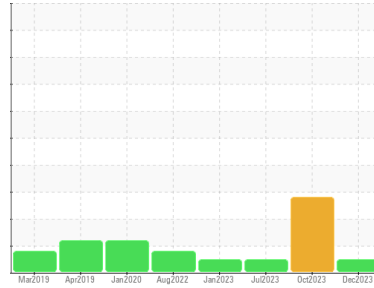




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
728034-310008

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. 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		GFL0105159	GFL0090195	GFL0076768
Sample Date	Client Info		20 Dec 2023	05 Oct 2023	19 Jul 2023
Machine Age	hrs	Client Info	5429	1215	1058
Oil Age	hrs	Client Info	150	150	600
Oil Changed	Client Info		Not Chngd	Not Chngd	Changed
Sample Status			NORMAL	SEVERE	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	0	24	26
Chromium	ppm	ASTM D5185m >20	0	<1	<1
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >20	<1	5	5
Lead	ppm	ASTM D5185m >40	0	<1	1
Copper	ppm	ASTM D5185m >330	0	2	4
Tin	ppm	ASTM D5185m >15	0	<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 0	0	8	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 60	53	52	60
Manganese	ppm	ASTM D5185m 0	0	<1	<1
Magnesium	ppm	ASTM D5185m 1010	942	801	959
Calcium	ppm	ASTM D5185m 1070	982	880	1073
Phosphorus	ppm	ASTM D5185m 1150	1060	888	1019
Zinc	ppm	ASTM D5185m 1270	1233	1063	1219
Sulfur	ppm	ASTM D5185m 2060	3124	2848	3446

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	4	8	6
Sodium	ppm	ASTM D5185m	1	36	19
Potassium	ppm	ASTM D5185m >20	0	7	0
Fuel	%	ASTM D3524 >5	0.4	10.6	<1.0

INFRA-RED

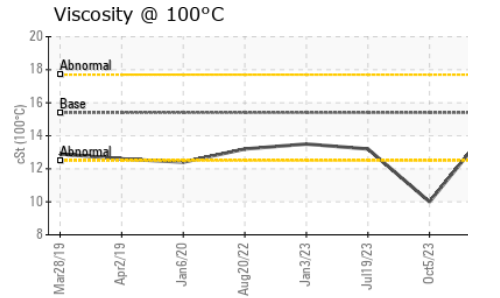
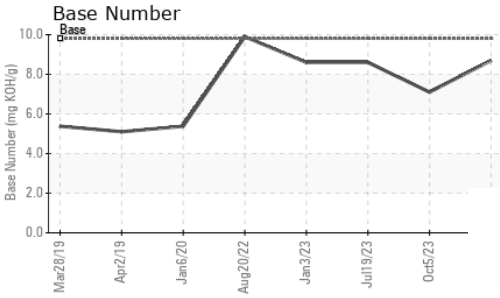
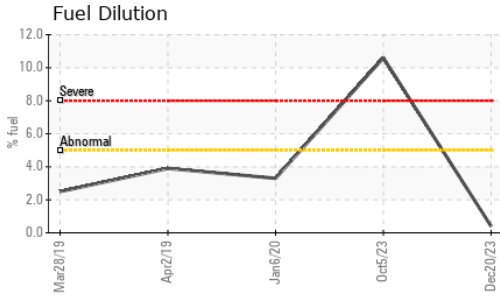
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0	0.8	0.4
Nitration	Abs/cm	*ASTM D7624 >20	4.1	7.4	7.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	17.4	19.4	19.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	12.6	14.9	14.4
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.7	7.1	8.6



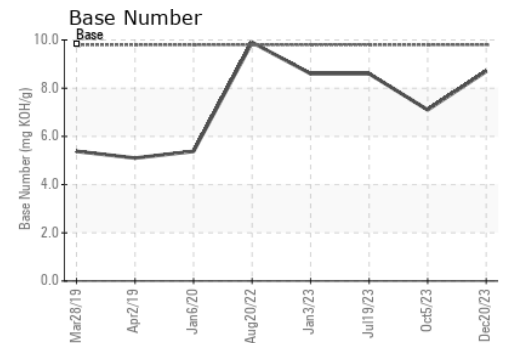
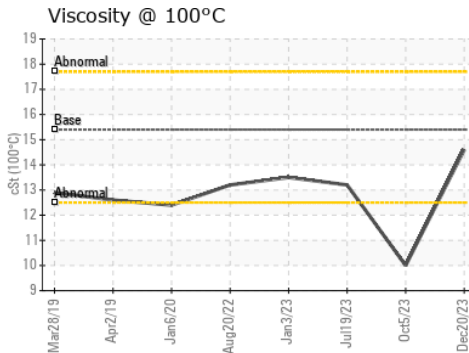
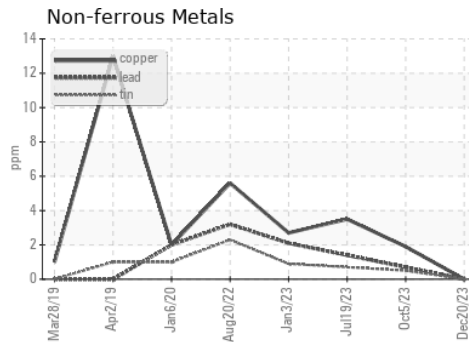
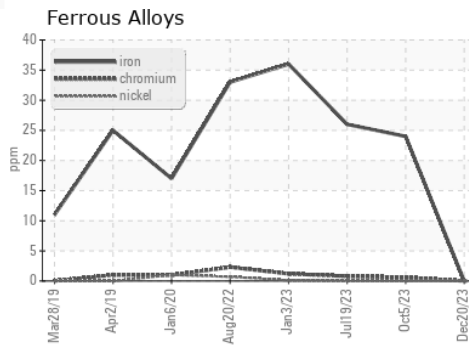
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.6	10.0

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0105159
 Lab Number : 06042866
 Unique Number : 10803474
 Test Package : FLEET (Additional Tests: PercentFuel)

GFL Environmental - 821 - Ozarks Hauling
 33924 Olath Drive
 Lebanon, MO
 US 65536

Contact: Landen Johnson
 landen.johnson@gflenv.com

T: (417)664-0010

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)