



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

Machine Id  
**429019-967**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (42 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0110277</b>	GFL0102792	GFL0090505
Sample Date		Client Info		<b>20 Feb 2024</b>	01 Dec 2023	30 Aug 2023
Machine Age	hrs	Client Info		<b>22758</b>	22737	22725
Oil Age	hrs	Client Info		<b>580</b>	22725	580
Filter Age	hrs	Client Info		<b>580</b>	12	580
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>0</b>	2	14
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	2	9
Lead	ppm	ASTM D5185m	>40	<b>1</b>	<1	1
Copper	ppm	ASTM D5185m	>330	<b>0</b>	<1	3
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
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**

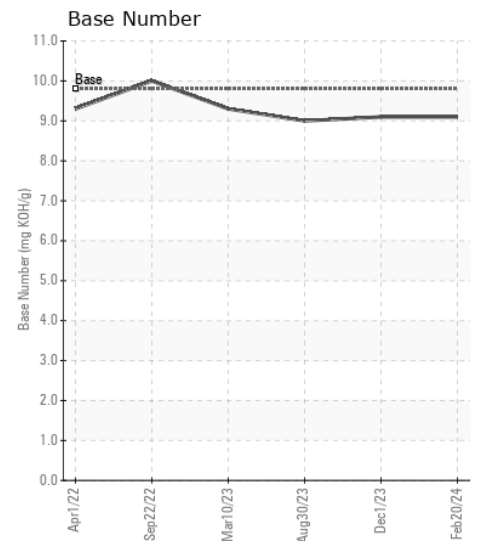
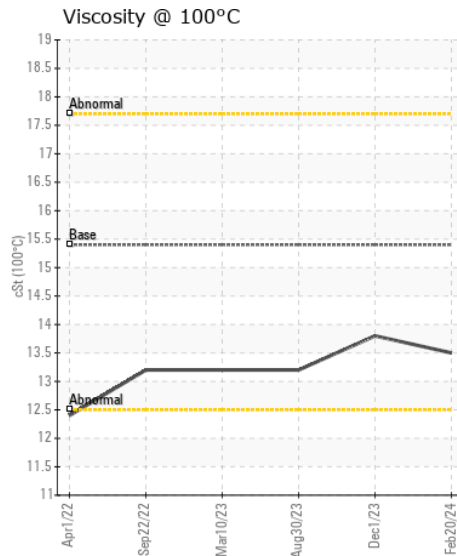
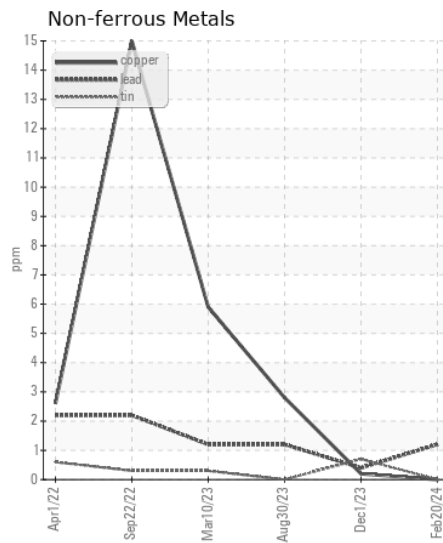
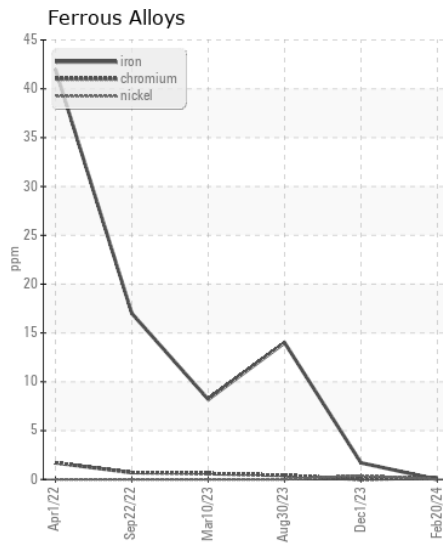
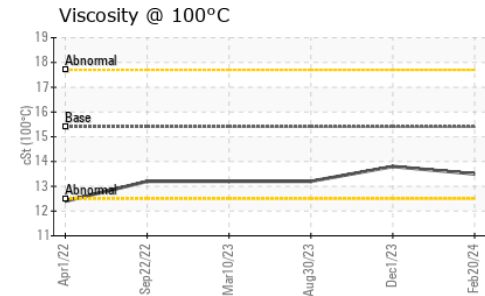
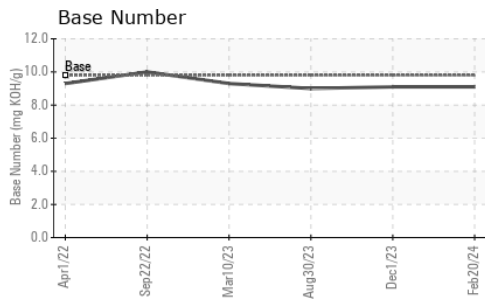
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	3	8
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	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>0.1</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.8</b>	4.6	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.2</b>	17.1	18.1
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>2</b>	<1	2
Boron	ppm	ASTM D5185m	0	<b>6</b>	6	7
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>59</b>	60	56
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m	1010	<b>972</b>	939	917
Calcium	ppm	ASTM D5185m	1070	<b>1094</b>	1035	1117
Phosphorus	ppm	ASTM D5185m	1150	<b>1063</b>	1102	967
Zinc	ppm	ASTM D5185m	1270	<b>1263</b>	1303	1199
Sulfur	ppm	ASTM D5185m	2060	<b>3124</b>	3358	3573
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.1</b>	13.0	13.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.1</b>	9.1	9.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.8	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110277  
**Lab Number** : 06100779  
**Unique Number** : 10899009  
**Test Package** : FLEET

**Received** : 26 Feb 2024  
**Tested** : 27 Feb 2024  
**Diagnosed** : 27 Feb 2024 - Wes Davis

**GFL Environmental - 622 - Traverse City Hauling**  
 160 Hughes Dr  
 Traverse City, MI  
 US 49686  
 Contact: GARY BREWER

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: