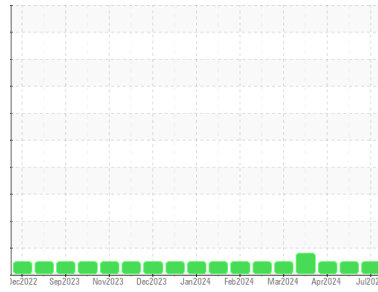




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**710037**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0121385</b>	GFL0121368	GFL0113736
Sample Date	Client Info		<b>06 Jul 2024</b>	30 May 2024	17 Apr 2024
Machine Age	hrs	Client Info	<b>5352</b>	5079	4801
Oil Age	hrs	Client Info	<b>1395</b>	1122	844
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >110	<b>15</b>	5	6
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>4</b>	3	3
Lead	ppm	ASTM D5185m >45	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >85	<b>0</b>	<1	0
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</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>10</b>	5	45
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>65</b>	61	73
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 1010	<b>903</b>	878	821
Calcium	ppm	ASTM D5185m 1070	<b>1135</b>	1005	1376
Phosphorus	ppm	ASTM D5185m 1150	<b>1070</b>	935	1068
Zinc	ppm	ASTM D5185m 1270	<b>1312</b>	1178	1363
Sulfur	ppm	ASTM D5185m 2060	<b>3533</b>	2900	3891

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>5</b>	4	4
Sodium	ppm	ASTM D5185m	<b>5</b>	2	1
Potassium	ppm	ASTM D5185m >20	<b>5</b>	2	8

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.4</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.2</b>	6.3	6.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.1</b>	18.1	18.3

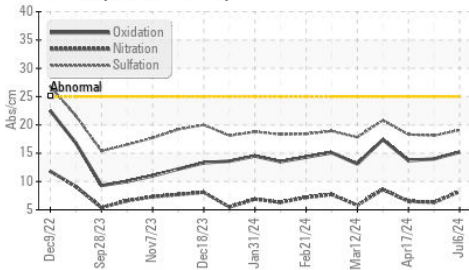
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.2</b>	14.0	13.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.5</b>	7.5	8.2

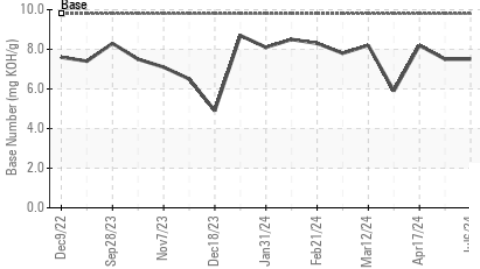


# OIL ANALYSIS REPORT

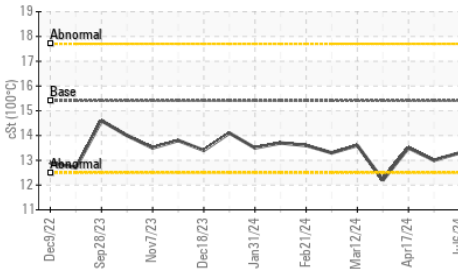
### FT-IR (Direct Trend)



### Base Number



### Viscosity @ 100°C

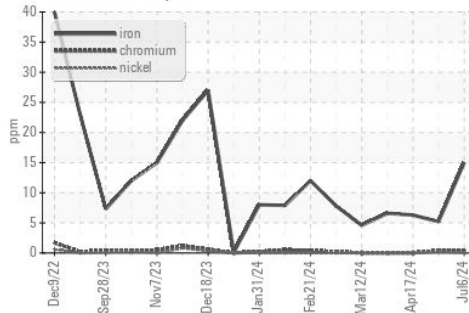


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

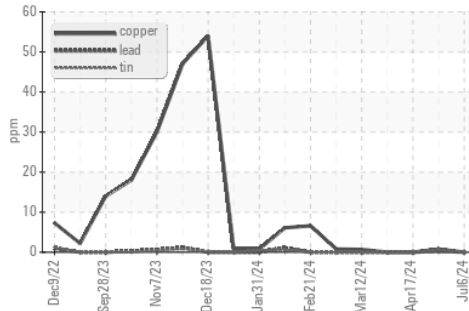
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.3	13.0

### GRAPHS

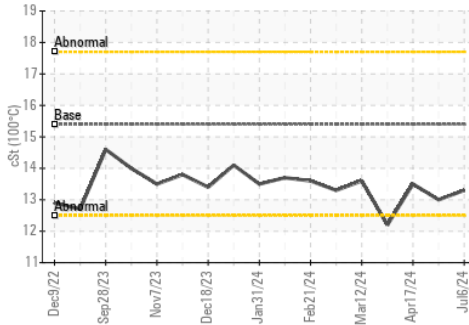
#### Ferrous Alloys



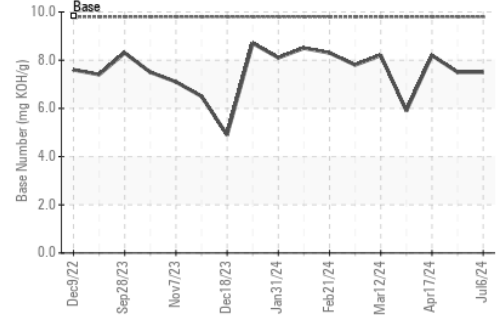
#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0121385  
**Lab Number** : 06232978  
**Unique Number** : 11116471  
**Test Package** : FLEET

**GFL environmental - 867 - Trafford (Blount Hauling)**  
 1130 County Line Rd  
 Trafford, AL  
 US 35172

Contact: Jonathan Williams  
 jonathan.williams@gflenv.com

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: