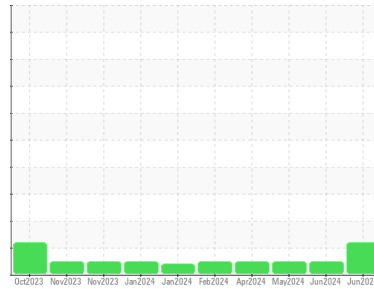




OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
834052
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil is near the end of its useful service life, recommend schedule an oil change. 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 level is low. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0120195	GFL0120240	GFL0117164
Sample Date	Client Info		12 Jun 2024	03 Jun 2024	06 May 2024
Machine Age	hrs	Client Info	1063	1020	886
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			ABNORMAL	NORMAL	NORMAL

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	12	15	13
Chromium	ppm	ASTM D5185m >5	<1	<1	0
Nickel	ppm	ASTM D5185m >4	0	<1	<1
Titanium	ppm	ASTM D5185m >5	0	<1	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >25	9	4	4
Lead	ppm	ASTM D5185m >40	17	3	2
Copper	ppm	ASTM D5185m >150	10	4	4
Tin	ppm	ASTM D5185m >4	2	2	2
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	9	6	13
Barium	ppm	ASTM D5185m 5	0	2	<1
Molybdenum	ppm	ASTM D5185m 50	56	55	50
Manganese	ppm	ASTM D5185m 0	1	1	2
Magnesium	ppm	ASTM D5185m 560	588	529	554
Calcium	ppm	ASTM D5185m 1510	1644	1607	1511
Phosphorus	ppm	ASTM D5185m 780	793	714	754
Zinc	ppm	ASTM D5185m 870	980	1012	966
Sulfur	ppm	ASTM D5185m 2040	2742	2814	2943

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	12	8	6
Sodium	ppm	ASTM D5185m	6	0	2
Potassium	ppm	ASTM D5185m >20	2	2	5

INFRA-RED

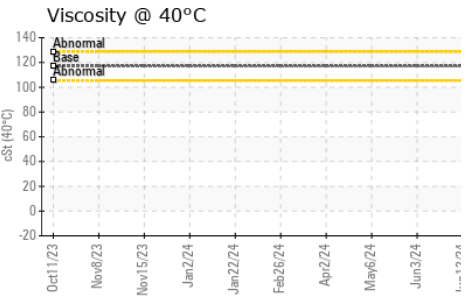
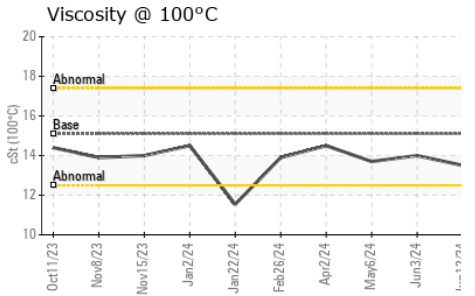
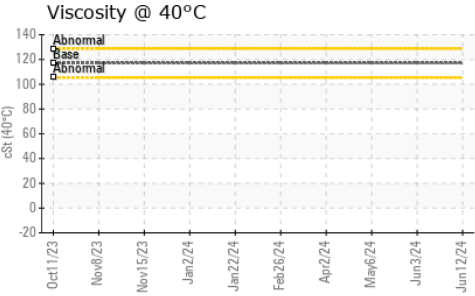
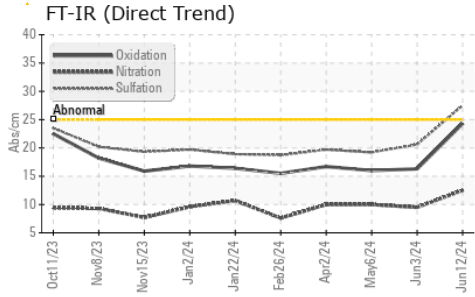
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0.4	0
Nitration	Abs/cm	*ASTM D7624 >20	12.5	9.5	10.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	27.5	20.6	19.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	24.3	16.3	16.0
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	▲ 2.0	5.6	5.3



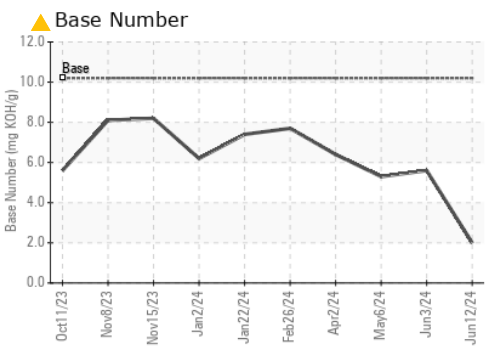
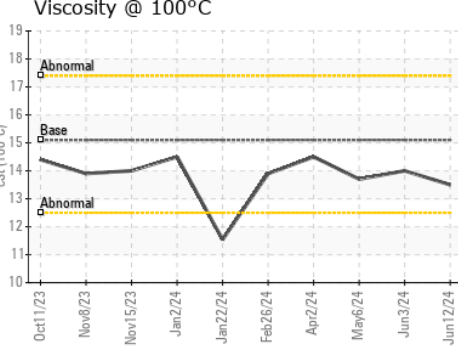
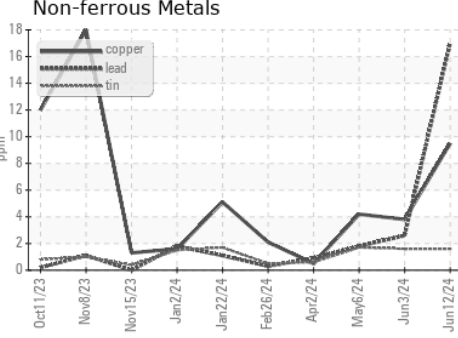
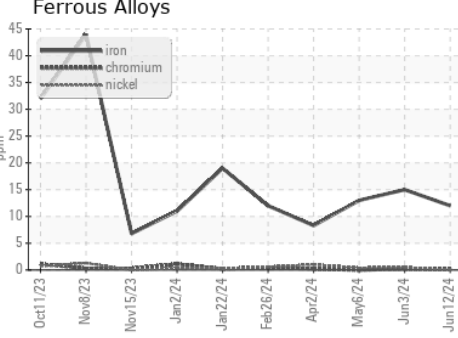
OIL ANALYSIS REPORT



PARAMETER	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	13.5	14.0

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0120195 **Received** : 14 Jun 2024
Lab Number : 06209770 **Tested** : 17 Jun 2024
Unique Number : 11082634 **Diagnosed** : 17 Jun 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)