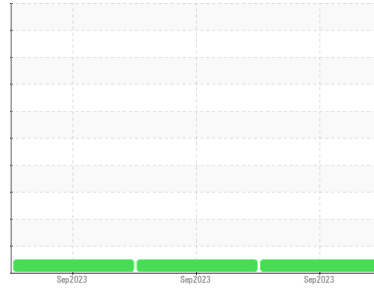




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**714049**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- 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	history1	history2
Sample Number	Client Info		<b>GFL0027558</b>	GFL0091544	GFL0091458
Sample Date	Client Info		<b>19 Sep 2023</b>	07 Sep 2023	06 Sep 2023
Machine Age	hrs	Client Info	<b>712</b>	6879	6513
Oil Age	hrs	Client Info	<b>600</b>	600	600
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	Changed
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
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	<b>4</b>	14	30
Chromium	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	5	<1
Titanium	ppm	ASTM D5185m >2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	0	1
Lead	ppm	ASTM D5185m >40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >330	<b>&lt;1</b>	1	11
Tin	ppm	ASTM D5185m >15	<b>0</b>	1	<1
Vanadium	ppm	ASTM D5185m	<b>0</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>4</b>	4	63
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185m 60	<b>58</b>	60	105
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	7
Magnesium	ppm	ASTM D5185m 1010	<b>924</b>	967	756
Calcium	ppm	ASTM D5185m 1070	<b>1081</b>	1104	1290
Phosphorus	ppm	ASTM D5185m 1150	<b>1000</b>	1054	794
Zinc	ppm	ASTM D5185m 1270	<b>1211</b>	1285	939
Sulfur	ppm	ASTM D5185m 2060	<b>3720</b>	3598	3561

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>3</b>	4	16
Sodium	ppm	ASTM D5185m	<b>4</b>	4	5
Potassium	ppm	ASTM D5185m >20	<b>6</b>	1	4

## INFRA-RED

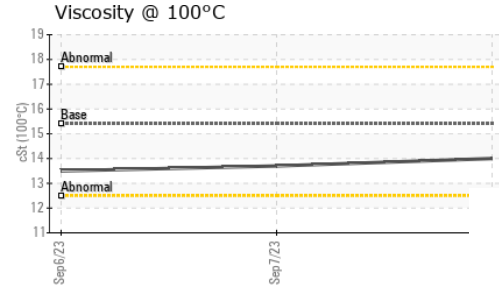
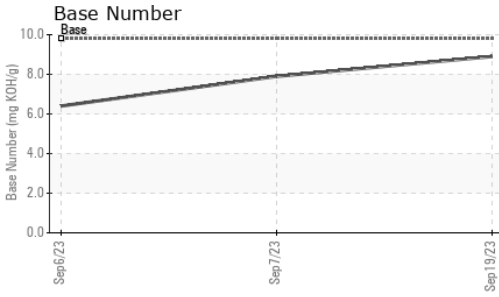
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >6	<b>0.2</b>	0.6	0.4
Nitration	Abs/cm	*ASTM D7624 >20	<b>5.6</b>	7.5	10.1
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.0</b>	19.3	19.6

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>14.0</b>	15.2	17.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.9</b>	7.9	6.4



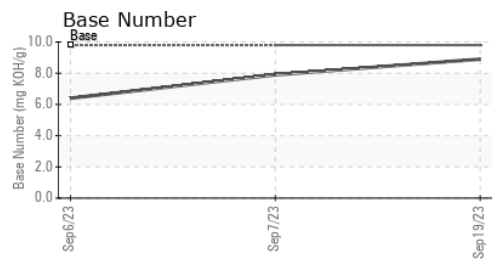
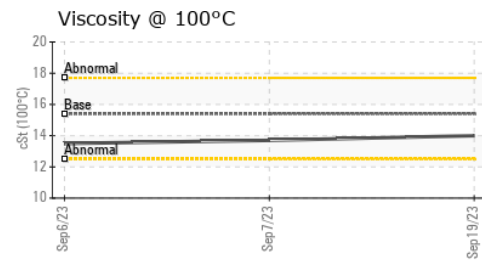
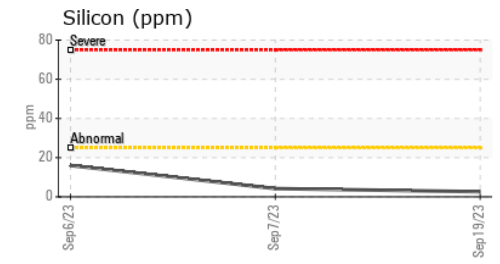
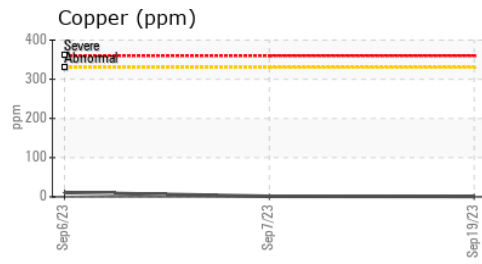
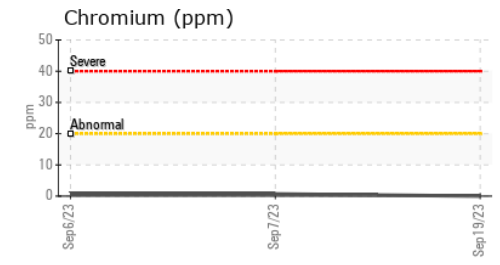
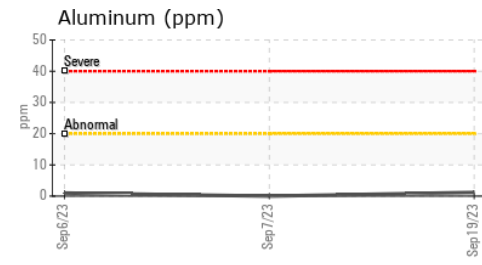
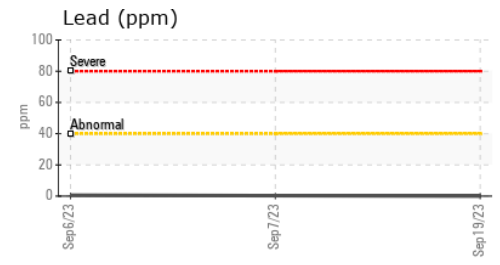
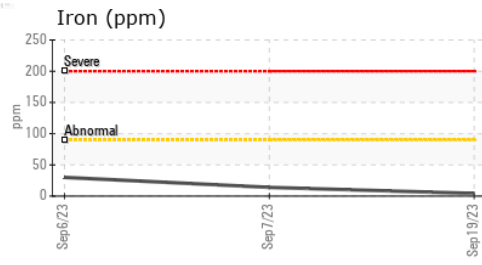
# OIL ANALYSIS REPORT



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	<b>14.0</b>	13.7	13.5

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0027558 **Received** : 22 Sep 2023  
**Lab Number** : 05958338 **Diagnosed** : 22 Sep 2023  
**Unique Number** : 10659551 **Diagnostician** : Wes Davis  
**Test Package** : MOB1+

**GFL Environmental - 465 - Pontiac**  
 888 Baldwin  
 Pontiac, MI  
 US 48340  
 Contact: Ricky Matthews  
 rickymathews@gflenv.com  
 T: (586)825-9514  
 F:

Certificate L2367  
 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)