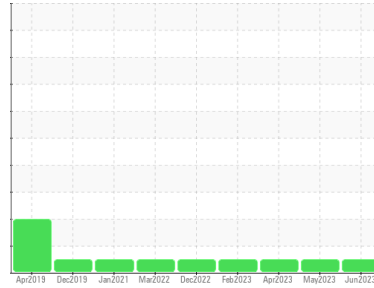




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id

**2719**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON HP 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	history 1	history 2
Sample Number	Client Info		<b>GFL0083156</b>	GFL0083181	GFL0077412
Sample Date	Client Info		<b>22 Jun 2023</b>	31 May 2023	06 Apr 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	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	history 1	history 2
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	history 1	history 2	
Iron	ppm	ASTM D5185m	>165	<b>9</b>	6	10
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	1
Lead	ppm	ASTM D5185m	>150	<b>1</b>	0	1
Copper	ppm	ASTM D5185m	>90	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m	>5	<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	history 1	history 2	
Boron	ppm	ASTM D5185m		<b>1</b>	1	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>64</b>	60	60
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m		<b>981</b>	967	933
Calcium	ppm	ASTM D5185m		<b>1113</b>	1165	1049
Phosphorus	ppm	ASTM D5185m		<b>1073</b>	1028	1022
Zinc	ppm	ASTM D5185m		<b>1301</b>	1264	1220
Sulfur	ppm	ASTM D5185m		<b>3300</b>	3740	2779

## CONTAMINANTS

	method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185m	>35	<b>6</b>	4	6
Sodium	ppm	ASTM D5185m		<b>5</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	1	4

## INFRA-RED

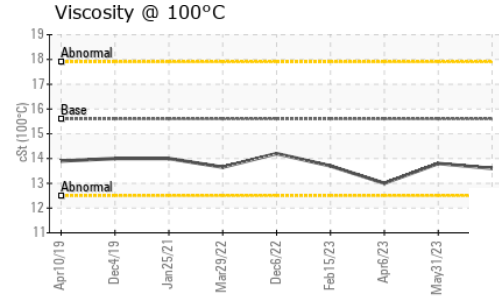
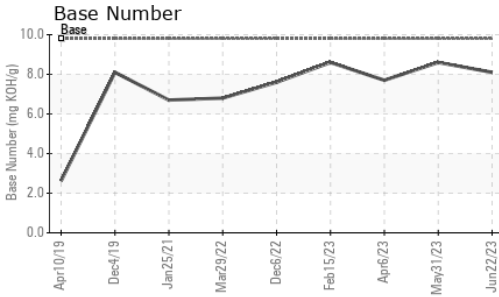
	method	limit/base	current	history 1	history 2	
Soot %	%	*ASTM D7844	>7.5	<b>0.3</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.2</b>	8.7	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	20.0	21.6

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.2</b>	15.8	17.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.1</b>	8.6	7.7



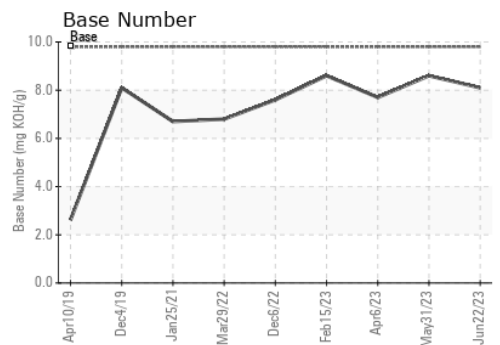
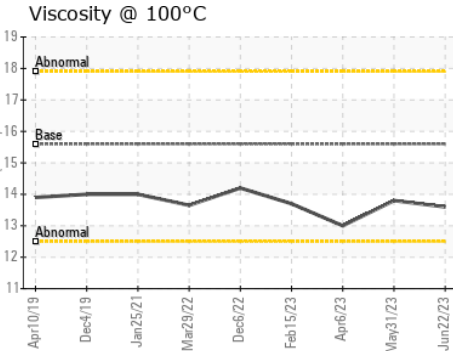
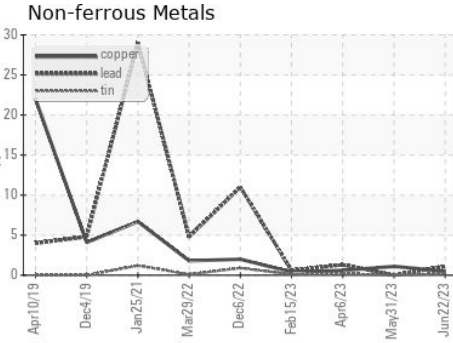
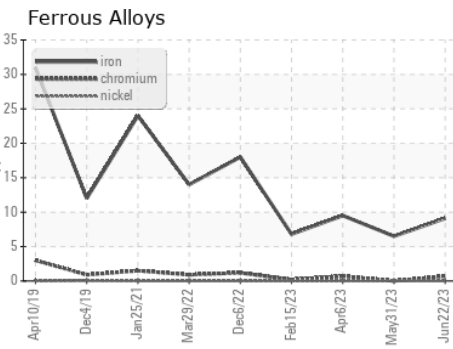
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history 1	history 2
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	history 1	history 2	
Visc @ 100°C	cSt	ASTM D445	15.6	<b>13.6</b>	13.8	13.0

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0083156 **Received** : 29 Jun 2023  
**Lab Number** : **05887336** **Diagnosed** : 02 Jul 2023  
**Unique Number** : 10537819 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 074 - Douglas - Transwaste**  
 1219 Landfill Road  
 Douglas, GA  
 US 31533  
 Contact: CURTIS JACOBS  
 CURTIS.JACOBS@GFLENV.COM  
 T: (912)384-6001  
 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)