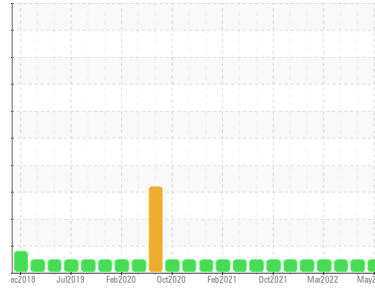




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
3819C
 Component
Natural Gas Engine
 Fluid
PETRO CANADA 10W40 (8 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

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 condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0084247	GFL0050833	GFL0027685
Sample Date	Client Info		19 May 2023	17 Aug 2022	02 Jun 2022
Machine Age	hrs	Client Info	11844	9540	15661
Oil Age	hrs	Client Info	11844	773	500
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	9	8	31
Chromium	ppm	ASTM D5185m >4	1	<1	<1
Nickel	ppm	ASTM D5185m >2	<1	0	0
Titanium	ppm	ASTM D5185m	<1	<1	0
Silver	ppm	ASTM D5185m >3	0	<1	<1
Aluminum	ppm	ASTM D5185m >9	<1	5	2
Lead	ppm	ASTM D5185m >30	8	1	<1
Copper	ppm	ASTM D5185m >35	1	<1	<1
Tin	ppm	ASTM D5185m >4	<1	<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	8	21	16
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	56	101	56
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	648	640	763
Calcium	ppm	ASTM D5185m	1759	1420	1123
Phosphorus	ppm	ASTM D5185m	822	689	925
Zinc	ppm	ASTM D5185m	1096	833	1111
Sulfur	ppm	ASTM D5185m	2913	2837	2754

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	7	12	3
Sodium	ppm	ASTM D5185m >20	9	6	0
Potassium	ppm	ASTM D5185m >20	2	0	1

INFRA-RED

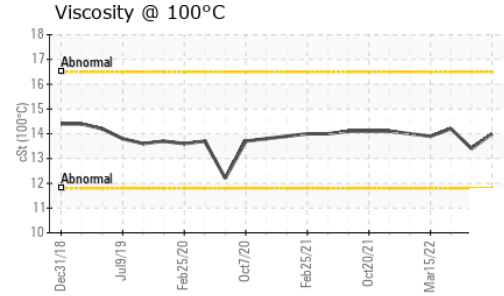
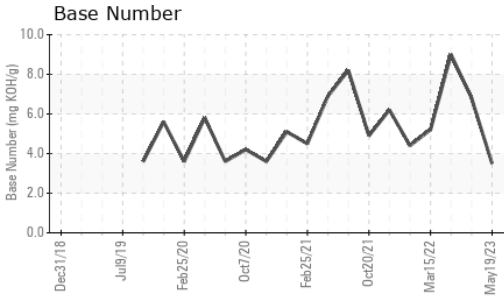
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0.1	0.8
Nitration	Abs/cm	*ASTM D7624 >20	11.9	9.7	6.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	27.1	23.8	18.7

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	23.0	17.0	13.6
Base Number (BN)	mg KOH/g	ASTM D2896	3.5	6.8	9



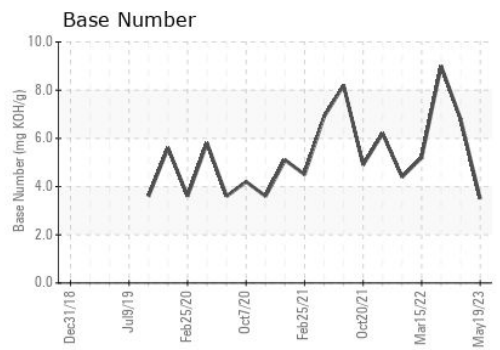
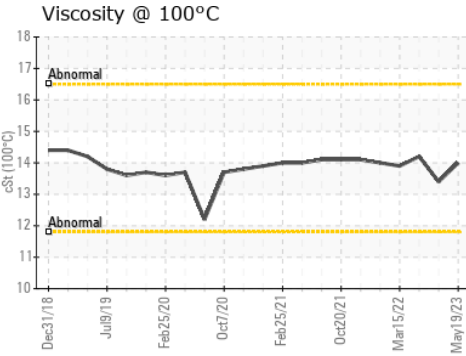
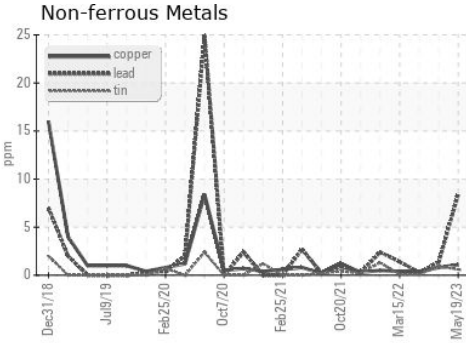
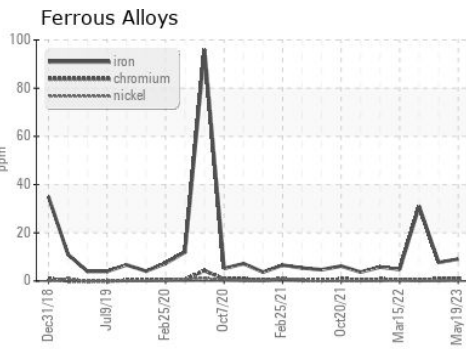
OIL ANALYSIS REPORT



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	14.0	13.4	14.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0084247
Lab Number : **05853830**
Unique Number : 10483185
Test Package : FLEET
Received : 22 May 2023
Diagnosed : 24 May 2023
Diagnostician : Don Baldrige

GFL Environmental - 031 - Greenville/Spartanburg
 1635 Antioch Church Rd
 Piedmont, SC
 US 29673
 Contact: TECHNICIAN ACCOUNT
 catherine.anastasio@wearcheck.com
 T:
 F:

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)