OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Area
AOM1 PLANT PLUS
Machine Id
3-LBR-01 AF3 - STEAM TURBINE OIL
Component
Steam Turbine
Fluid
CHEVRON GST OIL ISO 32 (--- GAL)

DIAGNOSIS

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

Wear
All component wear rates are normal.

Contamination
There is a high amount of particulates present in the oil. MPC (Membrane Patch Colorimetry) test indicates acceptable levels of varnish present.

Fluid Condition
The AN level is acceptable for this fluid. Linear Sweep Voltammetry (RULER – ASTM D6971) testing indicates normal levels of anti-oxidants present in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0930107**	---	---
Sample Date		Client Info		**20 Jun 2024**	---	---
Machine Age	mls	Client Info		**0**	---	---
Oil Age	mls	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**ABNORMAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>15	**0**	---	---
Chromium	ppm	ASTM D5185m	>4	**0**	---	---
Nickel	ppm	ASTM D5185m	>2	**0**	---	---
Titanium	ppm	ASTM D5185m		**0**	---	---
Silver	ppm	ASTM D5185m		**0**	---	---
Aluminum	ppm	ASTM D5185m	>10	**0**	---	---
Lead	ppm	ASTM D5185m		**0**	---	---
Copper	ppm	ASTM D5185m	>5	**0**	---	---
Tin	ppm	ASTM D5185m	>5	**0**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	---	---
Barium	ppm	ASTM D5185m		**0**	---	---
Molybdenum	ppm	ASTM D5185m		**0**	---	---
Manganese	ppm	ASTM D5185m		**0**	---	---
Magnesium	ppm	ASTM D5185m		**0**	---	---
Calcium	ppm	ASTM D5185m		**0**	---	---
Phosphorus	ppm	ASTM D5185m		**0**	---	---
Zinc	ppm	ASTM D5185m		**0**	---	---
Sulfur	ppm	ASTM D5185m		**878**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**<1**	---	---
Sodium	ppm	ASTM D5185m		**1**	---	---
Potassium	ppm	ASTM D5185m	>20	**0**	---	---
Water	%	ASTM D6304	>0.03	**0.001**	---	---
ppm Water	ppm	ASTM D6304	>300	**10**	---	---

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ **32986**	---	---
Particles >6µm	ASTM D7647	>640	▲ **13516**	---	---
Particles >14µm	ASTM D7647	>80	▲ **694**	---	---
Particles >21µm	ASTM D7647	>20	▲ **83**	---	---
Particles >38µm	ASTM D7647	>4	**1**	---	---
Particles >71µm	ASTM D7647	>3	**0**	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ **22/21/17**	---	---

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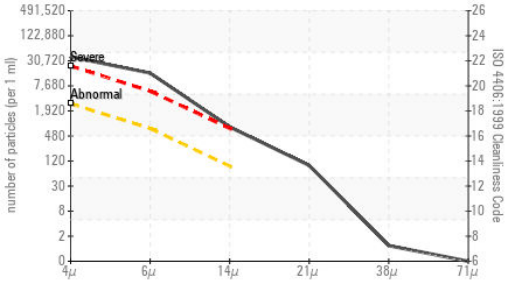
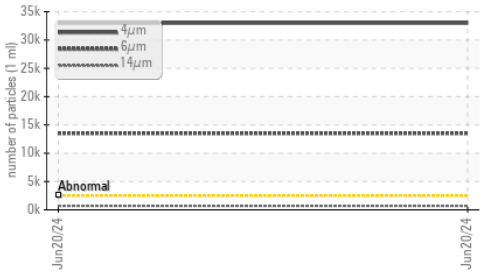
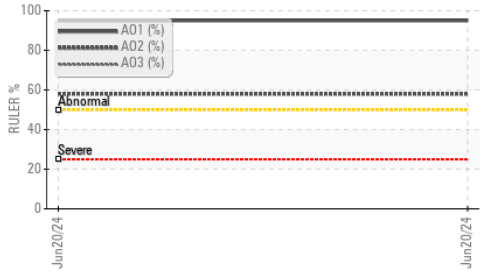
Particle Count



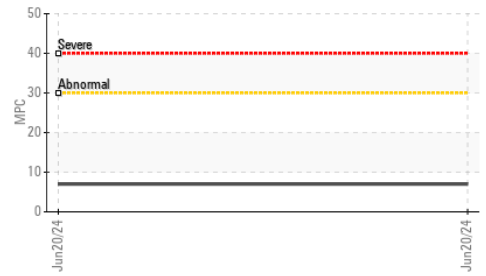
Particle Trend



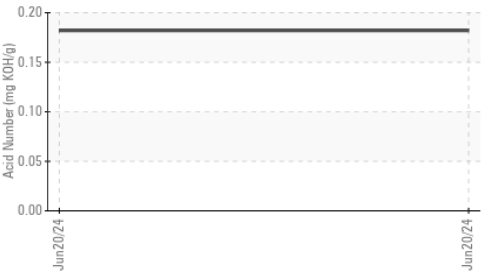
Remaining Life (RULER)



Varnish Potential



Acid Number



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.182**	---	---
Anti-Oxidant 1	%	ASTM D6971	<25	**95**	---	---
Anti-Oxidant 2	%	ASTM D6971	<25	**58**	---	---
MPC Varnish Potential	Scale	ASTM D7843	>15	**7**	---	---

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.03	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	30.4	**31.0**	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*
MPC				*no image*	*no image*

Certificate L2367

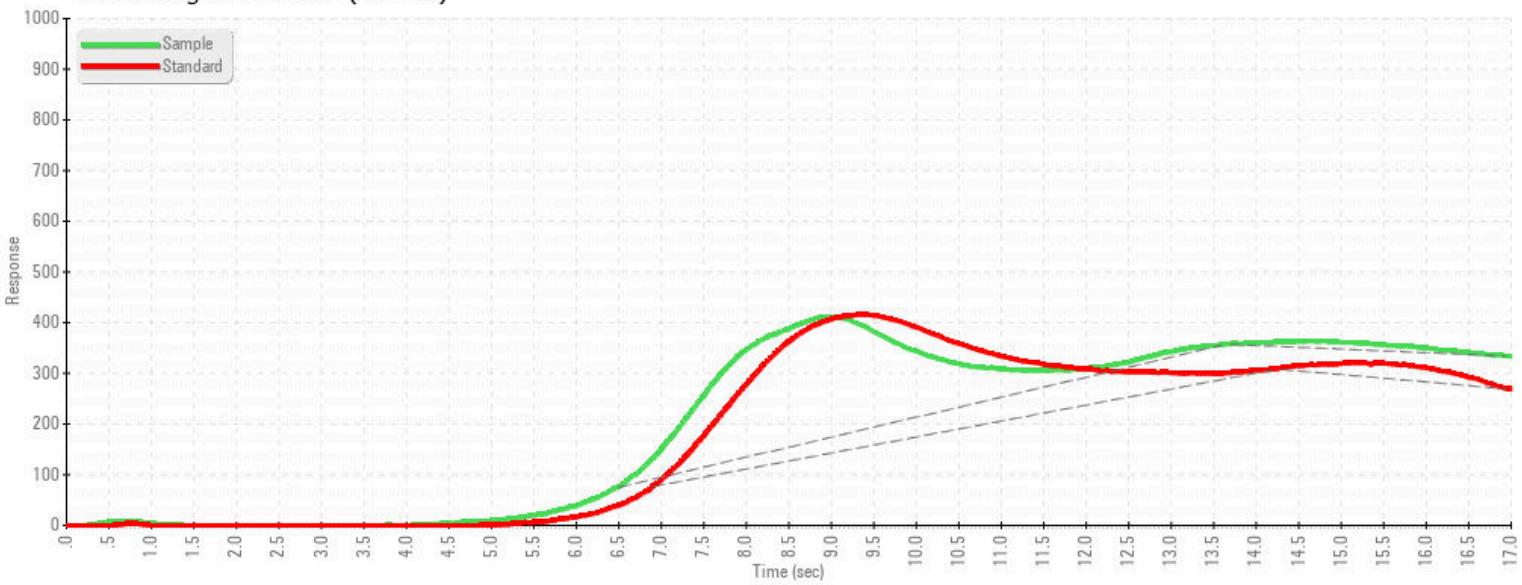
Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0930107
Lab Number : 06219734
Unique Number : 11097931
Test Package : AOM 1 (Additional Tests: KF)

Received : 25 Jun 2024
Tested : 05 Jul 2024
Diagnosed : 05 Jul 2024 - Doug Bogart

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)

SRP - Salt River Project
SRP Mail Station POB003, P.O. Box 52025
Phoenix, AZ
US 85072-2025
Contact: Chris Keisling
chris.keisling@srpnet.com
T:
F:

Remaining Useful Life (RULER)



MPC (Varnish Test)

Sample Color & Clarity

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