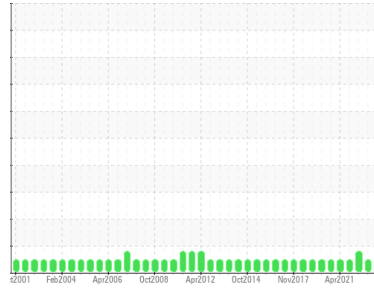




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

Temboard/Paper Machine

Machine Id

N/A N/A [805-271-011] TB Main Lube System

Component

Lube System

Fluid

ESSO TERESSTIC N PAPER MACHINE OIL 220 (25740 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0861529	WC0803279	WC0745500
Sample Date	Client Info		15 Oct 2023	15 Apr 2023	15 Oct 2022
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m) >20	39	39	40
Chromium	ppm	ASTM D5185(m) >20	0	0	0
Nickel	ppm	ASTM D5185(m) >20	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >20	<1	<1	<1
Lead	ppm	ASTM D5185(m) >20	2	2	2
Copper	ppm	ASTM D5185(m) >20	57	60	61
Tin	ppm	ASTM D5185(m) >20	0	<1	0
Antimony	ppm	ASTM D5185(m)	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	0	<1	2
Barium	ppm	ASTM D5185(m) 350	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m)	1	2	2
Magnesium	ppm	ASTM D5185(m) 0	<1	0	<1
Calcium	ppm	ASTM D5185(m) 50	13	7	6
Phosphorus	ppm	ASTM D5185(m) 450	770	833	837
Zinc	ppm	ASTM D5185(m) 550	917	933	932
Sulfur	ppm	ASTM D5185(m) 3100	8741	9166	8977
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

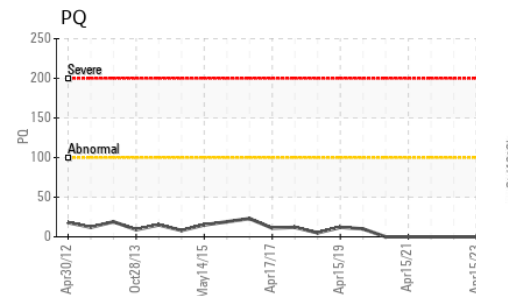
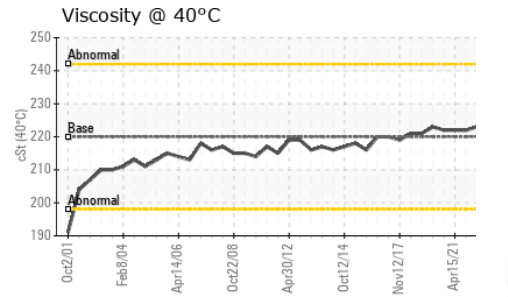
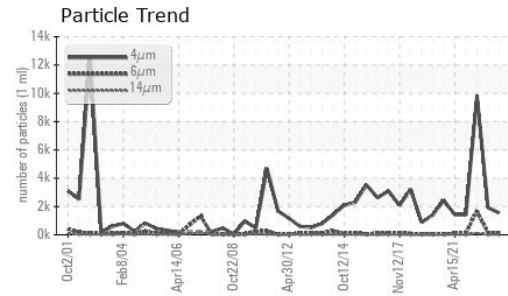
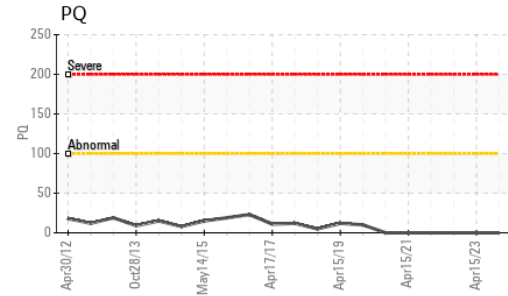
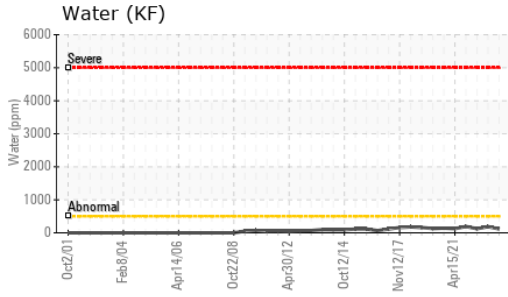
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<1	<1	<1
Sodium	ppm	ASTM D5185(m)	9	8	7
Potassium	ppm	ASTM D5185(m) >20	5	<1	0
Water	%	ASTM D6304* >0.05	0.011	0.018	0.012
ppm Water	ppm	ASTM D6304* >500	118	185.0	124.1

