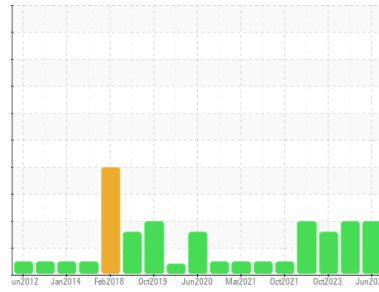




OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Area
CO GEN
 Machine Id
C1A STEAM TURBINE (S/N 12924)
 Component
Outboard Bearing
 Fluid
R&O OIL ISO 68 (3 QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 6 microns in size) present in the oil.

Fluid Condition

The AN level is at the top-end of the recommended limit. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0893681	WC0892859	WC0828833
Sample Date	Client Info		17 Jun 2024	08 Feb 2024	15 Oct 2023
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			ABNORMAL	ATTENTION	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0	<1
Chromium	ppm	ASTM D5185m >20	0	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	<1	0	0
Lead	ppm	ASTM D5185m >20	2	0	0
Copper	ppm	ASTM D5185m >20	4	3	3
Tin	ppm	ASTM D5185m >20	1	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	0	0	0
Barium	ppm	ASTM D5185m 5	0	0	0
Molybdenum	ppm	ASTM D5185m 5	0	0	0
Manganese	ppm	ASTM D5185m	<1	0	<1
Magnesium	ppm	ASTM D5185m 5	<1	0	0
Calcium	ppm	ASTM D5185m 5	0	<1	0
Phosphorus	ppm	ASTM D5185m 100	37	40	91
Zinc	ppm	ASTM D5185m 25	33	30	23
Sulfur	ppm	ASTM D5185m 1500	235	271	216

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	<1	<1
Sodium	ppm	ASTM D5185m	3	3	3
Potassium	ppm	ASTM D5185m >20	3	0	1

FLUID CLEANLINESS

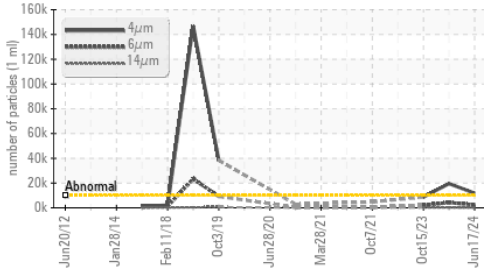
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	11756	19567	8701
Particles >6µm	ASTM D7647	>2500	2347	4246	2050
Particles >14µm	ASTM D7647	>160	130	217	167
Particles >21µm	ASTM D7647	>40	39	46	51
Particles >38µm	ASTM D7647	>10	3	1	2
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/14	21/18/14	21/19/15	20/18/15

FLUID DEGRADATION

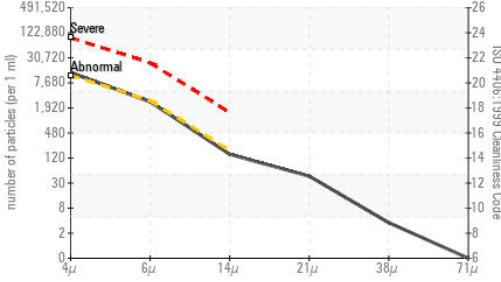
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.08	1.17	0.09	0.12

OIL ANALYSIS REPORT

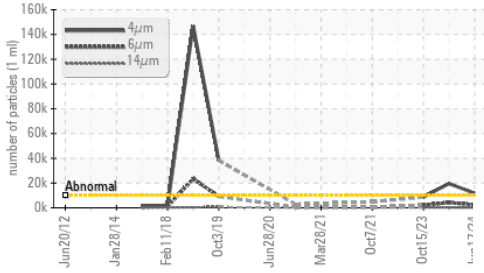
Particle Trend



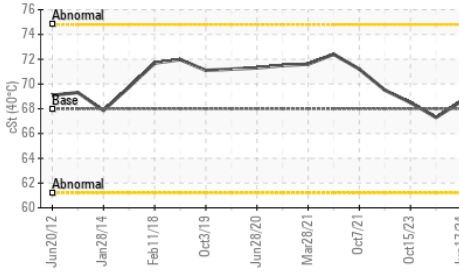
Particle Count



Particle Trend



Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE ▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 68	68.6	67.3	68.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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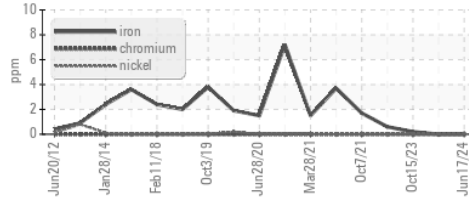
Color



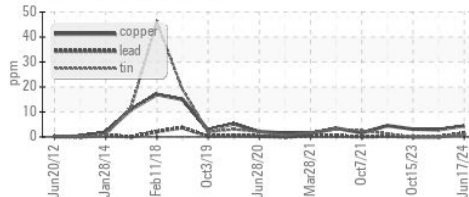
Bottom

GRAPHS

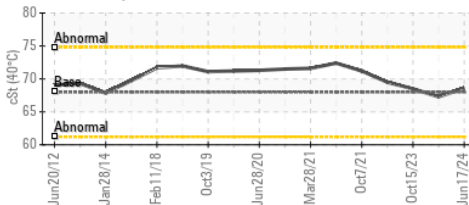
Ferrous Alloys



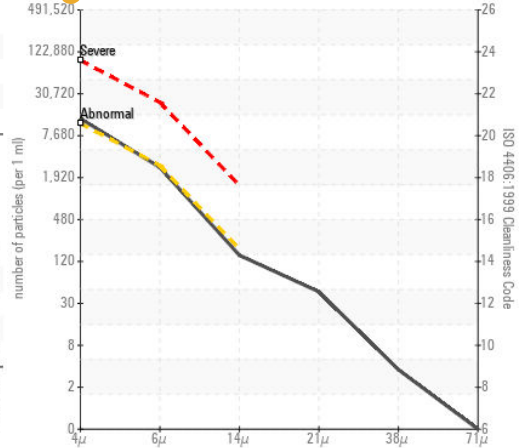
Non-ferrous Metals



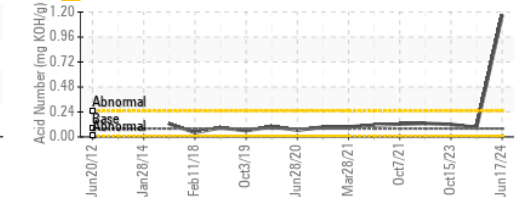
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0893681 **Received** : 18 Jun 2024
Lab Number : **06214094** **Tested** : 24 Jun 2024
Unique Number : 11086958 **Diagnosed** : 24 Jun 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: PRTCOUNT)

TROPICANA PRODUCTS INC
 1001 13TH AVE EAST
 BRADENTON, FL
 US 34208
 Contact: STEVE RIEDEL
 steven.riedel@tropicana.com
 T: (941)742-2992
 F: (941)749-3980

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)