

Machine Id  
**GOODYEAR AKRON TEST 101**  
 Component  
**Hydraulic System**  
 Fluid  
**PHILLIPS 66 Powerflow NZ AW46 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.  
 NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>ST46270</b>	ST44223	---
Sample Date	Client Info		<b>21 Apr 2024</b>	02 Jan 2023	---
Machine Age	hrs	Client Info	<b>0</b>	0	---
Oil Age	hrs	Client Info	<b>0</b>	0	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>NORMAL</b>	ABNORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>2</b>	<1	---
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	---
Nickel	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	---
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >20	<b>2</b>	0	---
Lead	ppm	ASTM D5185m >20	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >20	<b>4</b>	2	---
Tin	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	0	---
Barium	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	0	---
Manganese	ppm	ASTM D5185m	<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m	<b>1</b>	0	---
Calcium	ppm	ASTM D5185m	<b>40</b>	43	---
Phosphorus	ppm	ASTM D5185m	<b>462</b>	425	---
Zinc	ppm	ASTM D5185m	<b>488</b>	475	---
Sulfur	ppm	ASTM D5185m	<b>1240</b>	1223	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>2</b>	<1	---
Sodium	ppm	ASTM D5185m	<b>3</b>	2	---
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	---
Water	%	ASTM D6304 >0.05	<b>0.003</b>	0.006	---
ppm Water	ppm	ASTM D6304 >500	<b>32</b>	63.4	---

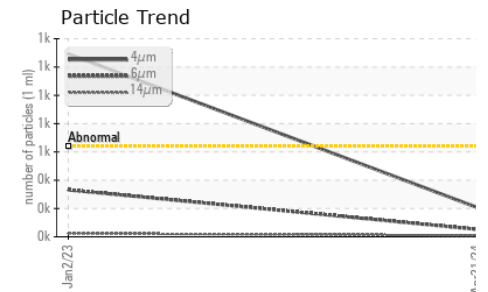
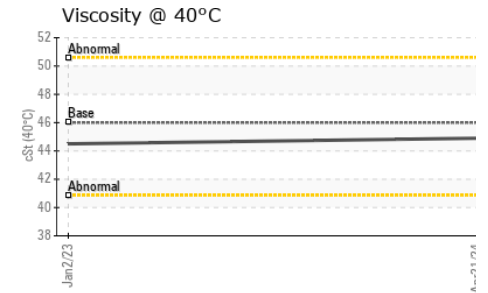
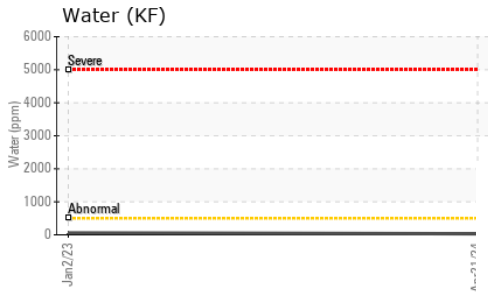
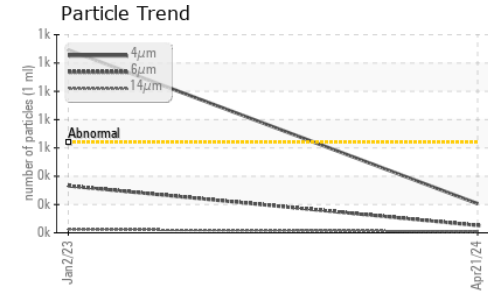
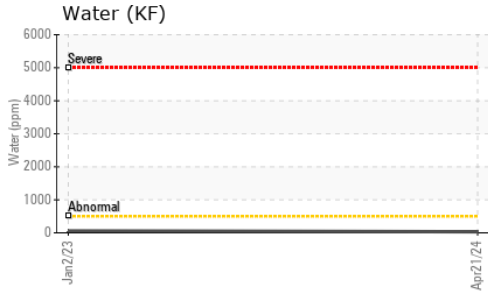
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>640	<b>206</b>	▲ 1293	---
Particles >6µm	ASTM D7647	>160	<b>52</b>	▲ 332	---
Particles >14µm	ASTM D7647	>20	<b>9</b>	▲ 24	---
Particles >21µm	ASTM D7647	>4	<b>3</b>	▲ 6	---
Particles >38µm	ASTM D7647	>3	<b>0</b>	0	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	---
Oil Cleanliness	ISO 4406 (c)	>16/14/11	<b>15/13/10</b>	▲ 17/16/12	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.22	<b>0.49</b>	0.46	---

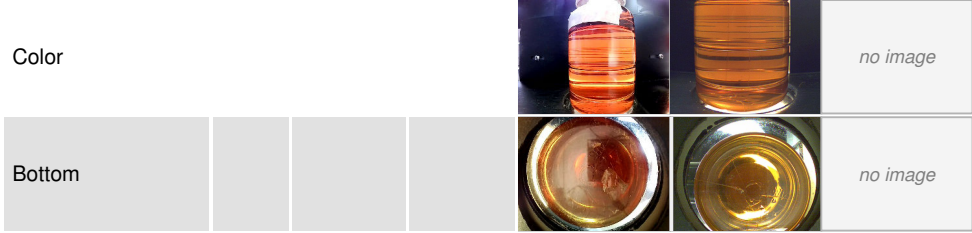
# OIL ANALYSIS REPORT



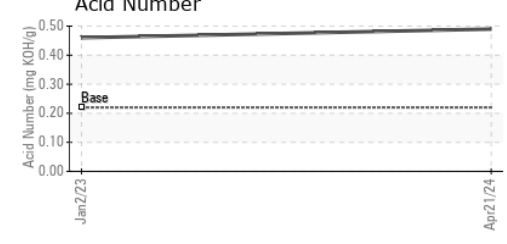
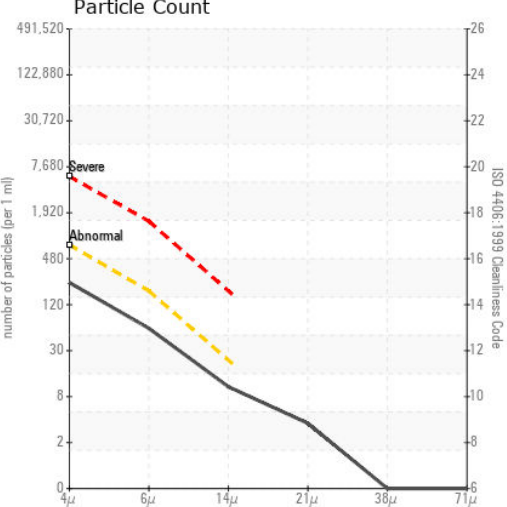
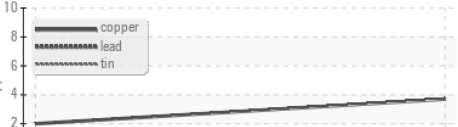
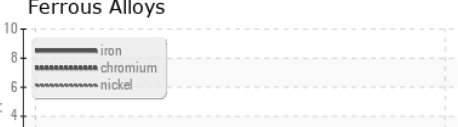
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	<b>44.9</b>	44.5	---

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ST46270      **Received** : 22 Apr 2024  
**Lab Number** : 06155996      **Tested** : 23 Apr 2024  
**Unique Number** : 10991419      **Diagnosed** : 23 Apr 2024 - Wes Davis  
**Test Package** : IND 2 ( Additional Tests: KF )

**FLUID POWER SOLUTIONS**  
 4400 Edgewyn Ave.  
 Hilliard, OH 43026  
 Contact: SCOTT ROGERS  
 srogers@fluid-power-solutions.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)