



# OIL ANALYSIS REPORT

Sample Rating Trend

CONTAMINANT



Area  
**EXCAVATION PIEKOULAGAMI [02609566]**  
 Machine Id  
**CAT00336TYBN20830**  
 Component  
**Hydraulic System**  
 Fluid  
**KLONDIKE ENVIRO AW 32 (334 LTR)**



## DIAGNOSIS

### Recommendation

Confirmez la source du lubrifiant utilisé pour l'appoint/remplissage

### Wear

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

### Contamination

Il y a une concentration modérée (7.8%) d'huile minérale présente dans le fluide. La propreté du système est acceptable pour votre objectif de propreté ISO 4406.

### 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.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC</b>	---	---
Sample Date	Client Info	<b>11 Jan 2024</b>	---	---
Machine Age	hrs Client Info	<b>3441</b>	---	---
Oil Age	hrs Client Info	<b>0</b>	---	---
Oil Changed	Client Info	<b>N/A</b>	---	---
Sample Status		<b>ABNORMAL</b>	---	---

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185(m)	>20	<b>2</b>	---	---
Chromium ppm ASTM D5185(m)	>20	<b>0</b>	---	---
Nickel ppm ASTM D5185(m)	>20	<b>0</b>	---	---
Titanium ppm ASTM D5185(m)		<b>0</b>	---	---
Silver ppm ASTM D5185(m)		<b>0</b>	---	---
Aluminum ppm ASTM D5185(m)	>20	<b>&lt;1</b>	---	---
Lead ppm ASTM D5185(m)	>20	<b>0</b>	---	---
Copper ppm ASTM D5185(m)	>20	<b>&lt;1</b>	---	---
Tin ppm ASTM D5185(m)	>20	<b>0</b>	---	---
Antimony ppm ASTM D5185(m)		<b>0</b>	---	---
Vanadium ppm ASTM D5185(m)		<b>0</b>	---	---
Beryllium ppm ASTM D5185(m)		<b>0</b>	---	---
Cadmium ppm ASTM D5185(m)		<b>0</b>	---	---

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185(m)	0	<b>3</b>	---	---
Barium ppm ASTM D5185(m)	0	<b>0</b>	---	---
Molybdenum ppm ASTM D5185(m)	0	<b>0</b>	---	---
Manganese ppm ASTM D5185(m)		<b>0</b>	---	---
Magnesium ppm ASTM D5185(m)	0	<b>3</b>	---	---
Calcium ppm ASTM D5185(m)	10	<b>▲ 95</b>	---	---
Phosphorus ppm ASTM D5185(m)	50	<b>106</b>	---	---
Zinc ppm ASTM D5185(m)	5	<b>▲ 68</b>	---	---
Sulfur ppm ASTM D5185(m)	250	<b>512</b>	---	---
Lithium ppm ASTM D5185(m)		<b>&lt;1</b>	---	---

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185(m)	>15	<b>0</b>	---	---
Sodium ppm ASTM D5185(m)		<b>&lt;1</b>	---	---
Potassium ppm ASTM D5185(m)	>20	<b>1</b>	---	---
Water % ASTM D6304*	>0.05	<b>0.003</b>	---	---
ppm Water ppm ASTM D6304*	>500	<b>31</b>	---	---

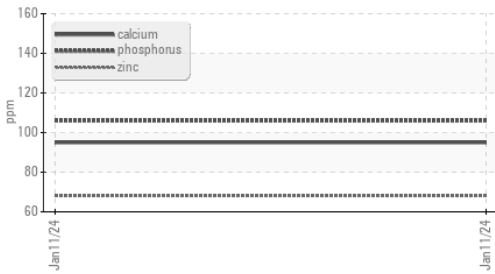
## INFRA-RED

method	limit/base	current	history1	history2
Soot % ASTM D7844*		<b>0</b>	---	---
Nitration Abs/cm ASTM D7624*		<b>2.2</b>	---	---
Sulfation Abs/.1mm ASTM D7415*		<b>11.2</b>	---	---
Mineral Oil Content % ASTM D7418*	<5.0%	<b>▲ 7.8</b>	---	---

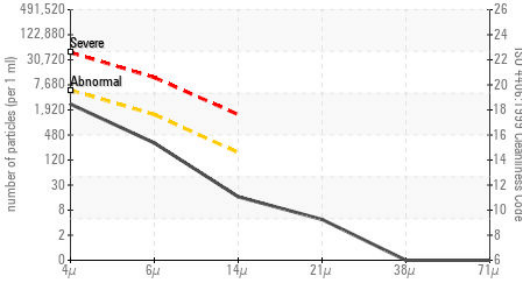


# OIL ANALYSIS REPORT

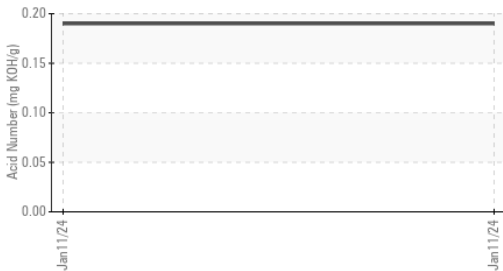
## Additives



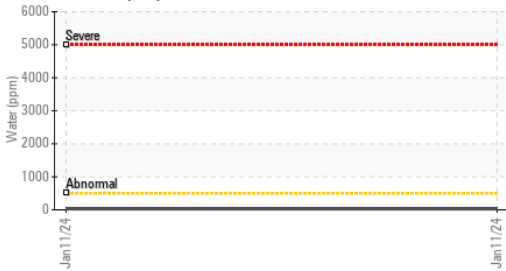
## Particle Count



## Acid Number



## Water (KF)



## Viscosity @ 100°C



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>2314</b>	---	---
Particles >6µm	ASTM D7647	>1300	<b>271</b>	---	---
Particles >14µm	ASTM D7647	>160	<b>14</b>	---	---
Particles >21µm	ASTM D7647	>40	<b>4</b>	---	---
Particles >38µm	ASTM D7647	>10	<b>0</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>18/15/11</b>	---	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm ASTM D7414*		<b>2.7</b>	---	---
Acid Number (AN)	mg KOH/g ASTM D974*		<b>0.19</b>	---	---

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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	32.0	<b>32.5</b>	---	---
Visc @ 100°C	cSt ASTM D7279(m)	5.5	<b>5.7</b>	---	---
Viscosity Index (VI)	Scale ASTM D2270*	108	<b>116</b>	---	---

## SAMPLE IMAGES

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



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC  
**Lab Number** : 02609567  
**Unique Number** : 5710653  
**Test Package** : MOB 2 ( Additional Tests: FT-IR, KF, KV100, Mineral Oil Content, TAN Auto, VI )

**Guydrolic Services Inc.**  
 595 Rue Saint-Cyrille  
 Normandin, QC  
 CA G8M 4H3  
 Contact: Vital Turcotte  
 vturcotte@guydrolic.com  
 T: (418)274-1177  
 F:

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.



# MINERAL OIL CONTENT REPORT

**FAIL**



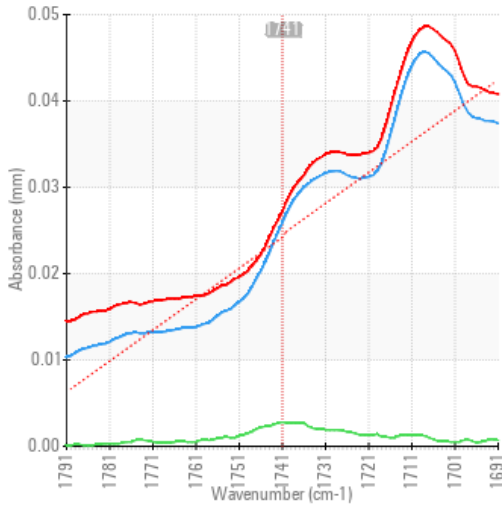
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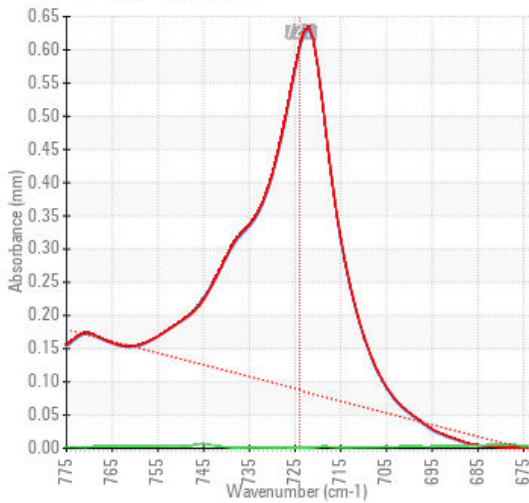
## SPECTRAL ANALYSIS

		method	limit/base	current	history1	history2
Zinc	ppm	ASTM D5185(m)	5	▲ 68	---	---
Mineral Oil Content	%	ASTM D7418*	<5.0%	▲ 7.8	---	---

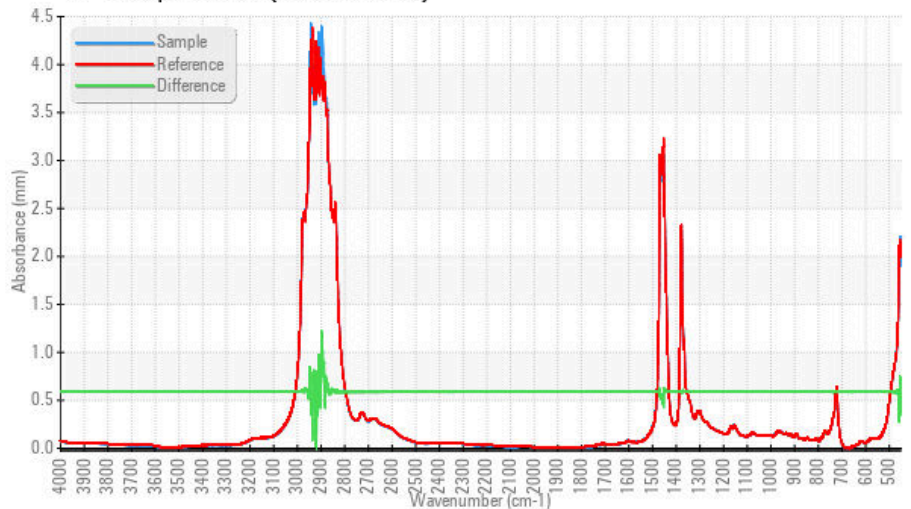
### FT-IR - Esters I



### FT-IR - Esters II



### FT-IR Spectrum (Absorbance)



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
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**Unique Number** : 5710653  
**Test Package** : MOB 2 ( Additional Tests: FT-IR, KF, KV100, Mineral Oil Content, TAN Auto, VI )

**Recieved** : 17 Jan 2024  
**Diagnosed** : 23 Jan 2024  
**Diagnostician** : Bill Quesnel

**Guydrolic Services Inc.**  
 595 Rue Saint-Cyrille  
 Normandin, QC  
 CA G8M 4H3  
 Contact: Vital Turcotte  
 vturcotte@guydrolic.com

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