



**PERFORMANCE
UNDER
PRESSURE**

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
No. 1 Paper Machine
Machine Id
1 PM 6TH DRY DRIVE STR#21 611-31-01A (S/N MO27565-20)
Component
Gear Unit
Fluid
ROYAL PURPLE SYNERGY 90/220 (22 GAL)

RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RP0039748	RP0038175	RP0039739
Sample Date		Client Info		16 May 2024	22 Mar 2024	29 Dec 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				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	4	4	4
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	0	0
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>50	2	<1	2
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

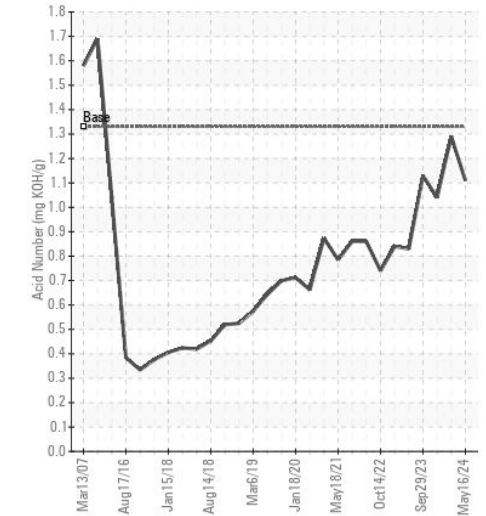
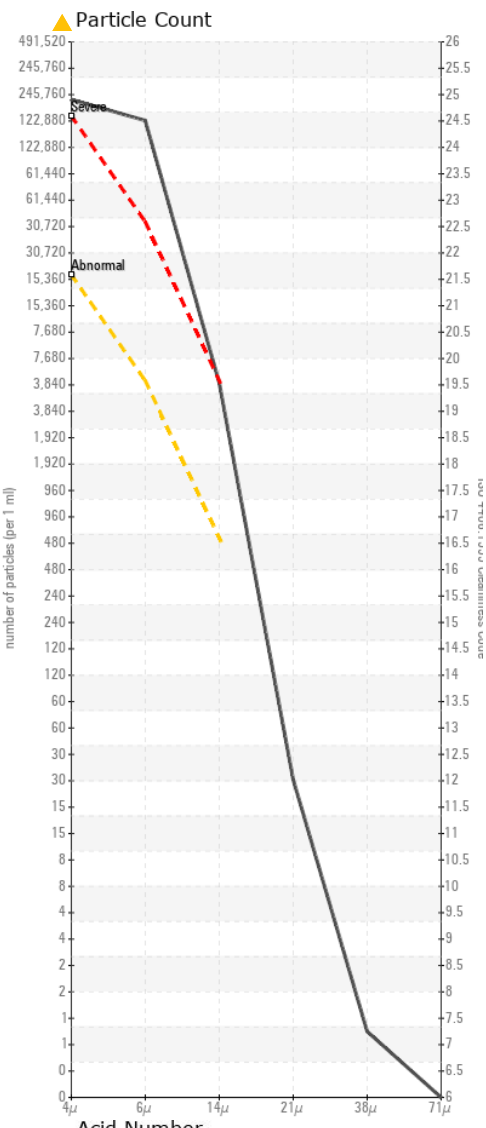
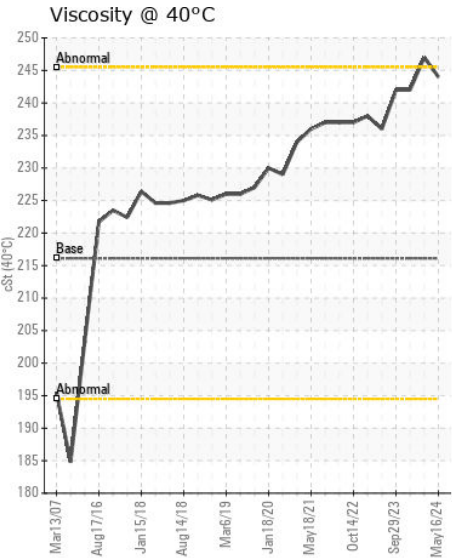
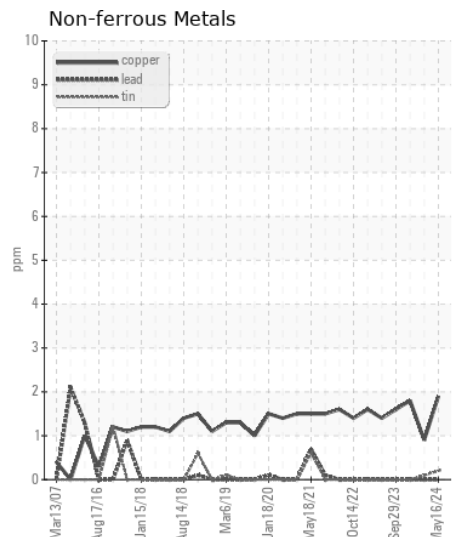
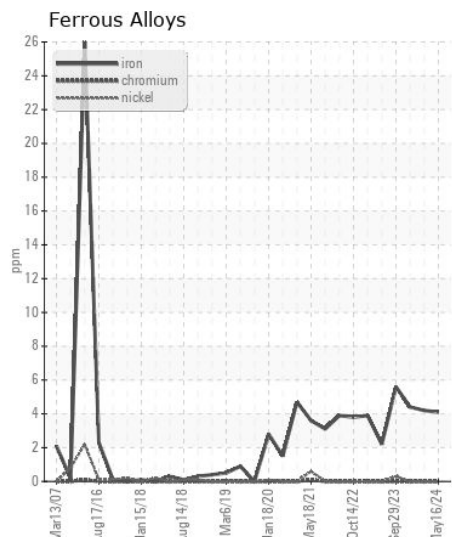
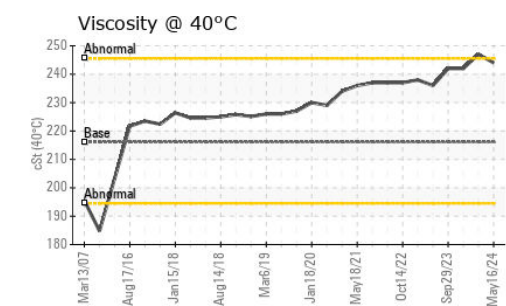
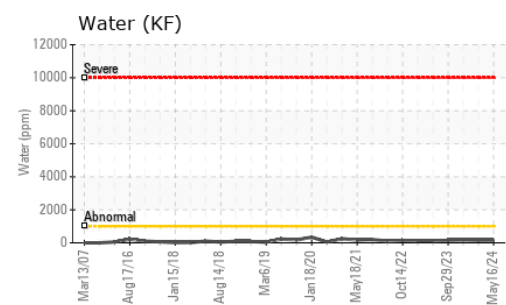
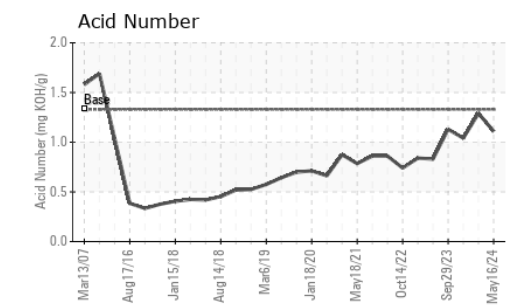
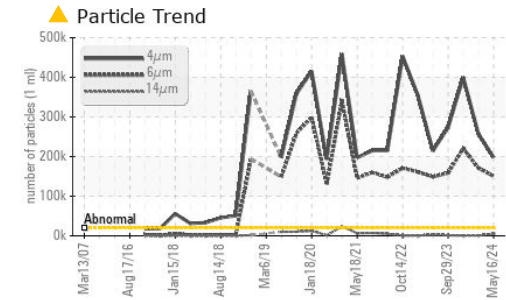
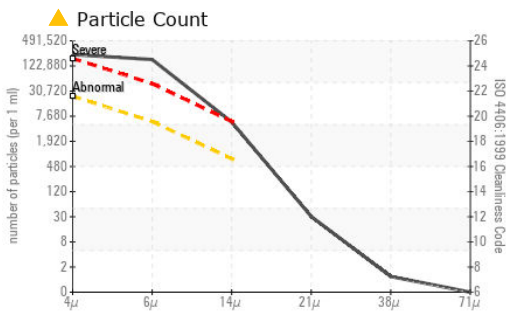
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>50	8	7	9
Potassium	ppm	ASTM D5185m	>20	2	<1	0
Water	%	ASTM D6304	>0.1	0.015	0.014	0.017
ppm Water	ppm	ASTM D6304	>1000	155	144	175
Particles >4µm		ASTM D7647	>20000	▲ 198075	▲ 257240	▲ 399783
Particles >6µm		ASTM D7647	>5000	▲ 150543	▲ 170925	▲ 220077
Particles >14µm		ASTM D7647	>640	▲ 4867	▲ 778	548
Particles >21µm		ASTM D7647	>160	27	52	72
Particles >38µm		ASTM D7647	>40	1	0	4
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 25/24/19	▲ 25/25/17	▲ 26/25/16
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		2	1	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		2	5	0
Phosphorus	ppm	ASTM D5185m	370	25	28	15
Zinc	ppm	ASTM D5185m		0	0	0
Acid Number (AN)	mg KOH/g	ASTM D8045	1.33	1.11	1.29	1.04
Visc @ 40°C	cSt	ASTM D445	216.1	244	247	242



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0039748
Lab Number : 06187648
Unique Number : 11044400
Test Package : IND 2 (Additional Tests: PrtCount)

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)