



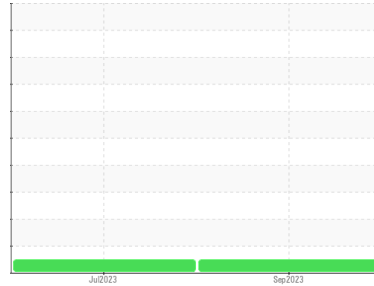
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**CATERPILLAR R1600 SCP219**  
 Component  
**Transmission (Manual)**  
 Fluid  
**PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)**



## DIAGNOSIS

### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. 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 fluid.

### Fluid Condition

Additive levels indicate the addition of a different brand, or type of fluid. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the fluid is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0840209</b>	WC0749525	---
Sample Date	Client Info		<b>30 Sep 2023</b>	08 Jul 2023	---
Machine Age	hrs	Client Info	<b>1585</b>	765	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	Not Changd	---
Sample Status			<b>NORMAL</b>	NORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>200	<b>31</b>	22	---
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	---
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Silver	ppm	ASTM D5185(m)	>7	<b>&lt;1</b>	<1	---
Aluminum	ppm	ASTM D5185(m)	>25	<b>3</b>	1	---
Lead	ppm	ASTM D5185(m)	>45	<b>3</b>	2	---
Copper	ppm	ASTM D5185(m)	>225	<b>34</b>	25	---
Tin	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1	---
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	---
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	---
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	2	<b>4</b>	3	---
Barium	ppm	ASTM D5185(m)	0	<b>2</b>	2	---
Molybdenum	ppm	ASTM D5185(m)	0	<b>5</b>	<1	---
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	1	---
Magnesium	ppm	ASTM D5185(m)	9	<b>81</b>	13	---
Calcium	ppm	ASTM D5185(m)	3114	<b>3237</b>	3421	---
Phosphorus	ppm	ASTM D5185(m)	1099	<b>926</b>	1035	---
Zinc	ppm	ASTM D5185(m)	1245	<b>1121</b>	1167	---
Sulfur	ppm	ASTM D5185(m)	7086	<b>4557</b>	4926	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	---

## CONTAMINANTS

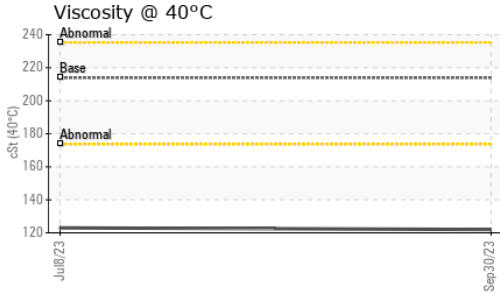
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>125	<b>15</b>	9	---
Sodium	ppm	ASTM D5185(m)		<b>4</b>	4	---
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	---

## VISUAL

	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>LIGHT</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	---
Free Water	scalar	Visual*		<b>NEG</b>	NEG	---



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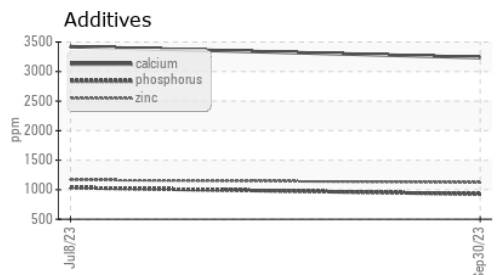
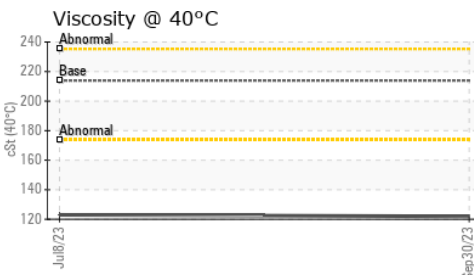
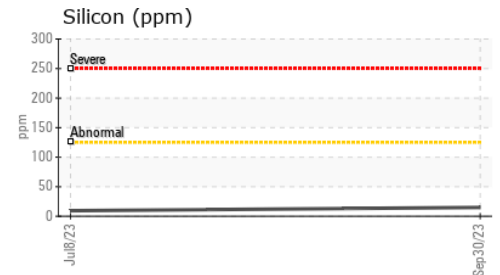
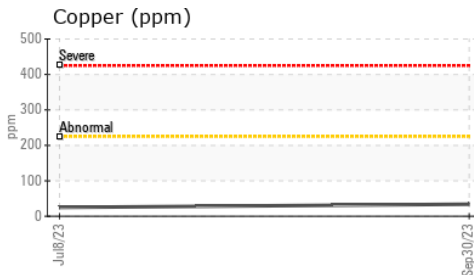
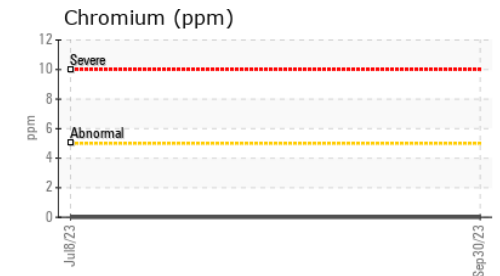
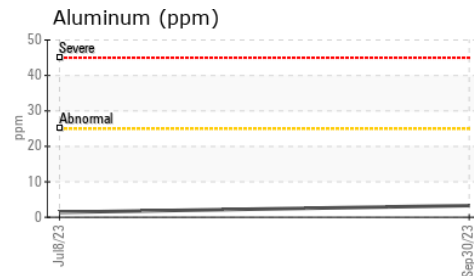
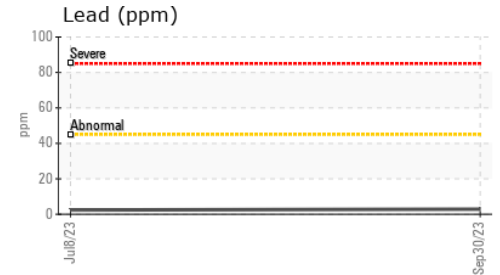
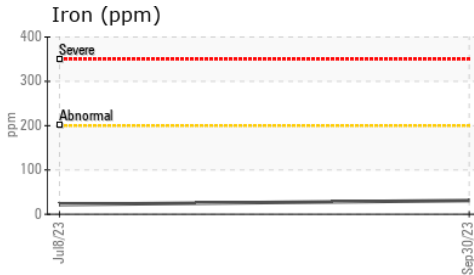


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	213.9	<b>122</b>	123	---

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

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0840209  
**Lab Number** : 02588673  
**Unique Number** : 5657739  
**Test Package** : MOB 1

**Agnico Eagle Canada**  
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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.