



Area  
**(61AATE4)**  
Machine Id  
**214009**  
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		<b>GFL0115820</b>	GFL0113687	---
Sample Date		Client Info		<b>05 Apr 2024</b>	22 Feb 2024	---
Machine Age	hrs	Client Info		<b>404</b>	144	---
Oil Age	hrs	Client Info		<b>404</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	N/A	---
Filter Changed		Client Info		<b>N/A</b>	N/A	---
Sample Status				<b>ATTENTION</b>	ATTENTION	---

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	<b>63</b>	52	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	1	---
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m	>20	<b>10</b>	8	---
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	---
Copper	ppm	ASTM D5185m	>330	<b>73</b>	51	---
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

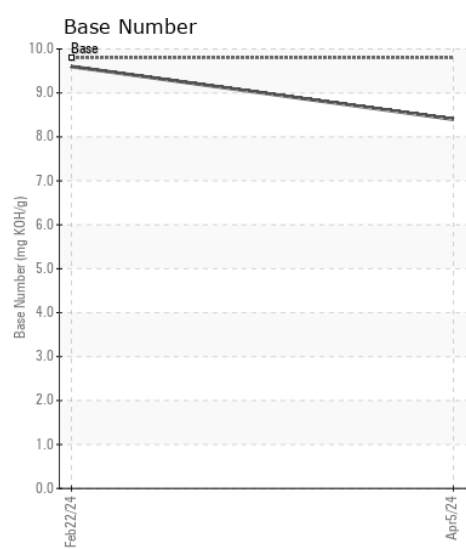
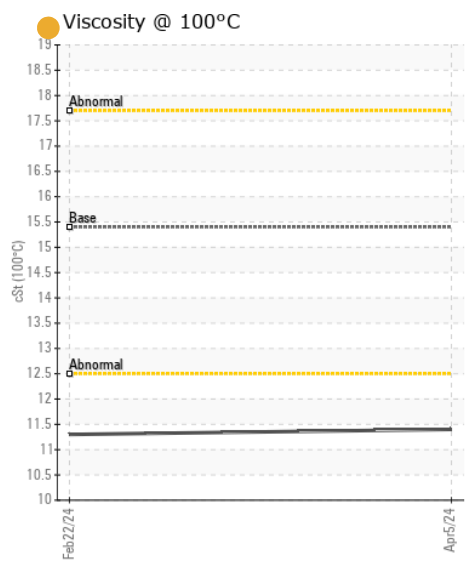
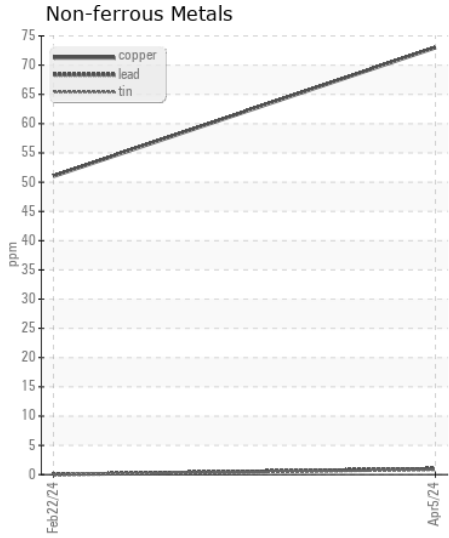
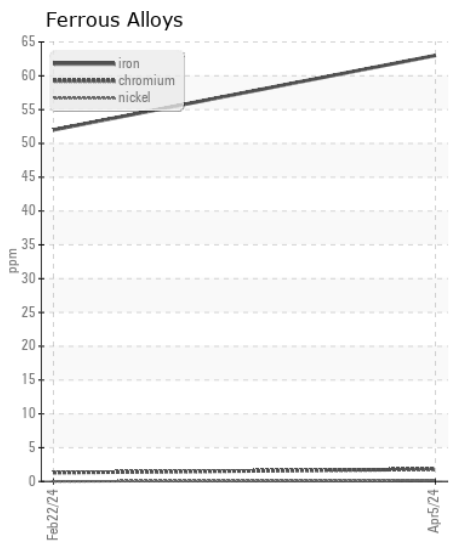
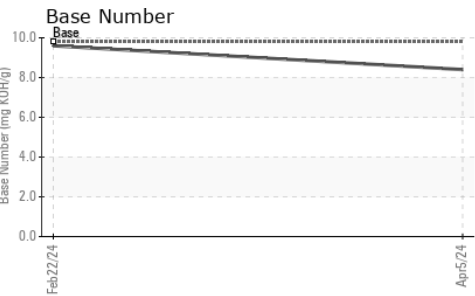
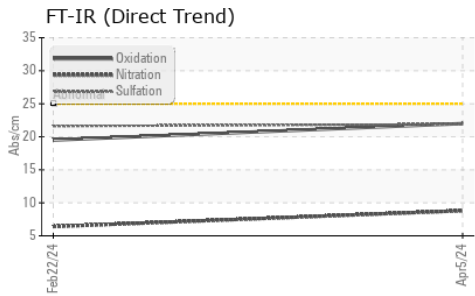
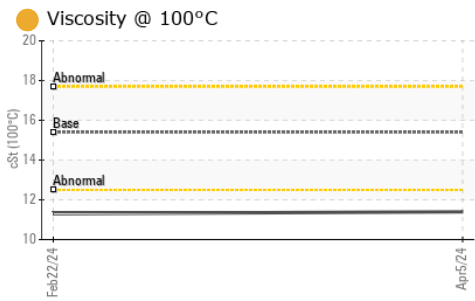
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>27</b>	26	---
Potassium	ppm	ASTM D5185m	>20	<b>26</b>	12	---
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	0.6	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>4	<b>0.2</b>	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	6.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.9</b>	21.6	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	---

**FLUID CONDITION**

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>8</b>	7	---
Boron	ppm	ASTM D5185m	0	<b>47</b>	57	---
Barium	ppm	ASTM D5185m	0	<b>6</b>	5	---
Molybdenum	ppm	ASTM D5185m	60	<b>40</b>	44	---
Manganese	ppm	ASTM D5185m	0	<b>5</b>	5	---
Magnesium	ppm	ASTM D5185m	1010	<b>525</b>	553	---
Calcium	ppm	ASTM D5185m	1070	<b>1565</b>	1474	---
Phosphorus	ppm	ASTM D5185m	1150	<b>718</b>	755	---
Zinc	ppm	ASTM D5185m	1270	<b>880</b>	940	---
Sulfur	ppm	ASTM D5185m	2060	<b>2568</b>	2537	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.0</b>	19.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.4</b>	9.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>11.4</b>	11.3	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0115820 **Received** : 16 Apr 2024  
**Lab Number** : 06151000 **Tested** : 17 Apr 2024  
**Unique Number** : 10981078 **Diagnosed** : 19 Apr 2024 - Sean Felton  
**Test Package** : FLEET

GFL Environmental - 868 - Childersburg Fines Hauling (Alpine)  
 13737 Plant Rd  
 Childersburg, AL  
 US 35044  
 Contact: JONATHAN WILLIAMS  
 jonathan.williams@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)