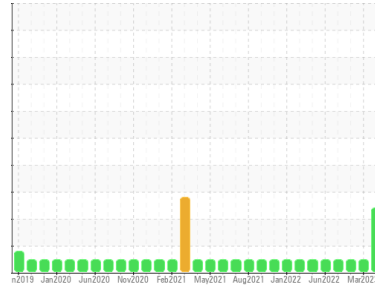




# PROBLEM SUMMARY

Sample Rating Trend



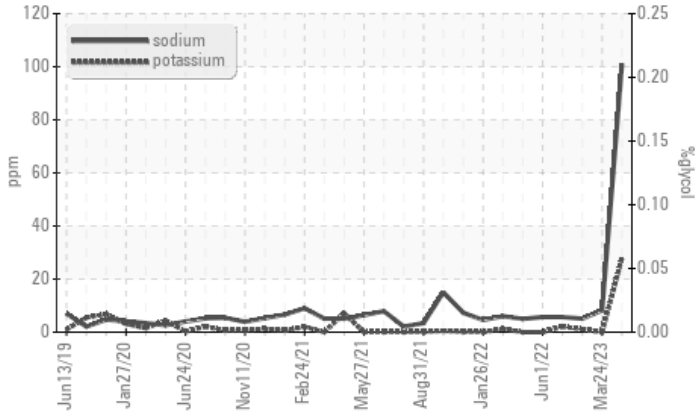
COOL CHEMICALS



Machine Id  
**3848C**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (9 GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Glycol Contamination



## RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	NORMAL	NORMAL
Sodium	ppm	ASTM D5185m	▲ 101	8	5
Potassium	ppm	ASTM D5185m >20	▲ 28	0	1

Customer Id: GFL331  
 Sample No.: GFL0087543  
 Lab Number: 05921999  
 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

## HISTORICAL DIAGNOSIS

### 24 Mar 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



### 09 Jan 2023 Diag: Sean Felton

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



### 26 Oct 2022 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report





# OIL ANALYSIS REPORT

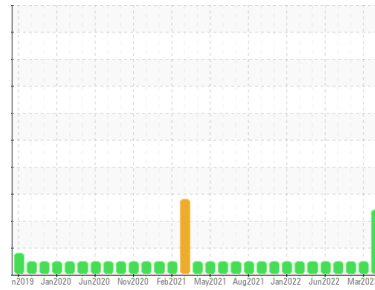
Sample Rating Trend

COOL CHEMICALS

Machine Id  
**3848C**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (9 GAL)**



## DIAGNOSIS

### Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Sodium and/or potassium levels are high.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0087543</b>	GFL0071792	GFL0052780
Sample Date	Client Info		<b>10 Aug 2023</b>	24 Mar 2023	09 Jan 2023
Machine Age	hrs	Client Info	<b>11125</b>	10178	9526
Oil Age	hrs	Client Info	<b>947</b>	1107	455
Oil Changed	Client Info		<b>Not Changed</b>	Changed	Not Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>9</b>	10	6
Chromium	ppm	ASTM D5185m >4	<b>3</b>	2	<1
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>3</b>	3	0
Lead	ppm	ASTM D5185m >30	<b>5</b>	7	3
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	3	<1
Tin	ppm	ASTM D5185m >4	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>15</b>	15	13
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>63</b>	64	55
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m 560	<b>612</b>	710	552
Calcium	ppm	ASTM D5185m 1510	<b>1719</b>	1959	1650
Phosphorus	ppm	ASTM D5185m 780	<b>792</b>	886	762
Zinc	ppm	ASTM D5185m 870	<b>1059</b>	1237	998
Sulfur	ppm	ASTM D5185m 2040	<b>3045</b>	3029	2143

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>9</b>	7	4
Sodium	ppm	ASTM D5185m	<b>▲ 101</b>	8	5
Potassium	ppm	ASTM D5185m >20	<b>▲ 28</b>	0	1

## INFRA-RED

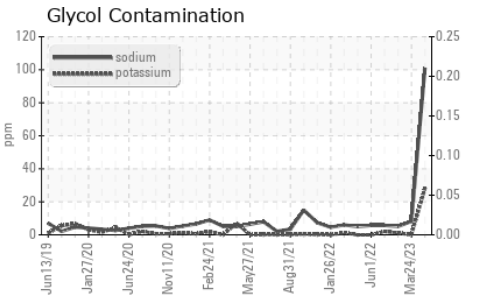
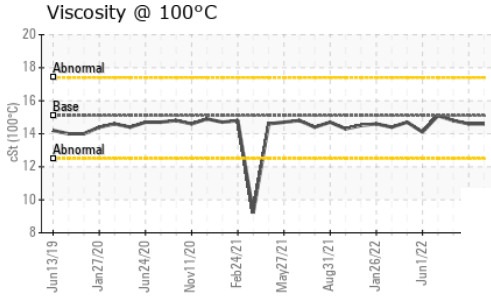
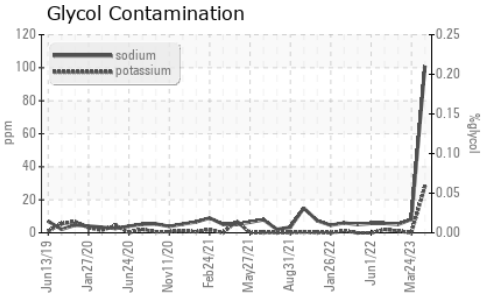
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.2</b>	12.2	10.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.8</b>	25.8	21.4

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>20.3</b>	21.9	18.1
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>4.4</b>	4.9	5.6



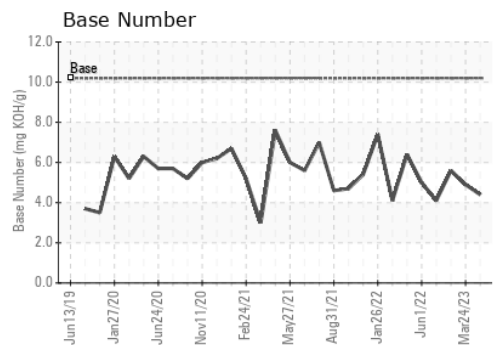
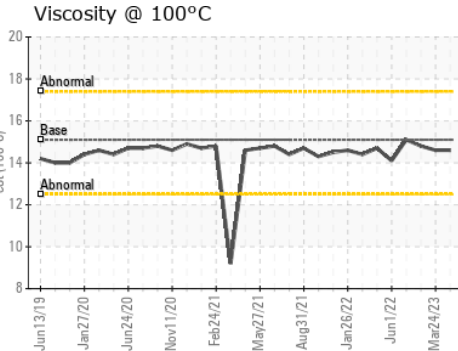
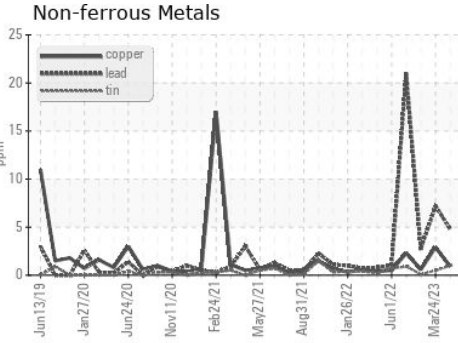
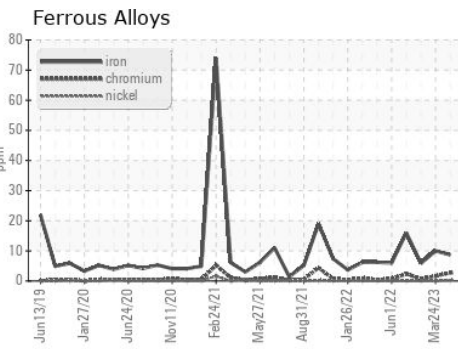
# OIL ANALYSIS REPORT



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	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.6	14.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0087543 **Received** : 11 Aug 2023  
**Lab Number** : 05921999 **Diagnosed** : 14 Aug 2023  
**Unique Number** : 10601946 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol )

**GFL Environmental - 331 - Columbus**  
 180 Ada Moore Rd  
 Columbus, NC  
 US 28722  
 Contact: Matt Segars  
 matt.segars@gflenv.com  
 T: (800)207-6618  
 F: (252)617-2494

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)