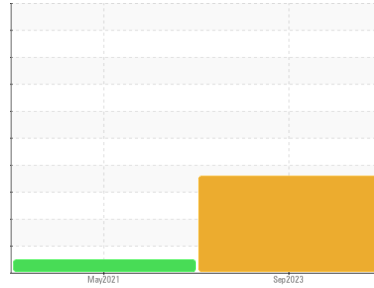


# OIL ANALYSIS REPORT

Sample Rating Trend



Area  
**Haul Truck**  
Machine Id  
**HT5028**  
Component  
**Front Right Wheel Hub**  
Fluid  
**PETRO CANADA TRAXON 85W140 (13 LTR)**

## DIAGNOSIS

### Recommendation

We recommend that you drain the oil from the component if this has not already been done. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

### Wear

PQ levels are abnormal. Chromium and iron ppm levels are abnormal. Gear wear is indicated. The high ferrous density (PQ) index indicates that abnormal wear is occurring.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within SAE 80W90 range, advise investigate. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>PC0075062</b>	PC0047107	---
Sample Date	Client Info		<b>19 Sep 2023</b>	31 May 2021	---
Machine Age	hrs	Client Info	<b>6528</b>	0	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ABNORMAL</b>	NORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		<b>▲ 223</b>	---	---
Iron	ppm	ASTM D5185(m) >500	<b>▲ 761</b>	211	---
Chromium	ppm	ASTM D5185(m) >8	<b>▲ 8</b>	2	---
Nickel	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	<1	---
Titanium	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185(m)	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185(m) >5	<b>&lt;1</b>	2	---
Lead	ppm	ASTM D5185(m) >5	<b>0</b>	<1	---
Copper	ppm	ASTM D5185(m) >50	<b>4</b>	21	---
Tin	ppm	ASTM D5185(m)	<b>0</b>	0	---
Antimony	ppm	ASTM D5185(m) >5	<b>0</b>	<1	---
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) 243	<b>8</b>	46	---
Barium	ppm	ASTM D5185(m) 0	<b>2</b>	0	---
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	<1	---
Manganese	ppm	ASTM D5185(m)	<b>7</b>	3	---
Magnesium	ppm	ASTM D5185(m) 0	<b>1</b>	2	---
Calcium	ppm	ASTM D5185(m) 0	<b>18</b>	19	---
Phosphorus	ppm	ASTM D5185(m) 988	<b>627</b>	643	---
Zinc	ppm	ASTM D5185(m) 0	<b>16</b>	21	---
Sulfur	ppm	ASTM D5185(m) 24530	<b>21398</b>	20838	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	---

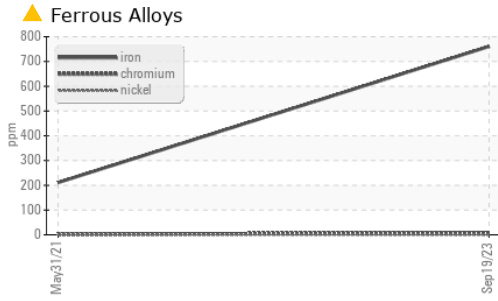
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>8</b>	5	---
Sodium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	---
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	<1	---

## VISUAL

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

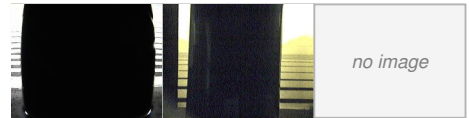
# OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	355.4	<b>140</b>	140	---
Visc @ 100°C	cSt	ASTM D7279(m)	26.1	<b>14.7</b>	14.4	---
Viscosity Index (VI)	Scale	ASTM D2270*	97	<b>104</b>	100	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
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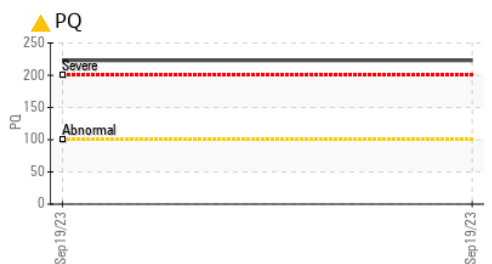
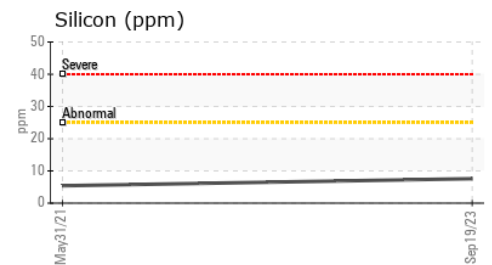
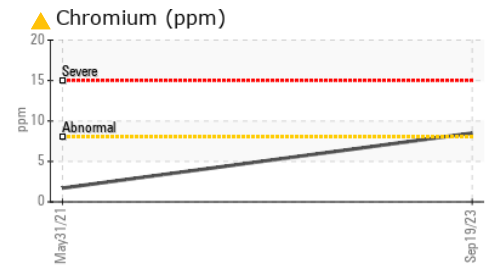
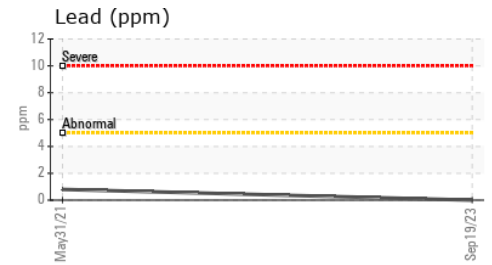
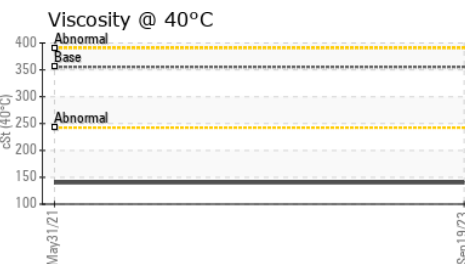
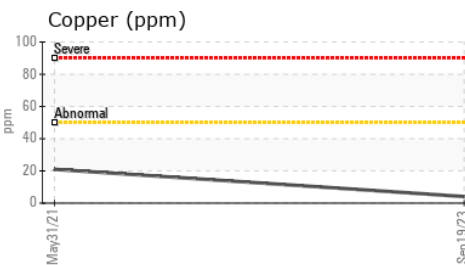
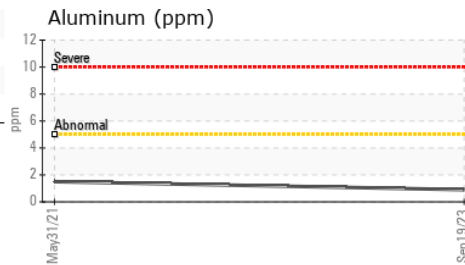
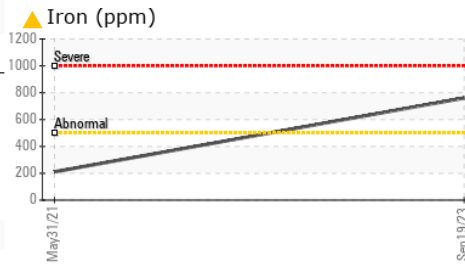
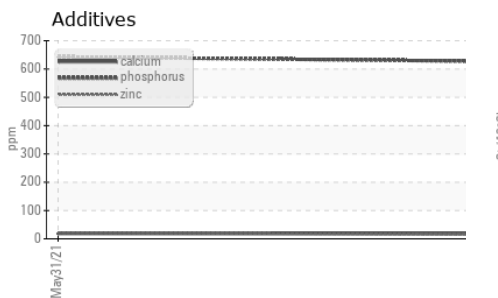
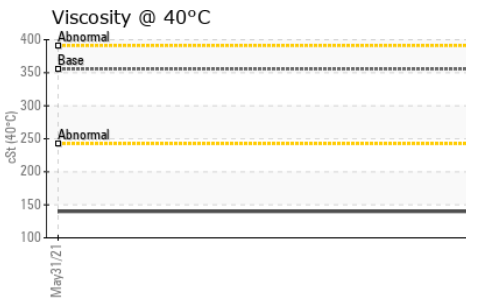
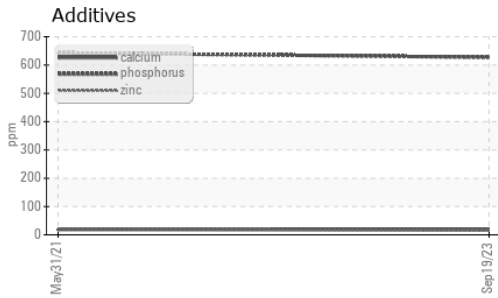
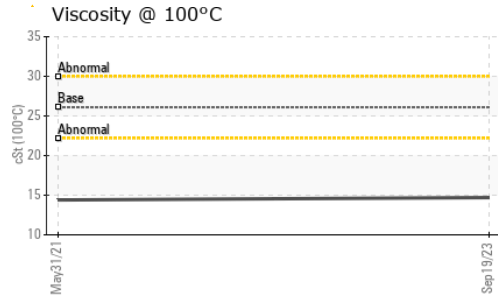
Color



Bottom



## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0075062 **Received** : 22 Sep 2023  
**Lab Number** : **02584732** **Diagnosed** : 25 Sep 2023  
**Unique Number** : 5645797 **Diagnostician** : Bill Quesnel  
**Test Package** : MOB 1 ( Additional Tests: KV100, PQ, VI )

**Lakeshore Gold Timmins West**

Timmins, ON  
CA

Contact: Adam Koscielak  
adam.koscielak@HFSinclair.com

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.

T:  
F: