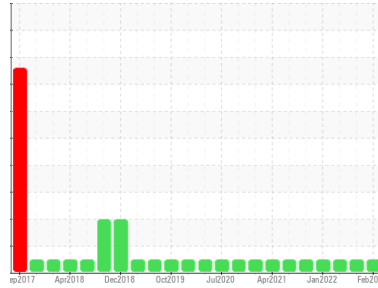




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**(P642630)**

Machine Id  
**10780**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (11 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>GFL0109585</b>	GFL0096978	GFL0084251	
Sample Date	Client Info	<b>07 Feb 2024</b>	15 Nov 2023	19 May 2023	
Machine Age	hrs	Client Info	<b>12469</b>	12210	12115
Oil Age	hrs	Client Info	<b>354</b>	12115	12115
Oil Changed	Client Info	<b>Not Chngd</b>	Changed	Changed	
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
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 >165	<b>9</b>	19	20
Chromium	ppm ASTM D5185m >5	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	0
Titanium	ppm ASTM D5185m >2	<b>&lt;1</b>	<1	0
Silver	ppm ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>1</b>	2	0
Lead	ppm ASTM D5185m >150	<b>&lt;1</b>	<1	2
Copper	ppm ASTM D5185m >90	<b>2</b>	25	2
Tin	ppm ASTM D5185m >5	<b>&lt;1</b>	0	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	---
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>&lt;1</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<b>14</b>	16	11
Barium	ppm ASTM D5185m 0	<b>&lt;1</b>	9	0
Molybdenum	ppm ASTM D5185m 60	<b>57</b>	67	65
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 1010	<b>814</b>	832	941
Calcium	ppm ASTM D5185m 1070	<b>1100</b>	1112	1241
Phosphorus	ppm ASTM D5185m 1150	<b>1010</b>	1003	1009
Zinc	ppm ASTM D5185m 1270	<b>1109</b>	1138	1285
Sulfur	ppm ASTM D5185m 2060	<b>3411</b>	3285	3344

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >35	<b>3</b>	6	5
Sodium	ppm ASTM D5185m	<b>0</b>	2	5
Potassium	ppm ASTM D5185m >20	<b>2</b>	2	2

## INFRA-RED

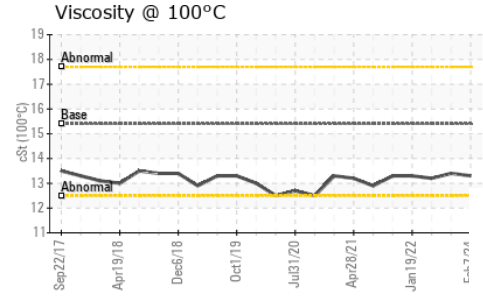
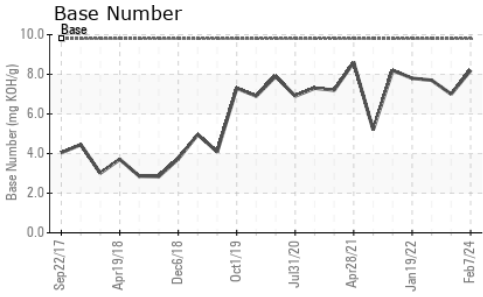
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >7.5	<b>0.3</b>	0.2	0.6
Nitration	Abs/cm *ASTM D7624 >20	<b>6.5</b>	6.1	9.6
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.2</b>	17.3	21.7

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>13.7</b>	13.2	17.5
Base Number (BN)	mg KOH/g ASTM D2896 9.8	<b>8.2</b>	7.0	7.7



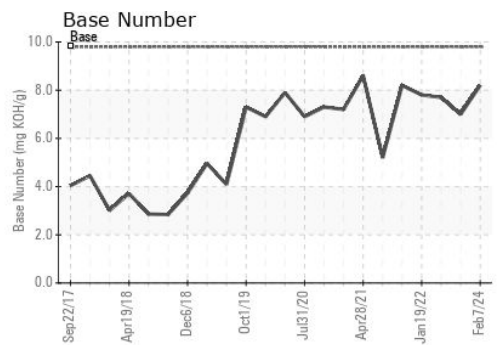
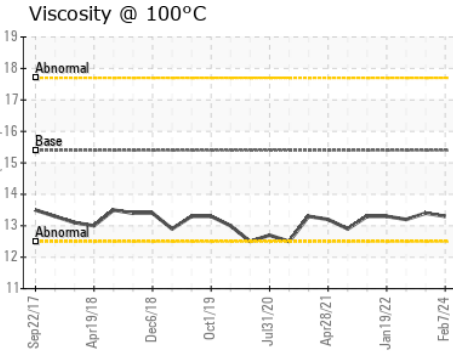
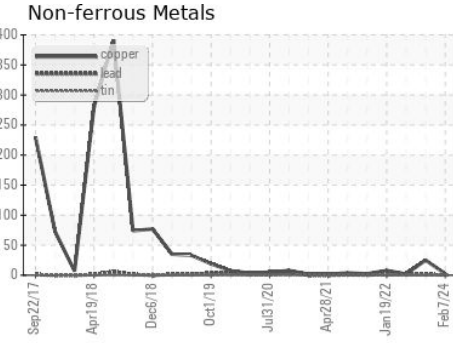
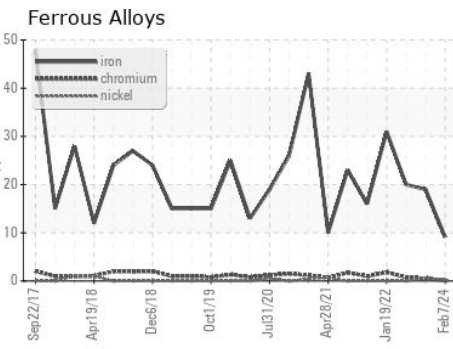
# OIL ANALYSIS REPORT



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>	13.4	13.2

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0109585      **Received** : 08 Feb 2024  
**Lab Number** : **06083347**      **Tested** : 08 Feb 2024  
**Unique Number** : 10870792      **Diagnosed** : 08 Feb 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 031 - Greenville/Spartanburg**  
 1635 Antioch Church Rd  
 Piedmont, SC  
 US 29673  
 Contact: TECHNICIAN ACCOUNT  
 catherine.anastasio@wearcheck.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.      T:  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)      F: