



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
T.M.B.
 Machine Id
5502-EQG-001 (S/N 23)
 Component
2 Gearbox
 Fluid
ESSO SPARTAN EP 220 (15 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		WC0902399	WC0743545	WC0712098
Sample Date		Client Info		06 Mar 2024	22 Feb 2023	31 Aug 2022
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	NORMAL	NORMAL

WEAR

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

PQ		ASTM D8184*		66	32	55
Iron	ppm	ASTM D5185(m)	>200	185	142	157
Chromium	ppm	ASTM D5185(m)	>15	2	2	2
Nickel	ppm	ASTM D5185(m)	>15	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	25	21	16
Lead	ppm	ASTM D5185(m)	>100	0	<1	0
Copper	ppm	ASTM D5185(m)	>200	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>25	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	<1	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

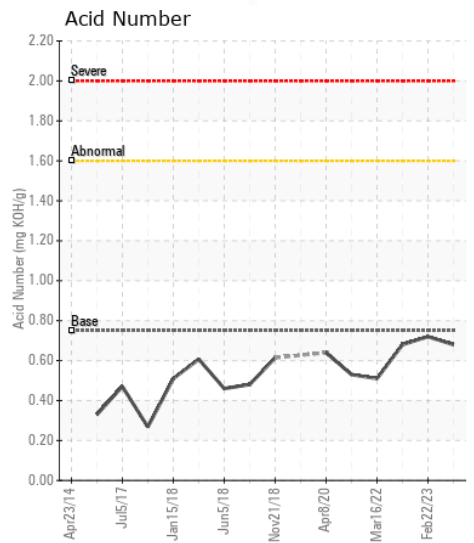
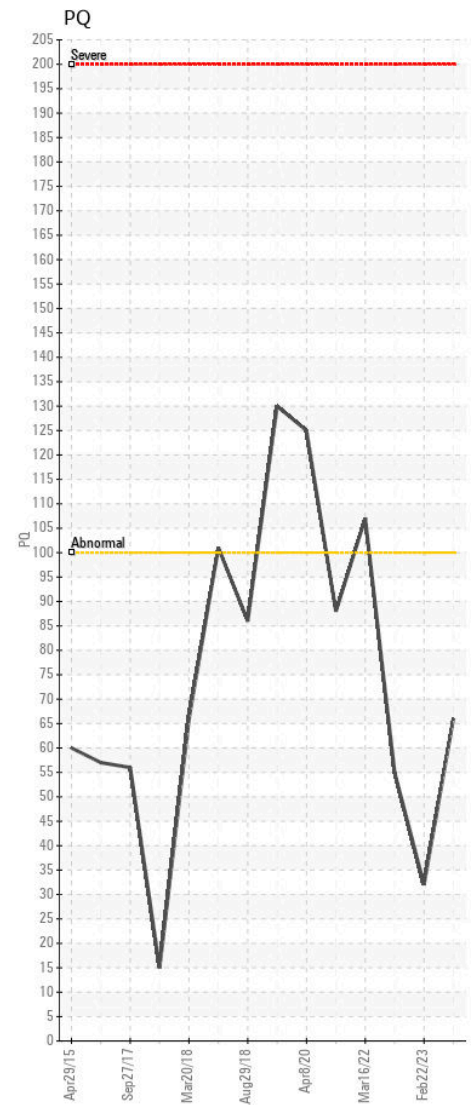
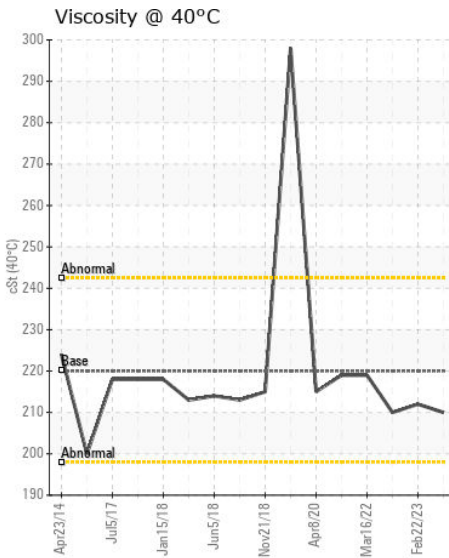
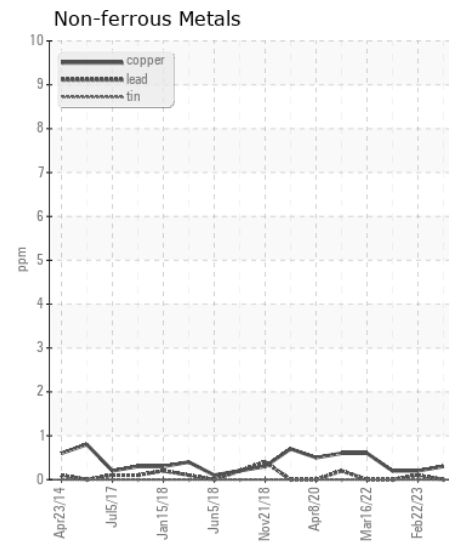
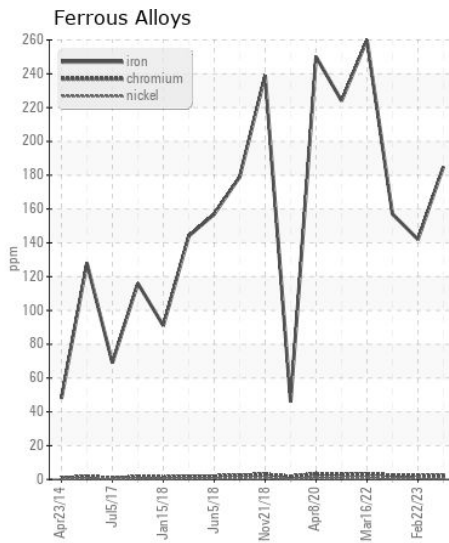
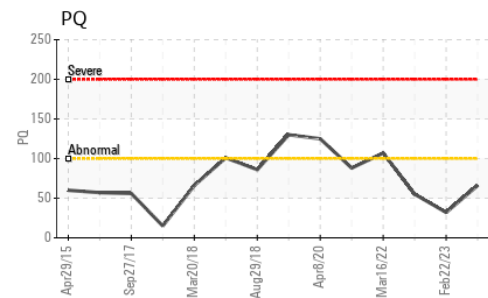
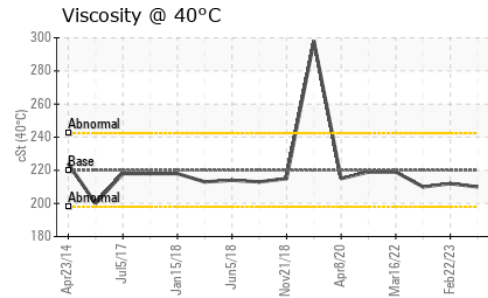
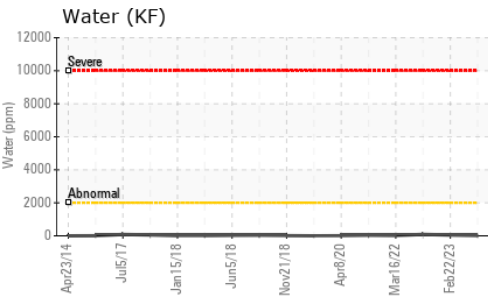
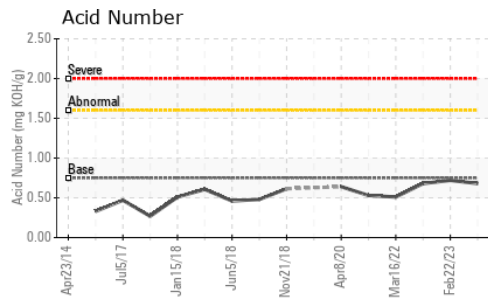
La teneur en eau est négligeable. Il n'y a aucun indice de contamination dans l'huile.

Silicon	ppm	ASTM D5185(m)	>50	28	17	14
Potassium	ppm	ASTM D5185(m)	>20	<1	0	0
Water	%	ASTM D6304*	>0.2	0.001	0.004	0.008
ppm Water	ppm	ASTM D6304*	>2000	15	47.1	87.0
Silt	scalar	Visual*	NONE	NONE	LIGHT	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)		7	7	5
Boron	ppm	ASTM D5185(m)	.5	29	33	31
Barium	ppm	ASTM D5185(m)		<1	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	0	<1	0	0
Calcium	ppm	ASTM D5185(m)	1.7	9	11	10
Phosphorus	ppm	ASTM D5185(m)	250	321	356	352
Zinc	ppm	ASTM D5185(m)	.3	4	4	2
Sulfur	ppm	ASTM D5185(m)		14470	15339	15066
Acid Number (AN)	mg KOH/g	ASTM D974*	0.75	0.68	0.72	0.68
Visc @ 40°C	cSt	ASTM D7279(m)	220	210	212	210



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0902399
Lab Number : 02627518
Unique Number : 5760650
Test Package : IND 2 (Additional Tests: KF, TAN Man)

Received : 08 Apr 2024
Tested : 10 Apr 2024
Diagnosed : 10 Apr 2024 - Kevin Marson

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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