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		1554	1903	9828
Particles >6µm	ASTM D7647	>1300	153	141	▲ 1676
Particles >14µm	ASTM D7647	>160	12	9	118
Particles >21µm	ASTM D7647	>40	3	3	26
Particles >38µm	ASTM D7647	>10	1	0	1
Particles >71µm	ASTM D7647	>3	1	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/14	18/14/11	18/14/10	▲ 20/18/14



OIL ANALYSIS REPORT

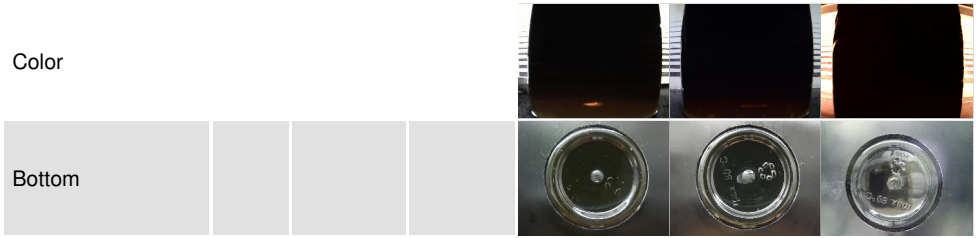


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.8	0.98	1.22	1.21

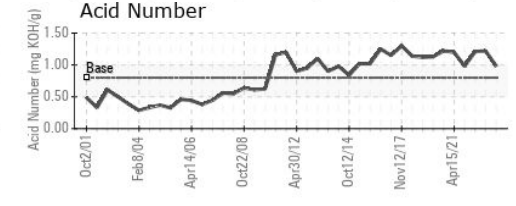
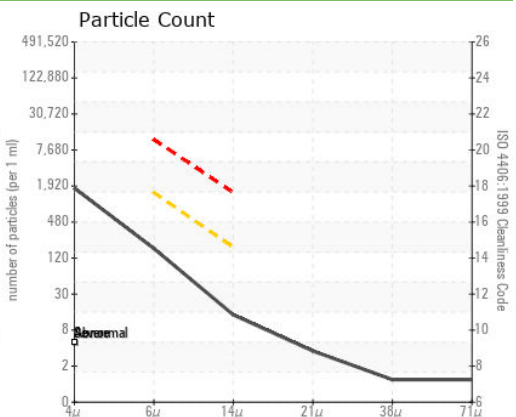
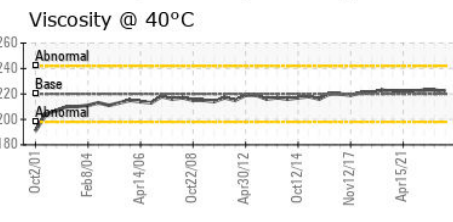
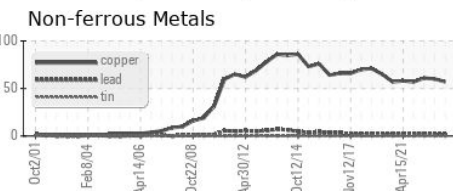
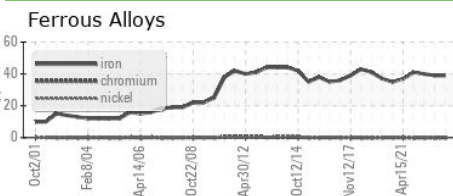
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	222	223	223

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0861529 **Received** : 11 Jan 2024
Lab Number : **02608292** **Diagnosed** : 15 Jan 2024
Unique Number : 5709378 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KF, 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.

Rayonier Advanced Materials
 P.O.Box 6000, 33 Kipawa Road
 Temiscaming, QC
 CA J0Z 3R0
 Contact: Santosh Raikar
 santosh.raikar@rayonieram.com
 T: (819)627-4931
 F: (819)627-1507