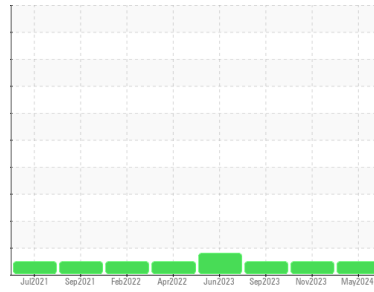




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
924025-260243

Component
Diesel Engine

Fluid
PETRO CANADA DURON GEO LD 15W40 (7 GAL)

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	GFL0120947	GFL0081044	GFL0071769
Sample Date	Client Info	24 May 2024	21 Nov 2023	15 Sep 2023
Machine Age	hrs	7090	5928	5778
Oil Age	hrs	1162	650	600
Oil Changed	Client Info	Changed	Changed	Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<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 >100	43	78	81
Chromium	ppm ASTM D5185m >20	2	3	2
Nickel	ppm ASTM D5185m >4	1	<1	<1
Titanium	ppm ASTM D5185m	<1	<1	<1
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >20	3	10	7
Lead	ppm ASTM D5185m >40	<1	<1	2
Copper	ppm ASTM D5185m >330	4	9	7
Tin	ppm ASTM D5185m >15	<1	<1	<1
Vanadium	ppm ASTM D5185m	0	0	<1
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	18	333	361
Barium	ppm ASTM D5185m 5	0	0	0
Molybdenum	ppm ASTM D5185m 50	48	85	90
Manganese	ppm ASTM D5185m 0	1	4	3
Magnesium	ppm ASTM D5185m 560	492	464	432
Calcium	ppm ASTM D5185m 1510	1445	1420	1444
Phosphorus	ppm ASTM D5185m 780	706	961	941
Zinc	ppm ASTM D5185m 870	890	1165	1147
Sulfur	ppm ASTM D5185m 2040	2547	3061	3593

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	7	21	19
Sodium	ppm ASTM D5185m	20	36	35
Potassium	ppm ASTM D5185m >20	6	4	4

INFRA-RED

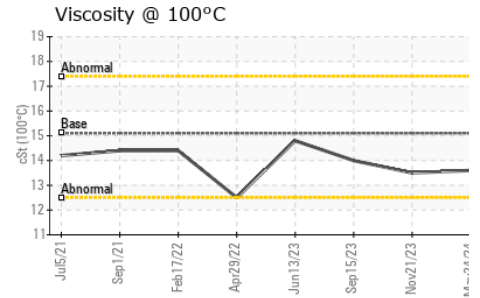
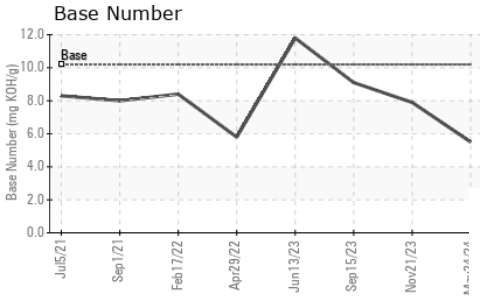
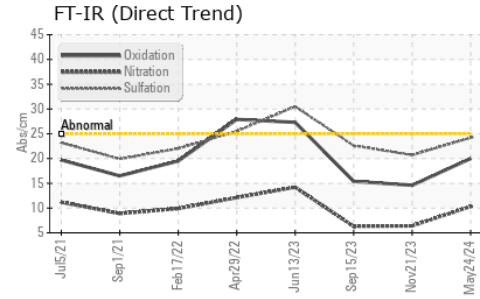
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	1.4	0.5	0
Nitration	Abs/cm *ASTM D7624 >20	10.3	6.4	6.3
Sulfation	Abs/.1mm *ASTM D7415 >30	24.2	20.7	22.6

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	20.0	14.6	15.4
Base Number (BN)	mg KOH/g ASTM D2896 10.2	5.5	7.9	9.1



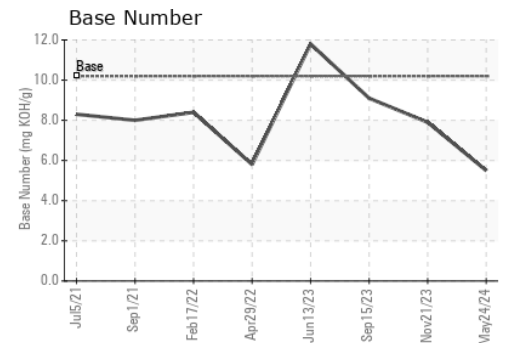
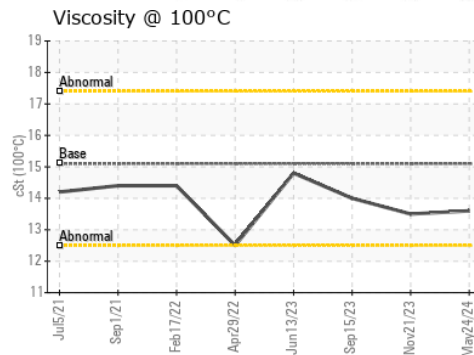
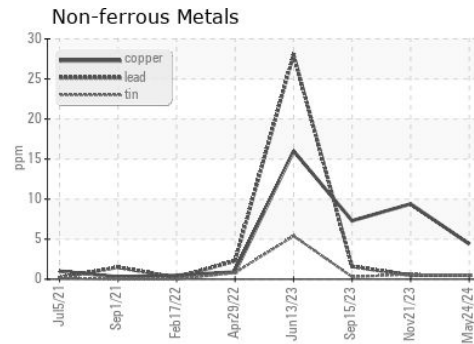
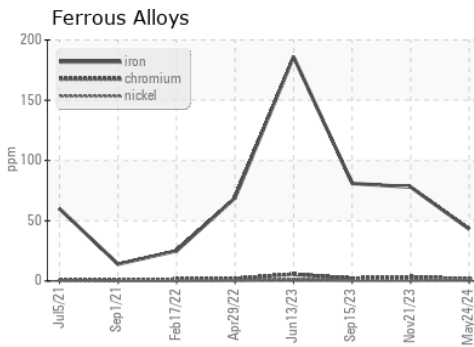
OIL ANALYSIS REPORT



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	15.1	13.6	13.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0120947
Lab Number : 06193428
Unique Number : 11050180
Test Package : FLEET

Received : 28 May 2024
Tested : 30 May 2024
Diagnosed : 30 May 2024 - Wes Davis

GFL Environmental - 883 - Orange City
 1378 South Volusia Ave
 Orange City, FL
 US 32763
 Contact: JEFF COOPERSMITH
 JCOOPERSMITH@GFLENV.COM
 T: (386)503-8468
 F:

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)