



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



Machine Id  
**413009**  
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>GFL0102963</b>	GFL0074794	GFL0086417
Sample Date		Client Info		<b>27 Feb 2024</b>	13 Feb 2024	07 Jan 2024
Machine Age	hrs	Client Info		<b>2782</b>	2707	2507
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>6</b>	5	11
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>4</b>	3	6
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	5
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>5</b>	4	10
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	2
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**

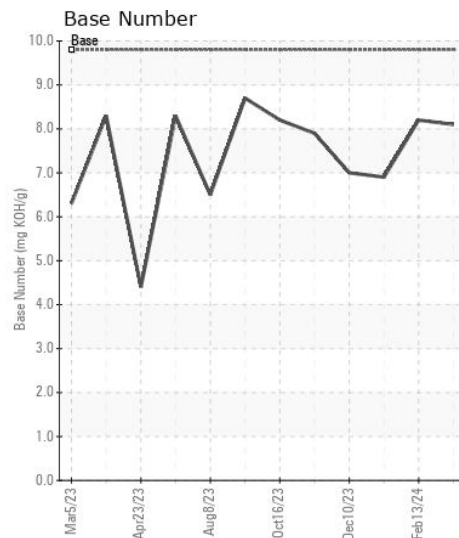
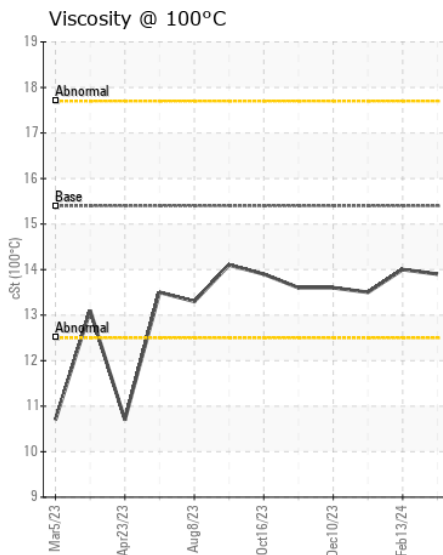
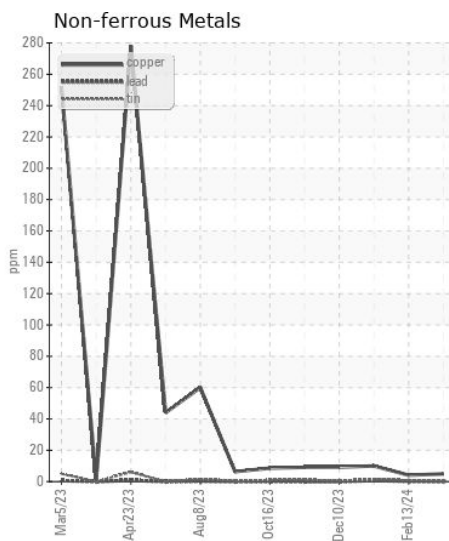
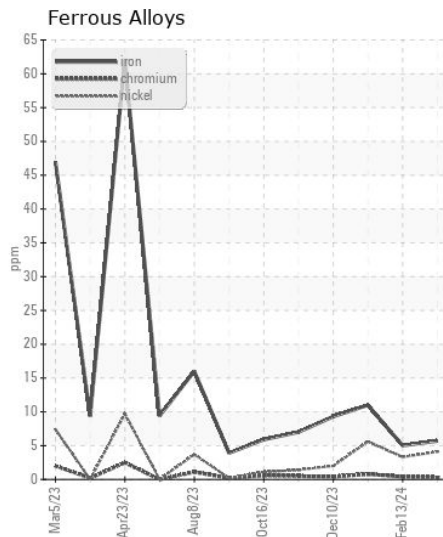
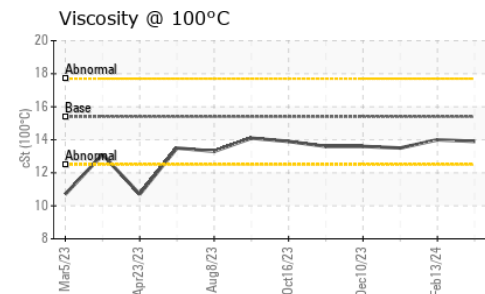
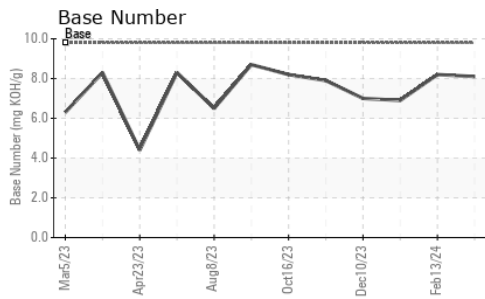
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	5	10
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	7
Fuel		WC Method	>3.0	<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	>4	<b>0.2</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.5</b>	6.8	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.8</b>	18.7	20.6
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>4</b>	2	6
Boron	ppm	ASTM D5185m	0	<b>8</b>	6	8
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>67</b>	60	65
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>958</b>	961	921
Calcium	ppm	ASTM D5185m	1070	<b>1204</b>	1121	1254
Phosphorus	ppm	ASTM D5185m	1150	<b>1123</b>	1064	1150
Zinc	ppm	ASTM D5185m	1270	<b>1335</b>	1285	1398
Sulfur	ppm	ASTM D5185m	2060	<b>3239</b>	3244	3088
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.0</b>	14.7	16.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.1</b>	8.2	6.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.9</b>	14.0	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0102963  
**Lab Number** : 06103552  
**Unique Number** : 10901782  
**Test Package** : FLEET

**Received** : 28 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Wes Davis

**GFL Environmental - 816 - WCA of South Arkansas**  
 3083 Smackover Hwy  
 El Dorado, AR  
 US 71730  
 Contact: Mike Howell  
 mike.howell@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: