



Machine Id  
**2671**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0072112</b>	GFL0072156	GFL0072193
Sample Date		Client Info		<b>11 Jan 2024</b>	11 Oct 2023	28 Jun 2023
Machine Age	hrs	Client Info		<b>18269</b>	17091	17091
Oil Age	hrs	Client Info		<b>0</b>	600	0
Filter Age	hrs	Client Info		<b>0</b>	600	0
Oil Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Chngd</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	<b>10</b>	15	5
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	3	<1
Lead	ppm	ASTM D5185m	>150	<b>&lt;1</b>	3	0
Copper	ppm	ASTM D5185m	>90	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m	>5	<b>2</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**

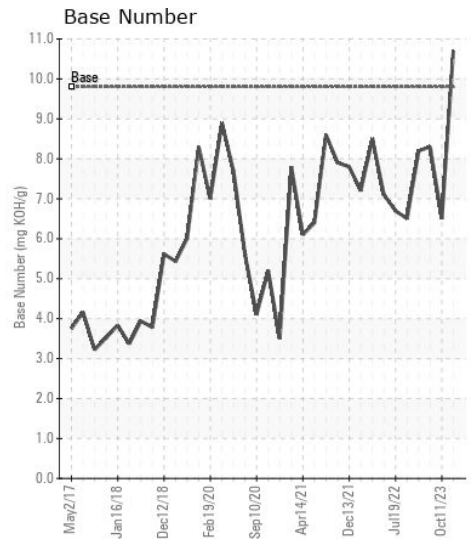
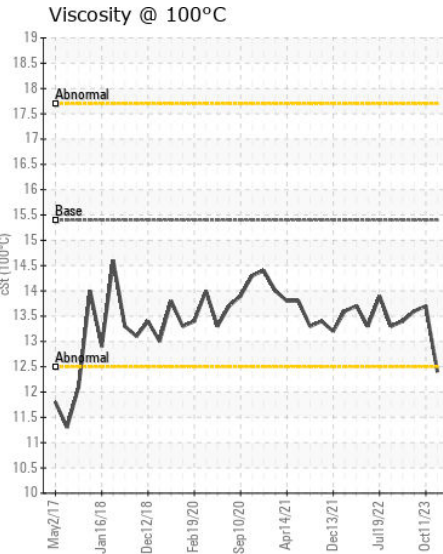
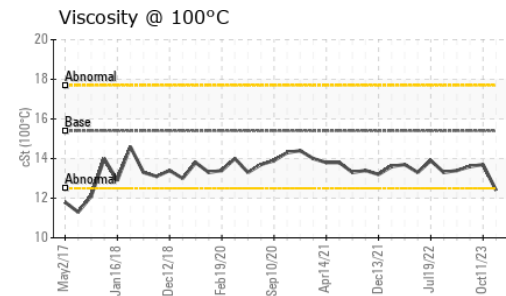
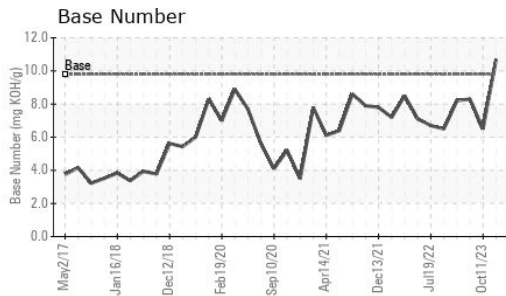
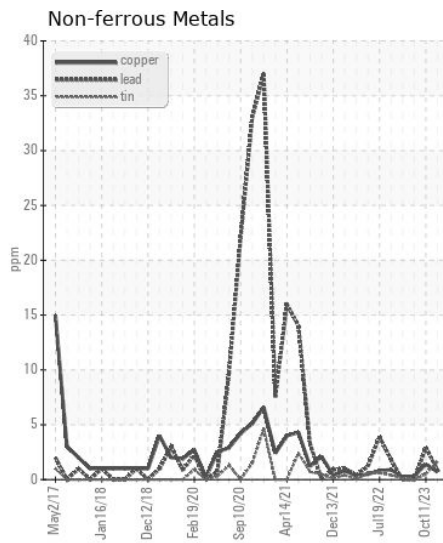
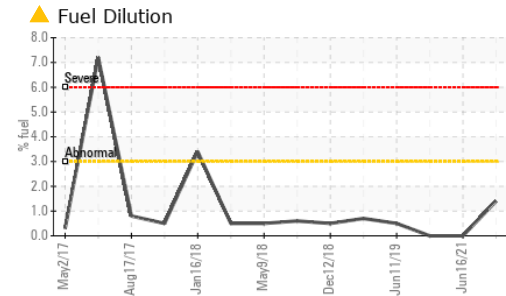
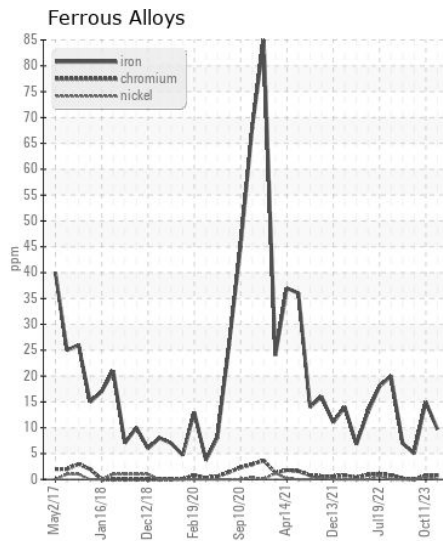
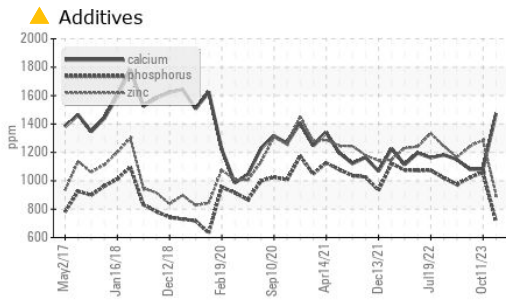
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>35	<b>12</b>	8	4
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	3	<1
Fuel	%	ASTM D3524	>3.0	<b>▲ 1.4</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	>7.5	<b>0.1</b>	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.9</b>	11.2	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.1</b>	22.7	19.0
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**

Additive levels indicate the addition of a different brand, or type of oil. 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>18</b>	10	2
Boron	ppm	ASTM D5185m	0	<b>▲ 56</b>	8	12
Barium	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>43</b>	64	62
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>▲ 524</b>	923	970
Calcium	ppm	ASTM D5185m	1070	<b>▲ 1474</b>	1079	1081
Phosphorus	ppm	ASTM D5185m	1150	<b>▲ 711</b>	1059	1022
Zinc	ppm	ASTM D5185m	1270	<b>▲ 902</b>	1288	1241
Sulfur	ppm	ASTM D5185m	2060	<b>2496</b>	2886	3648
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.2</b>	19.9	15.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>10.7</b>	6.5	8.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.4</b>	13.7	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0072112 **Received** : 16 Jan 2024  
**Lab Number** : 06061838 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833220 **Diagnostician** : Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 094 - Cedartown**  
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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)