



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



Machine Id  
**525032**  
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>GFL0092535</b>	GFL0092527	GFL0092511
Sample Date		Client Info		<b>22 Feb 2024</b>	02 Nov 2023	14 Aug 2023
Machine Age	hrs	Client Info		<b>14490</b>	13917	13477
Oil Age	hrs	Client Info		<b>580</b>	440	605
Filter Age	hrs	Client Info		<b>580</b>	440	605
Oil Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>13</b>	23	12
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	1	0
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	▲ 10	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	3	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>1</b>	3	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

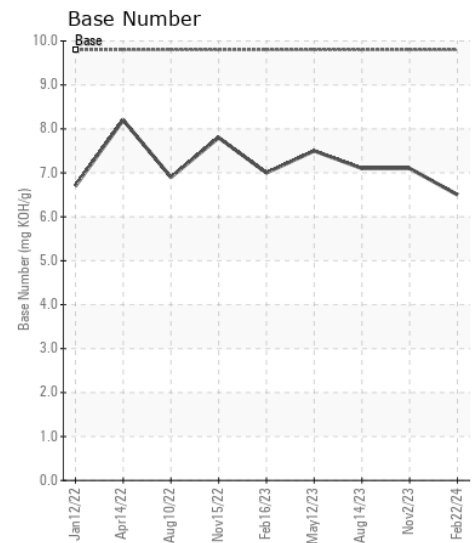
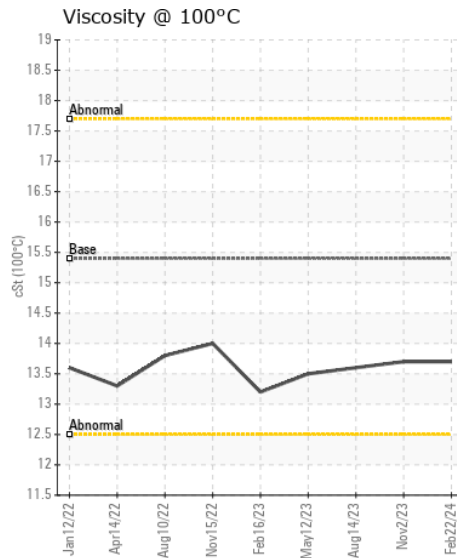
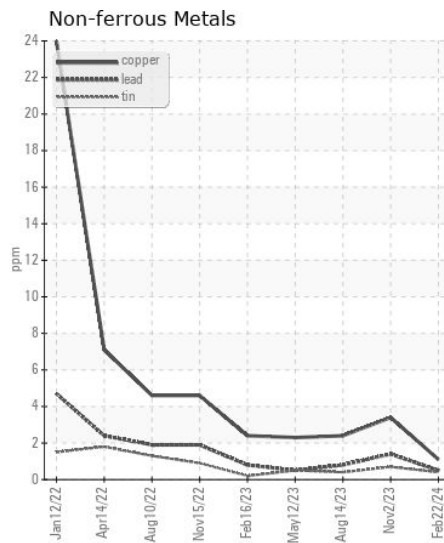
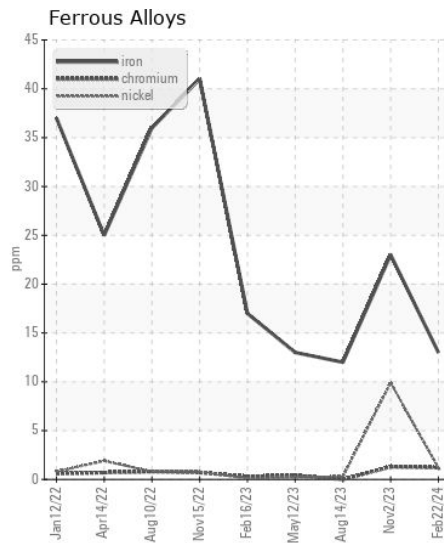
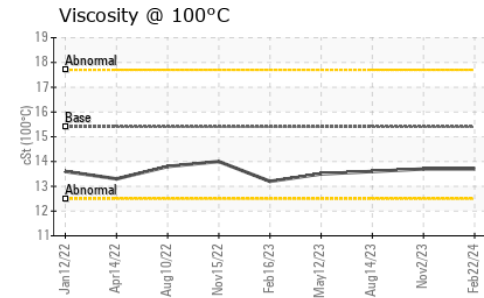
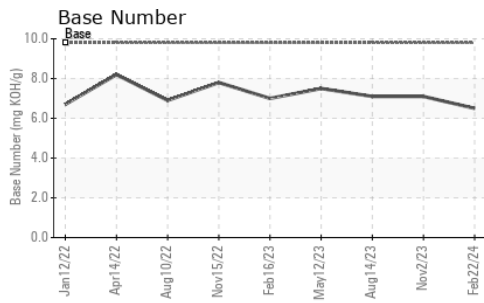
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	8	4
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	8	0
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>0.3</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	8.8	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.4</b>	21.1	20.1
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>16</b>	▲ 115	9
Boron	ppm	ASTM D5185m	0	<b>3</b>	2	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	5	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	77	64
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>973</b>	1100	1072
Calcium	ppm	ASTM D5185m	1070	<b>1038</b>	1232	1135
Phosphorus	ppm	ASTM D5185m	1150	<b>1001</b>	1206	1035
Zinc	ppm	ASTM D5185m	1270	<b>1267</b>	1394	1323
Sulfur	ppm	ASTM D5185m	2060	<b>2608</b>	3649	3091
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.2</b>	17.5	17.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.5</b>	7.1	7.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	13.7	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092535  
**Lab Number** : 06103630  
**Unique Number** : 10901860  
**Test Package** : FLEET

**Received** : 28 Feb 2024  
**Tested** : 29 Feb 2024  
**Diagnosed** : 29 Feb 2024 - Wes Davis

**GFL Environmental - 935 - Omro HC**  
 250 Alder Avenue  
 Omro, WI  
 US 54963  
 Contact: Tim Kieffer  
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 F:

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)