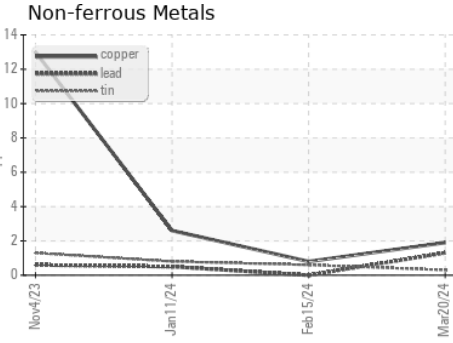
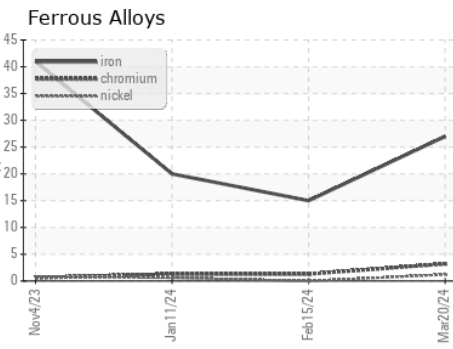
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.9	14.7

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0114449 **Received** : 26 Mar 2024
Lab Number : 06129807 **Tested** : 27 Mar 2024
Unique Number : 10949272 **Diagnosed** : 29 Mar 2024 - Don Baldrige
Test Package : FLEET

GFL Environmental - 865 - East Mount Hauling
 7213 East Mount Houston Road
 Houston, TX
 US 77050
 Contact: TECHNICIAN ACCOUNT
 wcgfldemo@gmail.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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