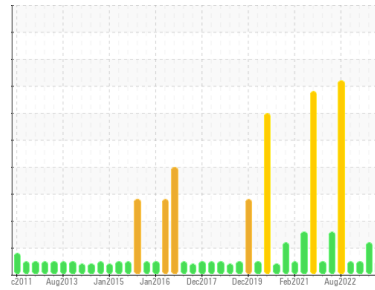




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Centre de coulé**  
 Machine Id  
**47-2810-01**

Component  
**Hydraulic System**  
 Fluid

**QUAKER CHEMICAL QUINTOLUBRIC 888-46 (700 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

La propreté du système est acceptable pour votre objectif de propreté ISO 4406. 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		<b>WC0818564</b>	WC0787980	WC0765269
Sample Date	Client Info		<b>16 Aug 2023</b>	05 Apr 2023	01 Feb 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >20	<b>16</b>	14	13
Chromium	ppm	ASTM D5185(m) >20	<b>4</b>	3	3
Nickel	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m) >20	<b>1</b>	1	<1
Copper	ppm	ASTM D5185(m) >20	<b>1</b>	1	1
Tin	ppm	ASTM D5185(m) >20	<b>186</b>	181	184
Antimony	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	<b>6</b>	4	4
Phosphorus	ppm	ASTM D5185(m)	<b>118</b>	119	119
Zinc	ppm	ASTM D5185(m)	<b>13</b>	10	10
Sulfur	ppm	ASTM D5185(m)	<b>490</b>	489	512
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

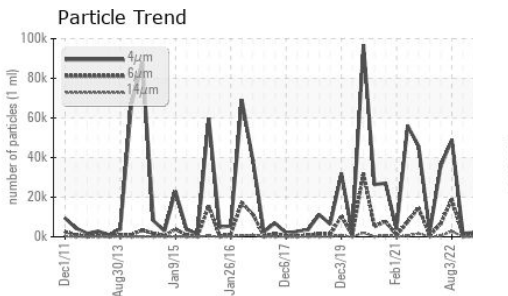
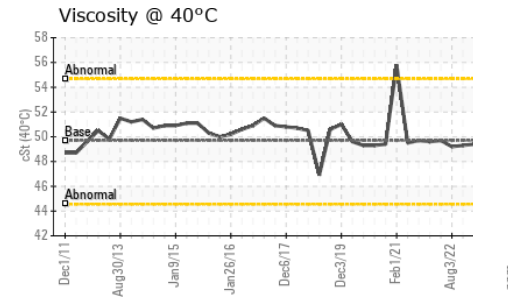
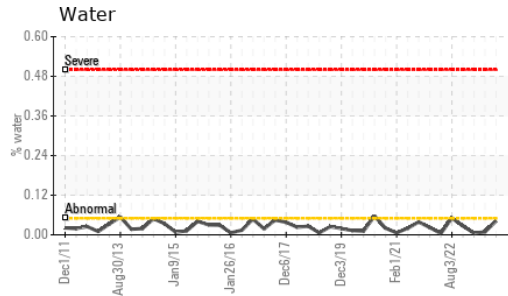
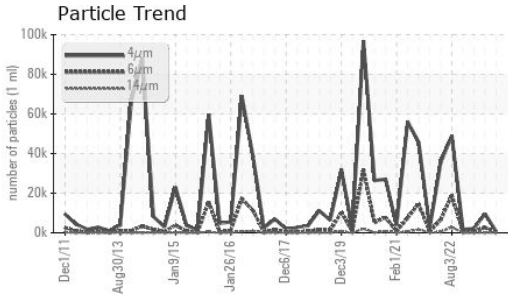
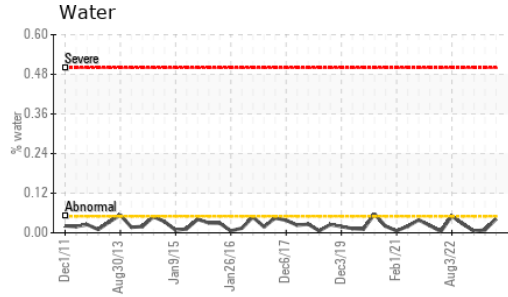
## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>4</b>	4	3
Sodium	ppm	ASTM D5185(m)	<b>10</b>	10	10
Potassium	ppm	ASTM D5185(m) >20	<b>3</b>	3	3
Water	%	ASTM D6304* >0.05	<b>0.042</b>	0.009	0.005
ppm Water	ppm	ASTM D6304* >500	<b>425.3</b>	96.7	58.1

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>767</b>	9619	2119
Particles >6µm	ASTM D7647	>1300	<b>236</b>	▲ 2709	529
Particles >14µm	ASTM D7647	>160	<b>33</b>	▲ 170	55
Particles >21µm	ASTM D7647	>40	<b>11</b>	31	19
Particles >38µm	ASTM D7647	>10	<b>1</b>	1	2
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>--/17/14	<b>17/15/12</b>	▲ 20/19/15	18/16/13

# OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	2.0	<b>2.11</b>	1.99	1.99

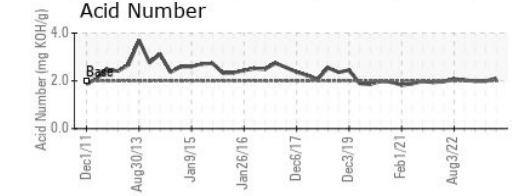
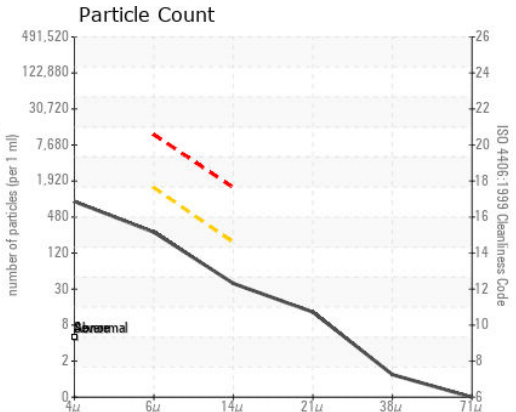
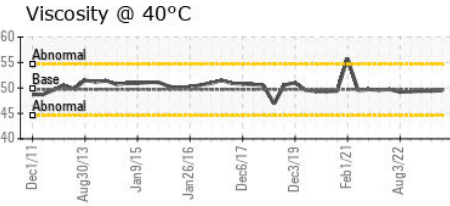
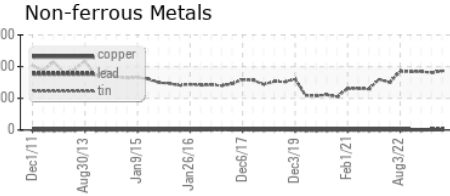
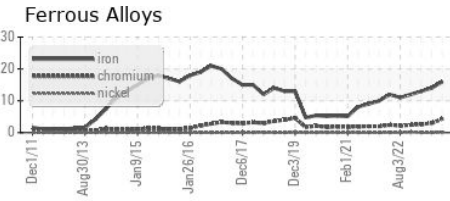
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	49.7	<b>49.5</b>	49.4	49.4

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0818564 **Received** : 21 Aug 2023  
**Lab Number** : **02577163** **Diagnosed** : 23 Aug 2023  
**Unique Number** : 5630223 **Diagnostician** : Wes Davis  
**Test Package** : IND 2 ( Additional Tests: KF )

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.

**RTA - UGB**  
 C.P. 900  
 Ville de la Baie, QC  
 CA G7B 4G9  
 Contact: Alcan Epc  
 mathieu.tremblay2@riotinto.com  
 T: (418)697-9568  
 F: (418)697-9550