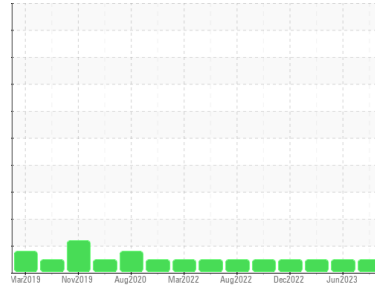




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**729061-362013**

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>GFL0067104</b>	GFL0079325	GFL0067116
Sample Date	Client Info		<b>02 Sep 2023</b>	09 Jun 2023	14 Apr 2023
Machine Age	hrs	Client Info	<b>15501</b>	14927	14358
Oil Age	hrs	Client Info	<b>700</b>	700	382
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
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
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>16</b>	24	13
Chromium	ppm	ASTM D5185m >20	<b>1</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	2	2
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>1</b>	1	<1
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>0</b>	<1	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>66</b>	65	62
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 1010	<b>962</b>	927	984
Calcium	ppm	ASTM D5185m 1070	<b>1088</b>	1131	1115
Phosphorus	ppm	ASTM D5185m 1150	<b>1049</b>	1054	1039
Zinc	ppm	ASTM D5185m 1270	<b>1283</b>	1271	1317
Sulfur	ppm	ASTM D5185m 2060	<b>3402</b>	3394	3401

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>8</b>	4	5
Sodium	ppm	ASTM D5185m	<b>5</b>	4	13
Potassium	ppm	ASTM D5185m >20	<b>1</b>	2	<1

## INFRA-RED

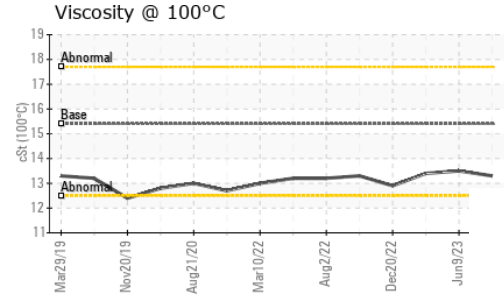
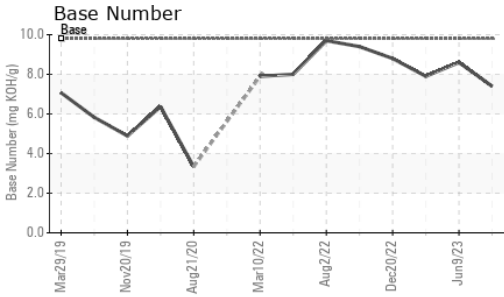
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.8</b>	0.8	0.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.1</b>	9.8	8.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.4</b>	20.6	19.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.0</b>	15.9	15.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.4</b>	8.6	7.9



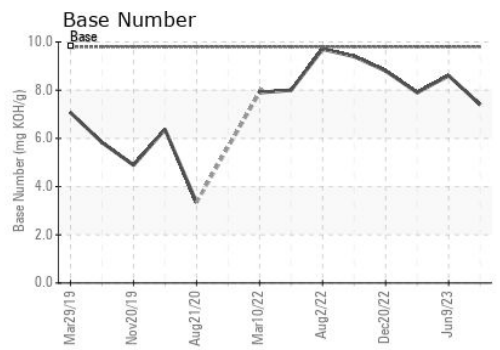
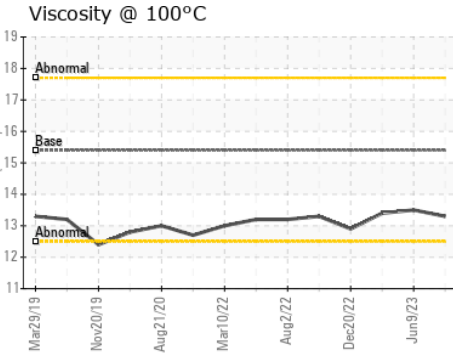
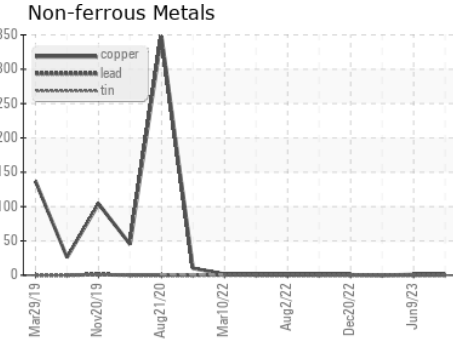
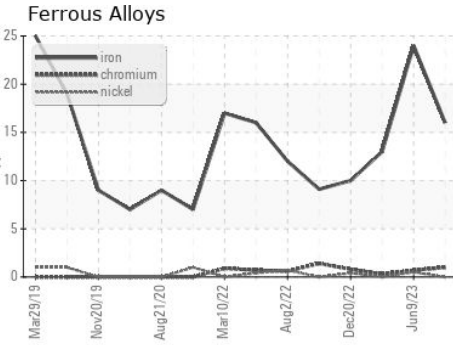
# OIL ANALYSIS REPORT



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	<b>13.3</b>	13.5	13.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0067104 **Received** : 19 Sep 2023  
**Lab Number** : **05955082** **Diagnosed** : 20 Sep 2023  
**Unique Number** : 10656295 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 822 - Springfield Hauling**  
 2120 West Bennett Street  
 Springfield, MO  
 US 65807  
 Contact: Dennis Moore  
 dennis.moore@gflenv.com  
 T: (417)403-3641  
 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)