



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

T.M.B.
Machine Id

5502-UHO-006 (S/N 3)

Component

Hydraulic System

Fluid

AMERICAN CHEMICAL TECH. ECOSAFE FR-46 (4000 LTR)

RECOMMENDATION

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

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0912939	WC0859194	WC0792127
Sample Date		Client Info		07 Apr 2024	20 Sep 2023	23 Mar 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

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

Iron	ppm	ASTM D5185(m)	>20	14	14	13
Chromium	ppm	ASTM D5185(m)	>20	10	11	12
Nickel	ppm	ASTM D5185(m)	>20	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>20	0	<1	<1
Copper	ppm	ASTM D5185(m)	>20	9	10	10
Tin	ppm	ASTM D5185(m)	>20	<1	<1	1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

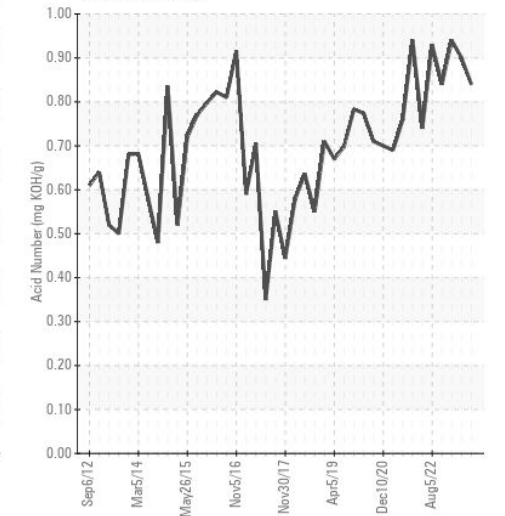
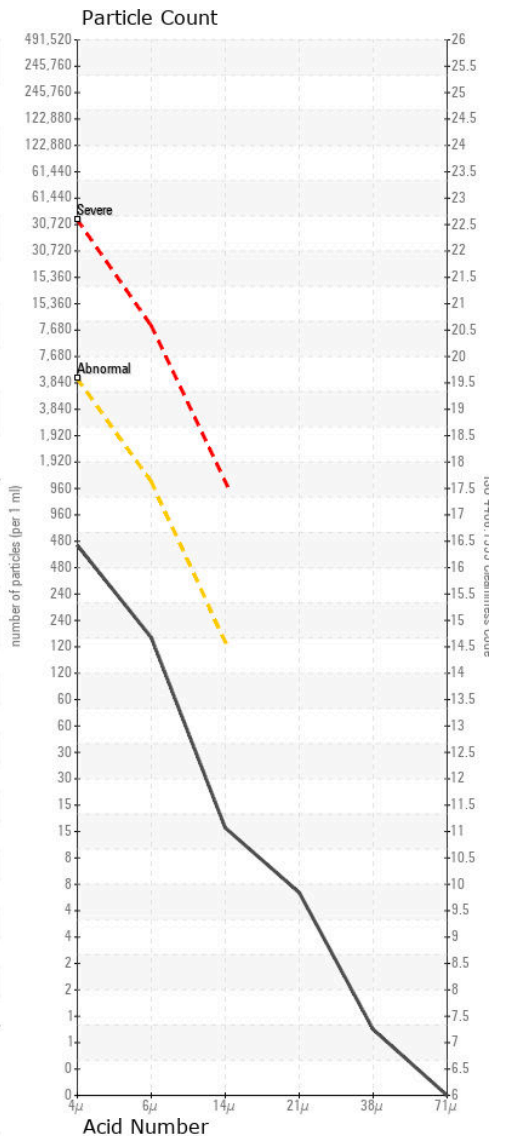
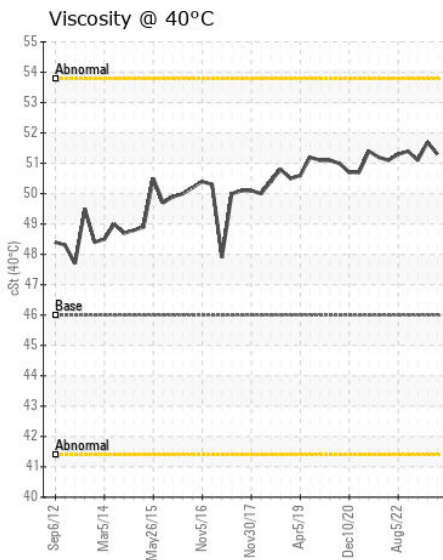
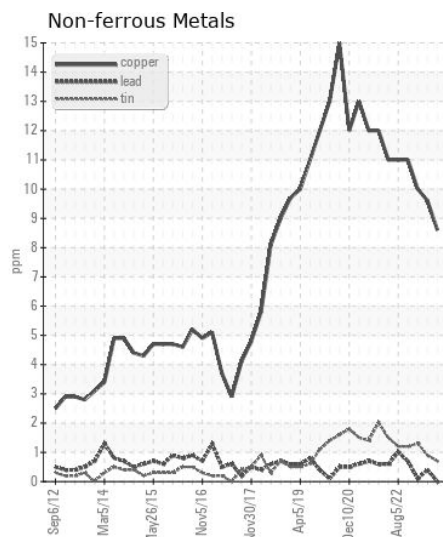
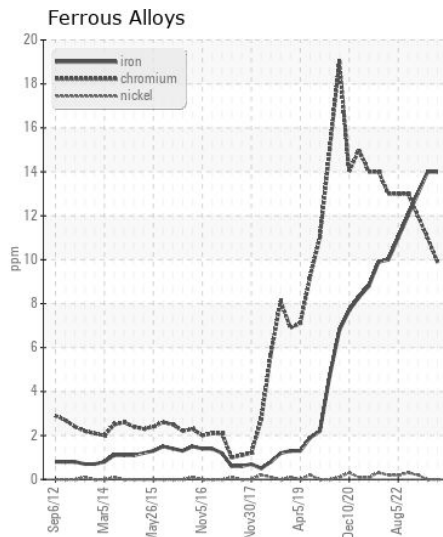
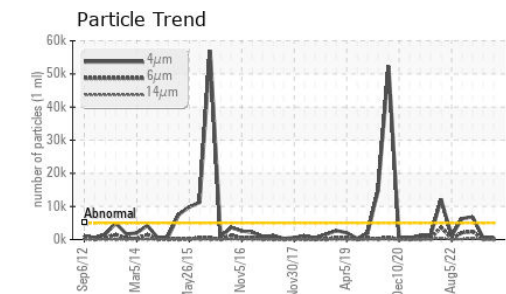
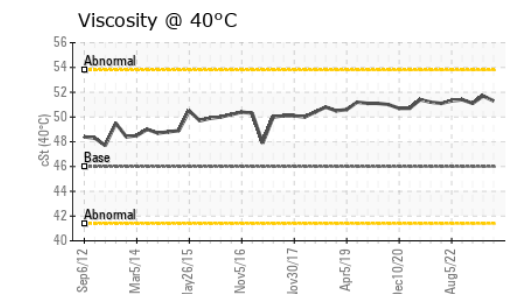
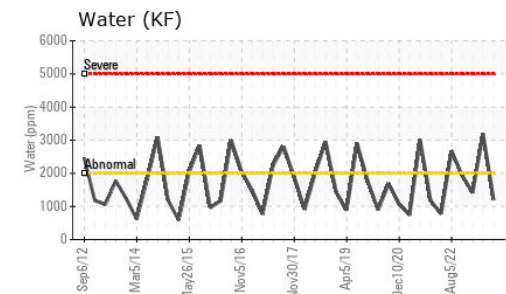
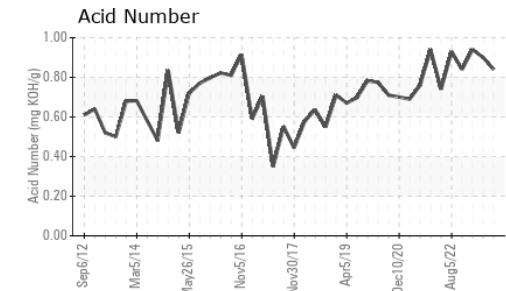
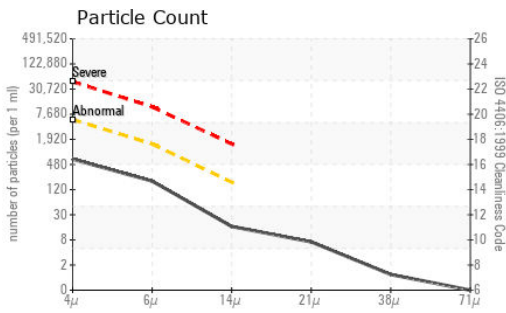
La propreté du système est acceptable pour votre objectif de propreté ISO 4406. La teneur en eau est négligeable. La propreté du système et du fluide est acceptable.

