

# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**CATERPILLAR 30-097 (S/N PAB07342)**  
Component  
**Reference New (Unused) Oil**  
Fluid  
**PETRO CANADA ENVIRON MV 46 (20 LTR)**



## DIAGNOSIS

### Recommendation

This is the baseline readout on this new (unused) oil. The fluid is suitable for service.

### Wear

{not applicable}

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. There is no indication of any contamination in the new (unused) oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PC0069827</b>	---	---
Sample Date	Client Info		<b>02 Oct 2023</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>NORMAL</b>	---	---

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >5	<b>0</b>	---	---
Chromium	ppm	ASTM D5185(m) >5	<b>0</b>	---	---
Nickel	ppm	ASTM D5185(m) >5	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Silver	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	---	---
Aluminum	ppm	ASTM D5185(m) >5	<b>0</b>	---	---
Lead	ppm	ASTM D5185(m) >5	<b>0</b>	---	---
Copper	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	---	---
Tin	ppm	ASTM D5185(m) >5	<b>0</b>	---	---
Antimony	ppm	ASTM D5185(m)	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	---	---
Barium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Calcium	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Phosphorus	ppm	ASTM D5185(m) 650	<b>622</b>	---	---
Zinc	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	---	---
Sulfur	ppm	ASTM D5185(m) 1420	<b>1347</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

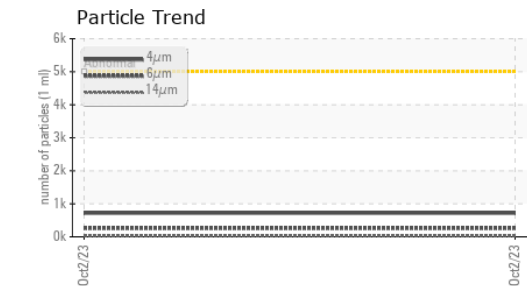
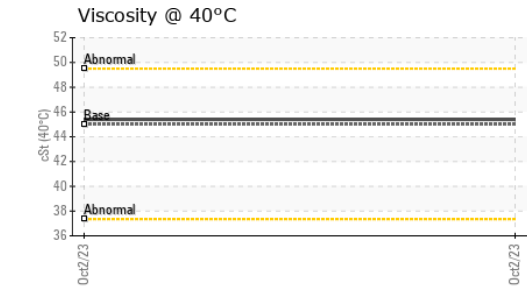
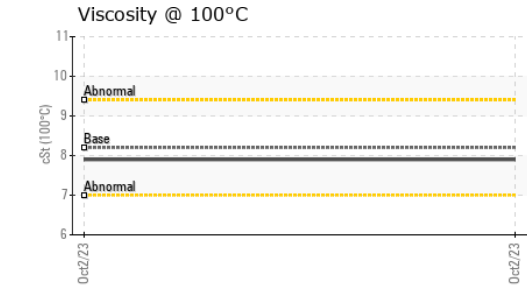
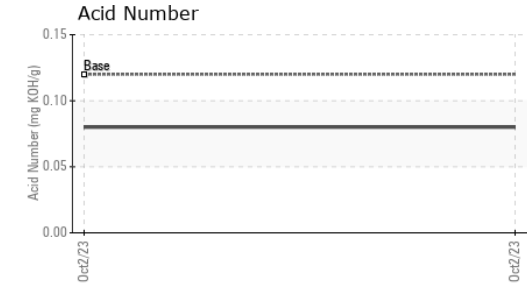
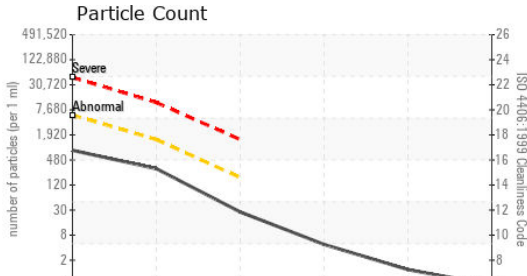
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>0</b>	---	---
Sodium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	---	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	<b>0</b>	---	---
Nitration	Abs/cm	ASTM D7624*	<b>1.9</b>	---	---
Sulfation	Abs/.1mm	ASTM D7415*	<b>18.7</b>	---	---

# OIL ANALYSIS REPORT



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>719</b>	---	---
Particles >6µm	ASTM D7647	>1300	<b>261</b>	---	---
Particles >14µm	ASTM D7647	>160	<b>24</b>	---	---
Particles >21µm	ASTM D7647	>40	<b>4</b>	---	---
Particles >38µm	ASTM D7647	>10	<b>1</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>17/15/12</b>	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	<b>10.9</b>	---	---
Acid Number (AN)	mg KOH/g	ASTM D974*	<b>0.08</b>	---	---

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	<b>NONE</b>	---	---
Precipitate	scalar	Visual*	<b>NONE</b>	---	---
Silt	scalar	Visual*	<b>NONE</b>	---	---
Debris	scalar	Visual*	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	<b>NONE</b>	---	---
Appearance	scalar	Visual*	<b>NORML</b>	---	---
Odor	scalar	Visual*	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	<b>NEG</b>	---	---
Free Water	scalar	Visual*	<b>NEG</b>	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	<b>45.0</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	<b>8.2</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	<b>158</b>	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0069827  
**Lab Number** : **02600480**  
**Unique Number** : 5685560  
**Test Package** : IND 2 ( Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, VI )

**LES ENTREPRISES PEC**  
 152 CHEMIN DE SAINT-EDGAR  
 NEW RICHMOND, QC  
 CA G0C 2B0  
 Contact: Service Manager  
 info@lepec.ca  
 T: (418)534-3777  
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.