



# PROBLEM SUMMARY

Sample Rating Trend



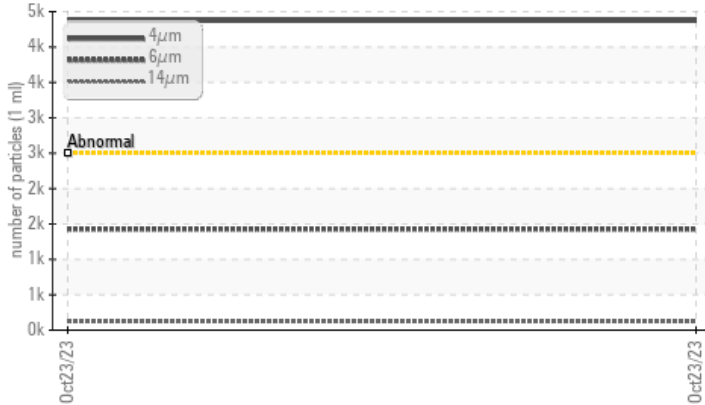
ISO



Machine Id  
**JOHN DEERE P99 (S/N 1FF345GXTKF020342)**  
 Component  
**Hydraulic System**  
 Fluid  
**PANOLIN HLP SYNTH 46 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

Nous recommandons le remplacement des filtres de ce composant. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation. À NOTER: S.V.P. inclure, avec le prochain échantillon, des détails de la capacité du réservoir et le type et le degré de filtration.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>ABNORMAL</b>	---	---
Particles >4µm	ASTM D7647	>2500	▲ <b>4372</b>	---	---
Particles >6µm	ASTM D7647	>640	▲ <b>1427</b>	---	---
Particles >14µm	ASTM D7647	>80	▲ <b>120</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ <b>19/18/14</b>	---	---

Customer Id: CLESAL  
 Sample No.: WC0871127  
 Lab Number: 02591813  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Wes Davis +1 905-569-8600 x223  
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To change component or sample information:  
 Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

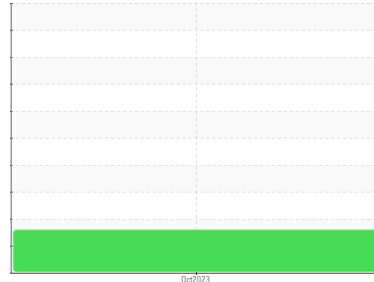
## HISTORICAL DIAGNOSIS



# OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Machine Id  
**JOHN DEERE P99 (S/N 1FF345GXTKF020342)**

Component  
**Hydraulic System**

Fluid  
**PANOLIN HLP SYNTH 46 (--- GAL)**

## DIAGNOSIS

### Recommendation

Nous recommandons le remplacement des filtres de ce composant. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation. À NOTER: S.V.P. inclure, avec le prochain échantillon, des détails de la capacité du réservoir et le type et le degré de filtration.

### Wear

Les taux d'usure de tous les composants sont normaux.

### Contamination

Il y a une quantité modérée de particules (de 4 à 14 microns) dans l'huile. La propreté du système est supérieure à la limite acceptable pour votre objectif de propreté ISO 4406.

### Fluid Condition

Le AN est acceptable pour ce fluide. l'huile peut encore servir si la contamination peut être réduite à un niveau acceptable.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0871127</b>	---	---
Sample Date	Client Info	<b>23 Oct 2023</b>	---	---
Machine Age	hrs Client Info	<b>6066</b>	---	---
Oil Age	hrs Client Info	<b>5587</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)	>32	<b>12</b>	---	---
Chromium ppm ASTM D5185(m)	>9	<b>0</b>	---	---
Nickel ppm ASTM D5185(m)	>5	<b>0</b>	---	---
Titanium ppm ASTM D5185(m)		<b>&lt;1</b>	---	---
Silver ppm ASTM D5185(m)		<b>&lt;1</b>	---	---
Aluminum ppm ASTM D5185(m)	>9	<b>&lt;1</b>	---	---
Lead ppm ASTM D5185(m)	>28	<b>&lt;1</b>	---	---
Copper ppm ASTM D5185(m)	>50	<b>5</b>	---	---
Tin ppm ASTM D5185(m)	>5	<b>&lt;1</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)	0	<b>4</b>	---	---
Barium ppm ASTM D5185(m)	0	<b>2</b>	---	---
Molybdenum ppm ASTM D5185(m)	0	<b>0</b>	---	---
Manganese ppm ASTM D5185(m)	0	<b>0</b>	---	---
Magnesium ppm ASTM D5185(m)	0	<b>0</b>	---	---
Calcium ppm ASTM D5185(m)	0	<b>7</b>	---	---
Phosphorus ppm ASTM D5185(m)	1700	<b>1395</b>	---	---
Zinc ppm ASTM D5185(m)	0	<b>46</b>	---	---
Sulfur ppm ASTM D5185(m)	1350	<b>1413</b>	---	---
Lithium ppm ASTM D5185(m)		<b>&lt;1</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185(m)	>11	<b>2</b>	---	---
Sodium ppm ASTM D5185(m)	>21	<b>2</b>	---	---
Potassium ppm ASTM D5185(m)	>20	<b>0</b>	---	---

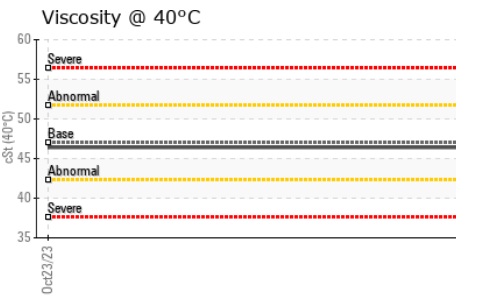
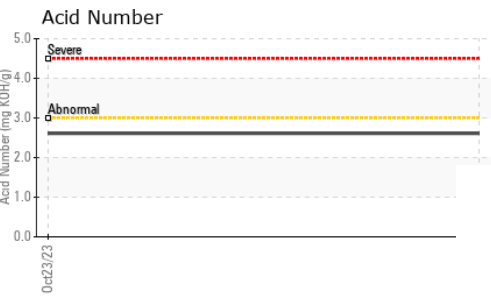
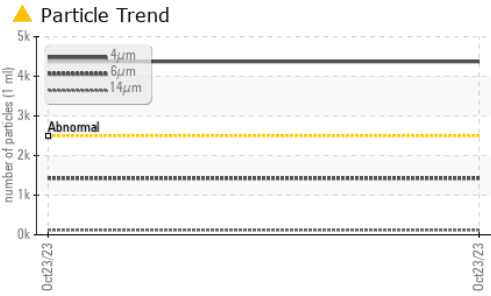
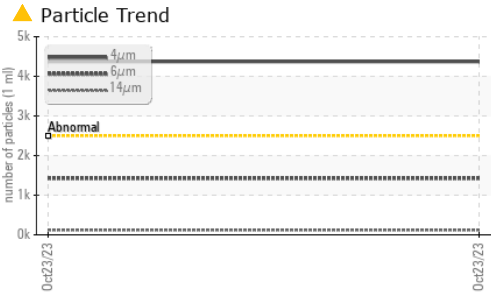
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>2500	<b>▲ 4372</b>	---	---
Particles >6µm ASTM D7647	>640	<b>▲ 1427</b>	---	---
Particles >14µm ASTM D7647	>80	<b>▲ 120</b>	---	---
Particles >21µm ASTM D7647	>20	<b>27</b>	---	---
Particles >38µm ASTM D7647	>4	<b>1</b>	---	---
Particles >71µm ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness ISO 4406 (c)	>18/16/13	<b>▲ 19/18/14</b>	---	---

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g ASTM D974*		<b>2.61</b>	---	---

# OIL ANALYSIS REPORT



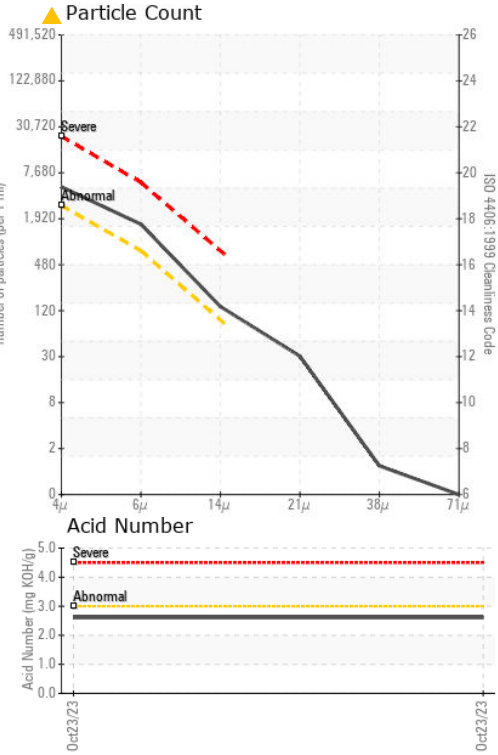
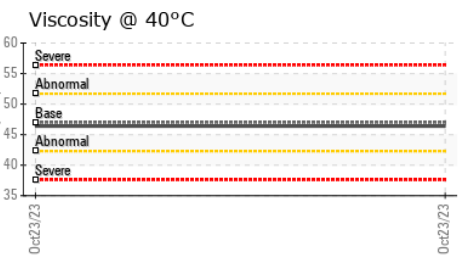
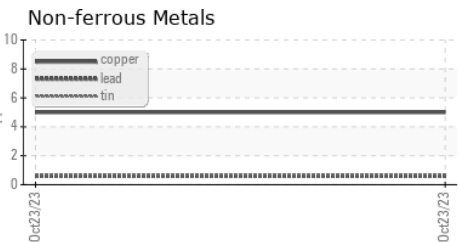
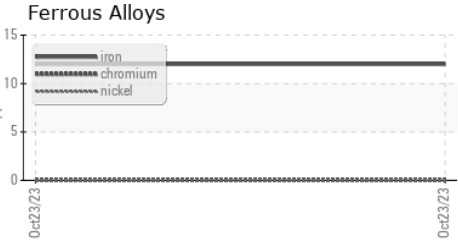
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
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 D7279(m)	47.0	46.4	---	---

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

### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0871127 **Received** : 25 Oct 2023  
**Lab Number** : 02591813 **Diagnosed** : 26 Oct 2023  
**Unique Number** : 5668892 **Diagnostician** : Wes Davis  
**Test Package** : IND 2 ( Additional Tests: TAN Man )

**CLEMENT HYDRAULITECH**  
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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.