



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
524018
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0101006	GFL0092825	GFL0092805
Sample Date		Client Info		28 May 2024	21 Feb 2024	15 Nov 2023
Machine Age	hrs	Client Info		600	600	600
Oil Age	hrs	Client Info		0	600	600
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	17	31	30
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	4	8
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	1	2	3
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

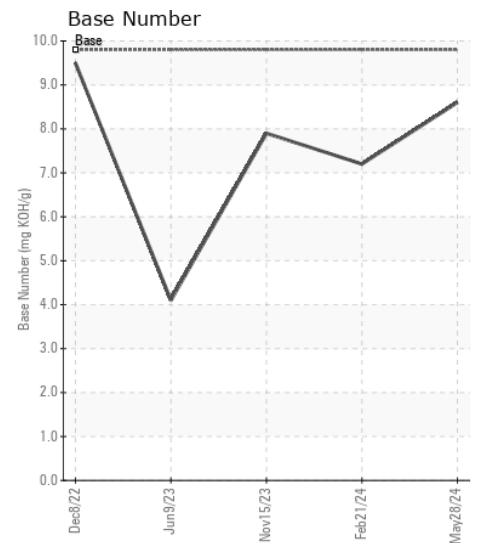
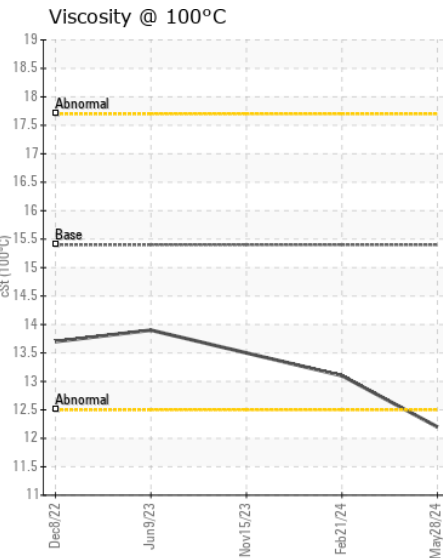
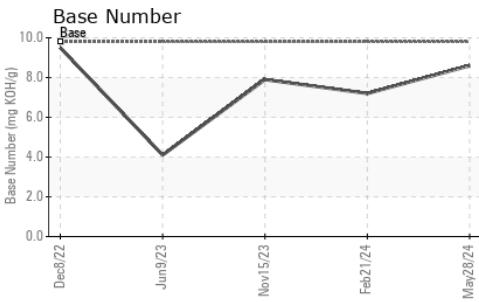
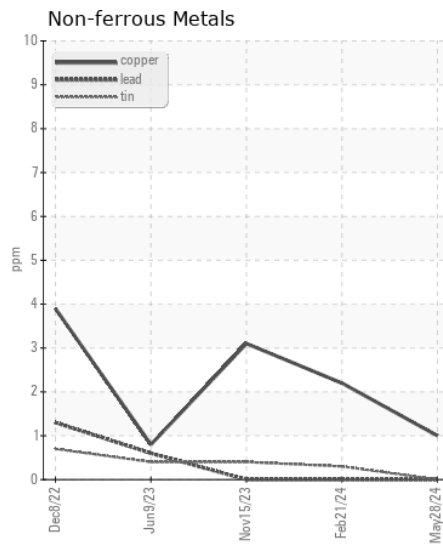
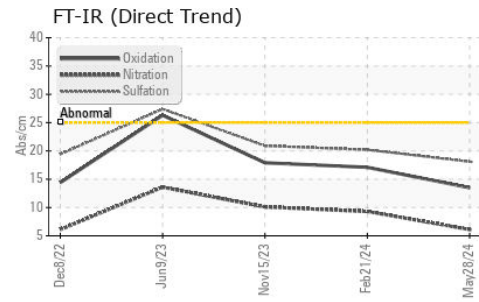
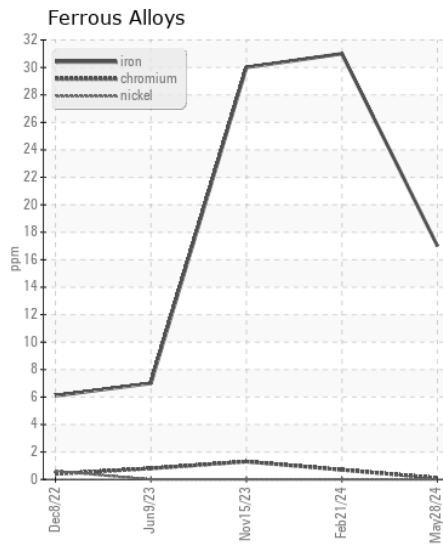
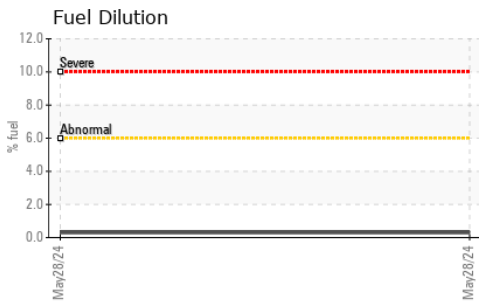
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<1	5	5
Potassium	ppm	ASTM D5185m	>20	0	4	14
Fuel	%	ASTM D3524	>6.0	0.3	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.5	0.8
Nitration	Abs/cm	*ASTM D7624	>20	6.1	9.3	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	20.2	20.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		2	6	8
Boron	ppm	ASTM D5185m	0	0	6	<1
Barium	ppm	ASTM D5185m	0	0	<1	0
Molybdenum	ppm	ASTM D5185m	60	62	65	65
Manganese	ppm	ASTM D5185m	0	<1	1	<1
Magnesium	ppm	ASTM D5185m	1010	930	875	1045
Calcium	ppm	ASTM D5185m	1070	1103	1039	1145
Phosphorus	ppm	ASTM D5185m	1150	1027	935	1080
Zinc	ppm	ASTM D5185m	1270	1182	1106	1369
Sulfur	ppm	ASTM D5185m	2060	3429	2630	3125
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5	17.1	17.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.6	7.2	7.9
Visc @ 100°C	cSt	ASTM D445	15.4	12.2	13.1	13.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0101006 **Received** : 03 Jun 2024
Lab Number : 06197245 **Tested** : 05 Jun 2024
Unique Number : 11059368 **Diagnosed** : 05 Jun 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 455 - Flint
 2051 W. Bristol Rd
 Flint Township, MI
 US 48507
 Contact: MARK WOMBLE
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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)