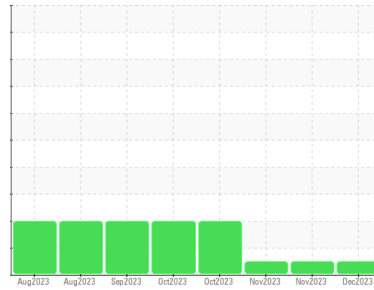




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
414061
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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		GFL0100247	GFL0100179	GFL0091249
Sample Date	Client Info		12 Dec 2023	30 Nov 2023	08 Nov 2023
Machine Age	hrs	Client Info	953	865	10002
Oil Age	hrs	Client Info	953	200	600
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<1.0	<1.0	<1.0
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 >120	10	8	5
Chromium	ppm	ASTM D5185m >20	<1	<1	0
Nickel	ppm	ASTM D5185m >5	1	<1	<1
Titanium	ppm	ASTM D5185m >2	<1	0	<1
Silver	ppm	ASTM D5185m >2	<1	<1	<1
Aluminum	ppm	ASTM D5185m >20	2	2	1
Lead	ppm	ASTM D5185m >40	0	0	0
Copper	ppm	ASTM D5185m >330	23	22	19
Tin	ppm	ASTM D5185m >15	<1	<1	<1
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	11	11	14
Barium	ppm	ASTM D5185m 0	0	2	0
Molybdenum	ppm	ASTM D5185m 60	61	62	62
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	909	895	903
Calcium	ppm	ASTM D5185m 1070	1040	1102	1078
Phosphorus	ppm	ASTM D5185m 1150	900	963	1001
Zinc	ppm	ASTM D5185m 1270	1145	1159	1149
Sulfur	ppm	ASTM D5185m 2060	3363	3944	3106

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	9	7	8
Sodium	ppm	ASTM D5185m	<1	0	<1
Potassium	ppm	ASTM D5185m >20	7	6	4

INFRA-RED

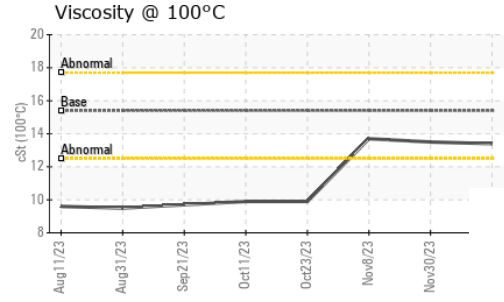
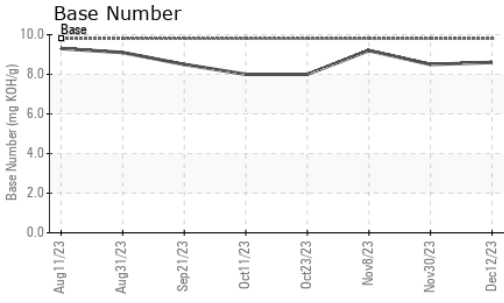
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.2	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	6.3	5.9	5.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.1	19.0	18.5

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.9	14.7	14.3
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.6	8.5	9.2



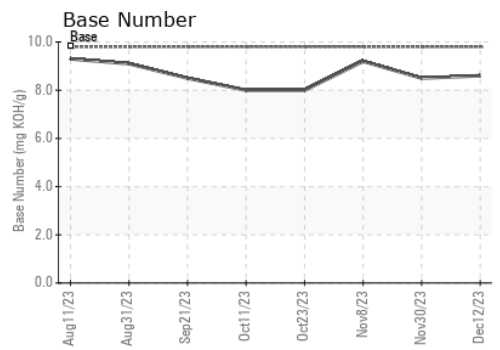
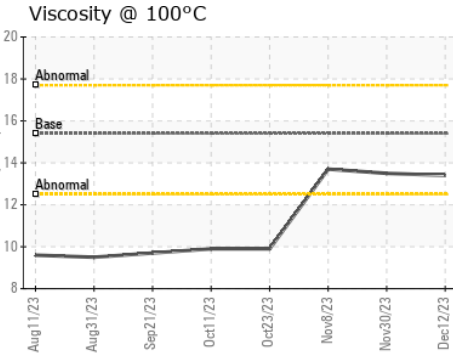
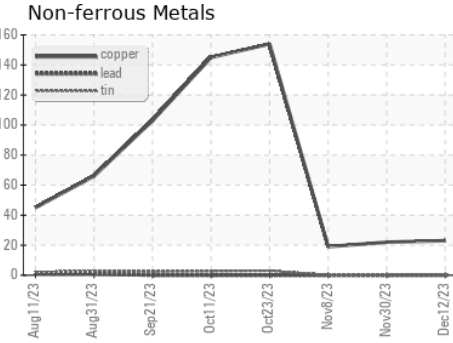
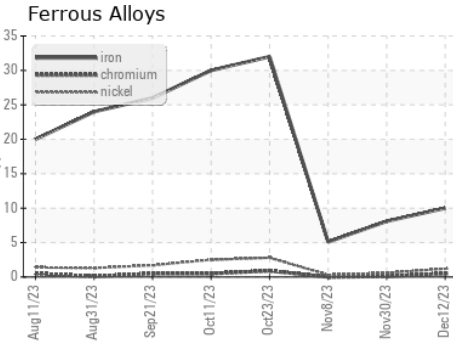
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0100247
 Lab Number : 06037368
 Unique Number : 10792597
 Test Package : FLEET

GFL Environmental - 166 - Phenix City
 18 Old Brickyard Rd
 Phenix City, AL
 US 36869
 Contact: DEAN PEACE JR
 dean.peace@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: