



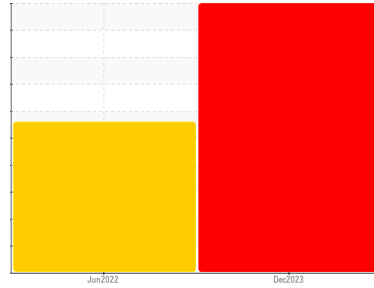
OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area
BRANDT TRACTOR [02595673]
 Machine Id
MENZY MUCK A914X4 PLUS 91C07045029
 Component
Hydraulic System
 Fluid
PANOLIN HLP SYNTH 46 (220 LTR)



DIAGNOSIS

Recommendation

Nous vous recommandons de vérifier tous les endroits par lesquels des contaminants peuvent pénétrer dans le système. Nous vous recommandons de remplacer le filtre et d'utiliser un système de filtrage hors-ligne afin d'améliorer la propreté du fluide. 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. Échantillonner de nouveau dans 30 à 45 jours 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 élevée de matières particulaires (2 à 100 µm de taille) présente 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. 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'ISO 68; 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	WC0839408	WC	---
Sample Date	Client Info	15 Dec 2023	08 Jun 2022	---
Machine Age	hrs	0	4000	---
Oil Age	hrs	0	0	---
Oil Changed	Client Info	N/A	N/A	---
Sample Status		SEVERE	SEVERE	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184*	0	---	---
Iron	ppm	ASTM D5185(m) >20	▲ 25	8
Chromium	ppm	ASTM D5185(m) >10	3	<1
Nickel	ppm	ASTM D5185(m) >10	<1	0
Titanium	ppm	ASTM D5185(m)	0	<1
Silver	ppm	ASTM D5185(m)	0	0
Aluminum	ppm	ASTM D5185(m) >10	1	<1
Lead	ppm	ASTM D5185(m) >10	1	<1
Copper	ppm	ASTM D5185(m) >75	3	2
Tin	ppm	ASTM D5185(m) >10	1	2
Antimony	ppm	ASTM D5185(m)	0	<1
Vanadium	ppm	ASTM D5185(m)	0	0
Beryllium	ppm	ASTM D5185(m)	0	0
Cadmium	ppm	ASTM D5185(m)	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	2	3
Barium	ppm	ASTM D5185(m) 0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0
Manganese	ppm	ASTM D5185(m) 0	0	<1
Magnesium	ppm	ASTM D5185(m) 0	1	<1
Calcium	ppm	ASTM D5185(m) 0	▲ 43	▲ 64
Phosphorus	ppm	ASTM D5185(m) 1700	▲ 610	▲ 460
Zinc	ppm	ASTM D5185(m) 0	▲ 130	▲ 81
Sulfur	ppm	ASTM D5185(m) 1350	1405	1279
Lithium	ppm	ASTM D5185(m)	<1	<1

CONTAMINANTS

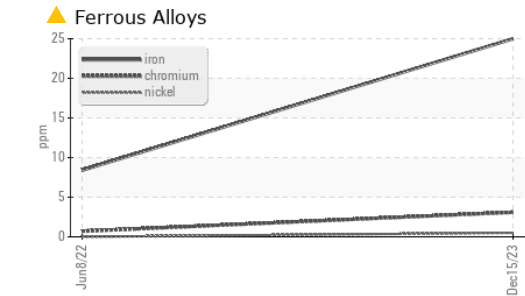
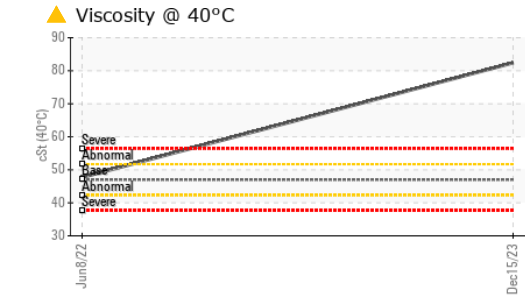
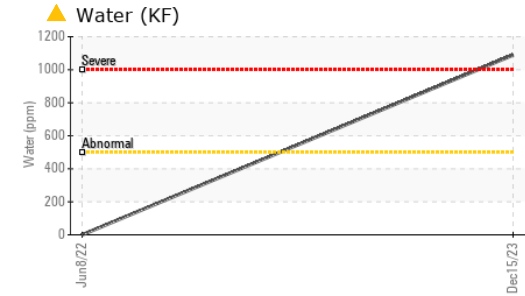
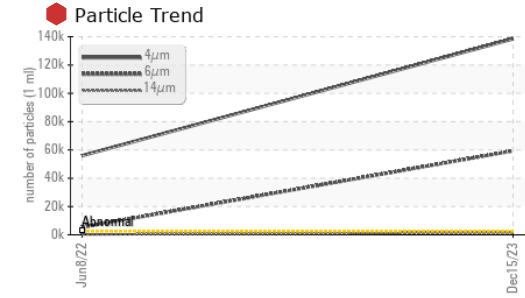
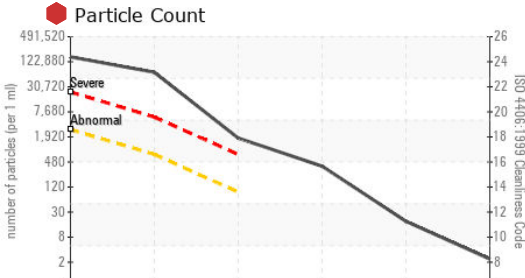
method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >20	4	3
Sodium	ppm	ASTM D5185(m)	4	5
Potassium	ppm	ASTM D5185(m) >20	2	<1
Water	%	ASTM D6304* >0.05	▲ 0.108	---
ppm Water	ppm	ASTM D6304* >500	▲ 1089	---

INFRA-RED

method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	0	0
Nitration	Abs/cm	ASTM D7624*	6.0	4.5
Sulfation	Abs/.1mm	ASTM D7415*	161.9	161.7
Mineral Oil Content	%	ASTM D7418*	<5.0	<5.0



OIL ANALYSIS REPORT



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0839408 **Received** : 19 Dec 2023
Lab Number : 02604271 **Diagnosed** : 22 Dec 2023
Unique Number : 5697356 **Diagnostician** : Bill Quesnel
Test Package : MOB 2 (Additional Tests: PQ, 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	138484	55987	---
Particles >6µm	ASTM D7647	>640	59311	5374	---
Particles >14µm	ASTM D7647	>80	1574	244	---
Particles >21µm	ASTM D7647	>20	335	42	---
Particles >38µm	ASTM D7647	>4	16	3	---
Particles >71µm	ASTM D7647	>3	2	0	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	24/23/18	23/20/15	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	159.5	156.1	---
Acid Number (AN)	mg KOH/g	ASTM D974*	0.68	0.69	---

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	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	VLITE	---
Appearance	scalar	Visual*	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	---
Emulsified Water	scalar	Visual*	NEG	NEG	---
Free Water	scalar	Visual*	NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	82.4	47.7	---
Visc @ 100°C	cSt	ASTM D7279(m)	8.9	9.2	---
Viscosity Index (VI)	Scale	ASTM D2270*	75	178	---

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



MINERAL OIL CONTENT REPORT

PASS

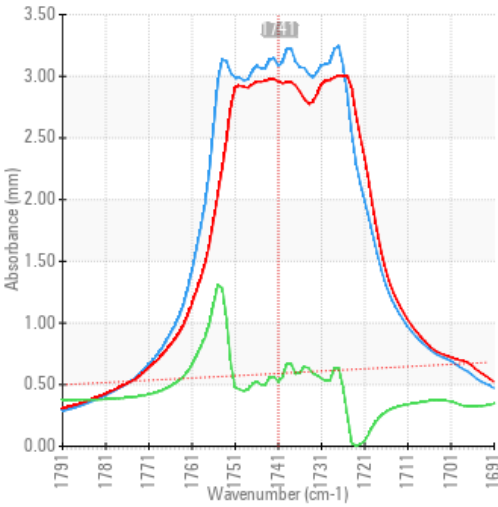


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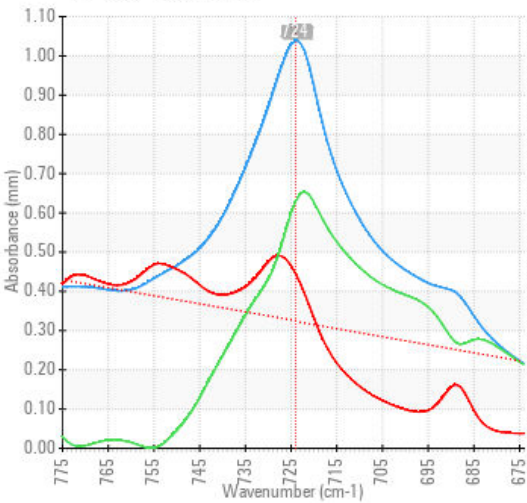
SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	0	▲ 130	▲ 81	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	<5.0	<5.0	---

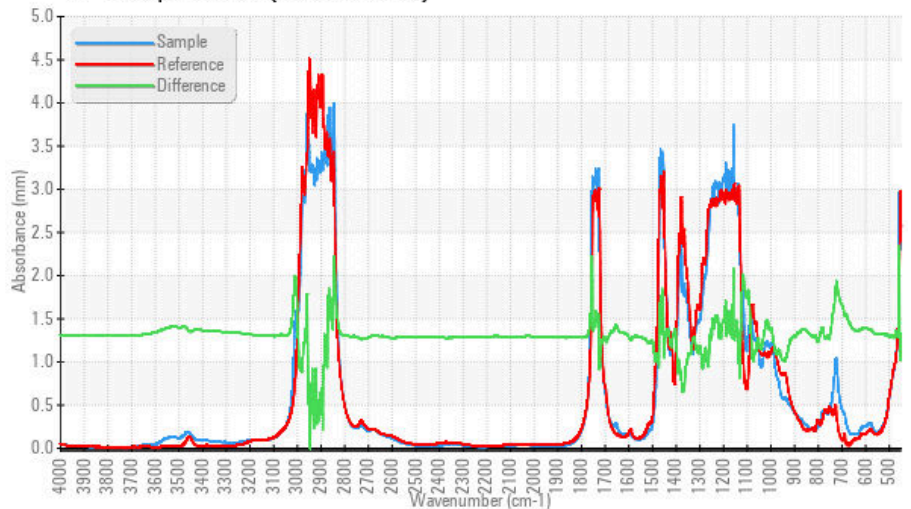
FT-IR - Esters I



FT-IR - Esters II



FT-IR Spectrum (Absorbance)



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