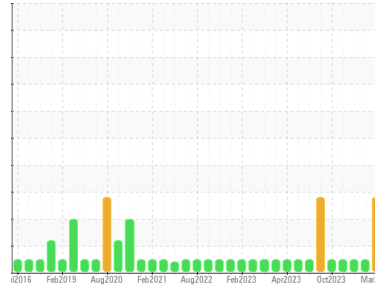




# OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Area  
**(DXF671)**

Machine Id  
**10628**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (28 QTS)**

## DIAGNOSIS

### ● Recommendation

The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

### Wear

All component wear rates are normal.

### ▲ Contamination

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

### ● 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.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0068819</b>	GFL0097231	GFL0097210
Sample Date	Client Info	<b>06 Mar 2024</b>	10 Nov 2023	03 Nov 2023
Machine Age	hrs	<b>20217</b>	20216	20191
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Not Changed
Sample Status		<b>ATTENTION</b>	NORMAL	NORMAL

## 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	>75	<b>2</b>	3	5
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	3	2
Lead	ppm	ASTM D5185m	>25	<b>3</b>	0	<1
Copper	ppm	ASTM D5185m	>100	<b>6</b>	0	<1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185m	0	<b>60</b>	6	4
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	5
Molybdenum	ppm	ASTM D5185m	60	<b>39</b>	51	54
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>481</b>	874	807
Calcium	ppm	ASTM D5185m	1070	<b>1447</b>	923	927
Phosphorus	ppm	ASTM D5185m	1150	<b>705</b>	967	997
Zinc	ppm	ASTM D5185m	1270	<b>851</b>	1166	1091
Sulfur	ppm	ASTM D5185m	2060	<b>2398</b>	2911	2898

## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>25	<b>11</b>	4	4
Sodium	ppm	ASTM D5185m		<b>3</b>	1	2
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Fuel	%	ASTM D3524	>3.0	<b>2.2</b>	<1.0	<1.0

## INFRA-RED

method	limit/base	current	history1	history2		
Soot %	%	*ASTM D7844	>6	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>4.7</b>	5.6	5.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.5</b>	17.7	17.4

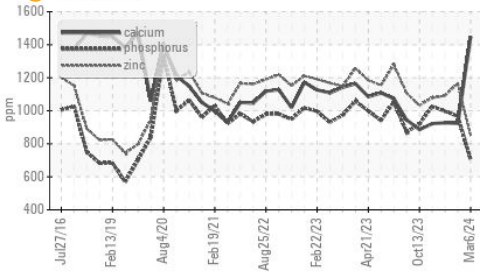
## FLUID DEGRADATION

method	limit/base	current	history1	history2		
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.5</b>	13.8	13.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.1</b>	8.1	8.0

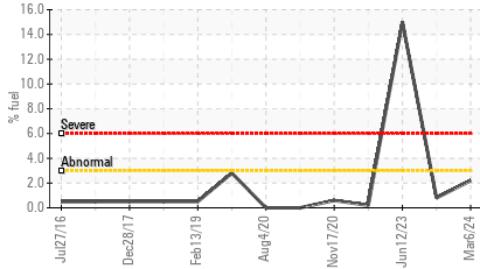


# OIL ANALYSIS REPORT

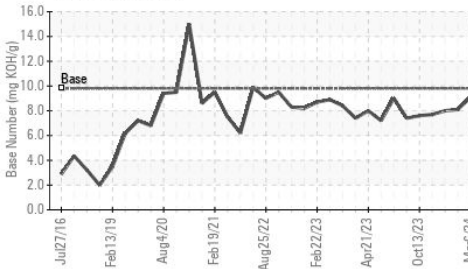
## Additives



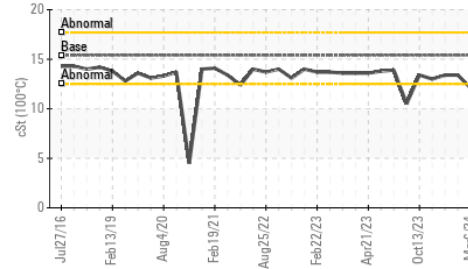
## Fuel Dilution



## Base Number



## Viscosity @ 100°C



## VISUAL

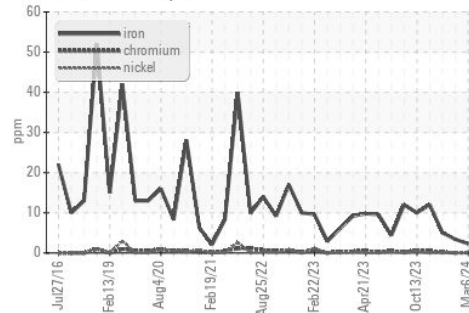
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*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

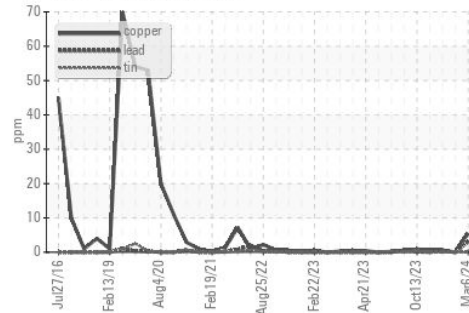
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.1	13.4

## GRAPHS

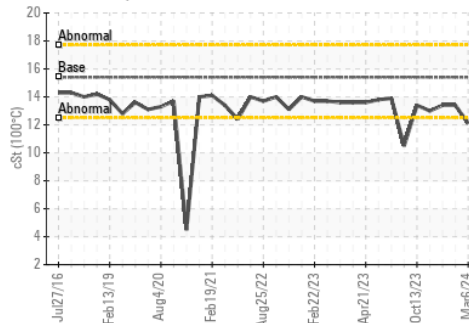
### Ferrous Alloys



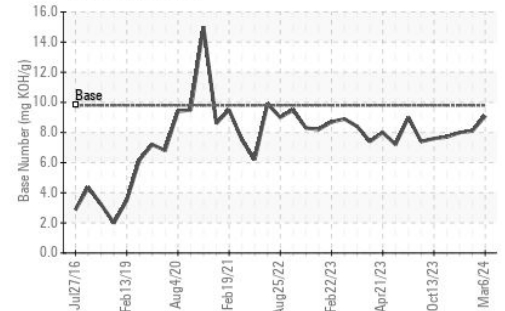
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0068819  
**Lab Number** : 06112501  
**Unique Number** : 10915998  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

GFL Environmental - 073 - Warner Robins - Transwaste  
 155 Story Road  
 Warner Robins, GA  
 US 31093  
 Contact: Mike Taft

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)

T:  
F: