



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

Machine Id  
**420036**  
 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>GFL0116021</b>	GFL0097484	GFL0097515
Sample Date		Client Info		<b>22 May 2024</b>	05 Jan 2024	20 Oct 2023
Machine Age	hrs	Client Info		<b>8364</b>	7810	7483
Oil Age	hrs	Client Info		<b>5891</b>	5891	5891
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	MARGINAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>19</b>	11	27
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	0	1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	<1	5
Lead	ppm	ASTM D5185m	>40	<b>2</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>1</b>	0	<1
Tin	ppm	ASTM D5185m	>15	<b>1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

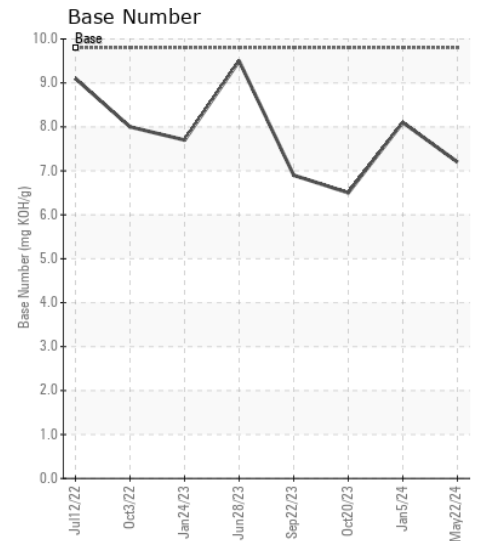
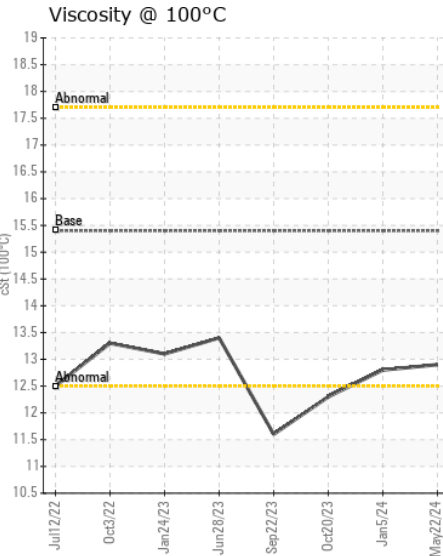
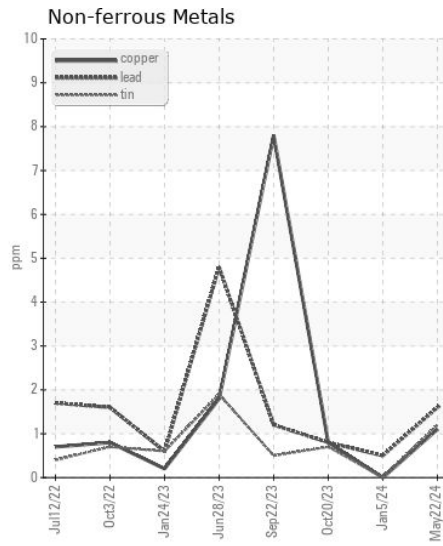
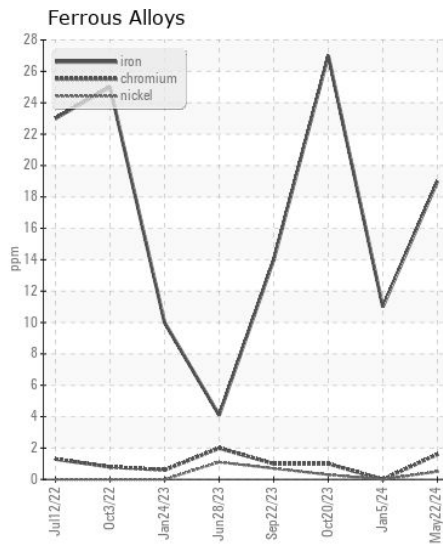
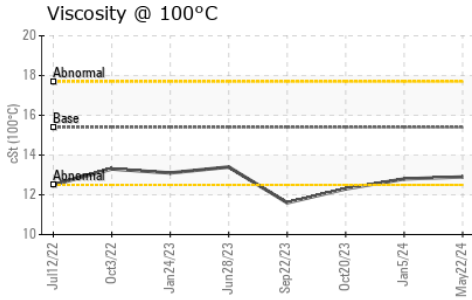
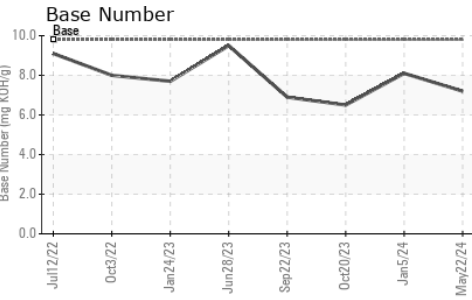
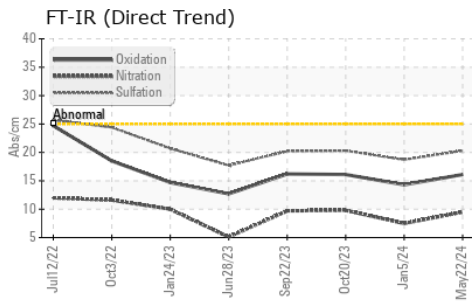
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	2	4
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	2	9
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	▲ 3.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.5</b>	7.5	9.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.3</b>	18.7	20.3
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>5</b>	2	5
Boron	ppm	ASTM D5185m	0	<b>6</b>	7	10
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Molybdenum	ppm	ASTM D5185m	60	<b>64</b>	56	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>962</b>	901	892
Calcium	ppm	ASTM D5185m	1070	<b>1125</b>	1028	1108
Phosphorus	ppm	ASTM D5185m	1150	<b>1012</b>	925	980
Zinc	ppm	ASTM D5185m	1270	<b>1263</b>	1239	1218
Sulfur	ppm	ASTM D5185m	2060	<b>3139</b>	2870	3603
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	14.3	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.2</b>	8.1	6.5
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.9</b>	12.8	12.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0116021  
**Lab Number** : 06191879  
**Unique Number** : 11048631  
**Test Package** : FLEET

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

**GFL Environmental - 641 - Alpena**  
 1241 KING SETTLEMENT RD  
 ALPENA, MI  
 US 49707

Contact: DYLAN TOLAN  
 dylan.tolan@gflenv.com  
 T: (989)854-7203

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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