



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

Machine Id  
**227108-249**  
 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>GFL0100220</b>	GFL0100182	GFL0087885
Sample Date		Client Info		<b>10 Jan 2024</b>	28 Nov 2023	13 Sep 2023
Machine Age	hrs	Client Info		<b>4442</b>	0	4429
Oil Age	hrs	Client Info		<b>200</b>	2810	600
Filter Age	hrs	Client Info		<b>200</b>	0	600
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>10</b>	10	24
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	2	6
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	<1	2
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
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**

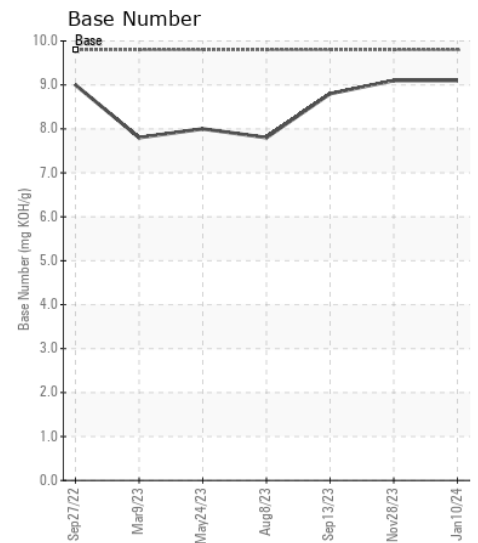
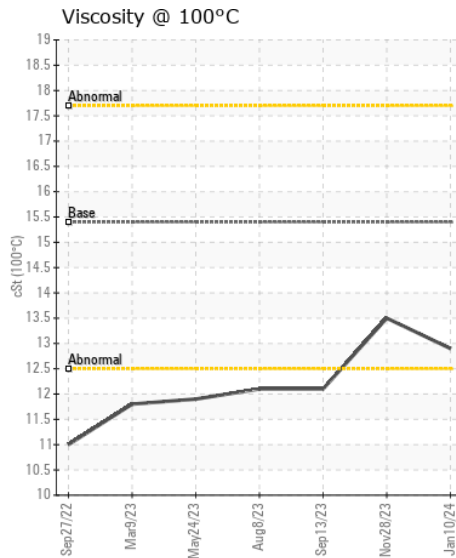
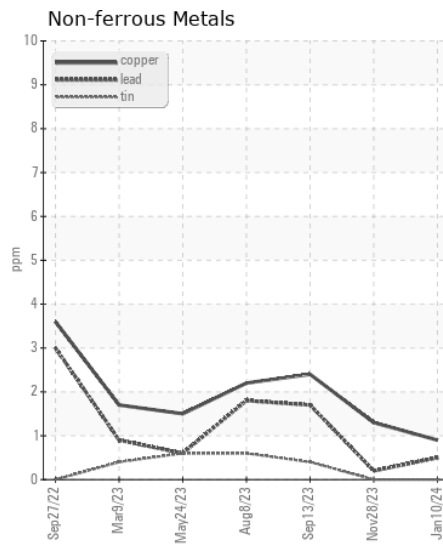
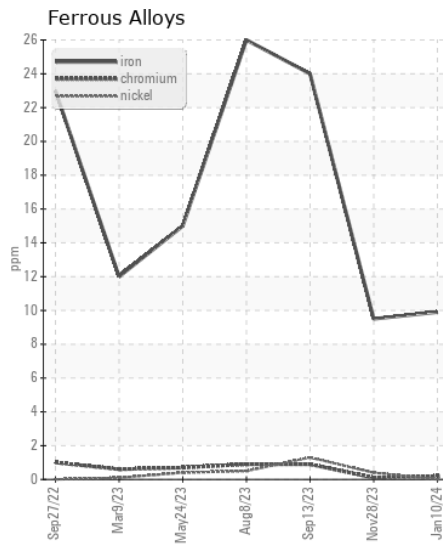
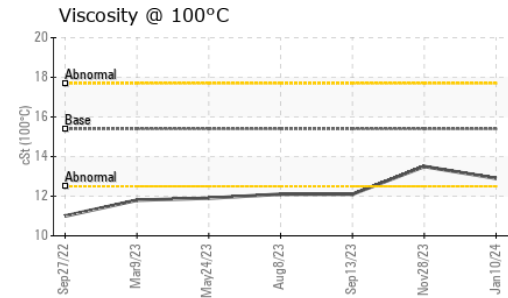
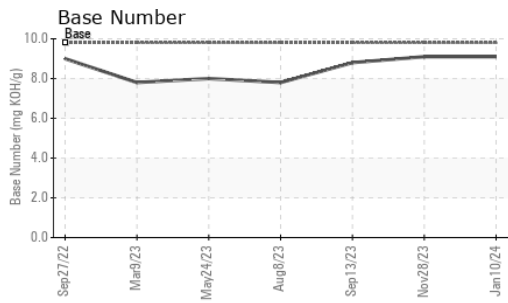
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	6	13
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	3	11
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>0.2</b>	0.2	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.1</b>	5.0	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.8</b>	18.1	21.8
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>23</b>	22	▲ 108
Boron	ppm	ASTM D5185m	0	<b>60</b>	60	302
Barium	ppm	ASTM D5185m	0	<b>0</b>	2	2
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	62	79
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>858</b>	789	398
Calcium	ppm	ASTM D5185m	1070	<b>1058</b>	1067	1396
Phosphorus	ppm	ASTM D5185m	1150	<b>1049</b>	975	990
Zinc	ppm	ASTM D5185m	1270	<b>1242</b>	1146	1129
Sulfur	ppm	ASTM D5185m	2060	<b>3123</b>	4128	3257
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.0</b>	12.9	14.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.1</b>	9.1	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.9</b>	13.5	▲ 12.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0100220 **Received** : 16 Jan 2024  
**Lab Number** : 06060695 **Diagnosed** : 16 Jan 2024  
**Unique Number** : 10832077 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**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: