



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



Machine Id  
**724015-361624**  
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>GFL0092123</b>	GFL0084585	GFL0078152
Sample Date		Client Info		<b>08 Feb 2024</b>	18 Sep 2023	04 May 2023
Machine Age	mls	Client Info		<b>235923</b>	0	214537
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>Changed</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>54</b>	▲ 150	30
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	▲ 8	2
Nickel	ppm	ASTM D5185m	>2	<b>2</b>	3	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>30	<b>6</b>	▲ 13	3
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	2	0
Copper	ppm	ASTM D5185m	>150	<b>2</b>	7	2
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	2	<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**

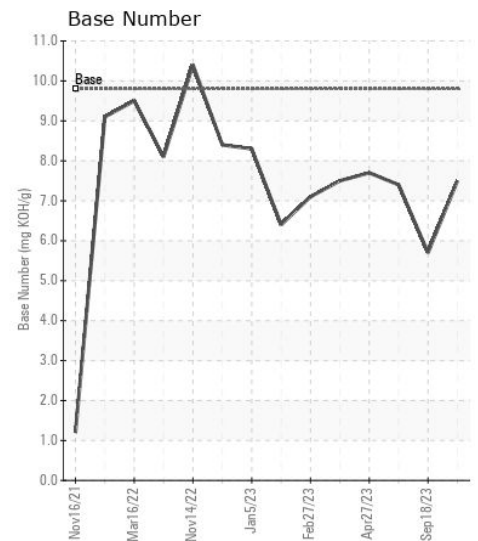
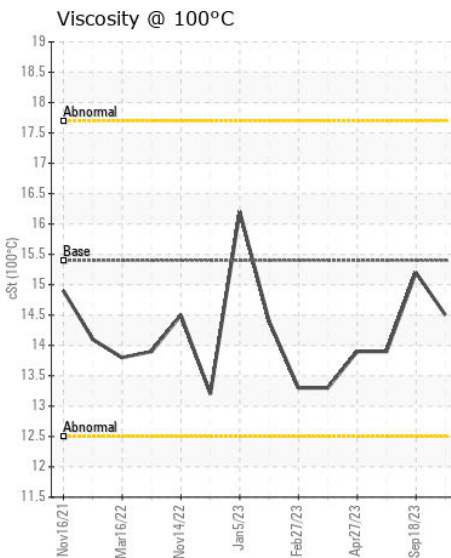
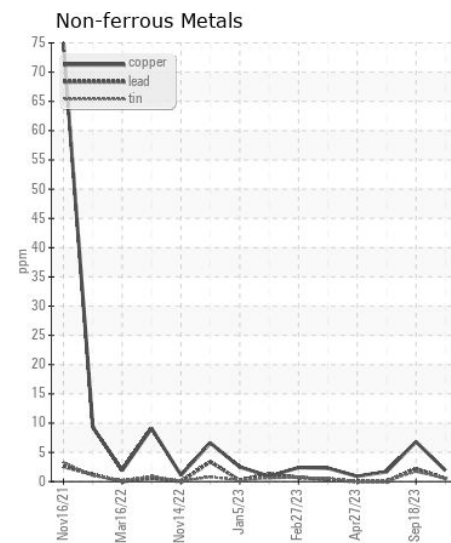
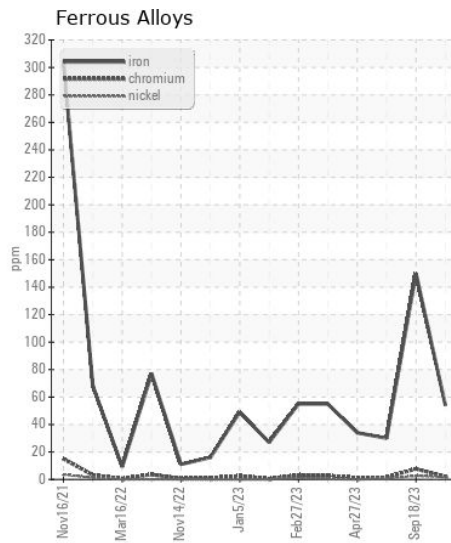
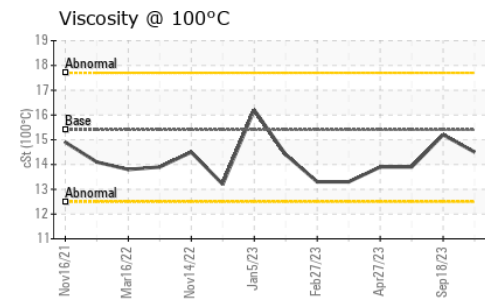
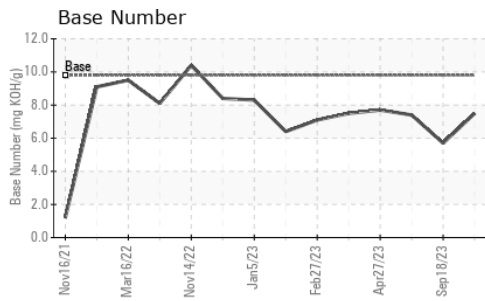
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	▲ 24	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	<1
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>1.7</b>	1.9	0.9
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.1</b>	18.2	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.3</b>	35.1	19.8
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>7</b>	8	2
Boron	ppm	ASTM D5185m	0	<b>2</b>	2	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	66	55
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	<1
Magnesium	ppm	ASTM D5185m	1010	<b>983</b>	1063	941
Calcium	ppm	ASTM D5185m	1070	<b>1081</b>	1217	1023
Phosphorus	ppm	ASTM D5185m	1150	<b>1097</b>	1113	979
Zinc	ppm	ASTM D5185m	1270	<b>1330</b>	1381	1241
Sulfur	ppm	ASTM D5185m	2060	<b>3024</b>	3456	3439
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.9</b>	32.6	18.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.5</b>	5.7	7.4
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.5</b>	15.2	13.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0092123  
**Lab Number** : 06088050  
**Unique Number** : 10875495  
**Test Package** : FLEET

**Received** : 13 Feb 2024  
**Tested** : 14 Feb 2024  
**Diagnosed** : 14 Feb 2024 - Wes Davis

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083  
 Contact: Apolinar Zacarias  
 pzacariascano@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: