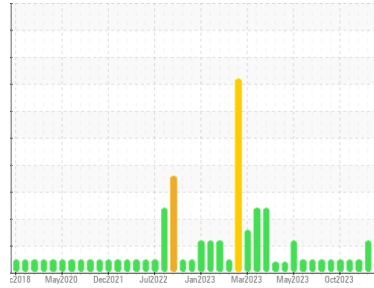




OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area
(EEY356)

Machine Id
10651

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 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

There is no indication of any contamination in the oil.

▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0109959	GFL0109865	GFL0101213
Sample Date	Client Info	08 Feb 2024	17 Jan 2024	20 Nov 2023
Machine Age	hrs	21191	21065	20377
Oil Age	hrs	555	429	502
Oil Changed	Client Info	Not Chngd	Not Chngd	Changed
Sample Status		ATTENTION	ABNORMAL	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 >75	19	18	12
Chromium	ppm ASTM D5185m >5	<1	1	<1
Nickel	ppm ASTM D5185m >4	0	0	0
Titanium	ppm ASTM D5185m >2	0	0	0
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >15	3	3	2
Lead	ppm ASTM D5185m >25	0	0	0
Copper	ppm ASTM D5185m >100	<1	1	1
Tin	ppm ASTM D5185m >4	0	0	0
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	12	4	7
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	56	58	60
Manganese	ppm ASTM D5185m 0	<1	<1	<1
Magnesium	ppm ASTM D5185m 1010	801	907	893
Calcium	ppm ASTM D5185m 1070	1017	1012	1042
Phosphorus	ppm ASTM D5185m 1150	949	1001	1000
Zinc	ppm ASTM D5185m 1270	1114	1214	1209
Sulfur	ppm ASTM D5185m 2060	2560	2903	2849

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	6	6	6
Sodium	ppm ASTM D5185m	10	9	9
Potassium	ppm ASTM D5185m >20	0	<1	0
Fuel	% ASTM D3524 >3.0	<1.0	▲ 2.4	<1.0

INFRA-RED

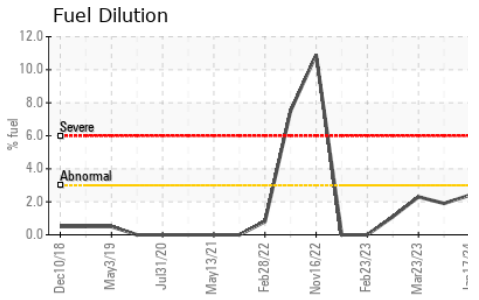
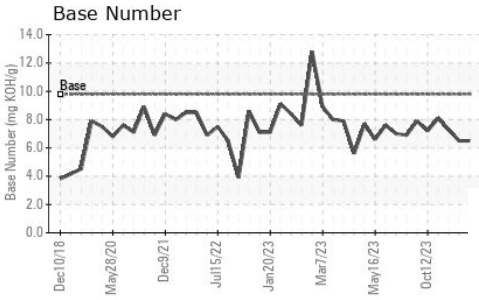
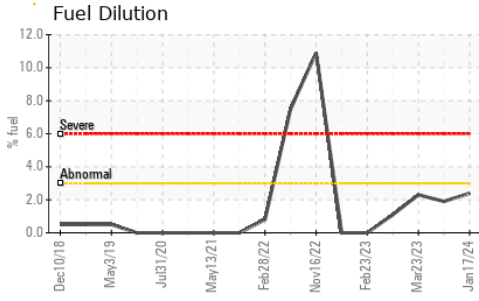
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	0.6	0.5	0.5
Nitration	Abs/cm *ASTM D7624 >20	10.4	10.0	8.7
Sulfation	Abs/.1mm *ASTM D7415 >30	20.8	20.1	19.9

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	18.2	17.6	16.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	6.5	6.5	7.3



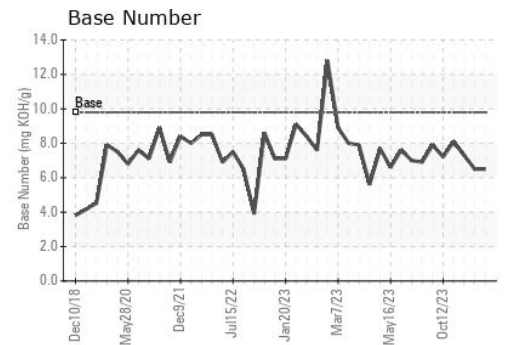
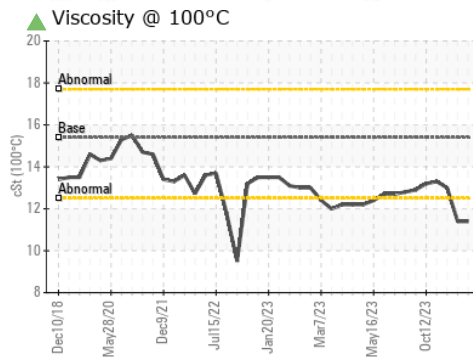
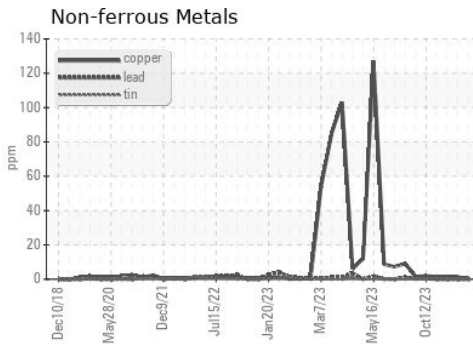
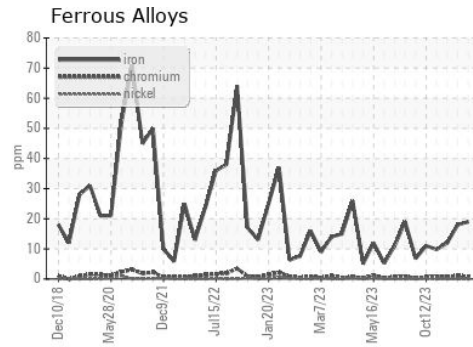
OIL ANALYSIS REPORT



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	▲ 11.4	▲ 11.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0109959 **Received** : 12 Feb 2024
Lab Number : 06085775 **Tested** : 13 Feb 2024
Unique Number : 10873220 **Diagnosed** : 13 Feb 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FUELDILUTION)

GFL Environmental - 010 - Stockbridge
 1280 Rum Creek Parkway
 Stockbridge, GA
 US 30281
 Contact: JOSHUA TINKER
 joshuatinker@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: