



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

Machine Id  
**227068-9**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (12 GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0125857</b>	GFL0118694	GFL0118644
Sample Date		Client Info		<b>13 Jun 2024</b>	28 May 2024	10 May 2024
Machine Age	hrs	Client Info		<b>20293</b>	20293	0
Oil Age	hrs	Client Info		<b>150</b>	400	600
Filter Age	hrs	Client Info		<b>150</b>	400	600
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>MARGINAL</b>	ABNORMAL	ATTENTION

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>6</b>	17	13
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	2	3
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	3
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	2
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	3
Aluminum	ppm	ASTM D5185m	>30	<b>&lt;1</b>	2	3
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	<1	3
Copper	ppm	ASTM D5185m	>150	<b>&lt;1</b>	2	4
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	3
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

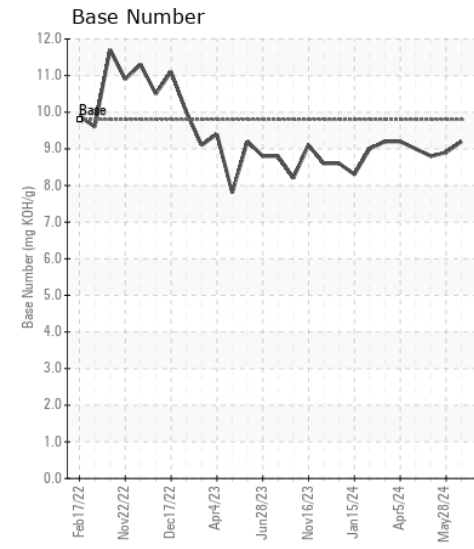
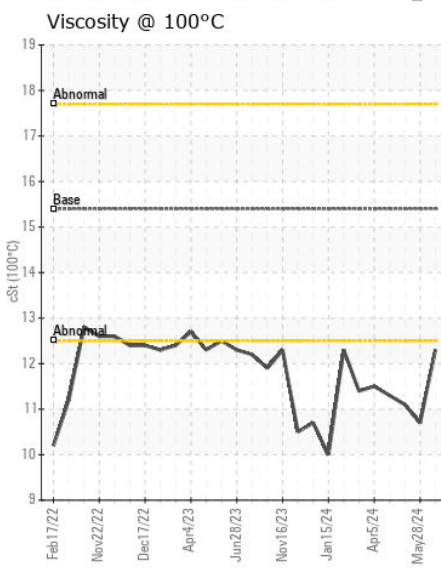
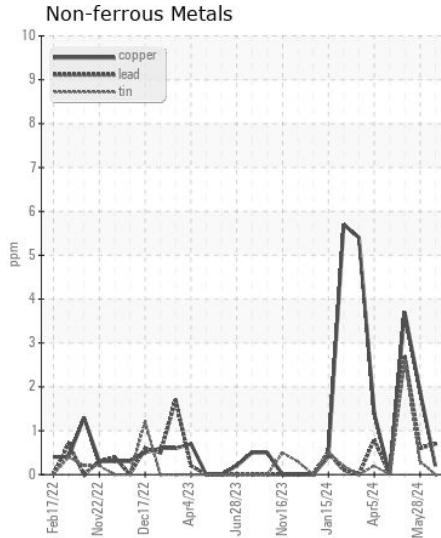
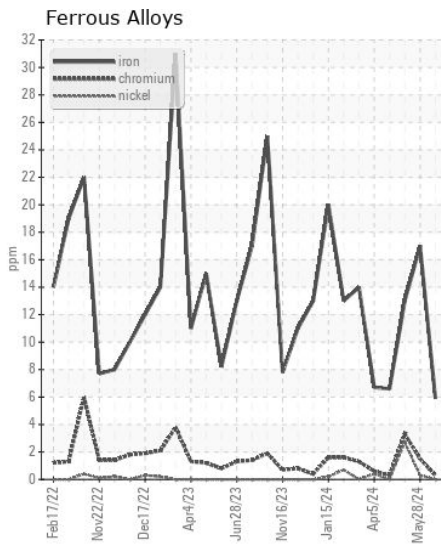
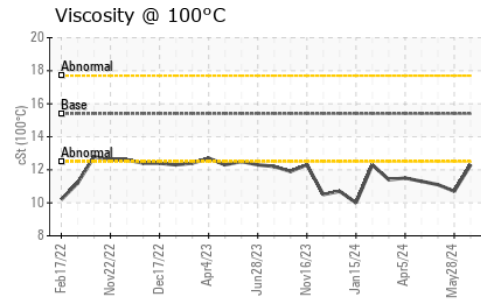
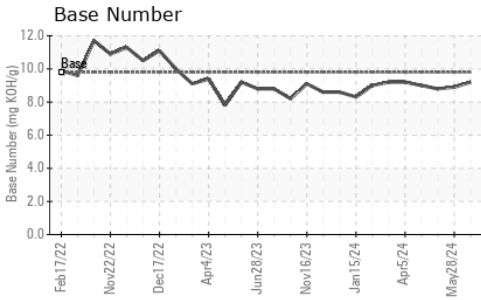
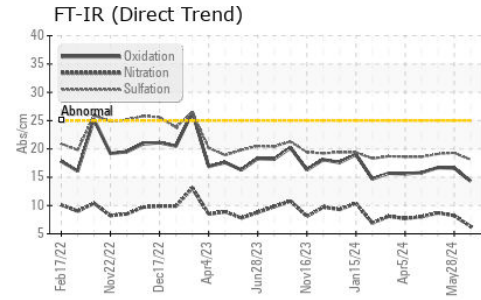
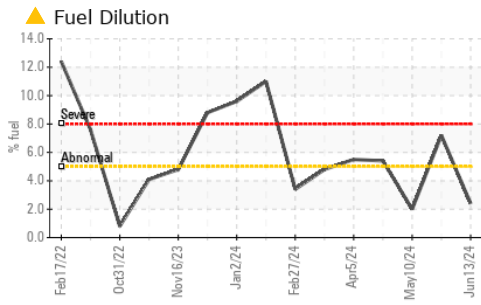
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	14	15
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	4
Fuel	%	ASTM D3524	>5	<b>▲ 2.4</b>	▲ 7.2	▲ 2.0
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>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>6.3</b>	8.2	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.1</b>	19.3	19.1
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>	3	5
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	<1	1
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	61	58
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m	1010	<b>1049</b>	952	895
Calcium	ppm	ASTM D5185m	1070	<b>1164</b>	1062	1007
Phosphorus	ppm	ASTM D5185m	1150	<b>1140</b>	1046	992
Zinc	ppm	ASTM D5185m	1270	<b>1399</b>	1205	1149
Sulfur	ppm	ASTM D5185m	2060	<b>3969</b>	3121	3245
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.3</b>	16.6	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.2</b>	8.9	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.3</b>	▲ 10.7	● 11.1



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0125857 **Received** : 20 Jun 2024  
**Lab Number** : 06215678 **Tested** : 24 Jun 2024  
**Unique Number** : 11088542 **Diagnosed** : 24 Jun 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: PercentFuel )

**GFL Environmental - 166 - Phenix City**  
 18 Old Brickyard Rd  
 Phenix City, AL  
 US 36869  
 Contact: DEAN PEACE JR  
 dean.peace@gflenv.com

Certificate L2367  
 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)