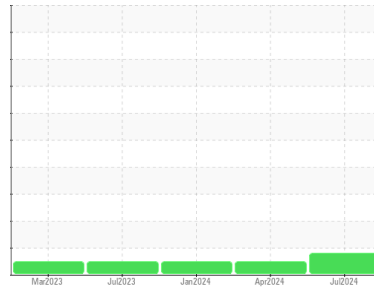




OIL ANALYSIS REPORT

Area
(ML7046)
Machine Id
413073
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)

Sample Rating Trend



FUEL



DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected 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			GFL0110415	GFL0090138	GFL0090126
Sample Date	Client Info			10 Jul 2024	16 Apr 2024	25 Jan 2024
Machine Age	hrs	Client Info		4350	3717	3138
Oil Age	hrs	Client Info		633	3717	3138
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				MARGINAL	NORMAL	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	19	17	13
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	10	14	11
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	7	3	2
Tin	ppm	ASTM D5185m	>15	0	<1	1
Vanadium	ppm	ASTM D5185m		0	<1	<1
Cadmium	ppm	ASTM D5185m		0	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	4	13	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	58	44	60
Manganese	ppm	ASTM D5185m	0	2	<1	<1
Magnesium	ppm	ASTM D5185m	1010	885	920	947
Calcium	ppm	ASTM D5185m	1070	1030	1170	1077
Phosphorus	ppm	ASTM D5185m	1150	956	919	1018
Zinc	ppm	ASTM D5185m	1270	1189	1062	1211
Sulfur	ppm	ASTM D5185m	2060	2974	2982	2524

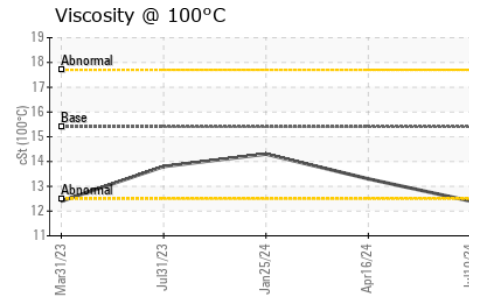
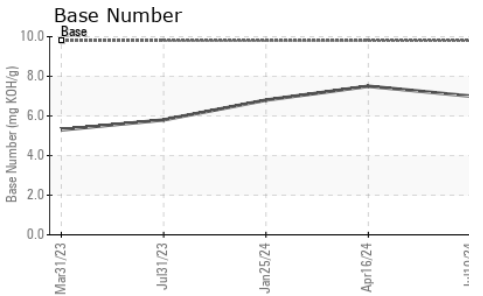
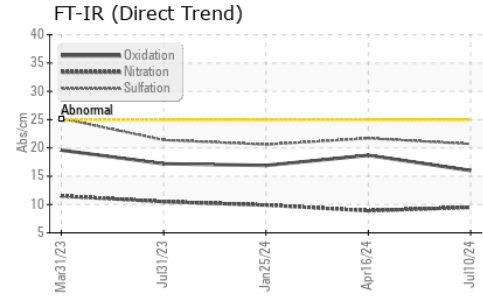
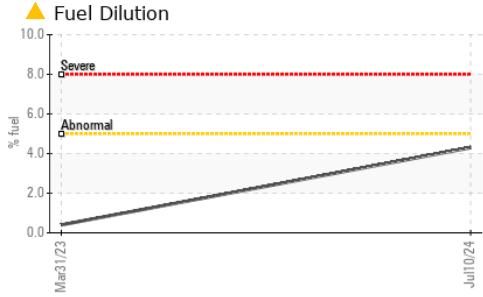
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	8	7	4
Sodium	ppm	ASTM D5185m		5	2	2
Potassium	ppm	ASTM D5185m	>20	13	34	21
Fuel	%	ASTM D3524	>5	▲ 4.3	<1.0	<1.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.6	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	9.5	8.9	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	21.7	20.6

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	18.7	16.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.0	7.5	6.8



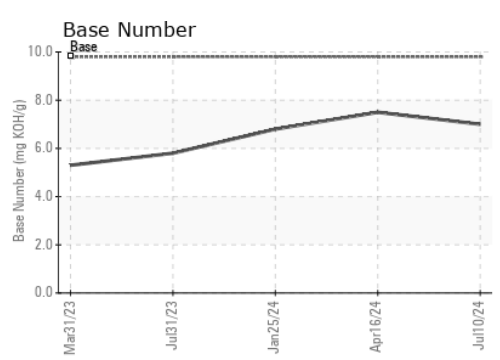
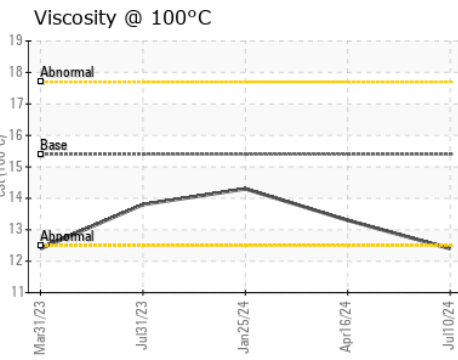
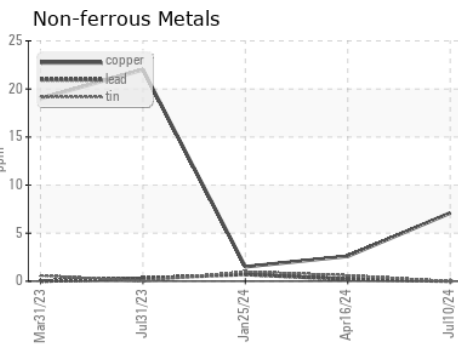
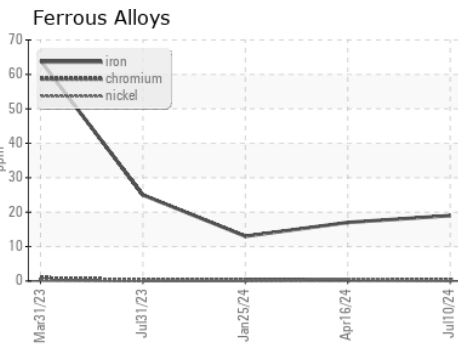
OIL ANALYSIS REPORT



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	12.4	13.3	14.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110415 **Received** : 17 Jul 2024
Lab Number : **06238786** **Tested** : 18 Jul 2024
Unique Number : 11127620 **Diagnosed** : 18 Jul 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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)