Silicon	ppm	ASTM D5185(m)	>15	0	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water	%	ASTM D6304*	>0.2	0.120	▲ 0.318	0.141
ppm Water	ppm	ASTM D6304*	>2000	1205	▲ 3188.4	1412.4
Particles >4µm		ASTM D7647	>5000	566	542	● 6827
Particles >6µm		ASTM D7647	>1300	169	200	● 2410
Particles >14µm		ASTM D7647	>160	14	25	● 303
Particles >21µm		ASTM D7647	>40	6	5	▲ 110
Particles >38µm		ASTM D7647	>10	1	0	7
Particles >71µm		ASTM D7647	>3	0	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	16/15/11	16/15/12	● 20/18/15
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Le AN est acceptable pour ce fluide. L'état de l'huile permet d'en prolonger l'utilisation.

Sodium	ppm	ASTM D5185(m)		5	6	5
Boron	ppm	ASTM D5185(m)		<1	<1	2
Barium	ppm	ASTM D5185(m)		0	<1	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		<1	0	0
Calcium	ppm	ASTM D5185(m)		0	<1	0
Phosphorus	ppm	ASTM D5185(m)		600	600	691
Zinc	ppm	ASTM D5185(m)		9	9	10
Sulfur	ppm	ASTM D5185(m)		2745	2794	3080
Acid Number (AN)	mg KOH/g	ASTM D974*		0.84	0.90	0.94
Visc @ 40°C	cSt	ASTM D7279(m)	46	51.3	51.7	51.1



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0912939
Lab Number : 02627348
Unique Number : 5760480
Test Package : IND 2 (Additional Tests: KF)

Received : 08 Apr 2024
Tested : 10 Apr 2024
Diagnosed : 10 Apr 2024 - Wes Davis

RTA - ALMA
 3000 RUE DES PINS OUEST, BATISSE 7103 MEZZALINE
 ALMA, QC
 CA G8B 6T3
 Contact: Guy Dufour
 guy.dufour-almacou@riotinto.com

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.

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