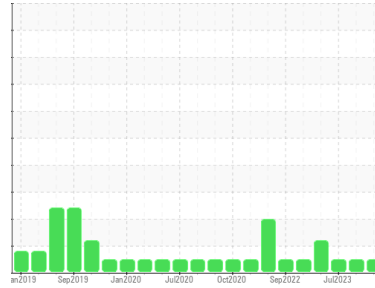




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**923034-260317**

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>GFL0087184</b>	GFL0087150	GFL0087217
Sample Date	Client Info		<b>15 Aug 2023</b>	20 Jul 2023	06 Jul 2023
Machine Age	hrs	Client Info	<b>20441</b>	20257	20148
Oil Age	hrs	Client Info	<b>600</b>	600	0
Oil Changed	Client Info		<b>Changed</b>	Changed	Not 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 >110	<b>11</b>	40	39
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	2	2
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>2</b>	5	7
Lead	ppm	ASTM D5185m >45	<b>&lt;1</b>	2	3
Copper	ppm	ASTM D5185m >85	<b>2</b>	10	8
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>&lt;1</b>	3	5
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>62</b>	66	66
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m 1010	<b>1005</b>	1002	1004
Calcium	ppm	ASTM D5185m 1070	<b>1125</b>	1155	1146
Phosphorus	ppm	ASTM D5185m 1150	<b>1038</b>	1025	1086
Zinc	ppm	ASTM D5185m 1270	<b>1262</b>	1273	1338
Sulfur	ppm	ASTM D5185m 2060	<b>3665</b>	3410	3650

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >30	<b>4</b>	7	11
Sodium	ppm	ASTM D5185m	<b>7</b>	76	70
Potassium	ppm	ASTM D5185m >20	<b>2</b>	1	3

## INFRA-RED

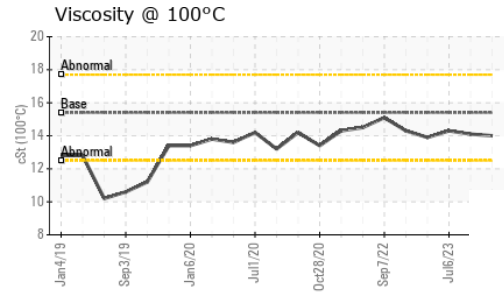
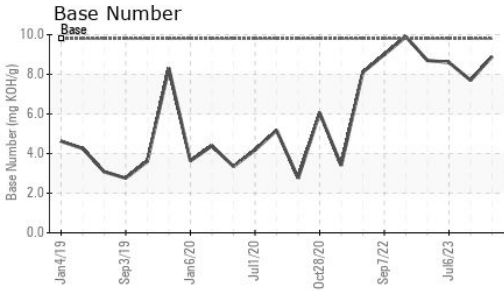
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	1.9	1.9
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.2</b>	12.6	12.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>19.7</b>	24.9	24.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.6</b>	19.3	19.2
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.9</b>	7.7	8.6



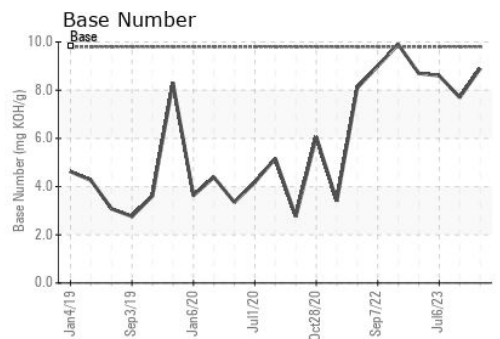
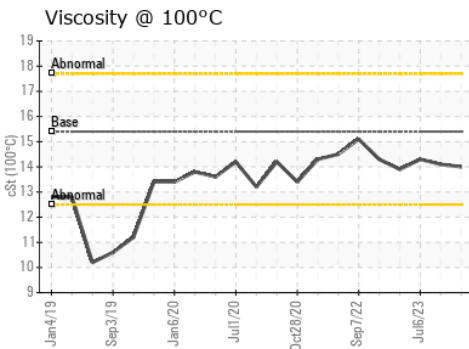
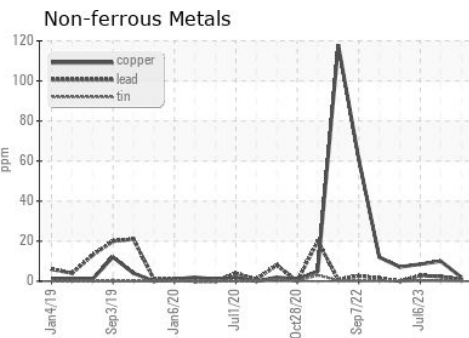
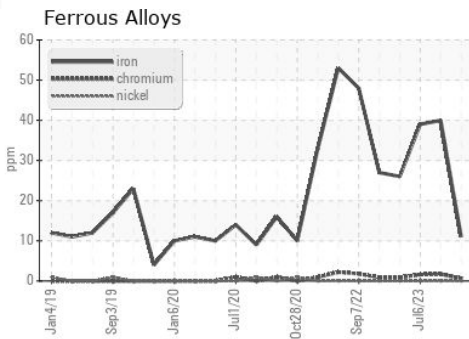
# OIL ANALYSIS REPORT



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>14.0</b>	14.1	14.3

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0087184 **Received** : 18 Aug 2023  
**Lab Number** : **05927974** **Diagnosed** : 21 Aug 2023  
**Unique Number** : 10607921 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 837 - Harrison TS**  
 22820 S State Route 291  
 Harrisonville, MO  
 US 64701  
 Contact: Robert Hart

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)

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 F: