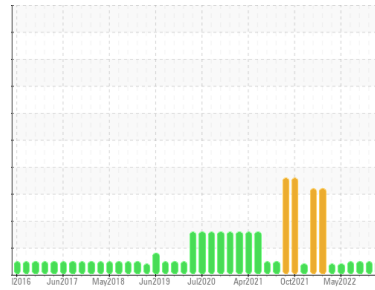




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**10497C ISL**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (48 QTS)**

## 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>GFL0089278</b>	GFL0056770	GFL0056532
Sample Date	Client Info	<b>29 Aug 2023</b>	11 May 2023	20 Sep 2022
Machine Age	hrs	<b>4946</b>	4127	3115
Oil Age	hrs	<b>0</b>	1630	618
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>11</b>	15	12
Chromium	ppm	ASTM D5185m >4	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>3</b>	2	2
Lead	ppm	ASTM D5185m >30	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >35	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	<b>9</b>	13	8
Barium	ppm	ASTM D5185m 5	<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m 50	<b>53</b>	53	48
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 560	<b>575</b>	511	504
Calcium	ppm	ASTM D5185m 1510	<b>1666</b>	1578	1536
Phosphorus	ppm	ASTM D5185m 780	<b>696</b>	688	609
Zinc	ppm	ASTM D5185m 870	<b>997</b>	946	863
Sulfur	ppm	ASTM D5185m 2040	<b>2912</b>	2328	2577

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>5</b>	5	4
Sodium	ppm	ASTM D5185m	<b>7</b>	6	11
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	3

## INFRA-RED

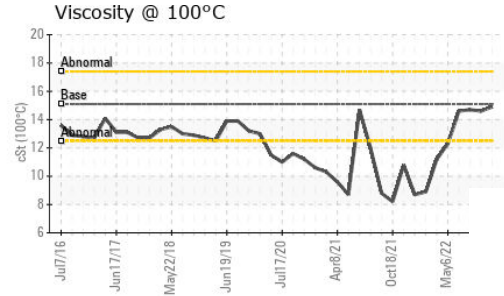
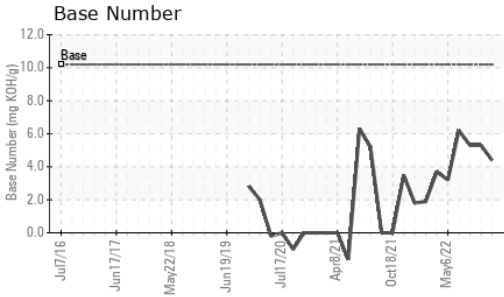
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0</b>	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.2</b>	10.4	11.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.8</b>	20.0	22.9

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.6</b>	17.2	19.6
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>4.4</b>	5.3	5.3



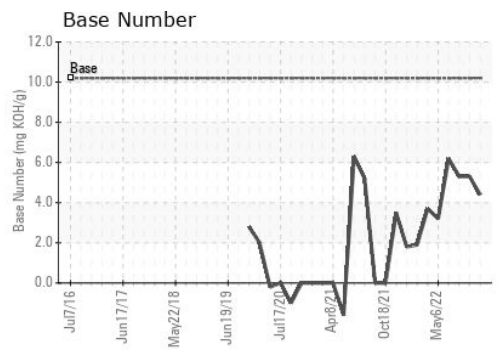
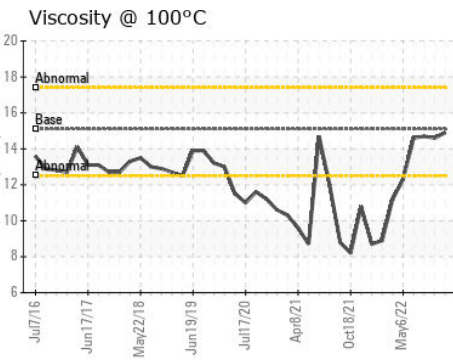
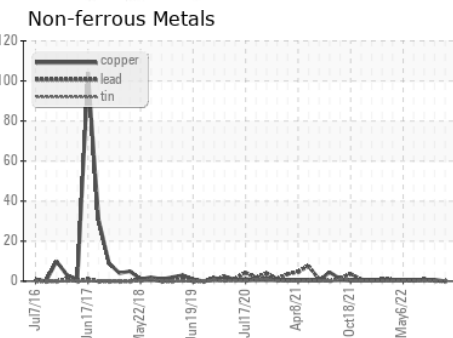
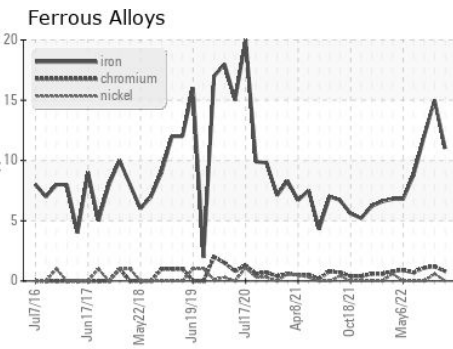
# OIL ANALYSIS REPORT



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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.9	14.6

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0089278 **Received** : 30 Aug 2023  
**Lab Number** : 05938063 **Diagnosed** : 30 Aug 2023  
**Unique Number** : 10628675 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 001 - Raleigh(CNG)**  
 3741 Conquest Drive  
 Garner, NC  
 US 27529  
 Contact: Craig Johnson  
 craig.johnson@gflenv.com  
 T: (919)662-7100  
 F: (919)662-7130

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)