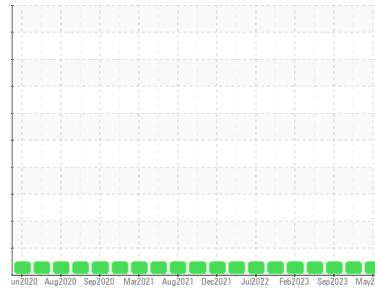




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
(TE6321)
 Machine Id
910009
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (32 QTS)

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	GFL0094901	GFL0090140	GFL0075169
Sample Date	Client Info	20 May 2024	16 Apr 2024	19 Sep 2023
Machine Age	hrs Client Info	10828	10581	9483
Oil Age	hrs Client Info	10828	10581	9483
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
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 >165	45	38	6
Chromium	ppm ASTM D5185m >5	3	3	<1
Nickel	ppm ASTM D5185m >4	<1	<1	0
Titanium	ppm ASTM D5185m >2	0	<1	0
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >20	10	9	5
Lead	ppm ASTM D5185m >150	0	<1	0
Copper	ppm ASTM D5185m >90	3	1	<1
Tin	ppm ASTM D5185m >5	<1	<1	<1
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	126	177	1
Barium	ppm ASTM D5185m 0	0	0	0
Molybdenum	ppm ASTM D5185m 60	100	102	63
Manganese	ppm ASTM D5185m 0	2	<1	<1
Magnesium	ppm ASTM D5185m 1010	580	500	922
Calcium	ppm ASTM D5185m 1070	1319	1238	1098
Phosphorus	ppm ASTM D5185m 1150	1045	1029	1038
Zinc	ppm ASTM D5185m 1270	1233	1191	1224
Sulfur	ppm ASTM D5185m 2060	3539	3338	3294

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >35	7	8	3
Sodium	ppm ASTM D5185m	60	63	2
Potassium	ppm ASTM D5185m >20	20	21	7

INFRA-RED

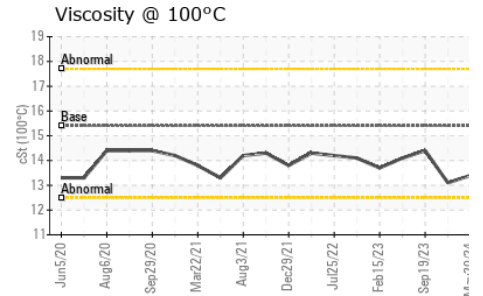
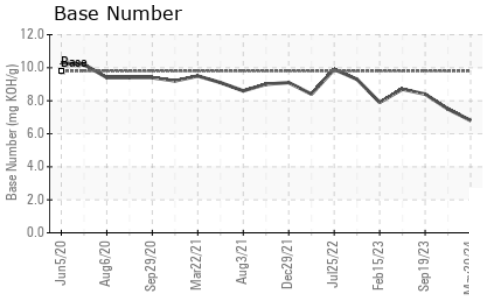
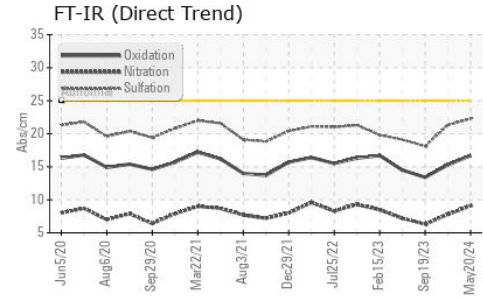
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >7.5	1	0.7	0.4
Nitration	Abs/cm *ASTM D7624 >20	9.1	7.8	6.3
Sulfation	Abs/.1mm *ASTM D7415 >30	22.3	21.3	18.1

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	16.7	15.3	13.4
Base Number (BN)	mg KOH/g ASTM D2896 9.8	6.8	7.5	8.4



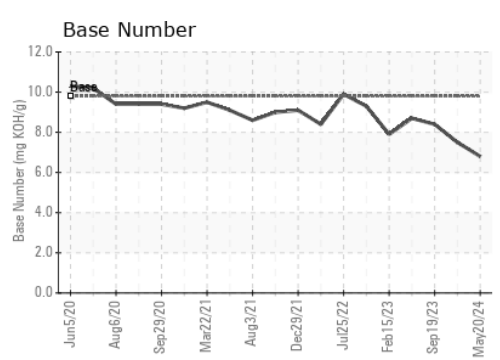
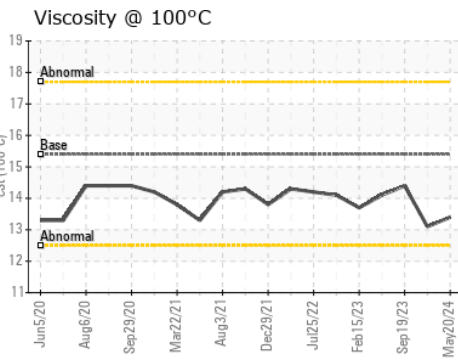
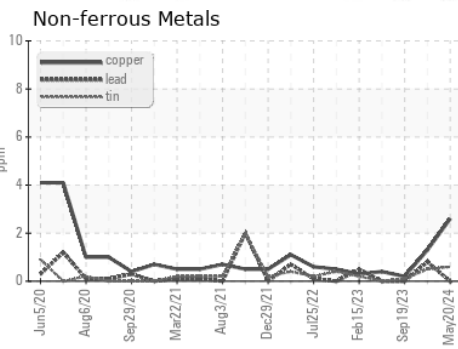
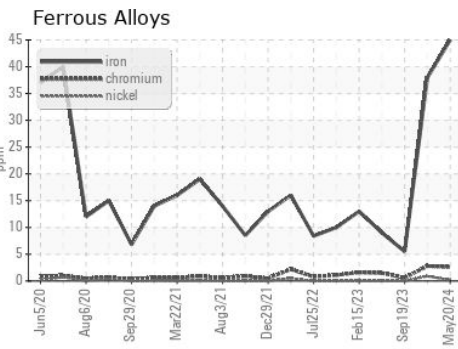
OIL ANALYSIS REPORT



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	13.4	13.1	14.4

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0094901 **Received** : 21 May 2024
Lab Number : **06185802** **Tested** : 22 May 2024
Unique Number : 11042554 **Diagnosed** : 23 May 2024 - Jonathan Hester
Test Package : FLEET

GFL Environmental - 044 - Elizabeth City
 657 Old US 17
 Elizabeth City, NC
 US 27909
 Contact: TOM BAIRD
 tom.baird@gflenv.com
 T: (252)562-2645
 F: (252)264-4411

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)