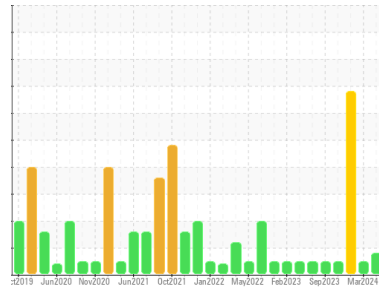




OIL ANALYSIS REPORT

Sample Rating Trend



Area
Pulp Mill A-Line
 Machine Id
5A ThickStockPump East End (S/N Warren 125 HD)
 Component
Non-Drive End Pump
 Fluid
ROYAL PURPLE SYNERGY 90/220 (5 GAL)

DIAGNOSIS

Recommendation
 We recommend an early resample to monitor this condition.

Wear
 The iron level is abnormal. All other component wear rates are normal.

Contamination
 There is no indication of any contamination in the oil.

Fluid Condition
 The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		RP0039761	RP0039768	RP0038218
Sample Date	Client Info		15 May 2024	22 Mar 2024	28 Feb 2024
Machine Age	mths	Client Info	0	0	0
Oil Age	mths	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ABNORMAL	NORMAL	SEVERE

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	▲ 133	78	▲ 313
Chromium	ppm	ASTM D5185m >5	2	<1	4
Nickel	ppm	ASTM D5185m >5	<1	0	2
Titanium	ppm	ASTM D5185m >3	<1	0	<1
Silver	ppm	ASTM D5185m >3	<1	0	0
Aluminum	ppm	ASTM D5185m >7	1	<1	▲ 13
Lead	ppm	ASTM D5185m >12	<1	0	0
Copper	ppm	ASTM D5185m >30	2	0	<1
Tin	ppm	ASTM D5185m >9	<1	0	0
Vanadium	ppm	ASTM D5185m	<1	0	<1
Cadmium	ppm	ASTM D5185m	<1	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	<1
Barium	ppm	ASTM D5185m	2	0	<1
Molybdenum	ppm	ASTM D5185m	2	0	<1
Manganese	ppm	ASTM D5185m	2	<1	4
Magnesium	ppm	ASTM D5185m	25	4	8
Calcium	ppm	ASTM D5185m	35	5	8
Phosphorus	ppm	ASTM D5185m 370	419	471	439
Zinc	ppm	ASTM D5185m	27	0	10

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	8	8	9
Sodium	ppm	ASTM D5185m	37	2	8
Potassium	ppm	ASTM D5185m >20	2	<1	2
Water	%	ASTM D6304 >.1	0.003	0.004	0.004
ppm Water	ppm	ASTM D6304 >1000	28	40	50

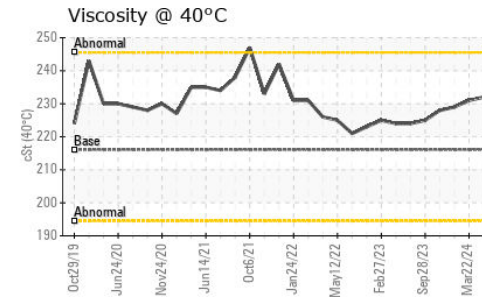
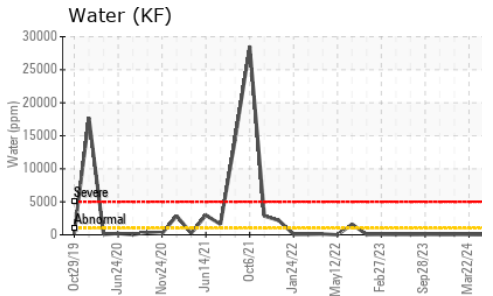
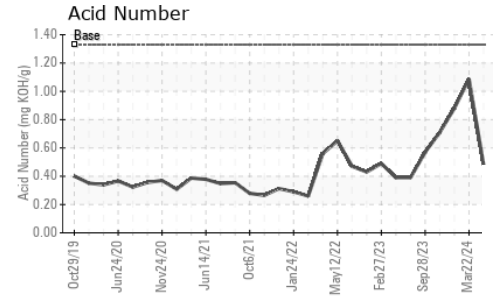
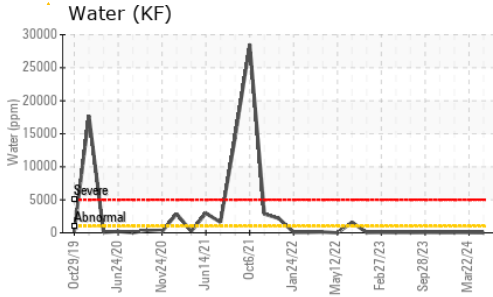
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.33	0.48	1.088	0.88

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 >.1	NEG	NEG	NEG
Free Water	scalar	*Visual	NEG	NEG	NEG

OIL ANALYSIS REPORT



FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	216.1	232	231	229

SAMPLE IMAGES	method	limit/base	current	history1	history2
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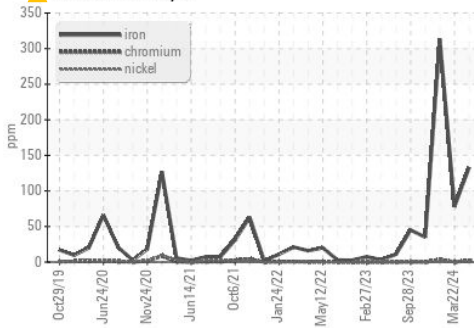
Color



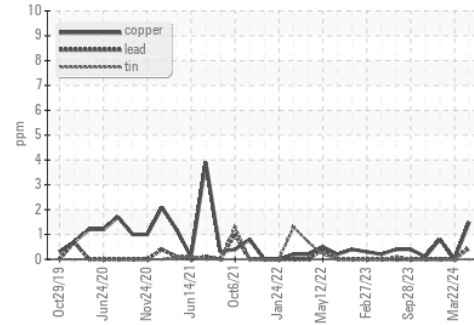
Bottom

GRAPHS

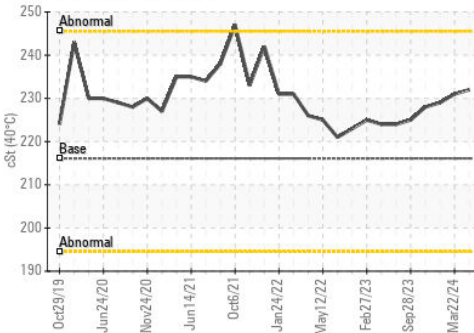
▲ Ferrous Alloys



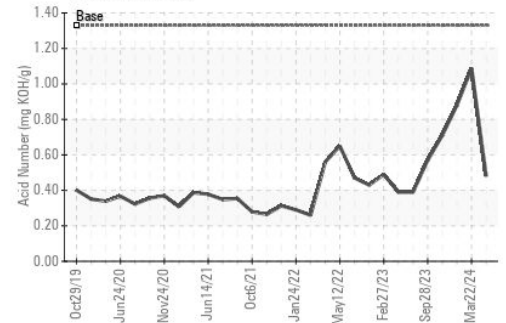
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0039761
Lab Number : **06181443**
Unique Number : 11032769
Test Package : IND 2

Received : 16 May 2024
Tested : 17 May 2024
Diagnosed : 20 May 2024 - Angela Borella

GRAPHIC PACKAGING INTERNATIONAL
 9978 FM 3129
 QUEEN CITY, TX
 US 75572
 Contact: DAVID COTHREN
 david.cothren@graphicpkg.com
 T: (903)796-1690
 F: (903)796-1969

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)