



OIL ANALYSIS REPORT

Sample Rating Trend

WATER

Area

TAMEX INC [02621867]

Machine Id

HITACHI ZX210LC-6 1FFDC571JMF340965

Component

Hydraulic System

Fluid

PANOLIN HLP SYNTH 46 (240 LTR)



DIAGNOSIS

Recommendation

Nous vous recommandons de vérifier la source de l'infiltration d'eau. Nous recommandons le remplacement des filtres de ce composant. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

Wear

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

Contamination

Il y a une quantité modérée de particules (de 4 à 14 microns) dans l'huile. Il y a une faible concentration (<5.0%) d'huile minérale présente dans le fluide. Concentration modérée d'eau 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	WC	---	---
Sample Date	Client Info	03 Jan 2024	---	---
Machine Age	hrs Client Info	1903	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	---	---
Iron	ppm ASTM D5185(m) >20	▲ 108	---	---
Chromium	ppm ASTM D5185(m) >10	<1	---	---
Nickel	ppm ASTM D5185(m) >10	<1	---	---
Titanium	ppm ASTM D5185(m)	<1	---	---
Silver	ppm ASTM D5185(m)	0	---	---
Aluminum	ppm ASTM D5185(m) >10	<1	---	---
Lead	ppm ASTM D5185(m) >10	<1	---	---
Copper	ppm ASTM D5185(m) >75	2	---	---
Tin	ppm ASTM D5185(m) >10	<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	2	---	---
Molybdenum	ppm ASTM D5185(m) 0	0	---	---
Manganese	ppm ASTM D5185(m) 0	<1	---	---
Magnesium	ppm ASTM D5185(m) 0	<1	---	---
Calcium	ppm ASTM D5185(m) 0	4	---	---
Phosphorus	ppm ASTM D5185(m) 1700	1438	---	---
Zinc	ppm ASTM D5185(m) 0	● 151	---	---
Sulfur	ppm ASTM D5185(m) 1350	● 1828	---	---
Lithium	ppm ASTM D5185(m)	<1	---	---

CONTAMINANTS

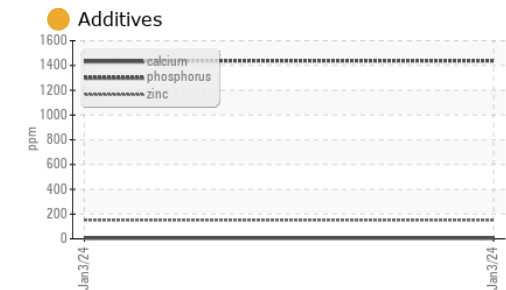
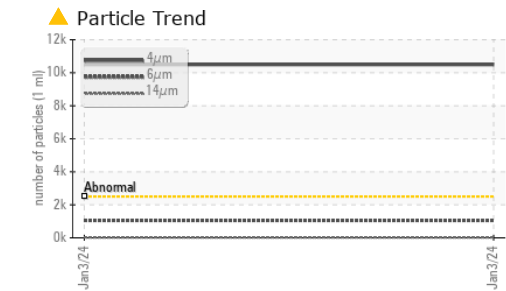
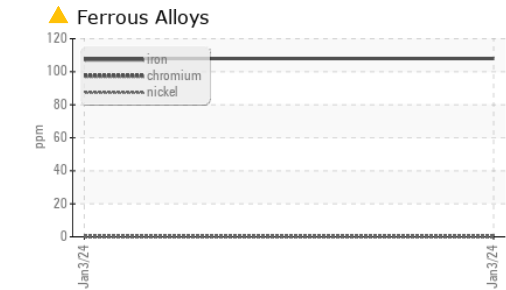
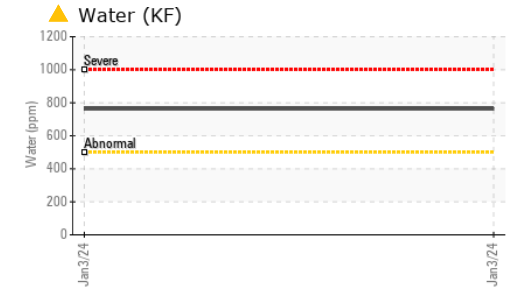
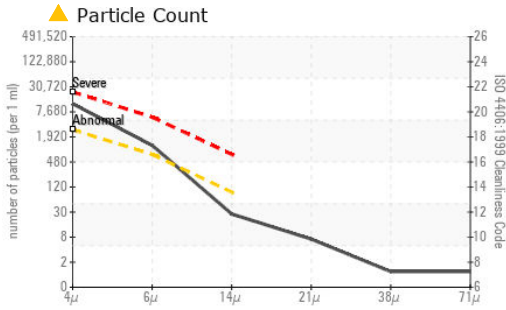
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	8	---	---
Sodium	ppm ASTM D5185(m)	2	---	---
Potassium	ppm ASTM D5185(m) >20	2	---	---
Water	% ASTM D6304* >0.05	▲ 0.076	---	---
ppm Water	ppm ASTM D6304* >500	▲ 763	---	---

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	0	---	---
Nitration	Abs/cm ASTM D7624*	5.0	---	---
Sulfation	Abs/.1mm ASTM D7415*	151.3	---	---
Mineral Oil Content	% ASTM D7418* <5.0%	<5.0	---	---



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02621865
Unique Number : 5746984
Test Package : MOB 2 (Additional Tests: PQ, TAN Man)

Received : 13 Mar 2024
Tested : 14 Mar 2024
Diagnosed : 14 Mar 2024 - Bill Quesnel

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.

Envirolin Canada
 520 rue Adanac
 Quebec, QC
 CA G1C 7B7
 Contact: Patrick Levesque
 patrick.levesque@envirolin.com
 T: (418)623-1216
 F: (418)660-8889

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 10494	---	---
Particles >6µm	ASTM D7647	>640	● 1055	---	---
Particles >14µm	ASTM D7647	>80	24	---	---
Particles >21µm	ASTM D7647	>20	6	---	---
Particles >38µm	ASTM D7647	>4	1	---	---
Particles >71µm	ASTM D7647	>3	1	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 21/17/12	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414*		156.9	---	---
Acid Number (AN)	mg KOH/g ASTM D974*		1.67	---	---

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	46.0	---	---
Visc @ 100°C	cSt ASTM D7279(m)	8.1	8.5	---	---
Viscosity Index (VI)	Scale ASTM D2270*	146	164	---	---

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



MINERAL OIL CONTENT REPORT

PASS

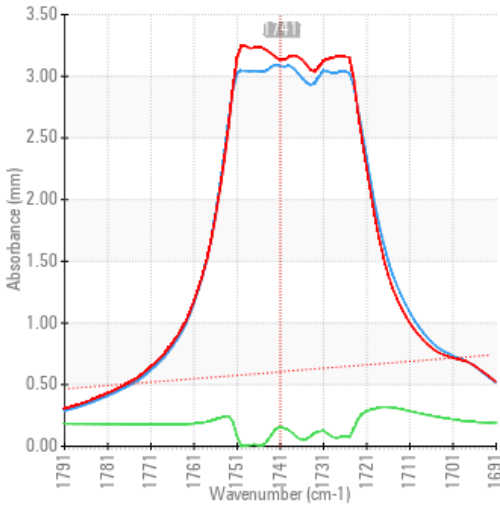


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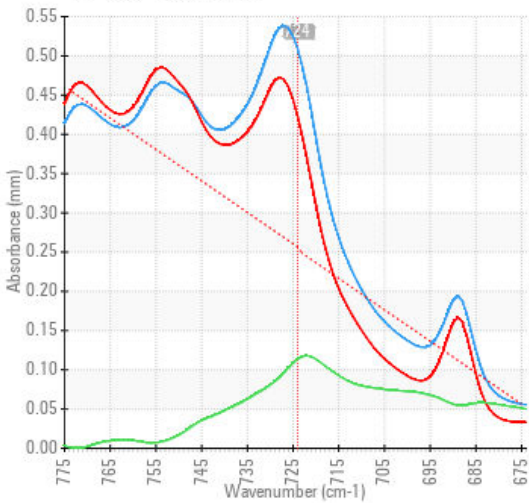
SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	0	● 151	---	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	<5.0	---	---

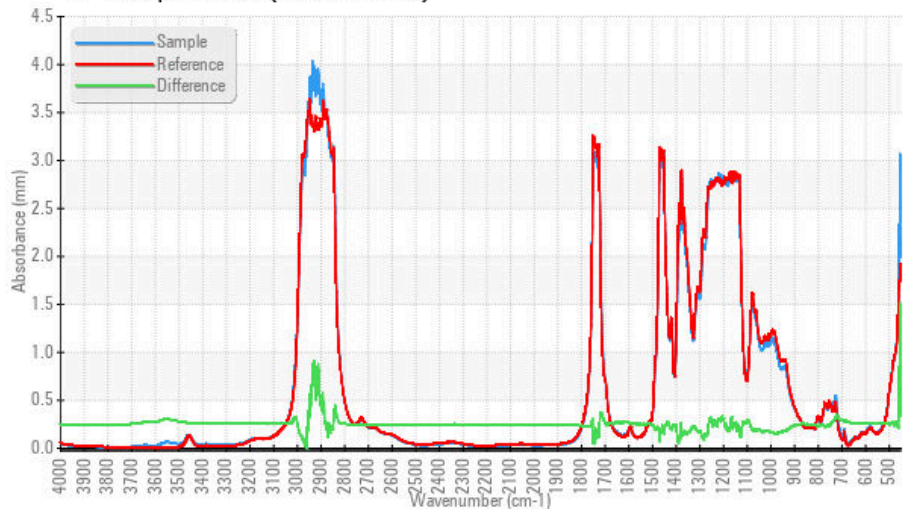
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



ISO 17025:2017
 Accredited
 Laboratory

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