



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

Machine Id  
**812026**  
 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>GFL0102260</b>	GFL0062987	---
Sample Date		Client Info		<b>09 Jul 2024</b>	13 Dec 2022	---
Machine Age	hrs	Client Info		<b>0</b>	1934	---
Oil Age	hrs	Client Info		<b>0</b>	0	---
Filter Age	hrs	Client Info		<b>0</b>	0	---
Oil Changed		Client Info		<b>N/A</b>	Changed	---
Filter Changed		Client Info		<b>N/A</b>	Changed	---
Sample Status				<b>NORMAL</b>	NORMAL	---

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>14</b>	23	---
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m		<b>0</b>	0	---
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	1	---
Aluminum	ppm	ASTM D5185m	>25	<b>5</b>	6	---
Lead	ppm	ASTM D5185m	>45	<b>0</b>	0	---
Copper	ppm	ASTM D5185m	>85	<b>&lt;1</b>	4	---
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	---
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.

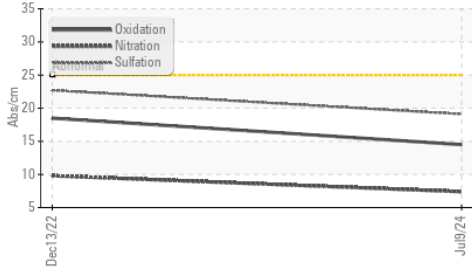
Silicon	ppm	ASTM D5185m	>30	<b>4</b>	4	---
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	7	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	---
Water		WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol		WC Method		<b>NEG</b>	NEG	---
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.7	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	9.8	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.1</b>	22.7	---
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**

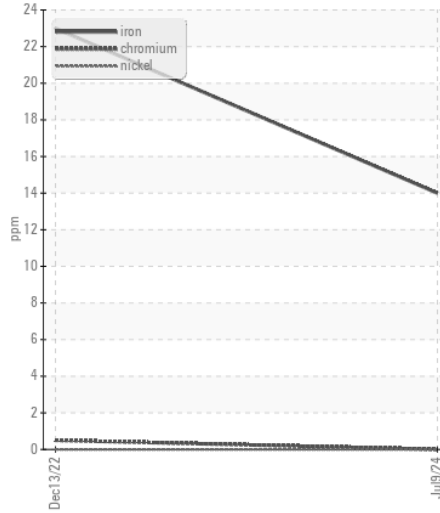
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>2</b>	<1	---
Boron	ppm	ASTM D5185m	0	<b>2</b>	2	---
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	64	---
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	---
Magnesium	ppm	ASTM D5185m	1010	<b>962</b>	949	---
Calcium	ppm	ASTM D5185m	1070	<b>1088</b>	1168	---
Phosphorus	ppm	ASTM D5185m	1150	<b>1114</b>	1036	---
Zinc	ppm	ASTM D5185m	1270	<b>1303</b>	1286	---
Sulfur	ppm	ASTM D5185m	2060	<b>3612</b>	3439	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.5</b>	18.5	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.4</b>	7.4	---
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	13.1	---

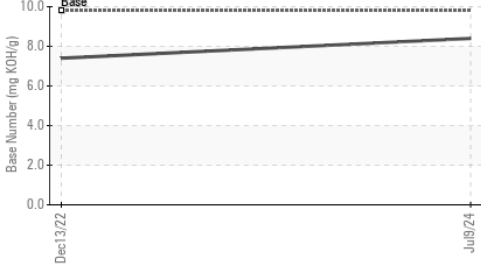
**FT-IR (Direct Trend)**



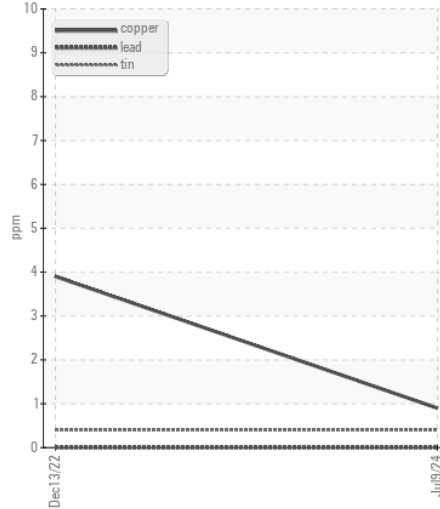
**Ferrous Alloys**



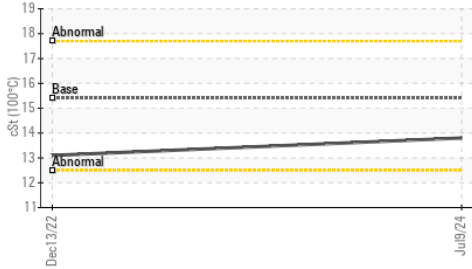
**Base Number**



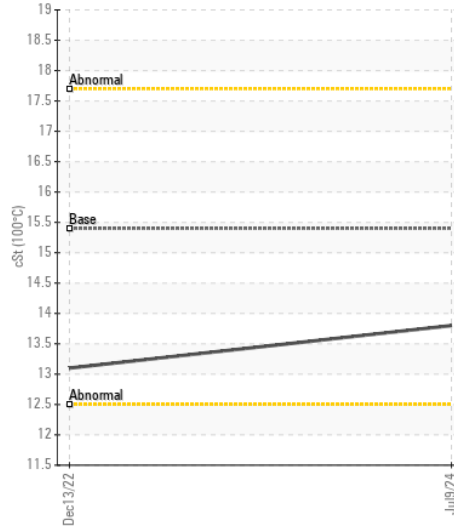
**Non-ferrous Metals**



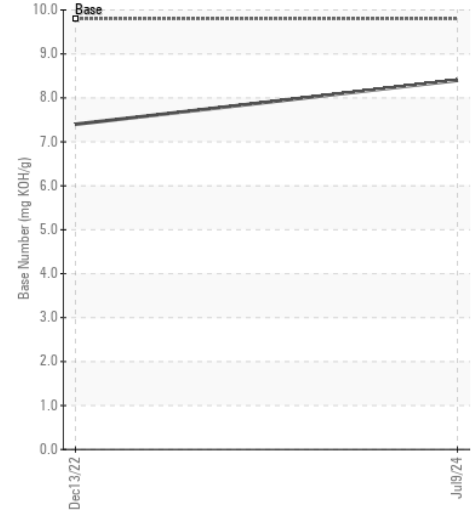
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0102260  
**Lab Number** : 06231926  
**Unique Number** : 11115419  
**Test Package** : FLEET

**Received** : 10 Jul 2024  
**Tested** : 10 Jul 2024  
**Diagnosed** : 10 Jul 2024 - Wes Davis

**GFL Environmental - 859 - Bay City**  
 700 Avenue F  
 Bay City, TX  
 US 77414

Contact: JONATHON BROWN  
 jonathon.brown@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: