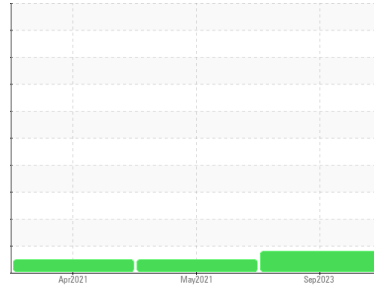




# OIL ANALYSIS REPORT

Area  
**Haul Truck**  
Machine Id  
**HT5028**  
Component  
**Transmission (Manual)**  
Fluid  
**PETRO CANADA DURATRAN (70 LTR)**

Sample Rating Trend



**WEAR**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Copper ppm levels are noted. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

### Contamination

There is no indication of any contamination in the fluid.

### Fluid Condition

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>PC0051333</b>	PC0047098	PC0046601	
Sample Date	Client Info	<b>19 Sep 2023</b>	31 May 2021	27 Apr 2021	
Machine Age	hrs	Client Info	<b>6528</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A	
Sample Status		<b>ATTENTION</b>	NORMAL	NORMAL	

## WEAR METALS

method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185(m)	>200	<b>2</b>	3	24
Chromium	ppm	ASTM D5185(m)	>5	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>7	<b>4</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	1	10
Lead	ppm	ASTM D5185(m)	>45	<b>5</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>225	<b>▲ 180</b>	4	4
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2		
Boron	ppm	ASTM D5185(m)	110	<b>73</b>	87	77
Barium	ppm	ASTM D5185(m)	0.0	<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0.0	<b>&lt;1</b>	2	1
Manganese	ppm	ASTM D5185(m)	1	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	13	<b>12</b>	47	29
Calcium	ppm	ASTM D5185(m)	3610	<b>3077</b>	3151	3088
Phosphorus	ppm	ASTM D5185(m)	1192	<b>1103</b>	1037	980
Zinc	ppm	ASTM D5185(m)	1455	<b>1277</b>	1318	1251
Sulfur	ppm	ASTM D5185(m)	2641	<b>2641</b>	2610	3354
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

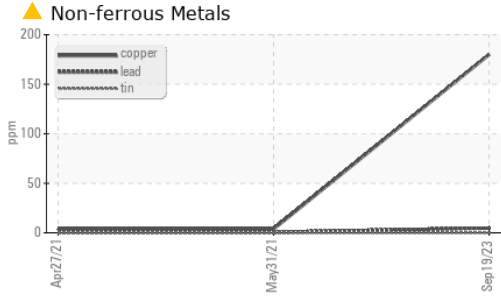
## CONTAMINANTS

method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>125	<b>6</b>	8	34
Sodium	ppm	ASTM D5185(m)		<b>1</b>	10	10
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	2	5

## VISUAL

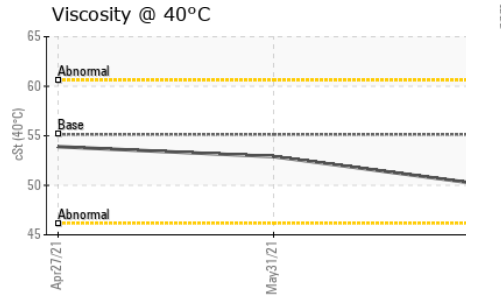
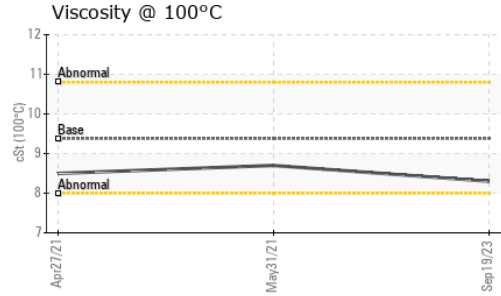
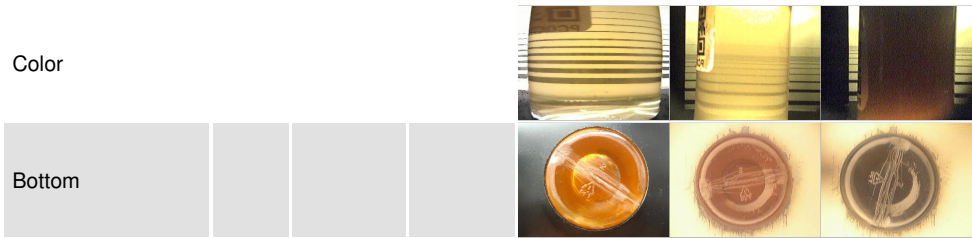
method	limit/base	current	history1	history2		
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	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*	>0.1	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

# OIL ANALYSIS REPORT

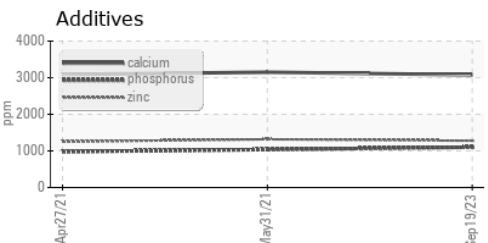
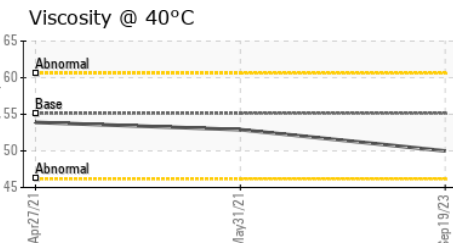
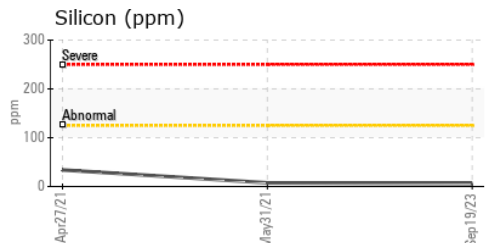
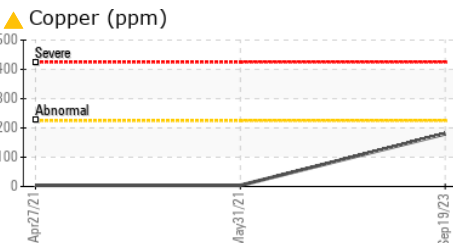
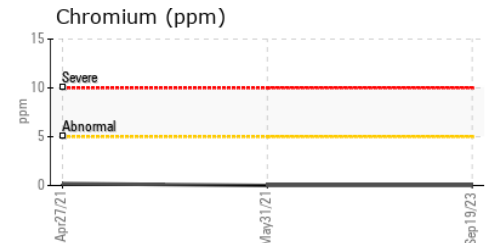
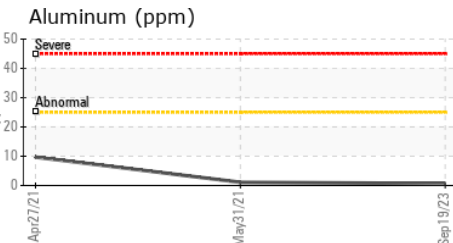
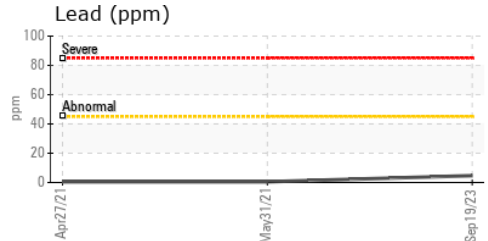
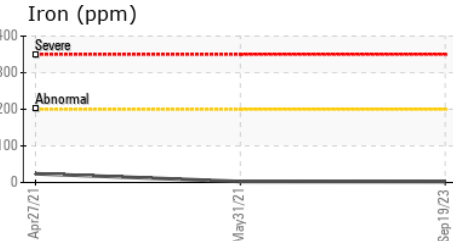


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	55.14	<b>50.0</b>	52.9	53.9
Visc @ 100°C	cSt	ASTM D7279(m)	9.38	<b>8.3</b>	8.7	8.5
Viscosity Index (VI)	Scale	ASTM D2270*	153	<b>140</b>	141	132

SAMPLE IMAGES		method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0051333 **Received** : 22 Sep 2023  
**Lab Number** : 02584701 **Diagnosed** : 25 Sep 2023  
**Unique Number** : 5645766 **Diagnostician** : Bill Quesnel  
**Test Package** : MOB 1 ( Additional Tests: KV100, VI )

**Lakeshore Gold Timmins West**  
 Timmins, ON  
 CA  
 Contact: Adam Koscielak  
 adam.koscielak@HFSinclair.com  
 T:  
 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.