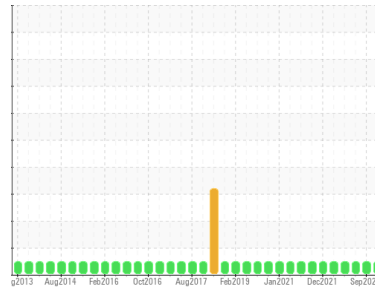




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**9941**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (40 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 condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0090411</b>	GFL0071475	GFL0054324
Sample Date	Client Info		<b>10 Nov 2023</b>	28 Sep 2023	03 Mar 2023
Machine Age	kms	Client Info	<b>437805</b>	411470	411470
Oil Age	kms	Client Info	<b>0</b>	23760	0
Oil Changed	Client Info		<b>Changed</b>	N/A	N/A
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 D5185(m)	>120	<b>13</b>	59	25
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	3	4
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>1</b>	4	2
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1	1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	<1
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>2</b>	2	4
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>59</b>	64	60
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>978</b>	1015	935
Calcium	ppm	ASTM D5185(m)	1070	<b>1052</b>	1115	1138
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1036</b>	1006	1063
Zinc	ppm	ASTM D5185(m)	1270	<b>1184</b>	1260	1173
Sulfur	ppm	ASTM D5185(m)	2060	<b>2513</b>	2157	2395
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

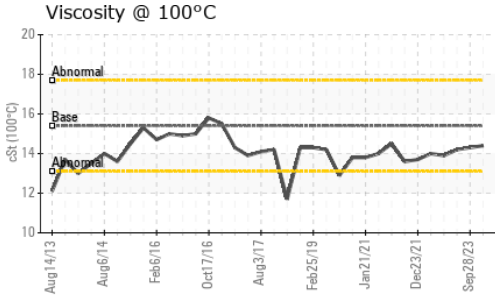
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	5	4
Sodium	ppm	ASTM D5185(m)		<b>4</b>	9	6
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	1	2

## INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*	>4	<b>0.5</b>	1.4	0.7
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.5</b>	13.9	11.0
Sulfation	Abs./1mm	ASTM D7415*	>30	<b>20.2</b>	28.1	25.0



# OIL ANALYSIS REPORT

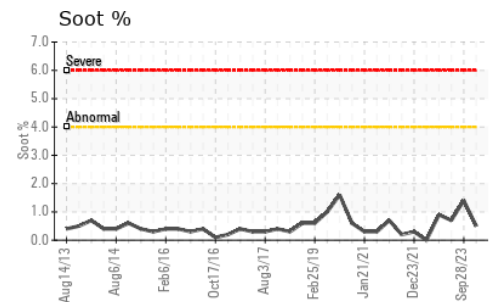
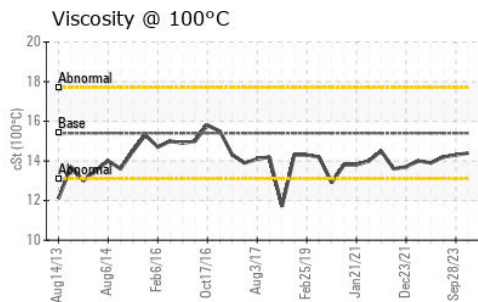
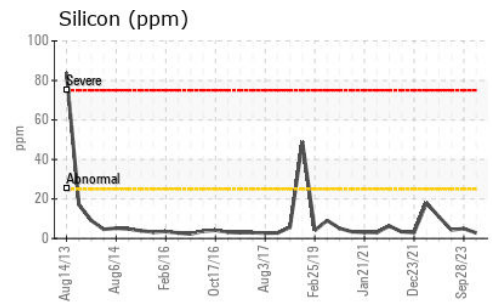
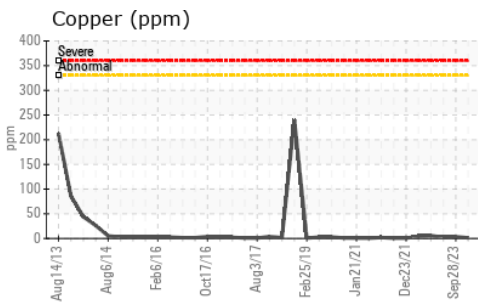
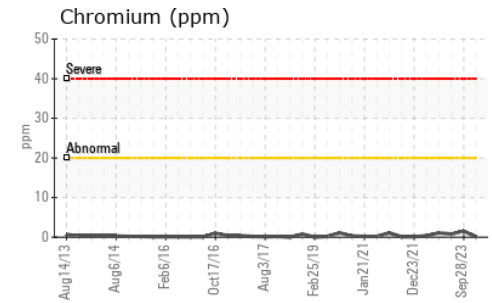
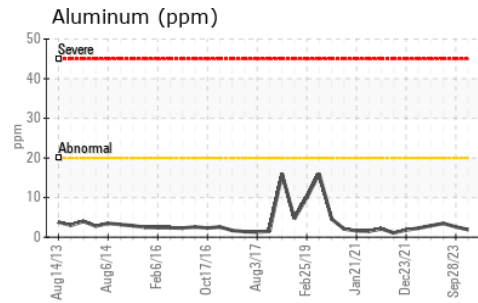
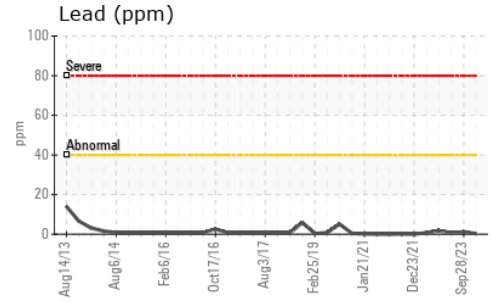
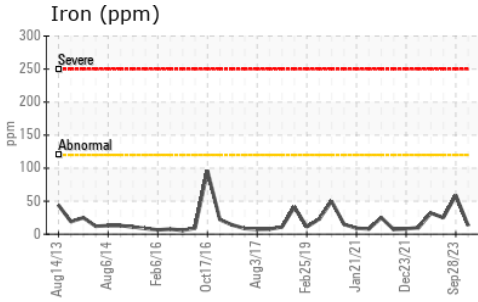


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>17.4</b>	25.9	20.2

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>14.4</b>	14.3	14.2

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0090411      **Received** : 20 Nov 2023  
**Lab Number** : 02597398      **Diagnosed** : 20 Nov 2023  
**Unique Number** : 5682478      **Diagnostician** : Wes Davis  
**Test Package** : MOB 1

**GFL Environmental - 216M**  
 2475 Beryl Drive  
 Oakville, ON  
 CA L6J 7X4  
 Contact: Matthew Gunness  
 mgunness@gflenv.com

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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