



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**727178**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0084826</b>	GFL0084806	GFL0116517
Sample Date		Client Info		<b>20 May 2024</b>	27 Apr 2024	16 Apr 2024
Machine Age	hrs	Client Info		<b>16405</b>	16315	16282
Oil Age	hrs	Client Info		<b>16282</b>	16282	20421
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	NORMAL	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>7</b>	9	44
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	3	6
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>2</b>	1	3
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

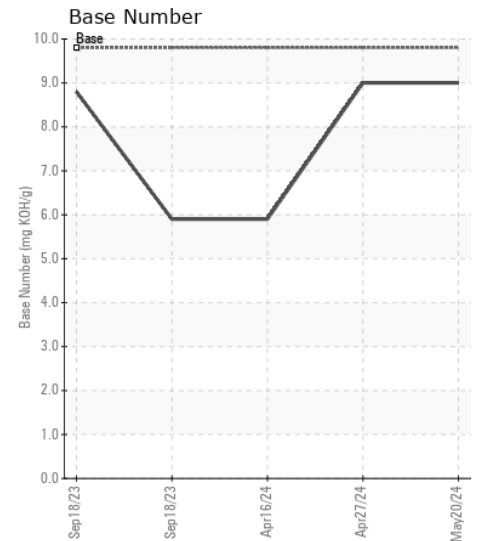
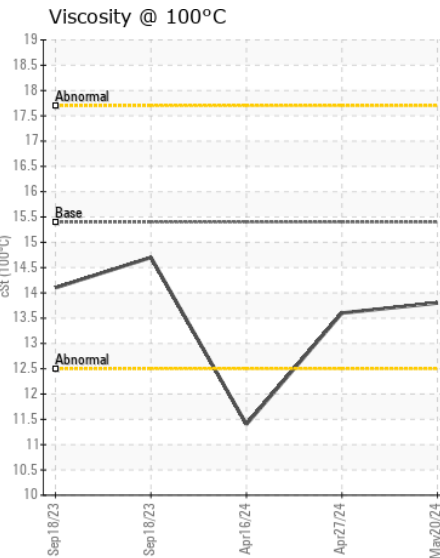
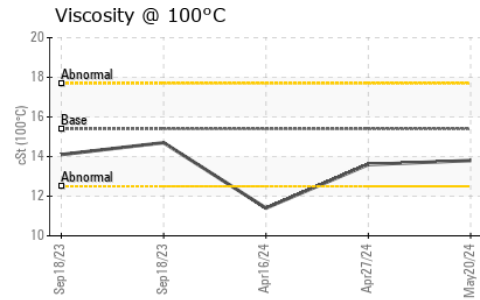
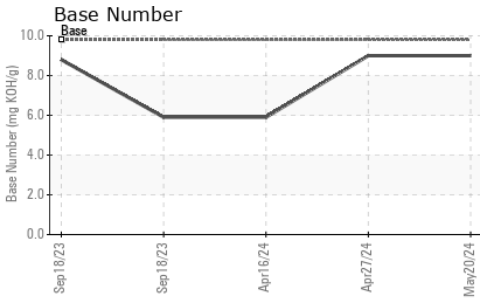
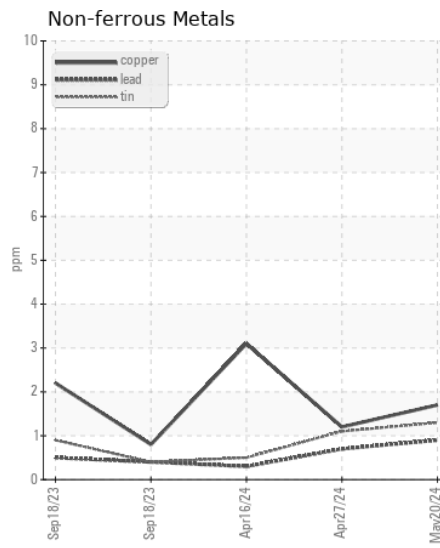
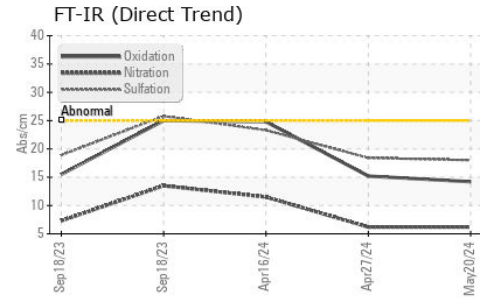
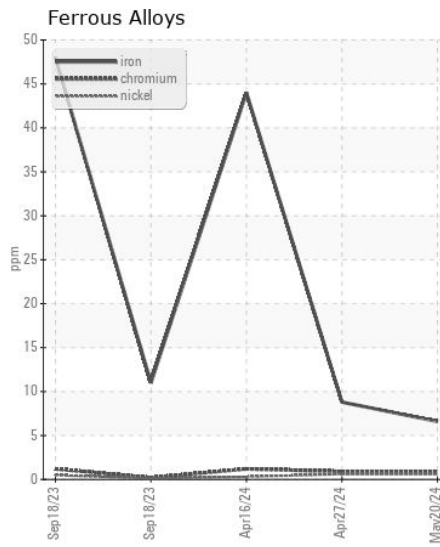
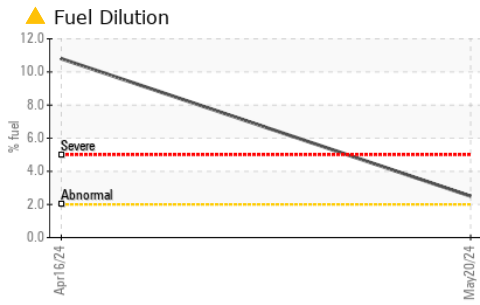
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	9
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	4	14
Fuel	%	ASTM D3524	>2.0	<b>▲ 2.5</b>	<1.0	<b>▲ 10.8</b>
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.2</b>	6.2	11.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.0</b>	18.4	23.3
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<b>3</b>	4	11
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	7
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>59</b>	57	58
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>955</b>	930	835
Calcium	ppm	ASTM D5185m	1070	<b>1068</b>	1040	1005
Phosphorus	ppm	ASTM D5185m	1150	<b>1074</b>	1066	888
Zinc	ppm	ASTM D5185m	1270	<b>1212</b>	1197	1105
Sulfur	ppm	ASTM D5185m	2060	<b>3593</b>	3586	2753
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.2</b>	15.2	24.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.0</b>	9.0	5.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	13.6	<b>▲ 11.4</b>



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0084826 **Received** : 22 May 2024  
**Lab Number** : 06187348 **Tested** : 28 May 2024  
**Unique Number** : 11044100 **Diagnosed** : 28 May 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 959A - Urbana HC**  
 4808 cunningham Rd  
 Urbana, IL  
 US 61802  
 Contact: Kristine Tryon  
 Ktryon@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)

T:  
F: