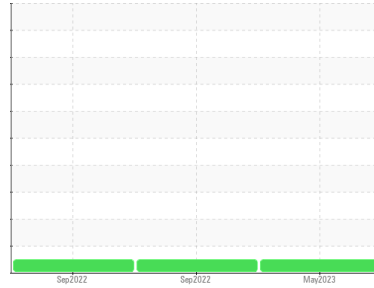


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**G100**

Component  
**Biogas Engine**

Fluid  
**PETRO CANADA SENTRON LD 5000 (--- 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		<b>PCA0069049</b>	PCA0069038	PCA0069029
Sample Date	Client Info		<b>31 May 2023</b>	21 Sep 2022	08 Sep 2022
Machine Age	hrs	Client Info	<b>8728</b>	4211	4290
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >45	<b>8</b>	4	<1
Chromium	ppm	ASTM D5185m >2	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>2</b>	2	2
Lead	ppm	ASTM D5185m >5	<b>2</b>	<1	<1
Copper	ppm	ASTM D5185m >14	<b>1</b>	<1	0
Tin	ppm	ASTM D5185m >13	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 2	<b>0</b>	<1	0
Barium	ppm	ASTM D5185m 3	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>1</b>	1	2
Manganese	ppm	ASTM D5185m 0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m 4	<b>11</b>	13	10
Calcium	ppm	ASTM D5185m 1727	<b>2153</b>	2062	1614
Phosphorus	ppm	ASTM D5185m 272	<b>329</b>	363	297
Zinc	ppm	ASTM D5185m 333	<b>418</b>	402	336
Sulfur	ppm	ASTM D5185m 3415	<b>4206</b>	4164	2851

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >200	<b>2</b>	4	10
Sodium	ppm	ASTM D5185m	<b>3</b>	2	0
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0

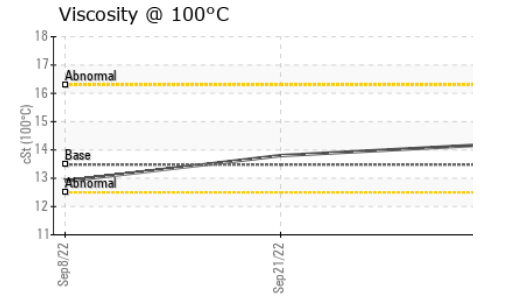
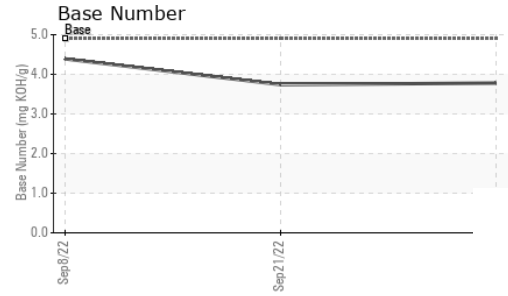
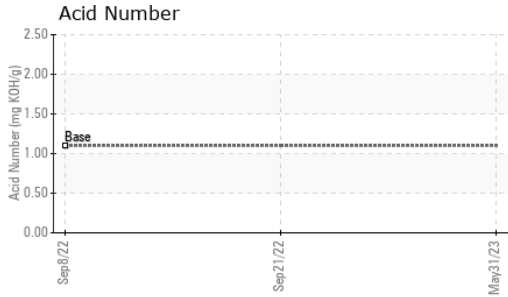
## INFRA-RED

	method	limit/base	current	history 1	history 2
Soot %	%	*ASTM D7844	<b>0.1</b>	0.1	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.1</b>	6.6	4.0
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>21.7</b>	19.9	16.7

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>17.6</b>	13.2	8.7
Acid Number (AN)	mg KOH/g	ASTM D8045 1.1	<b>2.16</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896 4.9	<b>3.78</b>	3.74	4.39

