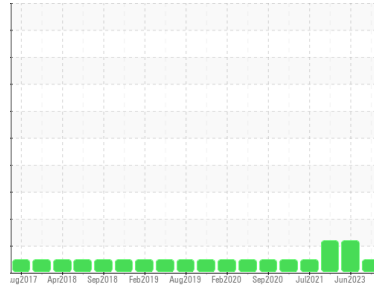




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**901014**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (26 LTR)**

## DIAGNOSIS

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

### Wear

All component wear rates are normal.

### Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

### Fluid Condition

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>GFL0086490</b>	GFL0086497	GFL0040014
Sample Date	Client Info		<b>17 Jul 2023</b>	26 Jun 2023	25 Jan 2022
Machine Age	hrs	Client Info	<b>14794</b>	14378	247017
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Changed	N/A
Sample Status			<b>NORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >120	<b>2</b>	4	7
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m) >5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m) >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m) >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	1	2
Lead	ppm	ASTM D5185(m) >40	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185(m) >330	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >15	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	<b>7</b>	6	13
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 60	<b>57</b>	58	59
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>938</b>	957	958
Calcium	ppm	ASTM D5185(m) 1070	<b>1033</b>	998	1051
Phosphorus	ppm	ASTM D5185(m) 1150	<b>1027</b>	1036	1004
Zinc	ppm	ASTM D5185(m) 1270	<b>1146</b>	1176	1145
Sulfur	ppm	ASTM D5185(m) 2060	<b>2506</b>	2427	2431
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>3</b>	3	3
Sodium	ppm	ASTM D5185(m)	<b>3</b>	3	4
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	1
Fuel	%	ASTM D7593* >3.0	<b>2.6</b>	▲ 4.5	▲ 3.2

## INFRA-RED

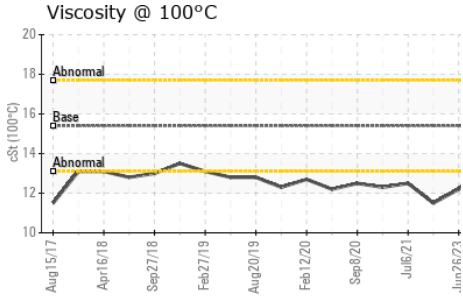
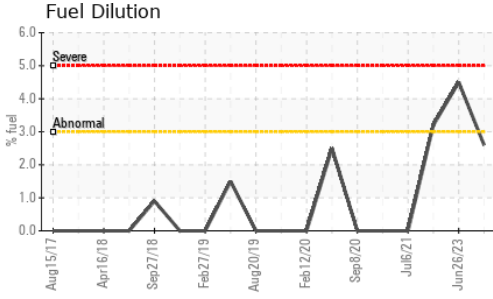
	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >4	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624* >20	<b>6.0</b>	8.4	9.4
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>18.7</b>	19.5	21.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	<b>14.3</b>	16.1	17.8



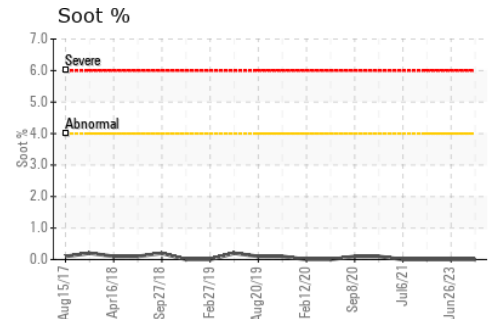
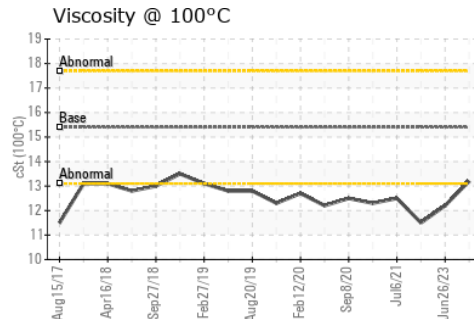
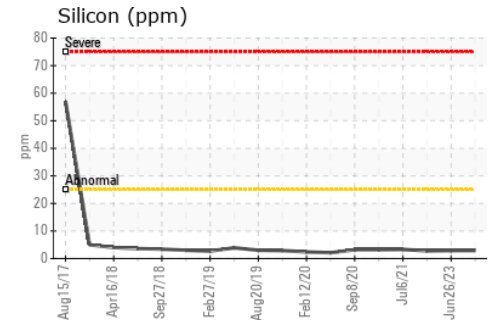
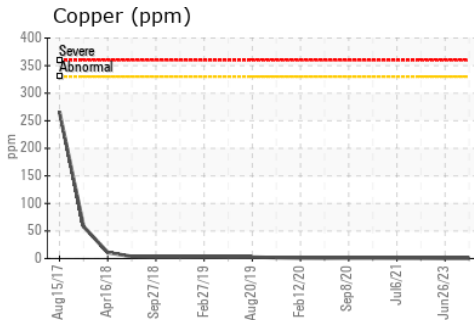
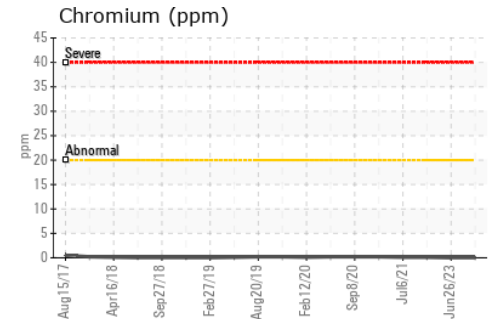
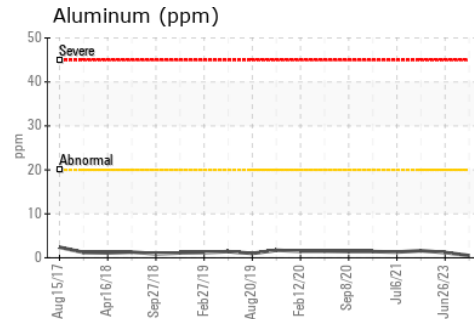
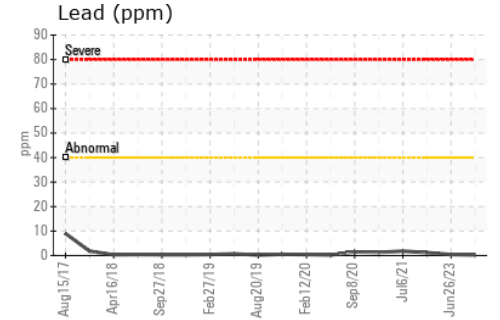
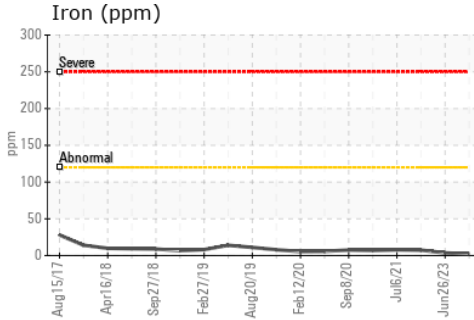
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
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 D7279(m)	15.4	13.2	▲ 12.2 ▲ 11.5

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0086490  
**Lab Number** : 02570806  
**Unique Number** : 5607852  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )

**GFL Environmental - 217 - Aurora**  
 14131 BAYVIEW AVE, AURORA YARD  
 AURORA, ON  
 CA L4G 0K6  
 Contact: Mike Havens  
 MHavens@gflenv.com

Received : 19 Jul 2023  
 Diagnosed : 20 Jul 2023  
 Diagnostician : Wes Davis  
 To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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