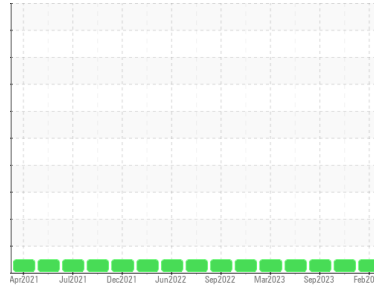




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**728056-8**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

## 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>GFL0058083</b>	GFL0100171	GFL0058040
Sample Date	Client Info		<b>28 Feb 2024</b>	04 Dec 2023	14 Sep 2023
Machine Age	hrs	Client Info	<b>13398</b>	12821	12256
Oil Age	hrs	Client Info	<b>577</b>	565	507
Oil Changed	Client Info		<b>Changed</b>	Changed	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
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 >80	<b>25</b>	25	20
Chromium	ppm	ASTM D5185m >5	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m >30	<b>4</b>	2	3
Lead	ppm	ASTM D5185m >30	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >150	<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>&lt;1</b>	0	<1

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>3</b>	2	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	44
Molybdenum	ppm	ASTM D5185m 60	<b>62</b>	63	55
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	0	1
Magnesium	ppm	ASTM D5185m 1010	<b>981</b>	931	872
Calcium	ppm	ASTM D5185m 1070	<b>1052</b>	1098	955
Phosphorus	ppm	ASTM D5185m 1150	<b>1026</b>	1038	923
Zinc	ppm	ASTM D5185m 1270	<b>1310</b>	1234	1146
Sulfur	ppm	ASTM D5185m 2060	<b>3221</b>	3033	3114

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>6</b>	6	7
Sodium	ppm	ASTM D5185m	<b>6</b>	3	6
Potassium	ppm	ASTM D5185m >20	<b>1</b>	3	3

## INFRA-RED

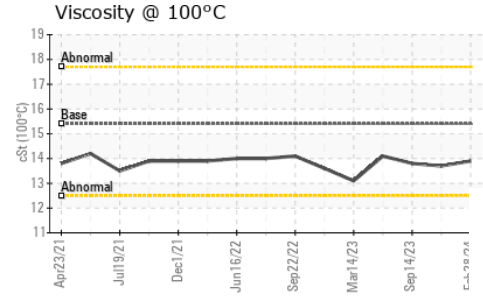
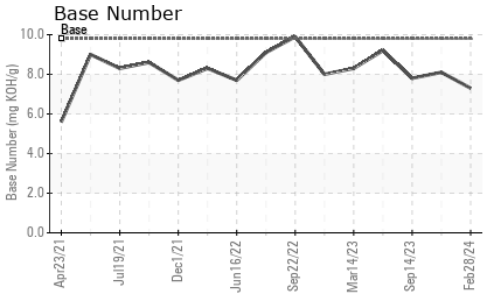
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.7</b>	0.7	0.6
Nitration	Abs/cm	*ASTM D7624 >20	<b>9.9</b>	9.4	9.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.2</b>	19.9	18.7

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.2</b>	17.0	15.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>7.3</b>	8.1	7.8



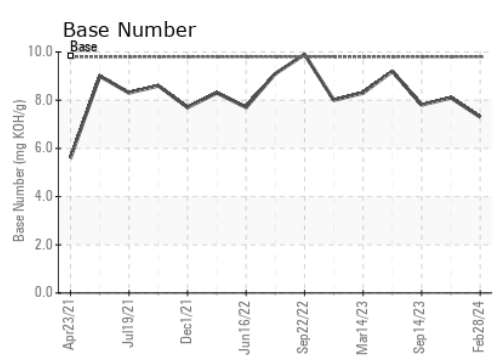
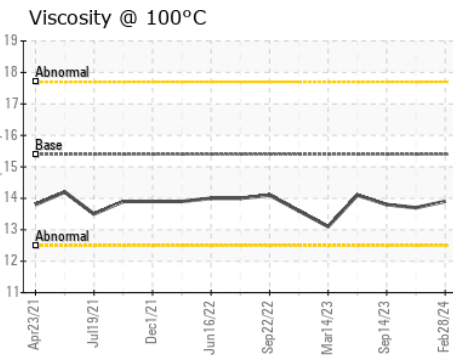
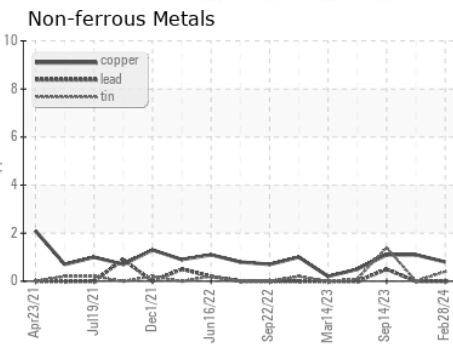
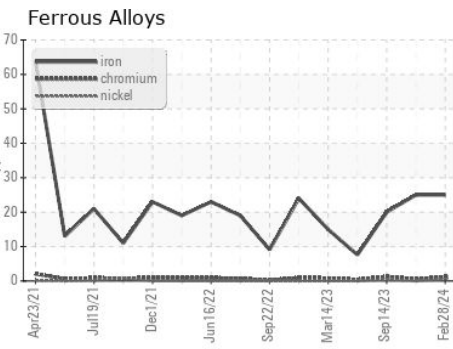
# OIL ANALYSIS REPORT



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>13.9</b>	13.7	13.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0058083  
**Lab Number** : **06104071**  
**Unique Number** : 10902301  
**Test Package** : FLEET

**GFL Environmental - 657 - Charlottesville Hauling**  
 5498 Richmond Road  
 Troy, VA  
 US 22974  
 Contact: Brian Ulickas  
 bulickas@gflenv.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.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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F: