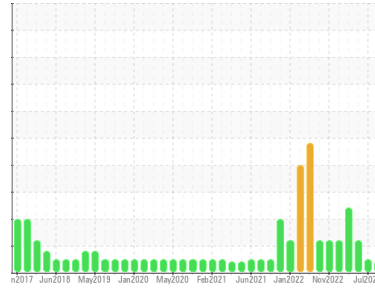




# OIL ANALYSIS REPORT

Sample Rating Trend



## VISCOSITY



Area  
**(EIB860)**

Machine Id  
**10801**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (11 GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

#### Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0072110</b>	GFL0074603	GFL0083621
Sample Date	Client Info	<b>11 Jan 2024</b>	07 Jul 2023	05 Jun 2023
Machine Age	hrs	<b>16229</b>	15495	15284
Oil Age	hrs	<b>0</b>	237	15258
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	N/A
Sample Status		<b>ATTENTION</b>	NORMAL	ABNORMAL

### CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

### WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	<b>10</b>	13	13
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>3</b>	3	<1
Lead	ppm ASTM D5185m >40	<b>0</b>	<1	0
Copper	ppm ASTM D5185m >330	<b>&lt;1</b>	<1	<1
Tin	ppm ASTM D5185m >15	<b>2</b>	0	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

### ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>59</b>	5	37
Barium	ppm ASTM D5185m 0	<b>&lt;1</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>42</b>	57	61
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>509</b>	816	762
Calcium	ppm ASTM D5185m 1070	<b>1508</b>	998	1023
Phosphorus	ppm ASTM D5185m 1150	<b>717</b>	848	832
Zinc	ppm ASTM D5185m 1270	<b>893</b>	1081	1052
Sulfur	ppm ASTM D5185m 2060	<b>2494</b>	3145	3228

### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>12</b>	4	5
Sodium	ppm ASTM D5185m	<b>18</b>	10	10
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	3	<1
Fuel	% ASTM D3524 >5	<b>1.4</b>	<1.0	<b>▲ 2.4</b>

### INFRA-RED

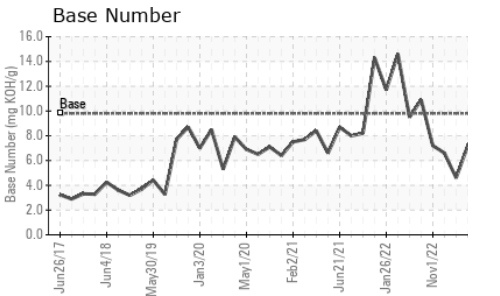
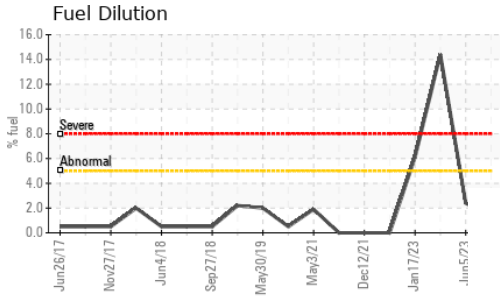
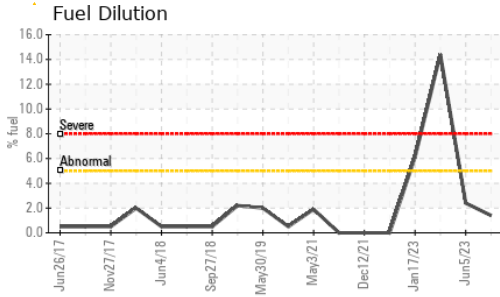
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.1</b>	0.5	0.3
Nitration	Abs/cm *ASTM D7624 >20	<b>4.8</b>	8.9	6.4
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>20.7</b>	19.8	17.7

### FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>18.0</b>	15.8	13.0
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>9.2</b>	8.1	7.2



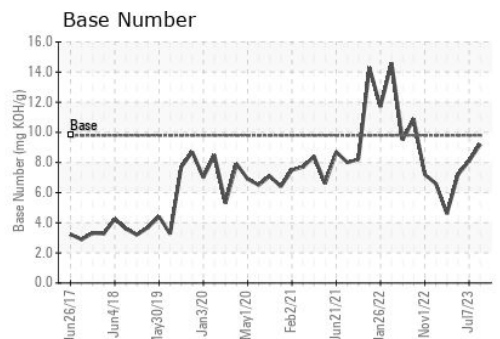
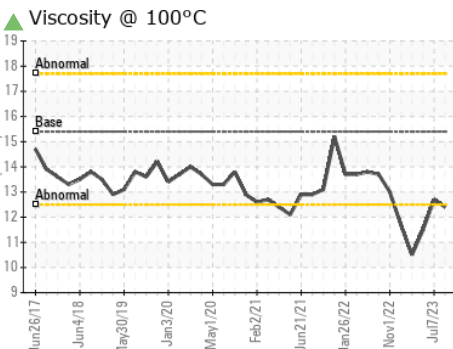
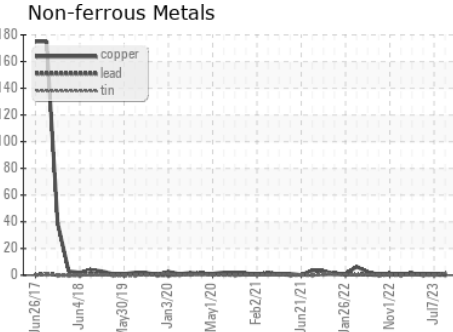
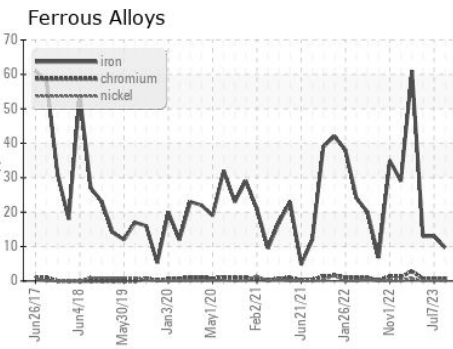
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 12.4	12.7	▲ 11.5

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0072110 **Received** : 16 Jan 2024  
**Lab Number** : 06061839 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833221 **Diagnostician** : Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 095 - Atlanta West**  
 2699 Cochran Industrial Blvd  
 Douglasville, GA  
 US 30127-1332  
 Contact: Darrell Welch  
 darrell.welch@gflenv.com  
 T: (800)207-6618  
 F:

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)