



# OIL ANALYSIS REPORT

Sample Rating Trend



Area  
**FIO Automotive - F03000**  
 Machine ID  
**A2404108**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 32 (--- GAL)**

## DIAGNOSIS

- Recommendation**  
 The sample submitted is 4 times dirtier than the ISO dirt count recommendation of 19/16/14.
- Contamination**  
 Particles >4µm and oil cleanliness are notably high.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Batch #	Client Info		<b>Mobile</b>	---	---
Machine ID	Client Info		<b>T3 Hyd</b>	---	---
Department	Client Info		<b>Production</b>	---	---
Sample From	Client Info		<b>Machine</b>	---	---
Production Stage	Client Info		<b>Initial</b>	---	---
Sent to WC	Client Info		<b>04/17/2024</b>	---	---
Sample Number	Client Info		<b>E30001899</b>	---	---
Sample Date	Client Info		<b>16 Apr 2024</b>	---	---
Machine Age	hrs	Client Info	<b>0</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >20	<b>2</b>	---	---
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	---	---
Nickel	ppm	ASTM D5185(m) >20	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Silver	ppm	ASTM D5185(m)	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m) >20	<b>0</b>	---	---
Lead	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	---	---
Copper	ppm	ASTM D5185(m) >20	<b>8</b>	---	---
Tin	ppm	ASTM D5185(m) >20	<b>0</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>	---	---

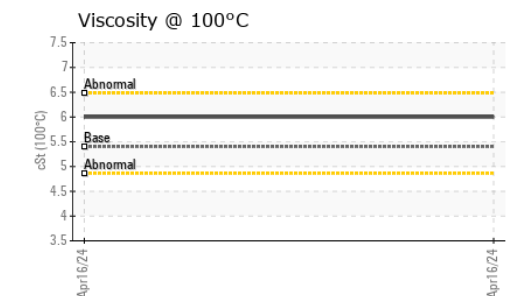
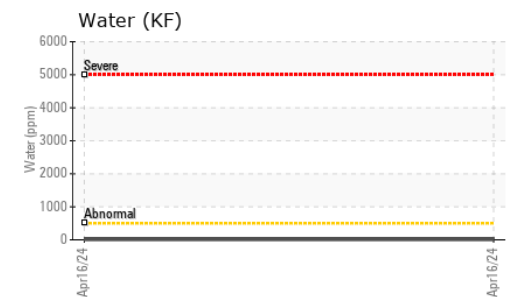
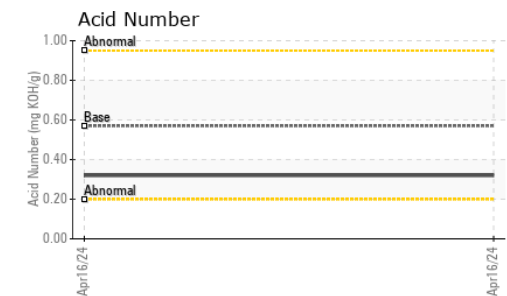
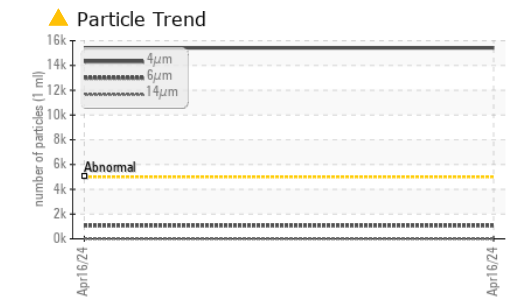
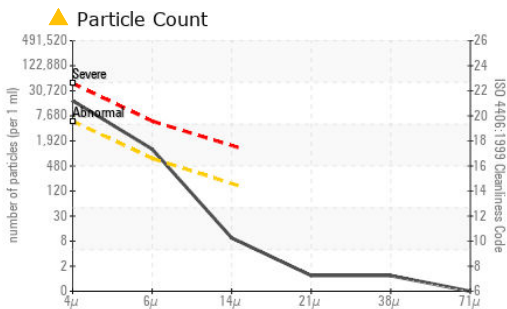
## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 5	<b>0</b>	---	---
Barium	ppm	ASTM D5185(m) 5	<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185(m) 5	<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m)	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m) 25	<b>&lt;1</b>	---	---
Calcium	ppm	ASTM D5185(m) 200	<b>38</b>	---	---
Phosphorus	ppm	ASTM D5185(m) 300	<b>326</b>	---	---
Zinc	ppm	ASTM D5185(m) 370	<b>400</b>	---	---
Sulfur	ppm	ASTM D5185(m) 2500	<b>839</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>0</b>	---	---
Sodium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	---	---
Water	%	ASTM D6304* >0.05	<b>0.001</b>	---	---
ppm Water	ppm	ASTM D6304* >500	<b>11</b>	---	---

# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : E30001899  
**Lab Number** : **02630224**  
**Unique Number** : 5763356  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, VI )

**Received** : 19 Apr 2024  
**Tested** : 23 Apr 2024  
**Diagnosed** : 24 Apr 2024 - Tatiana Sorkina

**Environmental 360 Solutions Ltd.**  
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 Cobourg, ON  
 CA K9A 5H5  
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To discuss this sample report, contact Customer Service at 1-905-372-2251.  
 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.

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ <b>15417</b>	---	---
Particles >6µm	ASTM D7647	>640	● <b>1070</b>	---	---
Particles >14µm	ASTM D7647	>160	<b>8</b>	---	---
Particles >21µm	ASTM D7647	>40	<b>1</b>	---	---
Particles >38µm	ASTM D7647	>10	<b>1</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>19/16/14	▲ <b>21/17/10</b>	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	<b>0.32</b>	---	---

VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	---	---
Free Water	scalar	Visual*		<b>NEG</b>	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	32	<b>36.2</b>	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	5.4	<b>6.0</b>	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	102	<b>110</b>	---	---

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