

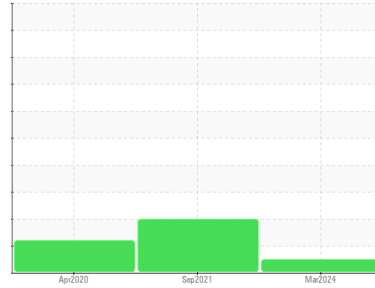
# OIL ANALYSIS REPORT

## Sample Rating Trend

**NORMAL**



Machine Id  
**CATERPILLAR 980M L56**  
 Component  
**Rear Left Final Drive**  
 Fluid  
**PETRO CANADA PRODURO TO-4 SAE 50 (--- 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 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>PCA0118511</b>	PCA0016893	PCA0016949
Sample Date	Client Info		<b>11 Mar 2024</b>	27 Sep 2021	28 Apr 2020
Machine Age	hrs	Client Info	<b>16346</b>	9611	5001
Oil Age	hrs	Client Info	<b>2183</b>	0	1000
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status			<b>NORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >800	<b>206</b>	92	25
Chromium	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m >15	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m >75	<b>14</b>	24	2
Lead	ppm	ASTM D5185m >10	<b>2</b>	3	0
Copper	ppm	ASTM D5185m >75	<b>73</b>	▲ 214	18
Tin	ppm	ASTM D5185m >8	<b>&lt;1</b>	<1	0
Antimony	ppm	ASTM D5185m >50	<b>---</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 2	<b>5</b>	<1	<1
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	<1	0
Manganese	ppm	ASTM D5185m 0	<b>4</b>	2	<1
Magnesium	ppm	ASTM D5185m 9	<b>21</b>	14	8
Calcium	ppm	ASTM D5185m 3114	<b>2826</b>	3234	2690
Phosphorus	ppm	ASTM D5185m 1099	<b>1029</b>	1040	878
Zinc	ppm	ASTM D5185m 1245	<b>1168</b>	1274	1057
Sulfur	ppm	ASTM D5185m 7086	<b>6116</b>	6348	8585

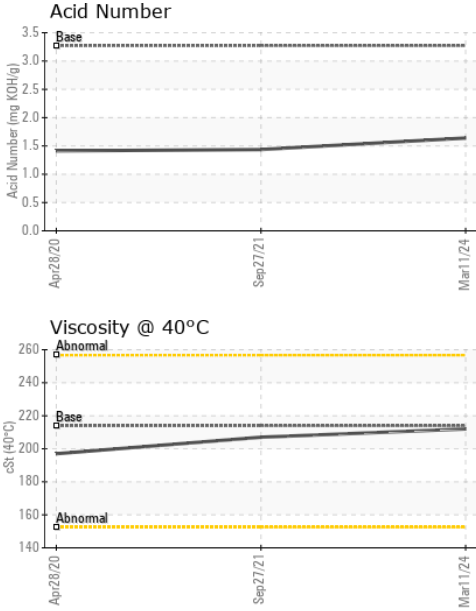
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >400	<b>17</b>	17	15
Sodium	ppm	ASTM D5185m	<b>1</b>	1	1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	0

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 3.27	<b>1.64</b>	1.436	1.413

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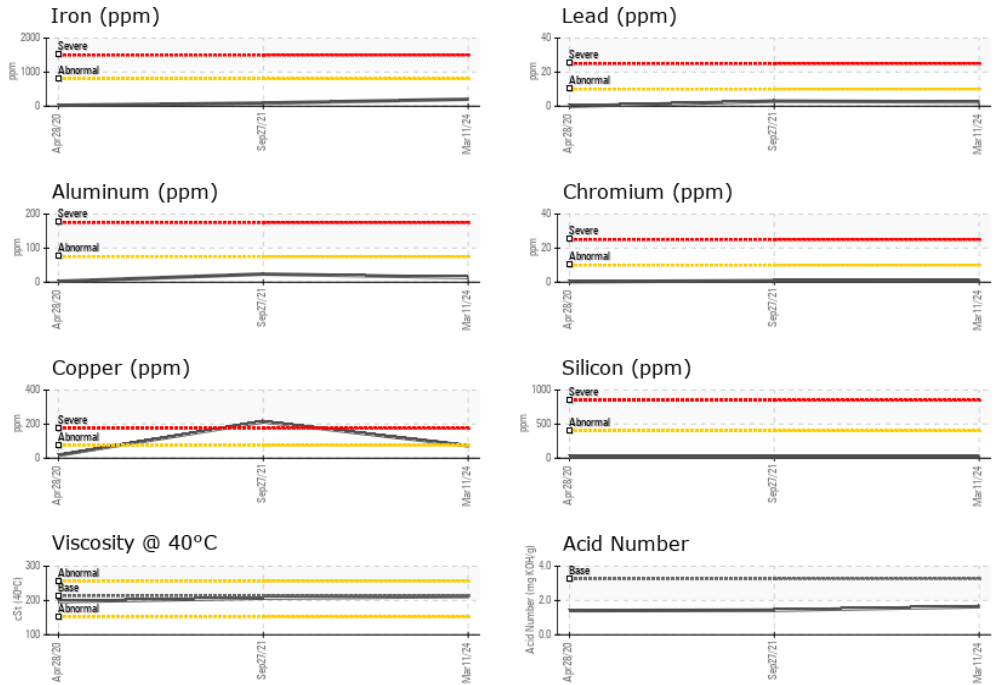


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>MODER</b>	NONE ▲ HEAVY
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	▲ HEAVY NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	213.9	<b>212</b>	207 197

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

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0118511  
**Lab Number** : **06121000**  
**Unique Number** : 10929833  
**Test Package** : MOB 2

**SCRAP METAL SERVICES (SMS Mill Services LLC)**  
 1500 COMMERCIAL AVE  
 MINGO JUNCTION, OH  
 US 43938  
 Contact: STAN MANN  
 smann@scrapmetalservices.com

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)

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F: