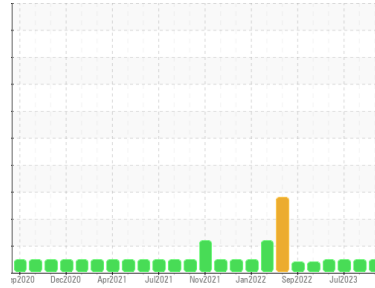




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**CUMMINS 810030**

Component  
**Diesel Engine**

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

## 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>GFL0086213</b>	GFL0086278	GFL0086235	
Sample Date	Client Info	<b>07 Sep 2023</b>	17 Aug 2023	19 Jul 2023	
Machine Age	hrs	Client Info	<b>15045</b>	0	5332
Oil Age	hrs	Client Info	<b>15045</b>	0	14725
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A	
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL	

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<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 >75	<b>9</b>	14	12
Chromium	ppm ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>0</b>	0	0
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm ASTM D5185m >15	<b>4</b>	4	3
Lead	ppm ASTM D5185m >25	<b>&lt;1</b>	<1	0
Copper	ppm ASTM D5185m >100	<b>1</b>	3	2
Tin	ppm ASTM D5185m >4	<b>1</b>	<1	0
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>14</b>	18	13
Barium	ppm ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 60	<b>60</b>	60	62
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>779</b>	778	759
Calcium	ppm ASTM D5185m 1070	<b>1107</b>	1076	1040
Phosphorus	ppm ASTM D5185m 1150	<b>912</b>	893	919
Zinc	ppm ASTM D5185m 1270	<b>1123</b>	1093	1094
Sulfur	ppm ASTM D5185m 2060	<b>3273</b>	3182	2639

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>4</b>	4	5
Sodium	ppm ASTM D5185m	<b>2</b>	3	0
Potassium	ppm ASTM D5185m >20	<b>7</b>	9	4

## INFRA-RED

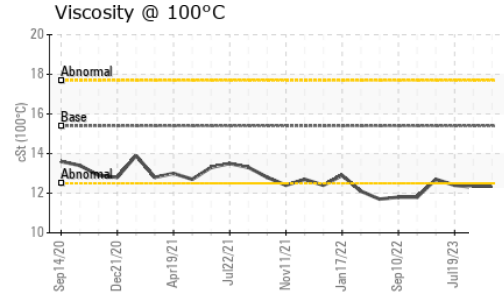
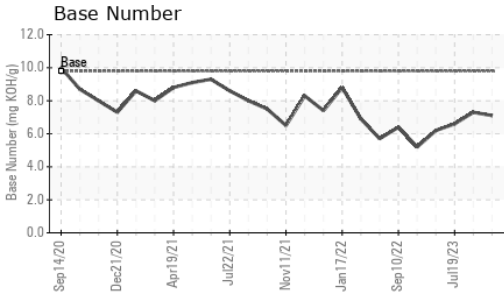
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	<b>0.4</b>	0.4	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>8.3</b>	7.1	9.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>17.9</b>	18.0	19.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.7</b>	13.1	14.8
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>7.1</b>	7.3	6.6



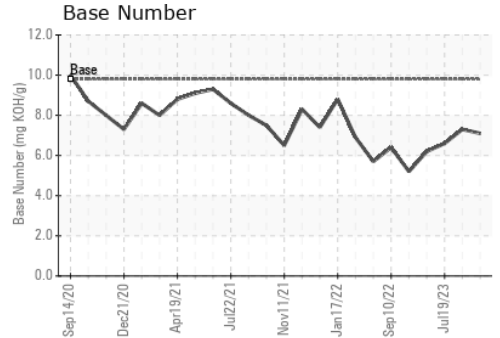
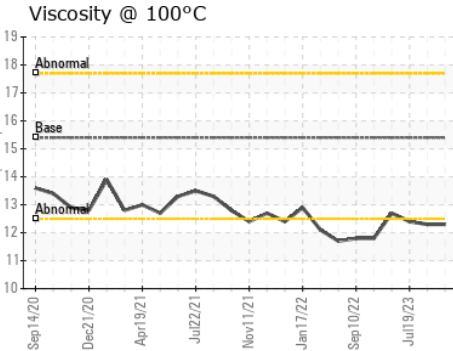
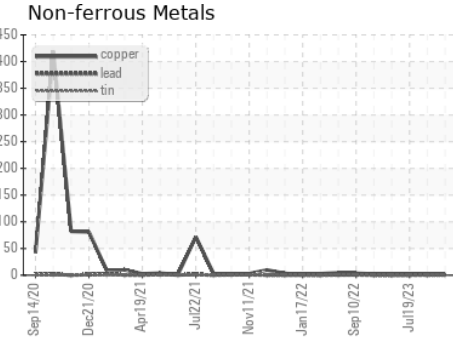
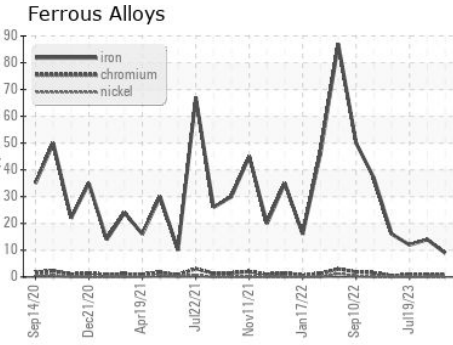
# OIL ANALYSIS REPORT



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>12.3</b>	12.3	12.4

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0086213 **Received** : 14 Sep 2023  
**Lab Number** : **05951939** **Diagnosed** : 18 Sep 2023  
**Unique Number** : 10647898 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 009 - Fairburn**  
 6905 Roosevelt Hwy  
 Fairburn, GA  
 US 30213  
 Contact: Eric Jones  
 erjones@gflenv.com  
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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)