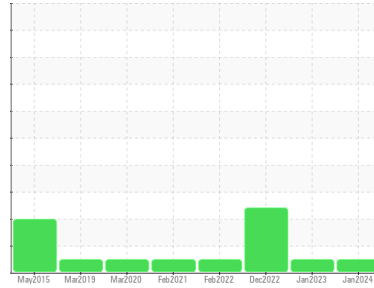




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
EXPENTE INC [02609803]
 Machine Id
MANCOR A 91 4X4 PLUS A91F11105664
 Component
Hydraulic System
 Fluid
PANOLIN HLP SYNTH 46 (200 LTR)

DIAGNOSIS

Recommendation

Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition.

Wear

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

Contamination

Il y a une faible concentration (<5.0%) d'huile minérale présente dans le fluide. La propreté du système est acceptable pour votre objectif de propreté ISO 4406. La teneur en eau est négligeable. La propreté du système et du fluide est acceptable.

Fluid Condition

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	WC	WC	WC
Sample Date	Client Info	15 Jan 2024	18 Jan 2023	31 Dec 2022
Machine Age	hrs Client Info	4047	3728	3717
Oil Age	hrs Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >20	14	13	15
Chromium	ppm ASTM D5185(m) >10	2	1	2
Nickel	ppm ASTM D5185(m) >10	0	<1	0
Titanium	ppm ASTM D5185(m)	0	<1	<1
Silver	ppm ASTM D5185(m)	0	0	0
Aluminum	ppm ASTM D5185(m) >10	<1	<1	<1
Lead	ppm ASTM D5185(m) >10	3	3	4
Copper	ppm ASTM D5185(m) >75	2	1	2
Tin	ppm ASTM D5185(m) >10	0	0	<1
Antimony	ppm ASTM D5185(m)	0	<1	0
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	<1	2	<1
Barium	ppm ASTM D5185(m) 0	0	0	0
Molybdenum	ppm ASTM D5185(m) 0	0	0	0
Manganese	ppm ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm ASTM D5185(m) 0	<1	<1	<1
Calcium	ppm ASTM D5185(m) 0	1	0	0
Phosphorus	ppm ASTM D5185(m) 1700	1330	1391	1445
Zinc	ppm ASTM D5185(m) 0	66	63	81
Sulfur	ppm ASTM D5185(m) 1350	1418	1372	1457
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

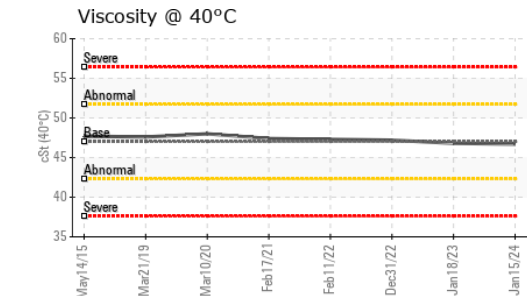
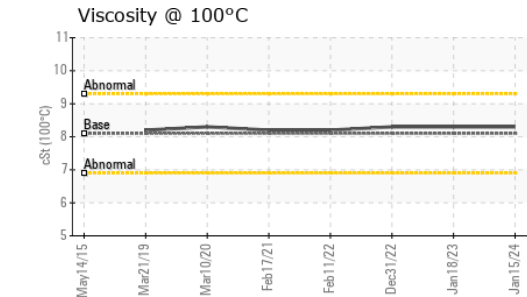
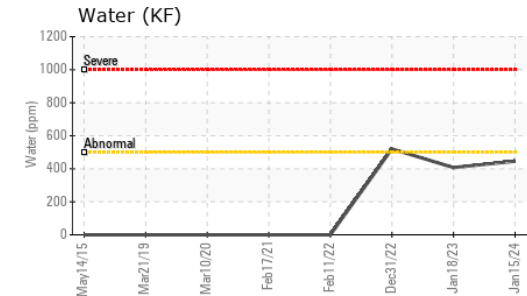
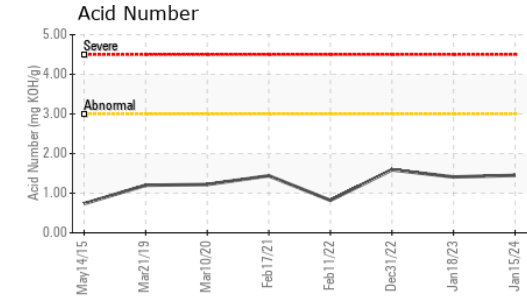
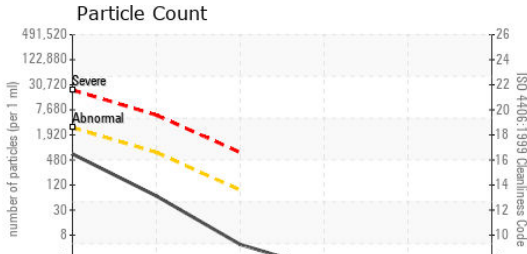
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >20	1	1	2
Sodium	ppm ASTM D5185(m)	3	3	3
Potassium	ppm ASTM D5185(m) >20	1	<1	<1
Water	% ASTM D6304* >0.05	0.044	0.040	▲ 0.052
ppm Water	ppm ASTM D6304* >500	446	407.4	▲ 520.1

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844*	0	0	0
Nitration	Abs/cm ASTM D7624*	4.4	4.2	4.5
Sulfation	Abs/.1mm ASTM D7415*	155.0	183.4	147.3
Mineral Oil Content	% ASTM D7418* <5.0%	<5.0	<5.0	<5.0



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02609805
Unique Number : 5710891
Test Package : MOB 2 (Additional Tests: TAN Man)

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

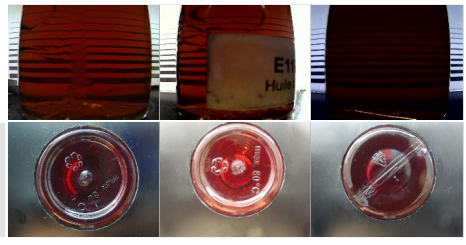
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	587	750	▲ 4992
Particles >6µm	ASTM D7647	>640	58	121	471
Particles >14µm	ASTM D7647	>80	4	10	19
Particles >21µm	ASTM D7647	>20	1	3	6
Particles >38µm	ASTM D7647	>4	1	0	0
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>18/16/13	16/13/9	17/14/10	▲ 19/16/11

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414*		159.7	161.6	159.3
Acid Number (AN)	mg KOH/g ASTM D974*		1.45	1.41	1.59

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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	47.0	46.7	46.8	47.2
Visc @ 100°C	cSt ASTM D7279(m)	8.1	8.3	8.3	8.3
Viscosity Index (VI)	Scale ASTM D2270*	146	153	153	151

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					





MINERAL OIL CONTENT REPORT

PASS

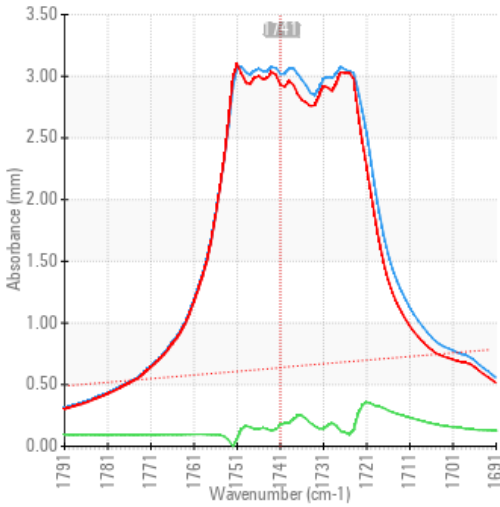


Area
EXPENTE INC [02609803]
 Machine Id
MANCOR A 91 4X4 PLUS A91F11105664
 Component
Hydraulic System
 Fluid
PANOLIN HLP SYNTH 46 (200 LTR)

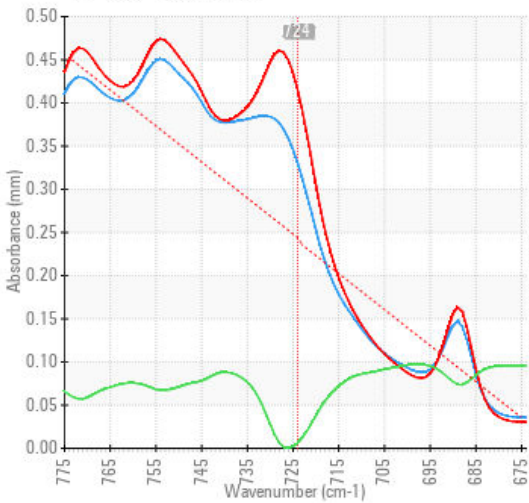
SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	0	66	63	81
Mineral Oil Content	%	ASTM D7418*	<5.0%	<5.0	<5.0	<5.0

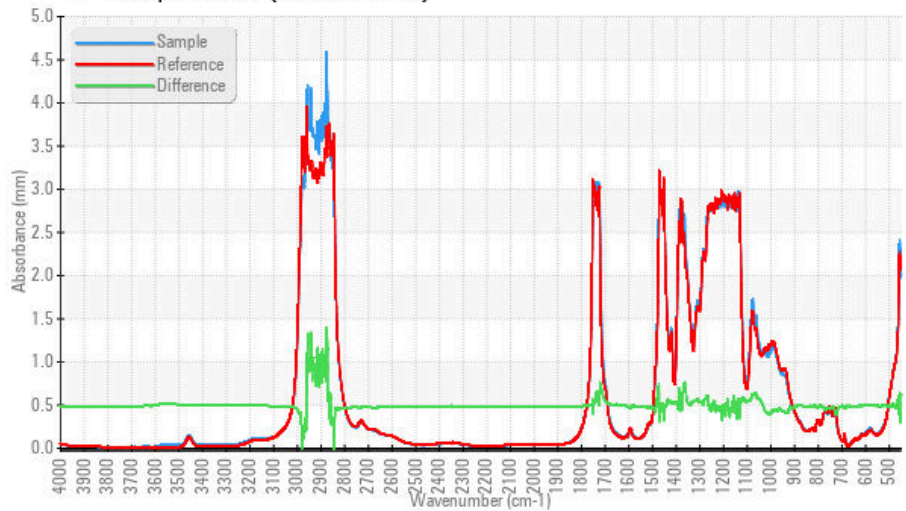
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



ISO 17025:2017
 Accredited
 Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC
Lab Number : 02609805
Unique Number : 5710891
Test Package : MOB 2 (Additional Tests: TAN Man)

Received : 18 Jan 2024
Diagnosed : 22 Jan 2024
Diagnostician : 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

This page left intentionally blank