



PROBLEM SUMMARY

Sample Rating Trend

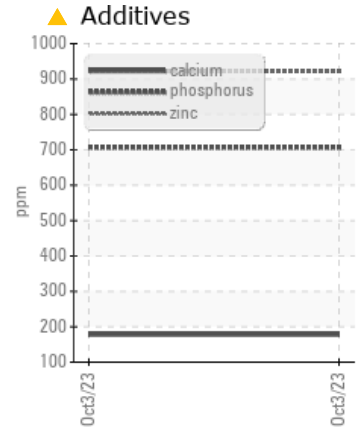
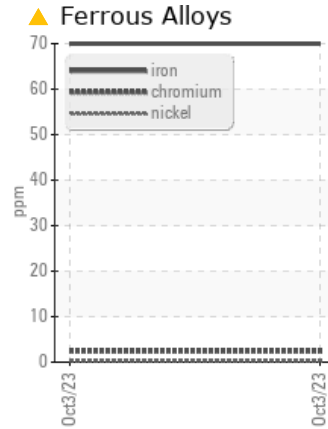
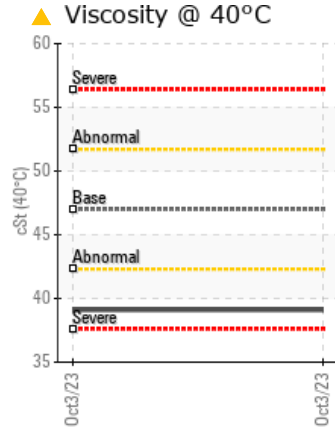
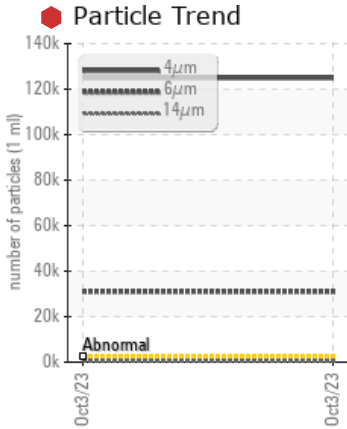
ISO



Machine Id
CATERPILLAR PL01 (S/N 0336KYBN10625)
 Component
Hydraulic System
 Fluid
PANOLIN HLP SYNTH 46 (260 LTR)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

Vérifier les scelles et/ou les filters pour des points d'entrée des contaminants. Le reniflard d'air doit être réparé. S'il n'est pas classé, nous vous recommandons de le remplacer par un reniflard à air adapté au micron et / ou au dessicant. Si évalué, nous vous recommandons de réparer / remplacer le reniflard. Nous recommandons le remplacement des filtres de ce composant. Confirm the source of the lubricant being utilized for top-up/fill. Échantillonner de nouveau dans 30 à 45 jours afin de contrôler la situation.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	---	---
Iron	ppm	ASTM D5185(m)	>20	▲ 70	---	---
Calcium	ppm	ASTM D5185(m)	0	▲ 178	---	---
Phosphorus	ppm	ASTM D5185(m)	1700	▲ 707	---	---
Zinc	ppm	ASTM D5185(m)	0	▲ 921	---	---
Particles >4µm		ASTM D7647	>2500	● 124902	---	---
Particles >6µm		ASTM D7647	>640	● 31013	---	---
Particles >14µm		ASTM D7647	>80	▲ 379	---	---
Particles >21µm		ASTM D7647	>20	▲ 35	---	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	● 24/22/16	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	47.0	▲ 39.1	---	---

Customer Id: CLESAL
 Sample No.: WC0861332
 Lab Number: 02587149
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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To change component or sample information:
 Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS



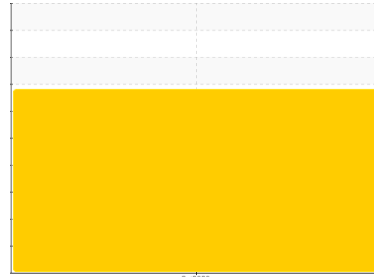
OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Machine Id
CATERPILLAR PL01 (S/N 0336KYBN10625)
 Component
Hydraulic System
 Fluid
PANOLIN HLP SYNTH 46 (260 LTR)



DIAGNOSIS

Recommendation

Vérifier les scelles et/ou les filtres pour des points d'entrée des contaminants. Le reniflard d'air doit être réparé. S'il n'est pas classé, nous vous recommandons de le remplacer par un reniflard à air adapté au micron et / ou au dessiccant. Si évalué, nous vous recommandons de réparer / remplacer le reniflard. Nous recommandons le remplacement des filtres de ce composant. Confirm the source of the lubricant being utilized for top-up/fill. Échantillonner de nouveau dans 30 à 45 jours afin de contrôler la situation.

Wear

Le taux de fer est anormal. Le bas indice ferreux (PQ) indique que l'usure ferreuse est due à de la corrosion.

Contamination

Il y a une grande quantité de limon (particules de 4 à 14 microns) dans l'huile. Le code de propreté du système est beaucoup plus haut que la limite acceptable pour votre objectif de propreté ISO 4406.

Fluid Condition

La viscosité de l'échantillon se situe dans la portée de l'SAE 70W80; nous vous conseillons de vérifier. Ceci, en plus des niveaux d'additifs, indique que la marque ou le type d'huile ne correspond pas à ce qui a été signalé. 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		WC0861332	---	---
Sample Date	Client Info		03 Oct 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			SEVERE	---	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m) >20	70	---	---
Chromium	ppm	ASTM D5185(m) >20	2	---	---
Nickel	ppm	ASTM D5185(m) >20	<1	---	---
Titanium	ppm	ASTM D5185(m)	0	---	---
Silver	ppm	ASTM D5185(m)	<1	---	---
Aluminum	ppm	ASTM D5185(m) >20	2	---	---
Lead	ppm	ASTM D5185(m) >20	5	---	---
Copper	ppm	ASTM D5185(m) >20	27	---	---
Tin	ppm	ASTM D5185(m) >20	<1	---	---
Antimony	ppm	ASTM D5185(m)	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	2	---	---
Barium	ppm	ASTM D5185(m) 0	<1	---	---
Molybdenum	ppm	ASTM D5185(m) 0	0	---	---
Manganese	ppm	ASTM D5185(m) 0	<1	---	---
Magnesium	ppm	ASTM D5185(m) 0	2	---	---
Calcium	ppm	ASTM D5185(m) 0	178	---	---
Phosphorus	ppm	ASTM D5185(m) 1700	707	---	---
Zinc	ppm	ASTM D5185(m) 0	921	---	---
Sulfur	ppm	ASTM D5185(m) 1350	1574	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

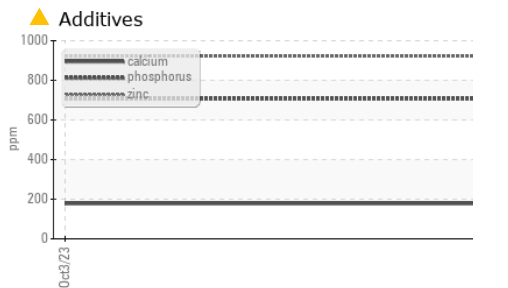
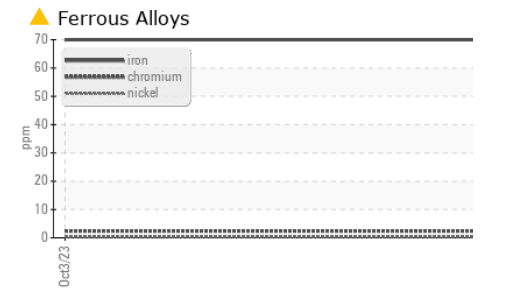
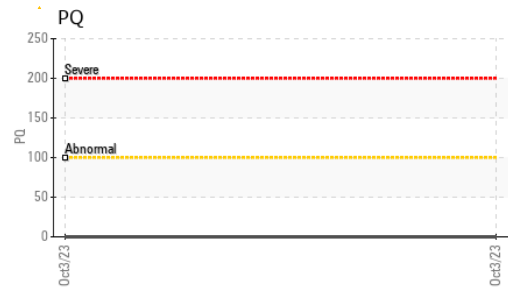
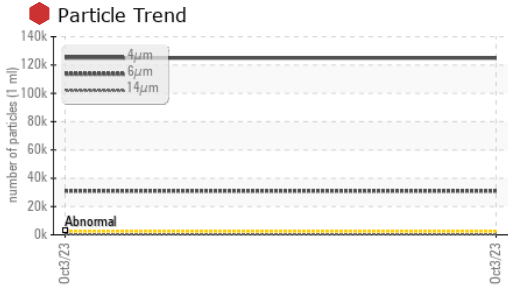
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	5	---	---
Sodium	ppm	ASTM D5185(m)	4	---	---
Potassium	ppm	ASTM D5185(m) >20	2	---	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	124902	---	---
Particles >6µm	ASTM D7647	>640	31013	---	---
Particles >14µm	ASTM D7647	>80	379	---	---
Particles >21µm	ASTM D7647	>20	35	---	---
Particles >38µm	ASTM D7647	>4	1	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	24/22/16	---	---

OIL ANALYSIS REPORT



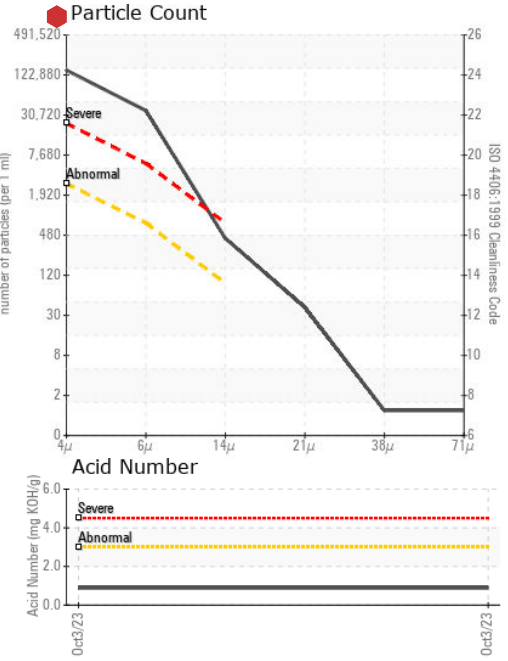
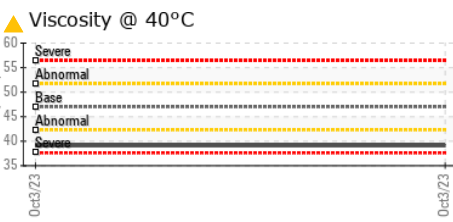
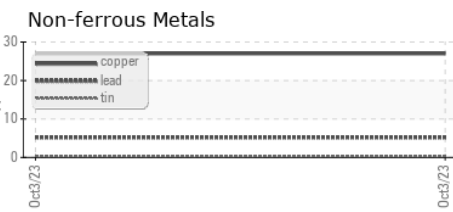
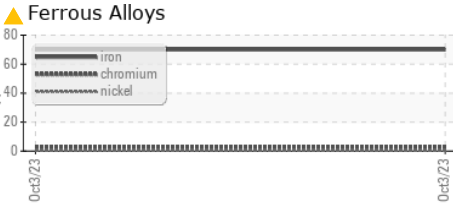
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.89	---	---

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	▲ 39.1	---	---

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

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0861332 **Received** : 05 Oct 2023
Lab Number : 02587149 **Diagnosed** : 06 Oct 2023
Unique Number : 5656215 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: PQ, TAN Man)

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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.