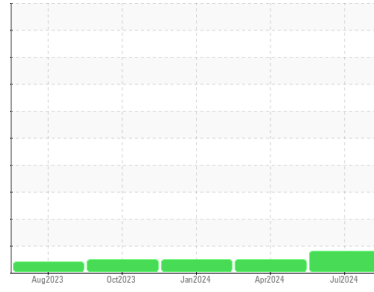




# OIL ANALYSIS REPORT

## Sample Rating Trend



**WEAR**



Machine Id

**913171**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON SHP 15W40 (--- LTR)**

## DIAGNOSIS

### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

### ▲ Wear

The nickel level is abnormal. All other 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 acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0123830</b>	GFL0112990	GFL0108411
Sample Date	Client Info		<b>01 Jul 2024</b>	02 Apr 2024	17 Jan 2024
Machine Age	hrs	Client Info	<b>2922</b>	2397	1826
Oil Age	hrs	Client Info	<b>525</b>	2397	1826
Oil Changed		Client Info	<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</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 >100	<b>11</b>	10	18
Chromium	ppm	ASTM D5185m >20	<b>1</b>	0	<1
Nickel	ppm	ASTM D5185m >4	<b>▲ 10</b>	<1	1
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	1
Lead	ppm	ASTM D5185m >40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >330	<b>2</b>	0	2
Tin	ppm	ASTM D5185m >15	<b>0</b>	0	1
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	<b>5</b>	2	2
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 60	<b>60</b>	58	63
Manganese	ppm	ASTM D5185m 0	<b>1</b>	0	<1
Magnesium	ppm	ASTM D5185m 1010	<b>950</b>	929	977
Calcium	ppm	ASTM D5185m 1070	<b>1152</b>	1022	1064
Phosphorus	ppm	ASTM D5185m 1150	<b>967</b>	1023	978
Zinc	ppm	ASTM D5185m 1270	<b>1169</b>	1175	1236
Sulfur	ppm	ASTM D5185m 2060	<b>3101</b>	3065	3003

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>4</b>	3	4
Sodium	ppm	ASTM D5185m	<b>6</b>	1	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	3

## INFRA-RED

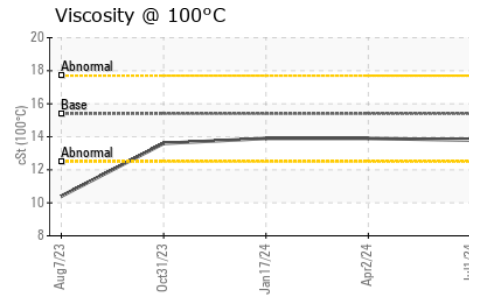
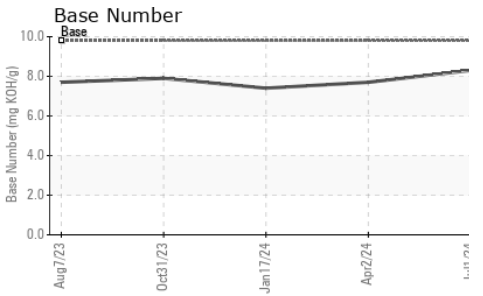
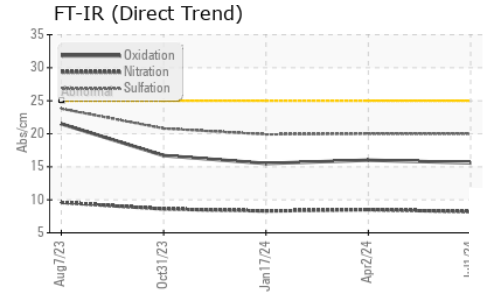
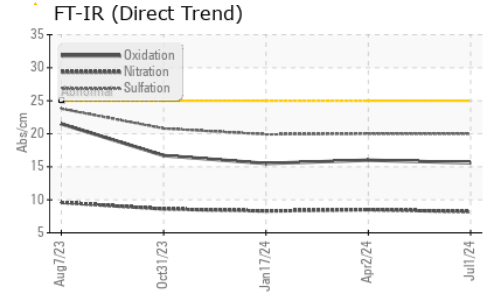
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.6</b>	0.6	0.7
Nitration	Abs/cm	*ASTM D7624 >20	<b>8.2</b>	8.5	8.3
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.0</b>	20.0	19.9

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>15.6</b>	16.0	15.5
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.3</b>	7.7	7.4



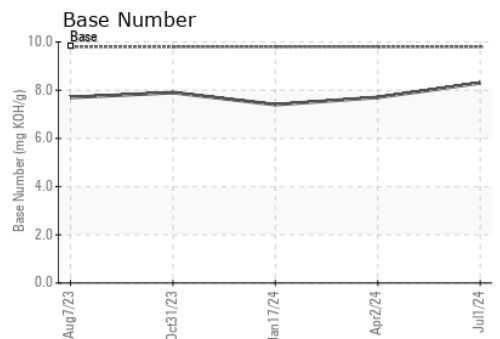
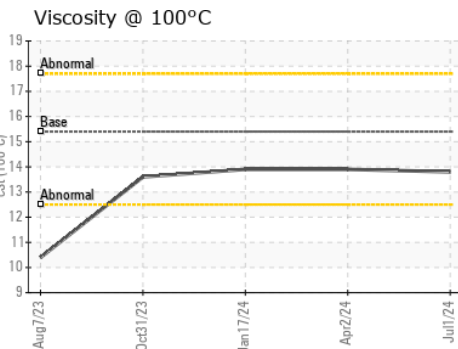
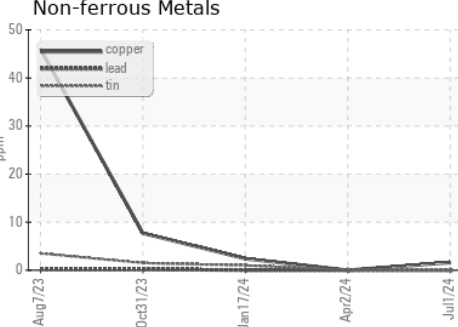
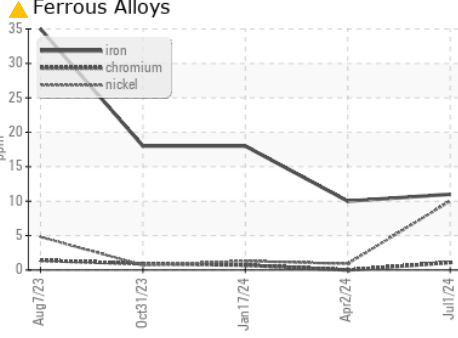
# OIL ANALYSIS REPORT



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	13.8	13.9

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0123830  
**Lab Number** : 06228332  
**Unique Number** : 11111825  
**Test Package** : FLEET  
**Received** : 05 Jul 2024  
**Tested** : 08 Jul 2024  
**Diagnosed** : 08 Jul 2024 - Don Baldrige

**GFL Environmental - 918 - Hartland HC**  
 630 E Industrial Drive  
 Hartland, WI  
 US 53029

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)