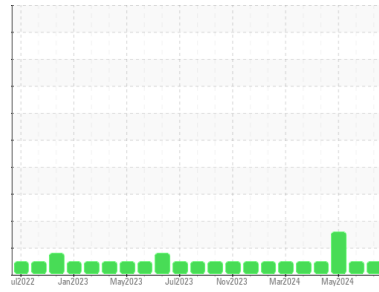




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

731122

Component

Natural Gas Engine

Fluid

PETRO CANADA DURON GEO LD 15W40 (--- 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		GFL0124047	GFL0120154	GFL0120186
Sample Date	Client Info		24 Jun 2024	30 May 2024	21 May 2024
Machine Age	hrs	Client Info	4805	4637	4612
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	ABNORMAL

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	14	7	▲ 55
Chromium	ppm	ASTM D5185m >4	1	<1	4
Nickel	ppm	ASTM D5185m >2	0	0	2
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >3	0	0	<1
Aluminum	ppm	ASTM D5185m >9	2	1	▲ 43
Lead	ppm	ASTM D5185m >30	2	0	11
Copper	ppm	ASTM D5185m >35	2	2	5
Tin	ppm	ASTM D5185m >4	<1	0	3
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	8	<1	9
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 50	54	55	67
Manganese	ppm	ASTM D5185m 0	<1	<1	4
Magnesium	ppm	ASTM D5185m 560	580	535	727
Calcium	ppm	ASTM D5185m 1510	1879	1849	1932
Phosphorus	ppm	ASTM D5185m 780	798	806	924
Zinc	ppm	ASTM D5185m 870	1108	1034	1187
Sulfur	ppm	ASTM D5185m 2040	2994	2945	3123

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	5	2	14
Sodium	ppm	ASTM D5185m	7	7	5
Potassium	ppm	ASTM D5185m >20	2	0	23

INFRA-RED

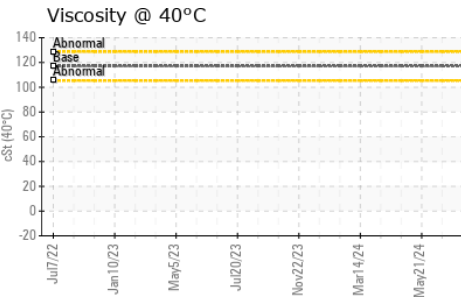
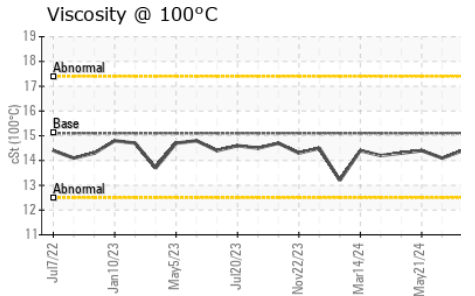
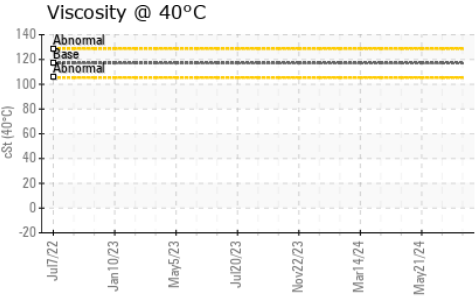
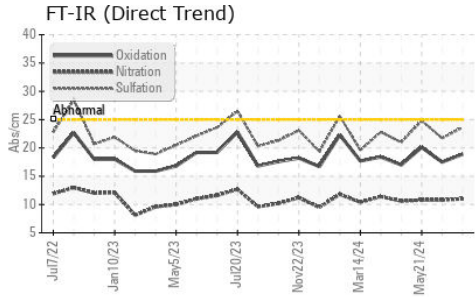
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0	0.2
Nitration	Abs/cm	*ASTM D7624 >20	11.0	10.8	10.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	23.6	21.7	24.8

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	18.9	17.5	20.1
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	4.5	4.8	6.0



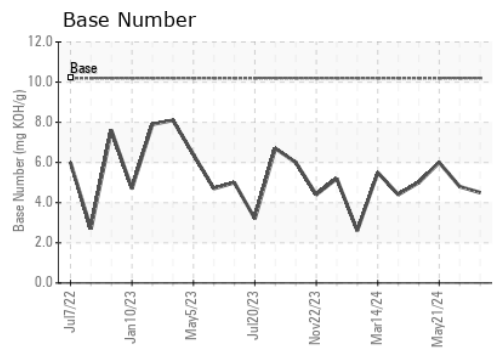
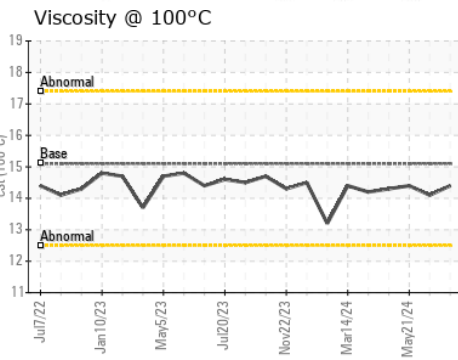
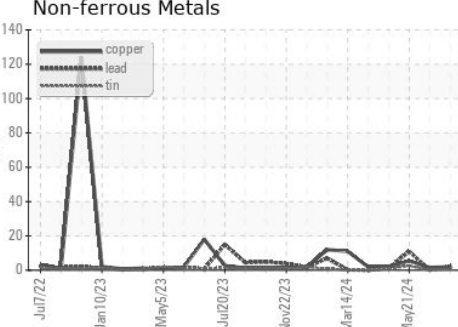
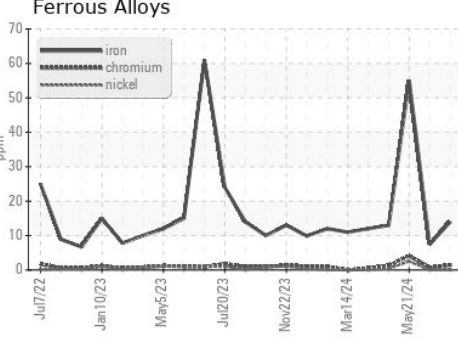
OIL ANALYSIS REPORT



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	14.4	14.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0124047 **Received** : 28 Jun 2024
Lab Number : 06223331 **Tested** : 01 Jul 2024
Unique Number : 11101528 **Diagnosed** : 01 Jul 2024 - Don Baldrige
Test Package : FLEET (Additional Tests: KV40)

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Loyce Stewart
 loyce.stewart@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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F: