



PROBLEM SUMMARY

Sample Rating Trend

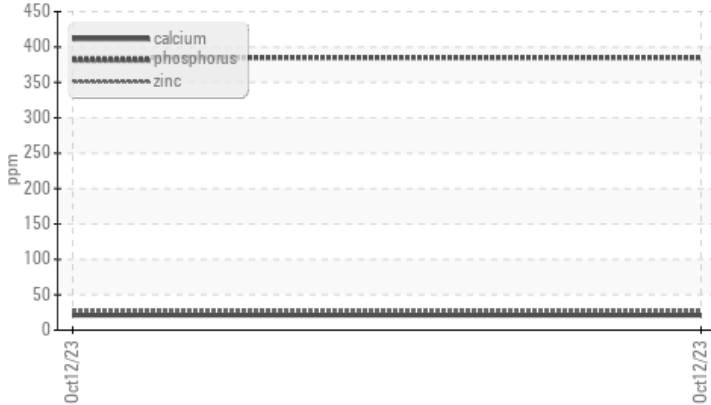
ADDITIVES

Machine Id
LIEBHERR T29 (S/N 0241961823)
 Component
Hydraulic System
 Fluid
PANOLIN BIOFLUID SBH 46 (--- GAL)



COMPONENT CONDITION SUMMARY

▲ Additives



RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition. 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				ATTENTION	---	---
Boron	ppm	ASTM D5185(m)	100	▲ <1	---	---
Calcium	ppm	ASTM D5185(m)	3500	▲ 21	---	---
Phosphorus	ppm	ASTM D5185(m)	1350	▲ 385	---	---
Zinc	ppm	ASTM D5185(m)	1600	▲ 27	---	---
Sulfur	ppm	ASTM D5185(m)	3000	▲ 913	---	---

Customer Id: CLESAL
 Sample No.: WC0843719
 Lab Number: 02589616
 Test Package: IND 2



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To discuss the diagnosis or test data:
 Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

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
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Fluid Source	---	---	?	Confirm the source of the lubricant being utilized for top-up/fill.

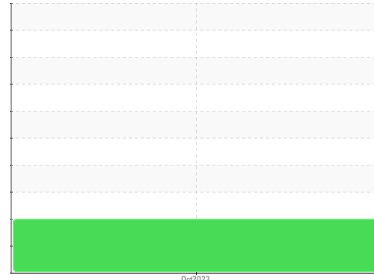
HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

ADDITIVES



Machine Id
LIEBHERR T29 (S/N 0241961823)

Component
Hydraulic System

Fluid
PANOLIN BIOFLUID SBH 46 (--- GAL)

DIAGNOSIS

▲ Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition. 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

La propreté du système est acceptable pour votre objectif de propreté ISO 4406. La propreté du système et du fluide est acceptable.

▲ Fluid Condition

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile. Le AN est acceptable pour ce fluide. L'état de l'huile permet d'en prolonger l'utilisation.

SAMPLE INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0843719	---	---
Sample Date	Client Info		12 Oct 2023	---	---
Machine Age	hrs	Client Info	1760	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ATTENTION	---	---

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >20	6	---	---
Chromium	ppm	ASTM D5185(m) >20	0	---	---
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	0	---	---
Lead	ppm	ASTM D5185(m) >20	1	---	---
Copper	ppm	ASTM D5185(m) >20	3	---	---
Tin	ppm	ASTM D5185(m) >20	0	---	---
Antimony	ppm	ASTM D5185(m)	0	---	---
Vanadium	ppm	ASTM D5185(m)	0	---	---
Beryllium	ppm	ASTM D5185(m)	0	---	---
Cadmium	ppm	ASTM D5185(m)	0	---	---

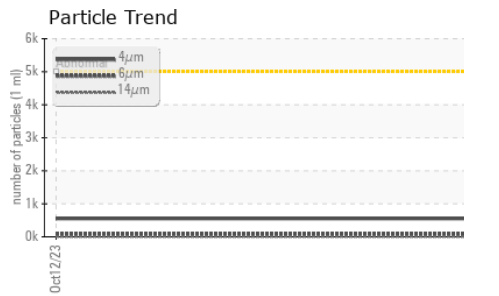
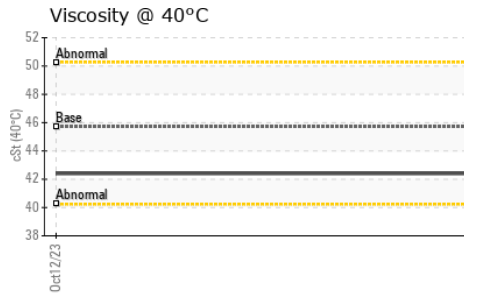
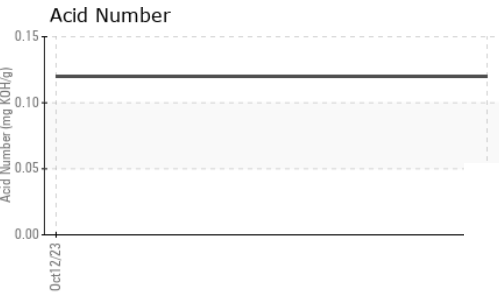
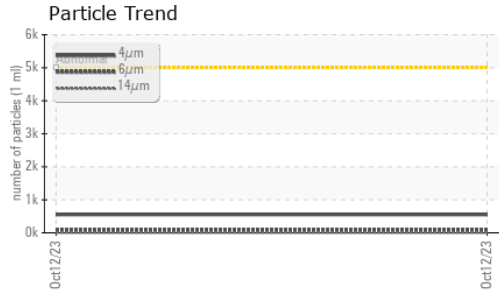
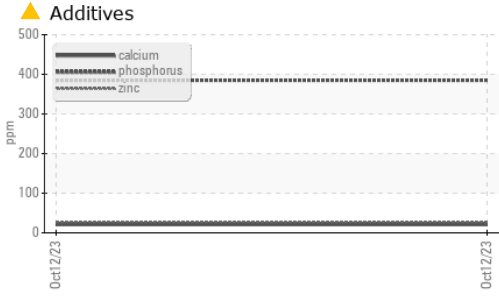
ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 100	▲ <1	---	---
Barium	ppm	ASTM D5185(m) 0	<1	---	---
Molybdenum	ppm	ASTM D5185(m) 0	0	---	---
Manganese	ppm	ASTM D5185(m)	0	---	---
Magnesium	ppm	ASTM D5185(m) 10	0	---	---
Calcium	ppm	ASTM D5185(m) 3500	▲ 21	---	---
Phosphorus	ppm	ASTM D5185(m) 1350	▲ 385	---	---
Zinc	ppm	ASTM D5185(m) 1600	▲ 27	---	---
Sulfur	ppm	ASTM D5185(m) 3000	▲ 913	---	---
Lithium	ppm	ASTM D5185(m)	<1	---	---

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	2	---	---
Sodium	ppm	ASTM D5185(m)	3	---	---
Potassium	ppm	ASTM D5185(m) >20	0	---	---

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	552	---	---
Particles >6µm	ASTM D7647	>1300	82	---	---
Particles >14µm	ASTM D7647	>160	6	---	---
Particles >21µm	ASTM D7647	>40	2	---	---
Particles >38µm	ASTM D7647	>10	1	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	16/14/10	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.12	---	---

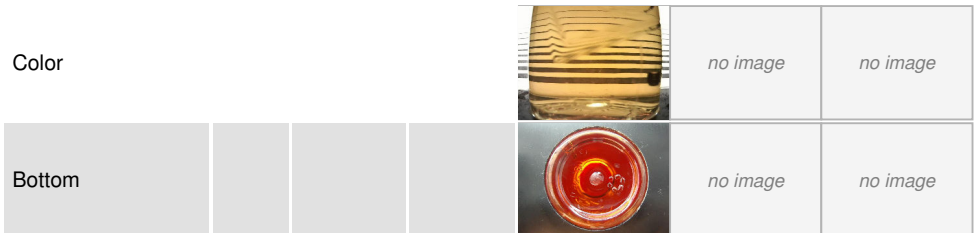
OIL ANALYSIS REPORT



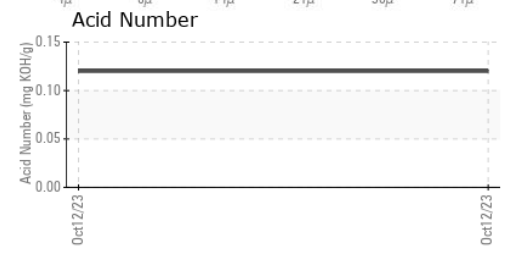
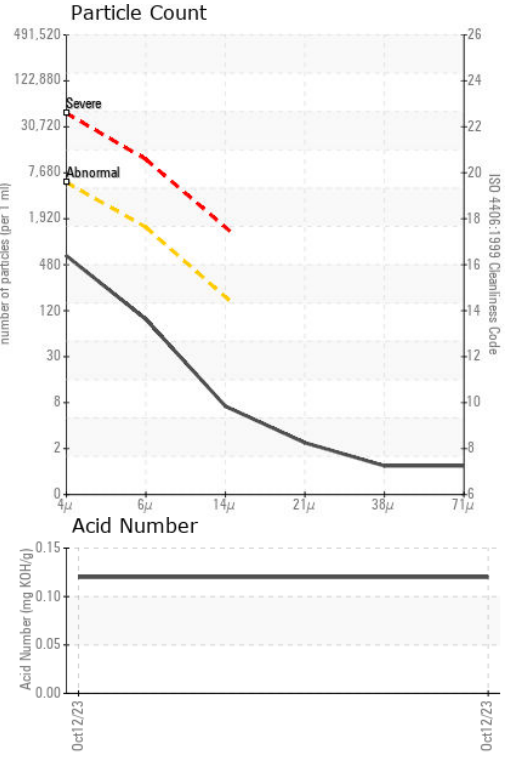
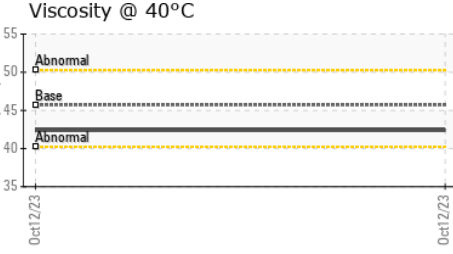
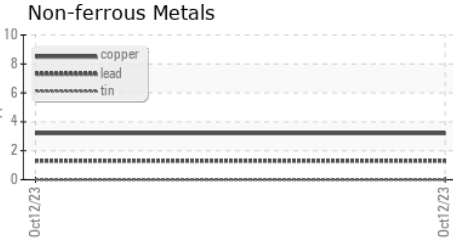
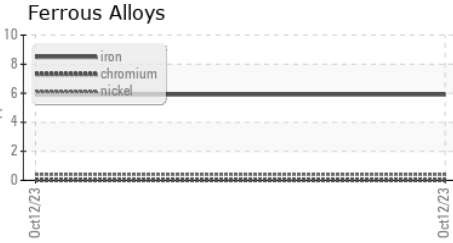
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	---
Precipitate	scalar	Visual*	NONE	NONE	---
Silt	scalar	Visual*	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---
Appearance	scalar	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)	45.7	42.4	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0843719
Lab Number : 02589616
Unique Number : 5658682
Test Package : IND 2

CLEMENT HYDRAULITECH
 5328 BOUL. HEBERT
 SALABERRY-DE-VALLEYFIELD, QC
 CA J6S 6H3
 Contact: Frédéric D'Amour
 info@hydraulitech.com
 T: (450)373-1613
 F: (450)373-1615

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.