



# OIL ANALYSIS REPORT

Sample Rating Trend

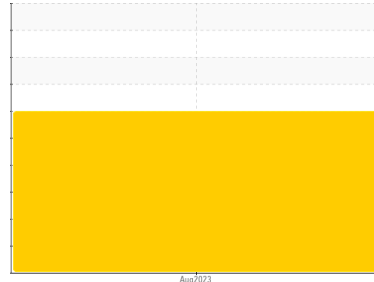
WEAR



Machine Id  
**EPIROC ST18 SCP203**

Component  
**Diesel Engine**

Fluid  
**MOBIL 1 TURBO DIESEL TRUCK 15W40 (--- GAL)**



## DIAGNOSIS

### Recommendation

We advise that you monitor for an abnormal oil pressure drop and noise. The oil change at the time of sampling has been noted. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition.

### Wear

Lead ppm levels are severe. Bearing wear is indicated.

### 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. 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>WC0848076</b>	---	---
Sample Date	Client Info		<b>11 Aug 2023</b>	---	---
Machine Age	hrs	Client Info	<b>10010</b>	---	---
Oil Age	hrs	Client Info	<b>250</b>	---	---
Oil Changed	Client Info		<b>Changed</b>	---	---
Sample Status			<b>SEVERE</b>	---	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>61</b>	---
Chromium	ppm	ASTM D5185(m)	>20	<b>1</b>	---
Nickel	ppm	ASTM D5185(m)	>4	<b>2</b>	---
Titanium	ppm	ASTM D5185(m)		<b>0</b>	---
Silver	ppm	ASTM D5185(m)	>3	<b>&lt;1</b>	---
Aluminum	ppm	ASTM D5185(m)	>20	<b>11</b>	---
Lead	ppm	ASTM D5185(m)	>40	<b>88</b>	---
Copper	ppm	ASTM D5185(m)	>330	<b>49</b>	---
Tin	ppm	ASTM D5185(m)	>15	<b>5</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)		<b>53</b>	---
Barium	ppm	ASTM D5185(m)		<b>0</b>	---
Molybdenum	ppm	ASTM D5185(m)		<b>21</b>	---
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	---
Magnesium	ppm	ASTM D5185(m)		<b>157</b>	---
Calcium	ppm	ASTM D5185(m)		<b>2133</b>	---
Phosphorus	ppm	ASTM D5185(m)	1100	<b>1042</b>	---
Zinc	ppm	ASTM D5185(m)		<b>1201</b>	---
Sulfur	ppm	ASTM D5185(m)		<b>2827</b>	---
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	---
Sodium	ppm	ASTM D5185(m)		<b>17</b>	---
Potassium	ppm	ASTM D5185(m)	>20	<b>6</b>	---
Glycol	%	ASTM D7922*		<b>0.0</b>	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0.4</b>	---
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.7</b>	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>28.5</b>	---

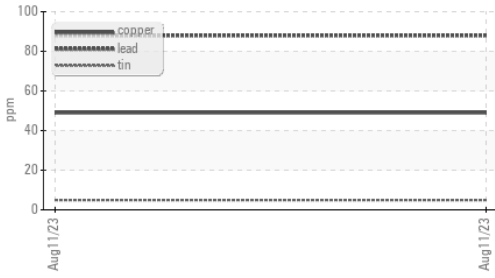
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>24.4</b>	---

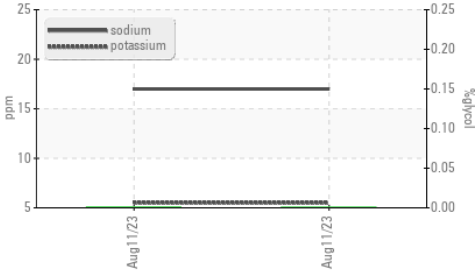


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### Non-ferrous Metals



### Glycol Contamination



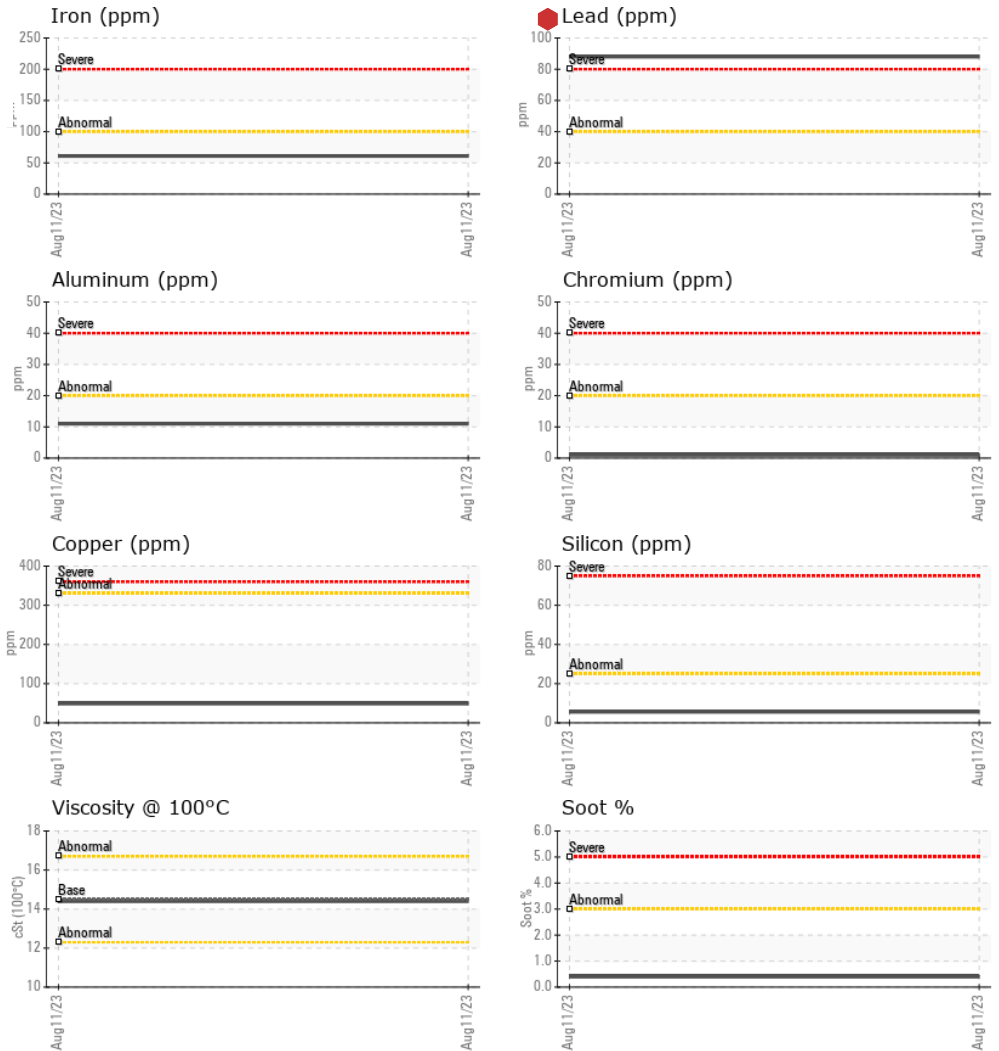
### Viscosity @ 100°C



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	14.5	14.4	---

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0848076 **Received** : 16 Aug 2023  
**Lab Number** : 02576015 **Diagnosed** : 17 Aug 2023  
**Unique Number** : 5629075 **Diagnostician** : Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Glycol, Visual )

**Agnico Eagle Canada**  
 1350 Government Rd. W, MACASSA COMPLEX  
 Kirkland Lake, ON  
 CA P2N 3J1  
 Contact: Mike Campbell  
 mike.campbell@agnicoeagle.com  
 T: (705)567-5208  
 F: (705)567-5221

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.