



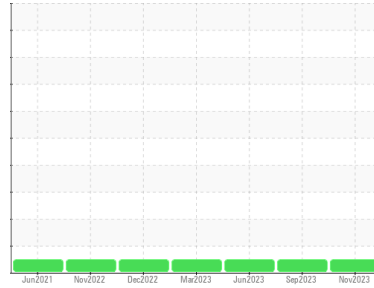
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
{UNASSIGNED}
 Machine Id
322002-880
 Component
Gasoline Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)



DIAGNOSIS

Recommendation
 Resample at the next service interval to monitor. (Customer Sample Comment: Sample only)

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		GFL0094855	GFL0088284	GFL0077498
Sample Date	Client Info		06 Nov 2023	11 Sep 2023	28 Jun 2023
Machine Age	mls Client Info		244523	242223	238991
Oil Age	mls Client Info		5569	3269	37
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m	>150	29	22	13
Chromium	ppm ASTM D5185m	>20	2	2	0
Nickel	ppm ASTM D5185m	>5	<1	<1	0
Titanium	ppm ASTM D5185m		0	0	19
Silver	ppm ASTM D5185m	>2	0	0	0
Aluminum	ppm ASTM D5185m	>40	4	2	<1
Lead	ppm ASTM D5185m	>50	0	<1	0
Copper	ppm ASTM D5185m	>155	<1	<1	4
Tin	ppm ASTM D5185m	>10	0	<1	0
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	0	21	38	71
Barium	ppm ASTM D5185m	0	<1	0	0
Molybdenum	ppm ASTM D5185m	60	59	62	66
Manganese	ppm ASTM D5185m	0	<1	1	0
Magnesium	ppm ASTM D5185m	1010	424	477	721
Calcium	ppm ASTM D5185m	1070	799	851	930
Phosphorus	ppm ASTM D5185m	1150	477	603	685
Zinc	ppm ASTM D5185m	1270	580	624	810
Sulfur	ppm ASTM D5185m	2060	2327	2833	2541

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m	>30	14	14	8
Sodium	ppm ASTM D5185m	>400	<1	2	3
Potassium	ppm ASTM D5185m	>20	2	2	1
Fuel	% ASTM D3524	>4.0	<1.0	<1.0	<1.0

INFRA-RED

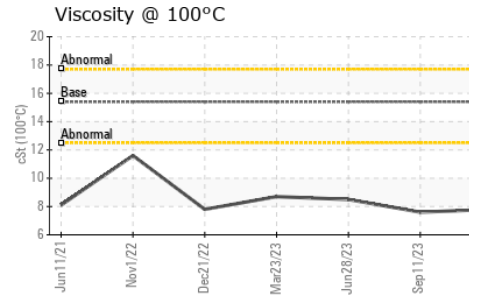
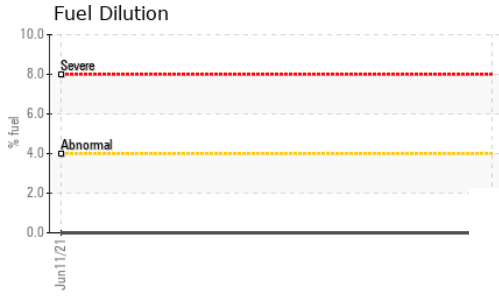
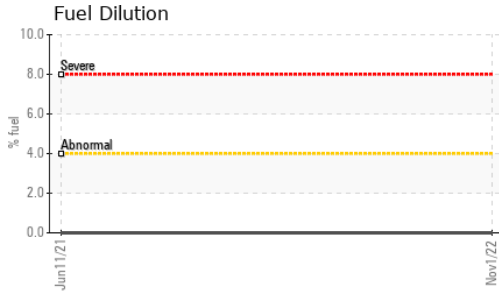
	method	limit/base	current	history1	history2
Soot %	% *ASTM D7844		0	0.1	0.1
Nitration	Abs/cm *ASTM D7624	>20	12.5	10.0	10.0
Sulfation	Abs/.1mm *ASTM D7415	>30	23.3	19.3	19.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25	18.5	13.5	14.9
Base Number (BN)	mg KOH/g ASTM D2896	9.8	3.2	3.9	5.2



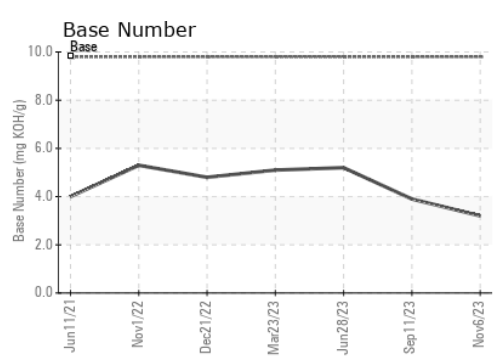
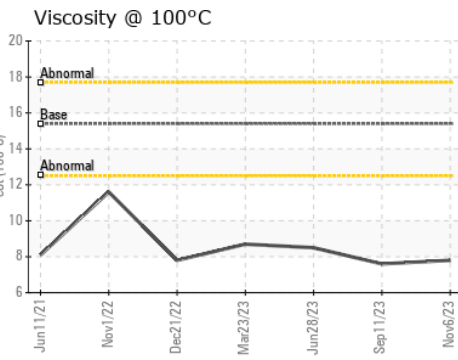
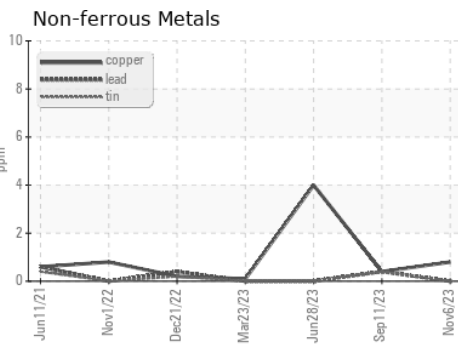
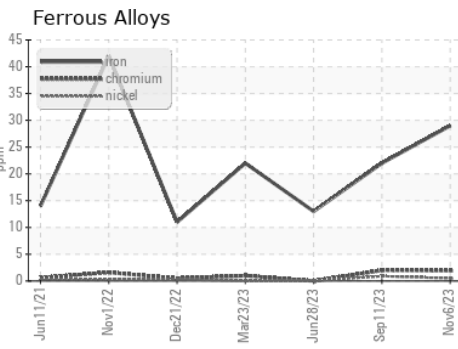
OIL ANALYSIS REPORT



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	7.8	7.6	8.5

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0094855 **Received** : 08 Nov 2023
Lab Number : **06002094** **Diagnosed** : 10 Nov 2023
Unique Number : 10735856 **Diagnostician** : Angela Borella
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 625 - Harrison Hauling
 4102 Industrial Pkwy
 Harrison, MI
 US 48625
 Contact: Glenda Standen
 gstanden@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)