



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

Area  
**(BC93221)**  
Machine Id  
**527043**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0100015</b>	GFL0101652	GFL0094862
Sample Date		Client Info		<b>10 Jun 2024</b>	13 Mar 2024	06 Nov 2023
Machine Age	hrs	Client Info		<b>20324</b>	19868	19062
Oil Age	hrs	Client Info		<b>500</b>	51	409
Filter Age	hrs	Client Info		<b>500</b>	51	409
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

**WEAR**

A decrease in the iron level is noted.

Iron	ppm	ASTM D5185m	>80	<b>▲ 106</b>	12	43
Chromium	ppm	ASTM D5185m	>4	<b>8</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>2</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>● 14</b>	2	<1
Lead	ppm	ASTM D5185m	>15	<b>3</b>	<1	4
Copper	ppm	ASTM D5185m	>230	<b>16</b>	6	240
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

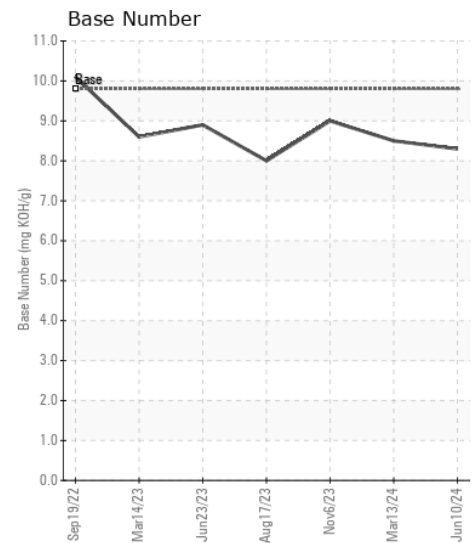
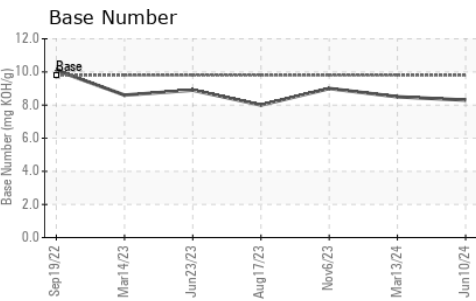
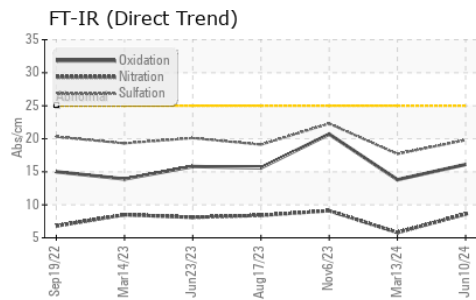
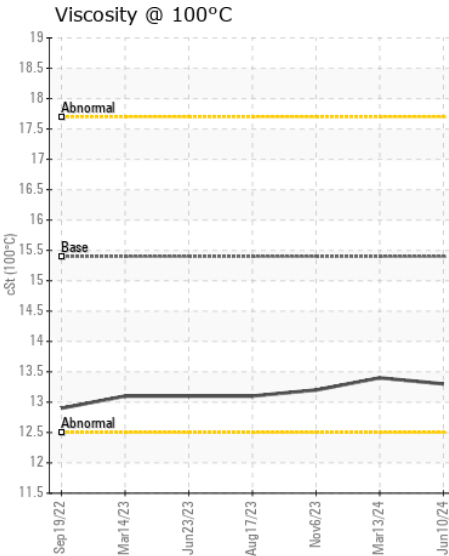
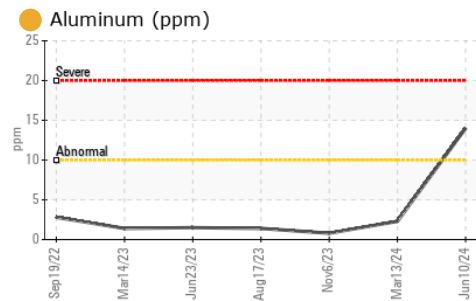
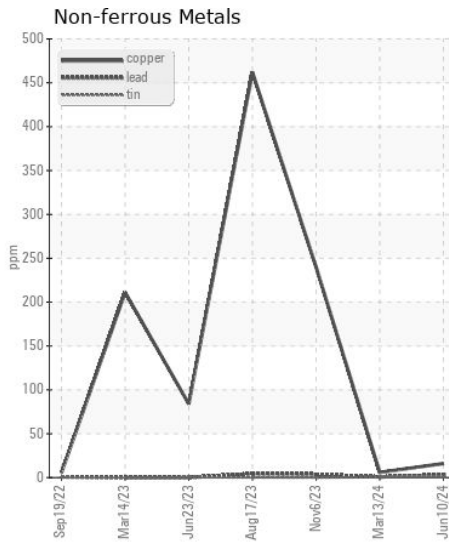
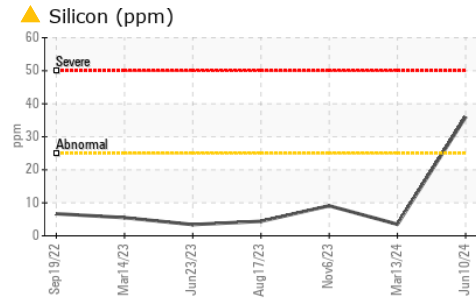
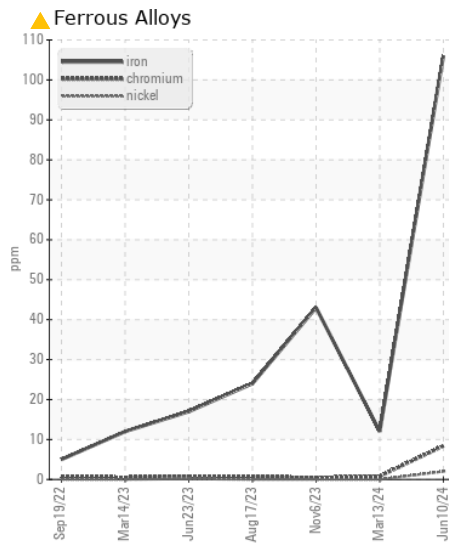
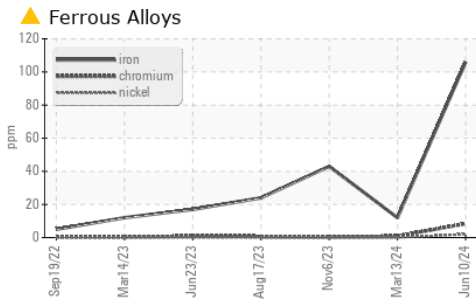
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>25	<b>▲ 36</b>	4	9
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	<1	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	5.8	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.8</b>	17.7	22.3
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>5</b>	2	2
Boron	ppm	ASTM D5185m	0	<b>6</b>	7	26
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>54</b>	65	51
Manganese	ppm	ASTM D5185m	0	<b>2</b>	0	0
Magnesium	ppm	ASTM D5185m	1010	<b>837</b>	946	650
Calcium	ppm	ASTM D5185m	1070	<b>990</b>	1120	1736
Phosphorus	ppm	ASTM D5185m	1150	<b>885</b>	1077	1001
Zinc	ppm	ASTM D5185m	1270	<b>1096</b>	1226	1255
Sulfur	ppm	ASTM D5185m	2060	<b>2798</b>	3366	2844
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	13.8	20.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.3</b>	8.5	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.3</b>	13.4	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0100015  
**Lab Number** : 06211286  
**Unique Number** : 11084150  
**Test Package** : FLEET

**Received** : 17 Jun 2024  
**Tested** : 18 Jun 2024  
**Diagnosed** : 18 Jun 2024 - Angela Borella

**GFL Environmental - 625 - Harrison Hauling**  
 2480 S Clare Ave  
 Clare, MI  
 US 48617

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)

T:  
F: