



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

Machine Id  
**229078-191**  
 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>GFL0110560</b>	GFL0100244	GFL0087871
Sample Date		Client Info		<b>24 Feb 2024</b>	04 Dec 2023	18 Sep 2023
Machine Age	mls	Client Info		<b>166158</b>	165866	165814
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>8</b>	7	3
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	<1	0
Lead	ppm	ASTM D5185m	>40	<b>7</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	0
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

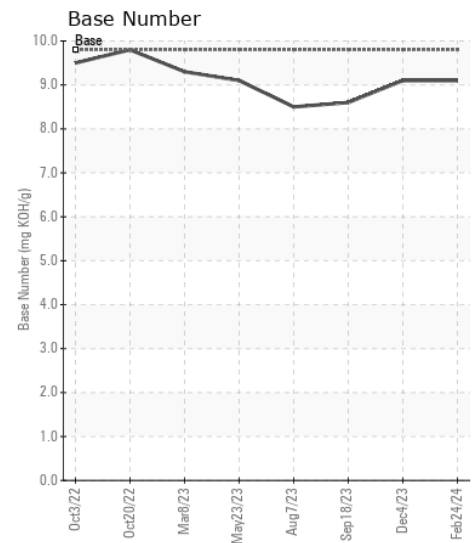
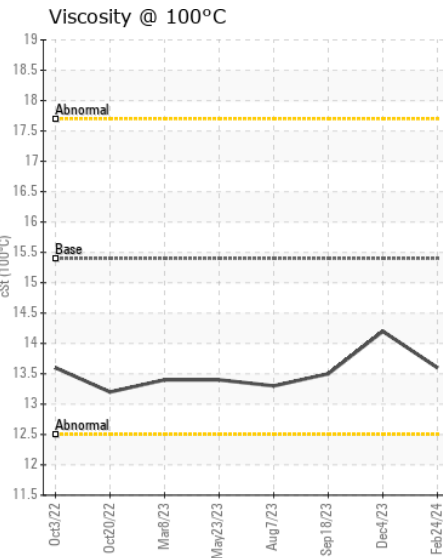
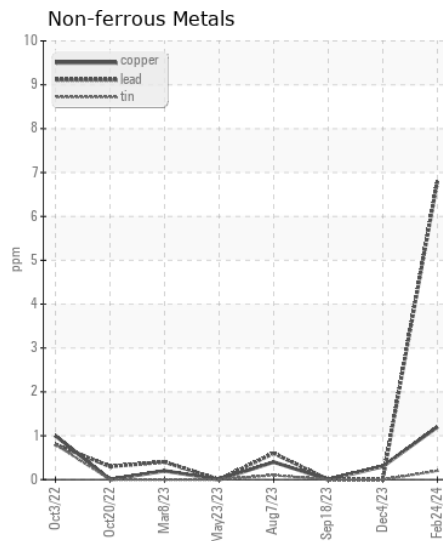
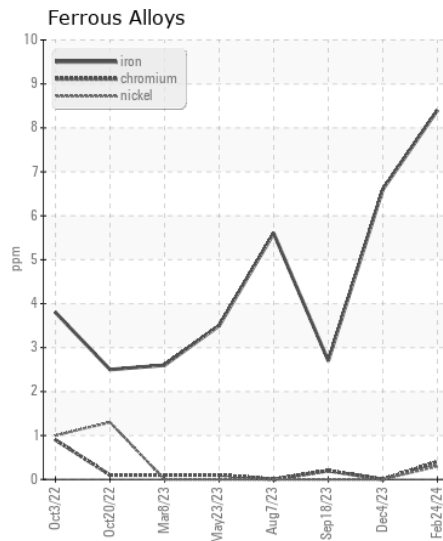
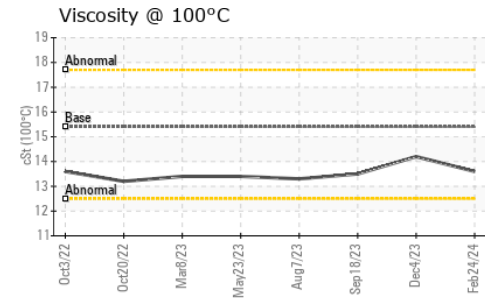
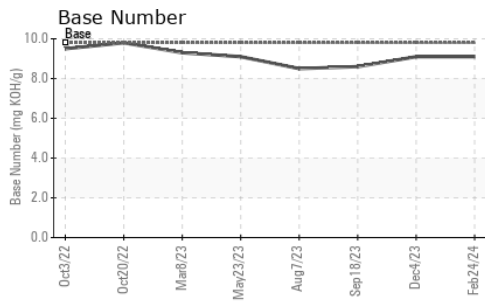
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	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>0.1</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.5</b>	4.2	4.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.3</b>	17.2	17.6
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>	0	1
Boron	ppm	ASTM D5185m	0	<b>27</b>	28	158
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	61	74
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>978</b>	941	853
Calcium	ppm	ASTM D5185m	1070	<b>1090</b>	1023	1224
Phosphorus	ppm	ASTM D5185m	1150	<b>1098</b>	1005	1046
Zinc	ppm	ASTM D5185m	1270	<b>1272</b>	1229	1259
Sulfur	ppm	ASTM D5185m	2060	<b>3330</b>	3230	3550
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.0</b>	12.9	12.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.1</b>	9.1	8.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	14.2	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110560  
**Lab Number** : 06098995  
**Unique Number** : 10897225  
**Test Package** : FLEET

**Received** : 23 Feb 2024  
**Tested** : 26 Feb 2024  
**Diagnosed** : 26 Feb 2024 - Wes Davis

**GFL Environmental - 166 - Phenix City**  
 18 Old Brickyard Rd  
 Phenix City, AL  
 US 36869  
 Contact: DEAN PEACE JR  
 dean.peace@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)

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F: