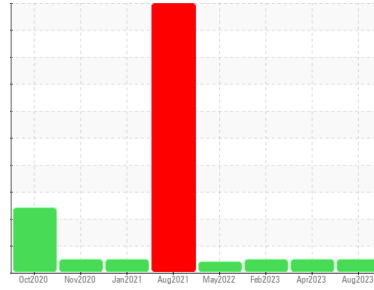




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**910041**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (8 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>GFL0083035</b>	GFL0071349	GFL0066556
Sample Date	Client Info		<b>10 Aug 2023</b>	23 Apr 2023	17 Feb 2023
Machine Age	days	Client Info	<b>0</b>	0	0
Oil Age	days	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	N/A	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>33</b>	12	20
Chromium	ppm	ASTM D5185m >20	<b>2</b>	<1	1
Nickel	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	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>13</b>	0	3
Lead	ppm	ASTM D5185m >40	<b>&lt;1</b>	0	1
Copper	ppm	ASTM D5185m >330	<b>2</b>	2	<1
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	<1
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>20</b>	41	31
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>91</b>	65	66
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	2
Magnesium	ppm	ASTM D5185m 1010	<b>1035</b>	746	449
Calcium	ppm	ASTM D5185m 1070	<b>1426</b>	1056	1734
Phosphorus	ppm	ASTM D5185m 1150	<b>1154</b>	851	995
Zinc	ppm	ASTM D5185m 1270	<b>1406</b>	1039	1388
Sulfur	ppm	ASTM D5185m 2060	<b>3304</b>	2874	3447

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>13</b>	7	5
Sodium	ppm	ASTM D5185m	<b>6</b>	2	2
Potassium	ppm	ASTM D5185m >20	<b>26</b>	6	5

## INFRA-RED

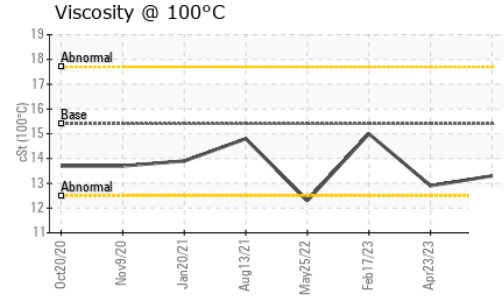
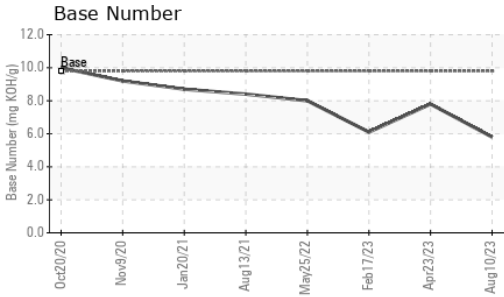
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>1.2</b>	0.6	1.5
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.2</b>	7.3	10.5
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.0</b>	19.9	26.0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.6</b>	14.6	20.6
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>5.8</b>	7.8	6.1



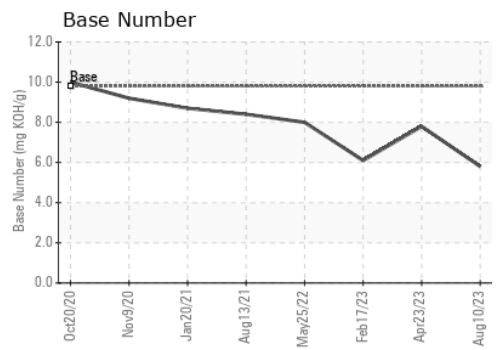
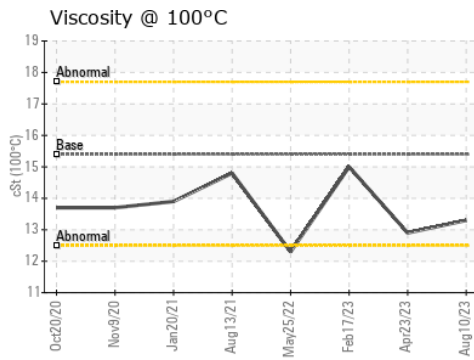
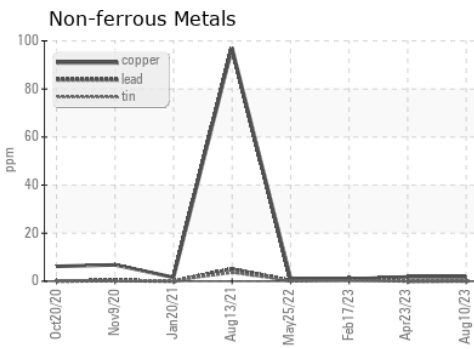
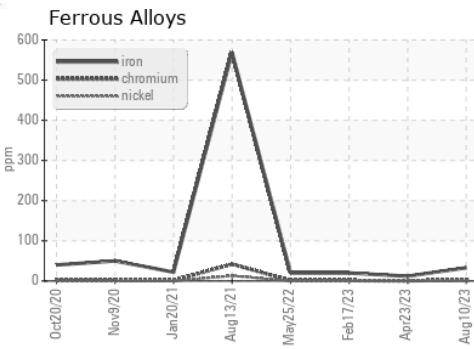
# OIL ANALYSIS REPORT



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>	12.9	15.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0083035 **Received** : 15 Aug 2023  
**Lab Number** : **05924648** **Diagnosed** : 15 Aug 2023  
**Unique Number** : 10604595 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 072 - Americus - Transwaste**  
 361 McMath Mill Road  
 Americus, GA  
 US 31719  
 Contact: RICHARD HEINZERLING  
 richard.heinzerling@gflenv.com  
 T: (229)924-3669  
 F:

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)