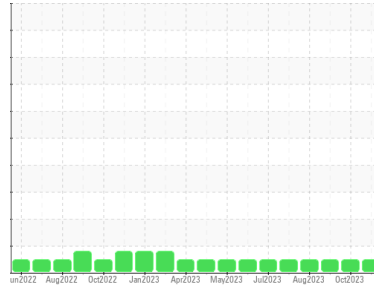


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**M2 (S/N 1457407)**

Component  
**Biogas Engine**

Fluid  
**PETRO CANADA SENTRON LD 8000 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

Fuel content negligible. 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	history1	history2
Sample Number	Client Info	<b>PCA0106187</b>	PCA0106184	PCA0106178
Sample Date	Client Info	<b>02 Dec 2023</b>	30 Oct 2023	05 Oct 2023
Machine Age	hrs Client Info	<b>9151</b>	8652	8150
Oil Age	hrs Client Info	<b>5020</b>	4520	4018
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >45	<b>6</b>	4	5
Chromium	ppm ASTM D5185m >2	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185m >2	<b>0</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>1</b>	1	2
Lead	ppm ASTM D5185m >5	<b>0</b>	0	<1
Copper	ppm ASTM D5185m >14	<b>&lt;1</b>	0	<1
Tin	ppm ASTM D5185m >13	<b>4</b>	3	3
Vanadium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>0</b>	0	0
Barium	ppm ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Manganese	ppm ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm ASTM D5185m	<b>11</b>	11	10
Calcium	ppm ASTM D5185m 1351	<b>1846</b>	1778	1760
Phosphorus	ppm ASTM D5185m 302	<b>336</b>	341	329
Zinc	ppm ASTM D5185m 358	<b>439</b>	442	413
Sulfur	ppm ASTM D5185m 2758	<b>3164</b>	3341	3127

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >200	<b>2</b>	1	4
Sodium	ppm ASTM D5185m	<b>2</b>	3	2
Potassium	ppm ASTM D5185m >20	<b>0</b>	<1	0
Fuel	% ASTM D3524 >4.0	<b>0.0</b>	0.3	0.3

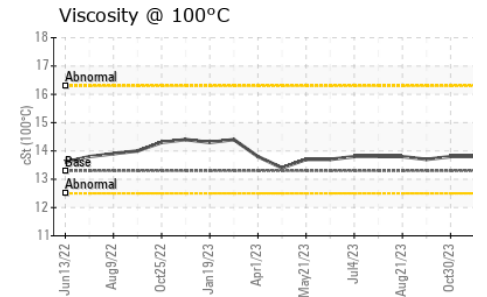
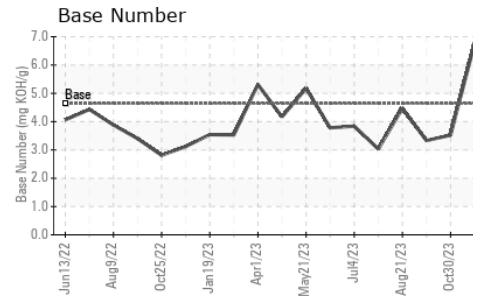
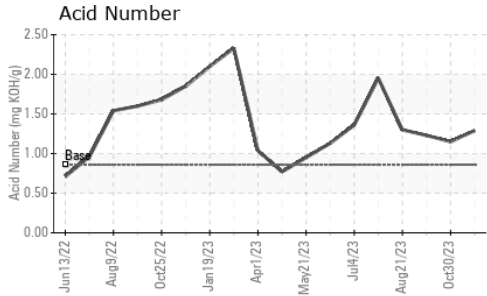
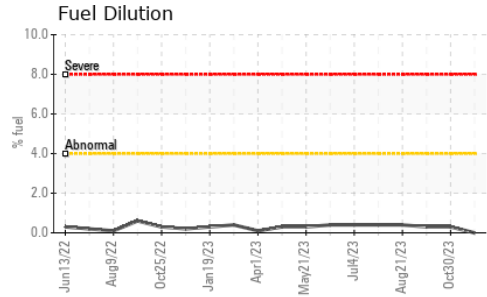
## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm *ASTM D7624 >20	<b>6.1</b>	6.2	6.3
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>22.0</b>	22.0	21.5