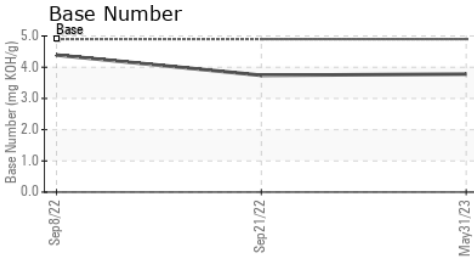
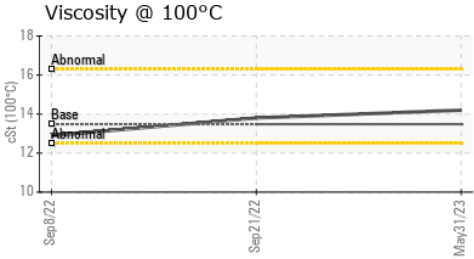
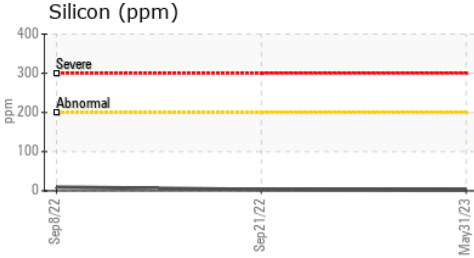
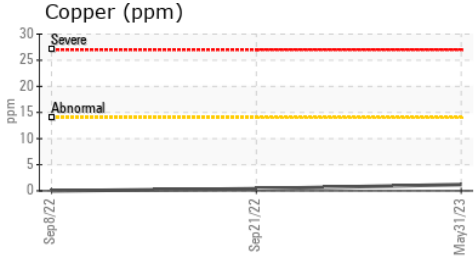
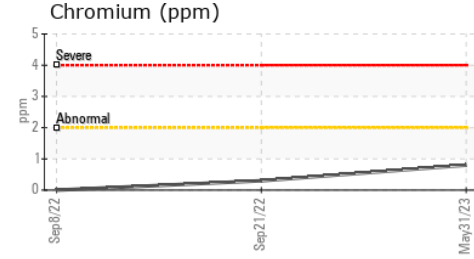
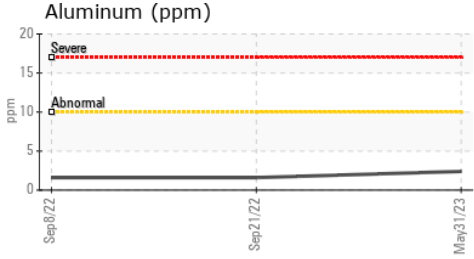
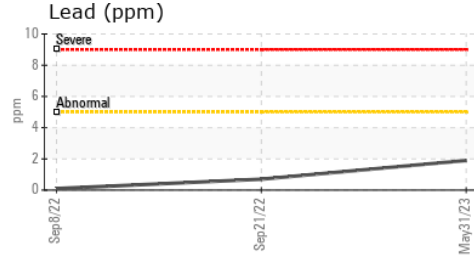
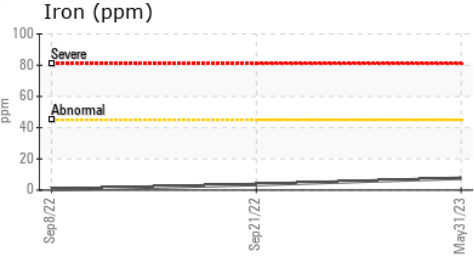
# OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history 1	history 2
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	history 1	history 2
Visc @ 100°C	cSt	ASTM D445	13.48	14.2	13.8

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0069049 **Received** : 29 Jun 2023  
**Lab Number** : 05887514 **Diagnosed** : 04 Jul 2023  
**Unique Number** : 10537997 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2

**MARBORG RECOVERY/DIANI**  
 14470 CALLE REAL  
 GOLETA, CA  
 US 93117  
 Contact: Service Manager

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)

T:  
F: