



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



Machine Id  
**WL0098-492**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0116231</b>	GFL0101622	GFL0088294
Sample Date		Client Info		<b>10 Jun 2024</b>	21 Feb 2024	16 Oct 2023
Machine Age	hrs	Client Info		<b>14555</b>	13259	12796
Oil Age	hrs	Client Info		<b>600</b>	463	547
Filter Age	hrs	Client Info		<b>600</b>	0	547
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>14</b>	37	76
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>11</b>	▲ 32	7
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

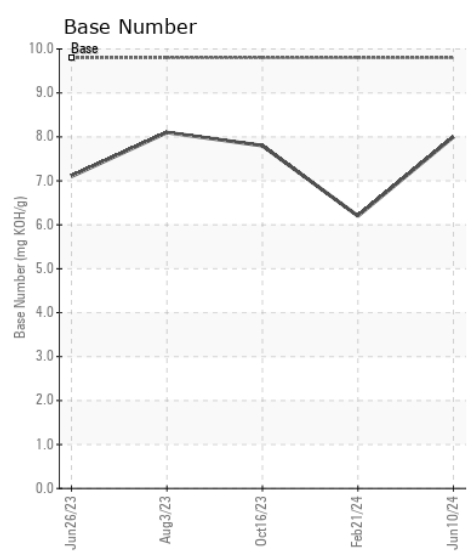
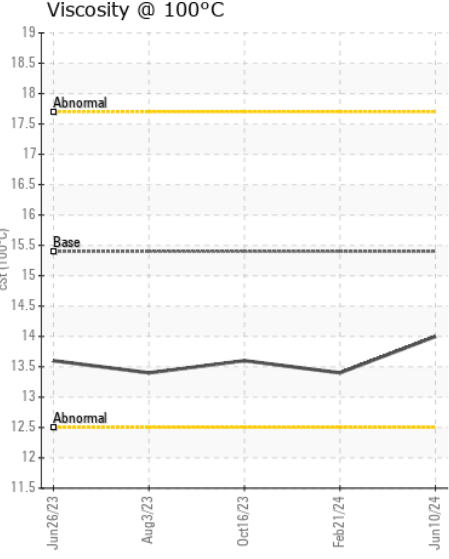
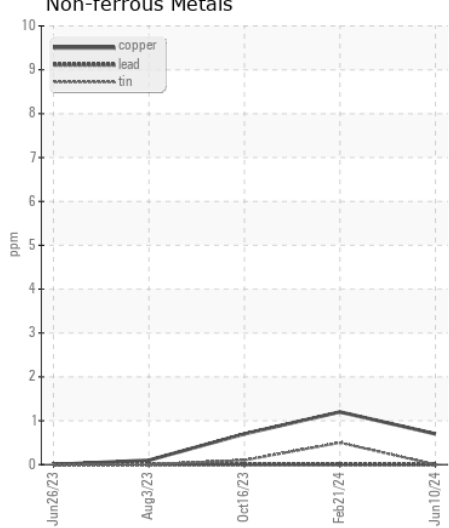
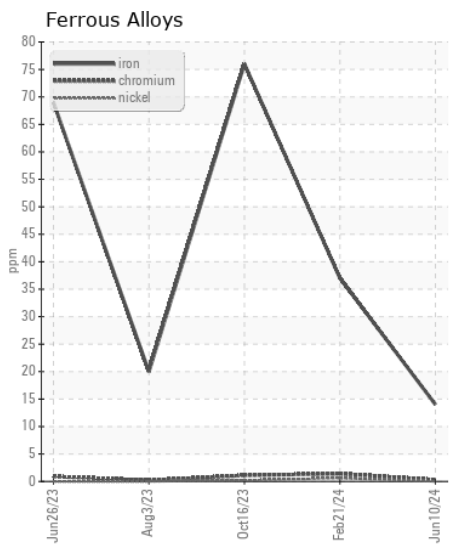
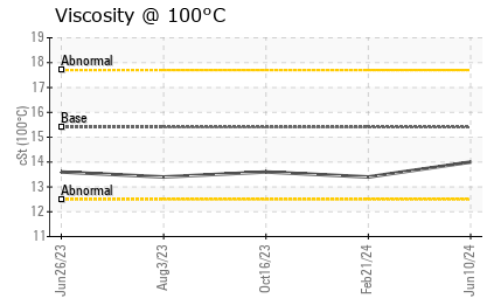
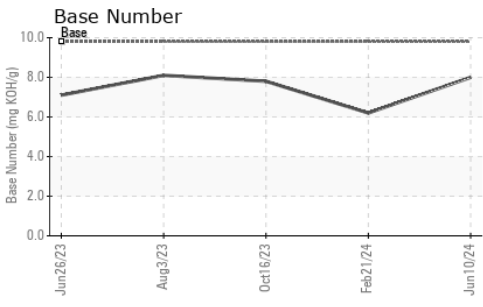
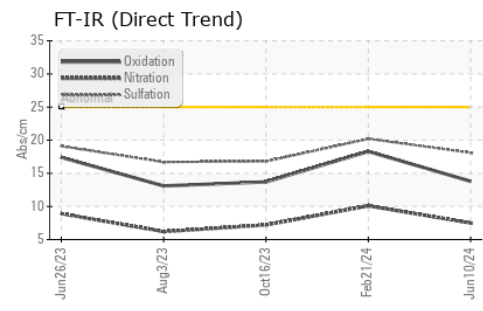
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	7	5
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	2
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>0.6</b>	0.6	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.5</b>	10.1	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.1</b>	20.2	16.8
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 suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	<1	3
Boron	ppm	ASTM D5185m	0	<b>9</b>	3	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	<1	3
Molybdenum	ppm	ASTM D5185m	60	<b>54</b>	60	57
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>891</b>	851	840
Calcium	ppm	ASTM D5185m	1070	<b>1154</b>	996	992
Phosphorus	ppm	ASTM D5185m	1150	<b>1062</b>	1003	922
Zinc	ppm	ASTM D5185m	1270	<b>1258</b>	1163	1093
Sulfur	ppm	ASTM D5185m	2060	<b>3667</b>	3061	2681
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.8</b>	18.3	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.0</b>	6.2	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	13.4	13.6



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0116231 **Received** : 17 Jun 2024  
**Lab Number** : 06211329 **Tested** : 19 Jun 2024  
**Unique Number** : 11084193 **Diagnosed** : 19 Jun 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 625 - Harrison Hauling**  
 2480 S Clare Ave  
 Clare, MI  
 US 48617  
 Contact: Glenda Standen  
 gstanden@gflenv.com  
 T:  
 F:

Certificate L2367  
 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)