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.3</b>	15.2	14.9
Acid Number (AN)	mg KOH/g ASTM D8045 0.86	<b>1.29</b>	1.15	1.23
Base Number (BN)	mg KOH/g ASTM D2896 4.64	<b>6.76</b>	3.52	3.33

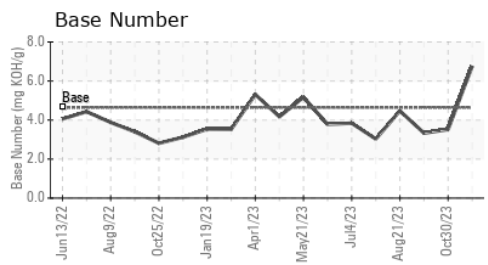
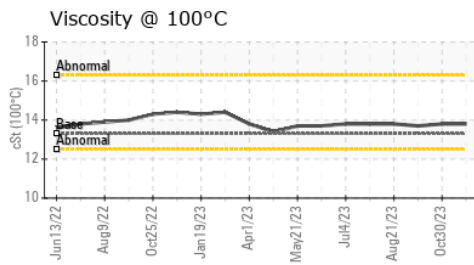
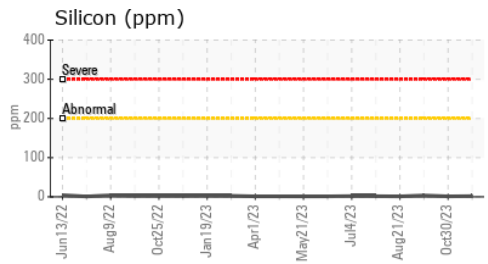
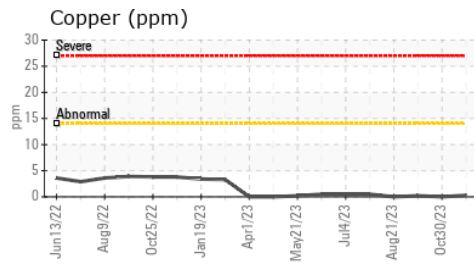
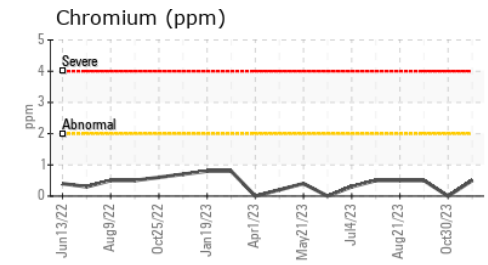
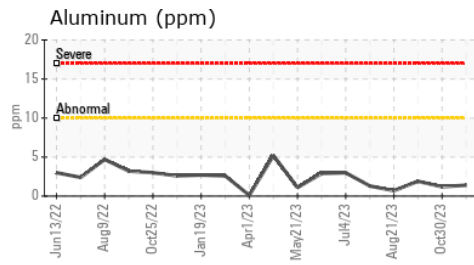
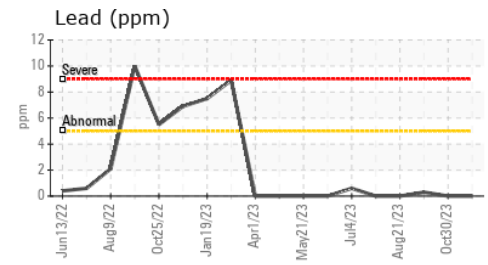
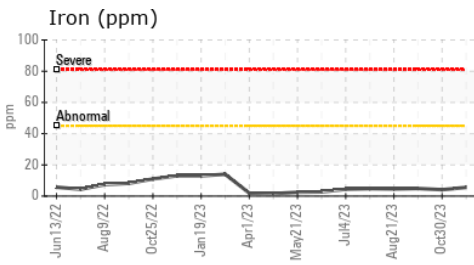
# OIL ANALYSIS REPORT



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	13.3	<b>13.8</b>	13.8	13.7

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0106187 **Received** : 07 Dec 2023  
**Lab Number** : **06028785** **Tested** : 14 Dec 2023  
**Unique Number** : 10778576 **Diagnosed** : 15 Dec 2023 - Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel )

**AMERICAN PETROLEUM**  
 CARR 865 KM 0.2 CAMPANILA  
 TOA BAJA, PR  
 US 00949  
 Contact: NEFTALI ORTIZ  
 nortiz@americanpetroleumpr.com  
 T: (787)794-1985  
 F:

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)