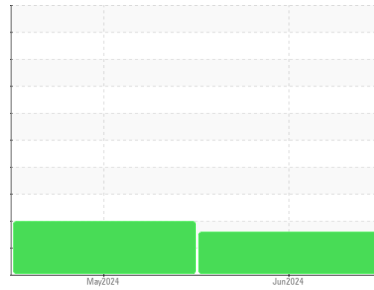




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

AOM1 PLANT PLUS

Machine Id

2-LBR-01 AF2 - 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	WC0930106	WC0930103	---
Sample Date	Client Info	20 Jun 2024	24 May 2024	---
Machine Age	mls Client Info	0	0	---
Oil Age	mls Client Info	0	0	---
Oil Changed	Client Info	N/A	N/A	---
Sample Status		ABNORMAL	ABNORMAL	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185m	>15	0	0	---
Chromium ppm ASTM D5185m	>4	0	0	---
Nickel ppm ASTM D5185m	>2	0	0	---
Titanium ppm ASTM D5185m		0	0	---
Silver ppm ASTM D5185m		0	0	---
Aluminum ppm ASTM D5185m	>10	0	0	---
Lead ppm ASTM D5185m		0	0	---
Copper ppm ASTM D5185m	>5	0	0	---
Tin ppm ASTM D5185m	>5	0	0	---
Vanadium ppm ASTM D5185m		0	<1	---
Cadmium ppm ASTM D5185m		0	0	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185m		0	0	---
Barium ppm ASTM D5185m		0	0	---
Molybdenum ppm ASTM D5185m		0	0	---
Manganese ppm ASTM D5185m		0	0	---
Magnesium ppm ASTM D5185m		0	0	---
Calcium ppm ASTM D5185m		0	0	---
Phosphorus ppm ASTM D5185m		0	<1	---
Zinc ppm ASTM D5185m		0	2	---
Sulfur ppm ASTM D5185m		987	840	---

CONTAMINANTS

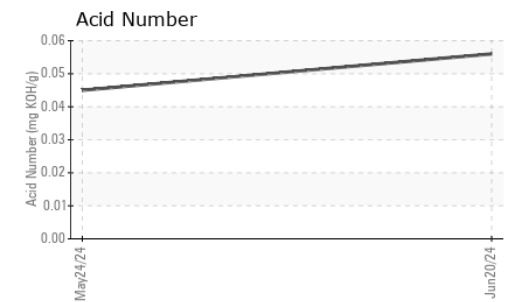
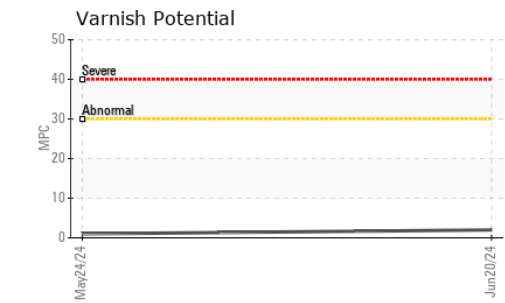
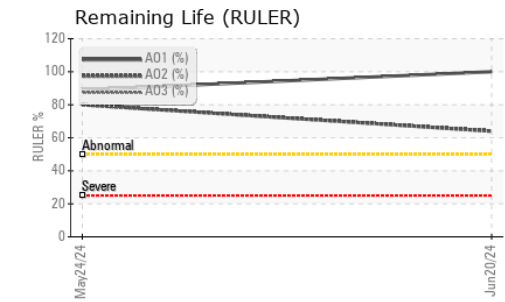
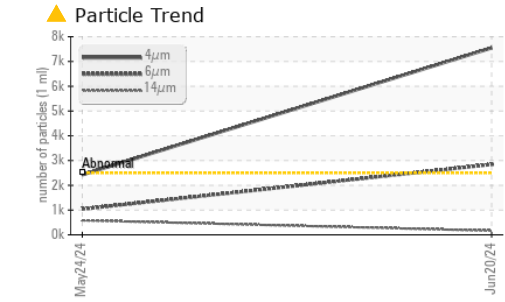
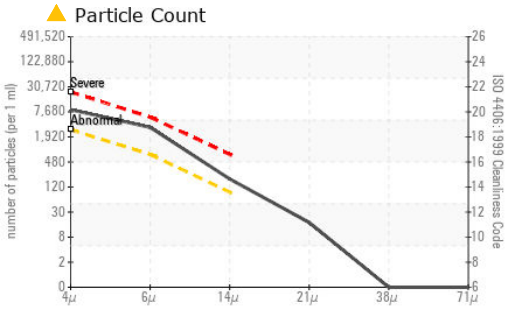
method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>15	<1	1	---
Sodium ppm ASTM D5185m		1	<1	---
Potassium ppm ASTM D5185m	>20	0	0	---
Water % ASTM D6304	>0.03	0.001	0.001	---
ppm Water ppm ASTM D6304	>300	4	3	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>2500	▲ 7551	2424	---
Particles >6µm ASTM D7647	>640	▲ 2843	● 1039	---
Particles >14µm ASTM D7647	>80	▲ 165	▲ 584	---
Particles >21µm ASTM D7647	>20	15	▲ 397	---
Particles >38µm ASTM D7647	>4	0	▲ 44	---
Particles >71µm ASTM D7647	>3	0	0	---
Oil Cleanliness ISO 4406 (c)	>18/16/13	▲ 20/19/15	▲ 18/17/16	---



OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.056	0.045	---
Anti-Oxidant 1	%	ASTM D6971	100	89	---
Anti-Oxidant 2	%	ASTM D6971	64	80	---
MPC Varnish Potential	Scale	ASTM D7843	2	1	---

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	NEG	NEG	---
Free Water	scalar	*Visual	NEG	NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	34.4	34.7	---

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



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0930106

Lab Number : **06219732**

Unique Number : 11097929

Test Package : AOM 1 (Additional Tests: KF)

Received : 25 Jun 2024

Tested : 05 Jul 2024

Diagnosed : 05 Jul 2024 - Doug Bogart

SRP - Salt River Project

SRP Mail Station POB003, P.O. Box 52025

Phoenix, AZ

US 85072-2025

Contact: Chris Keisling

chris.keisling@srpnet.com

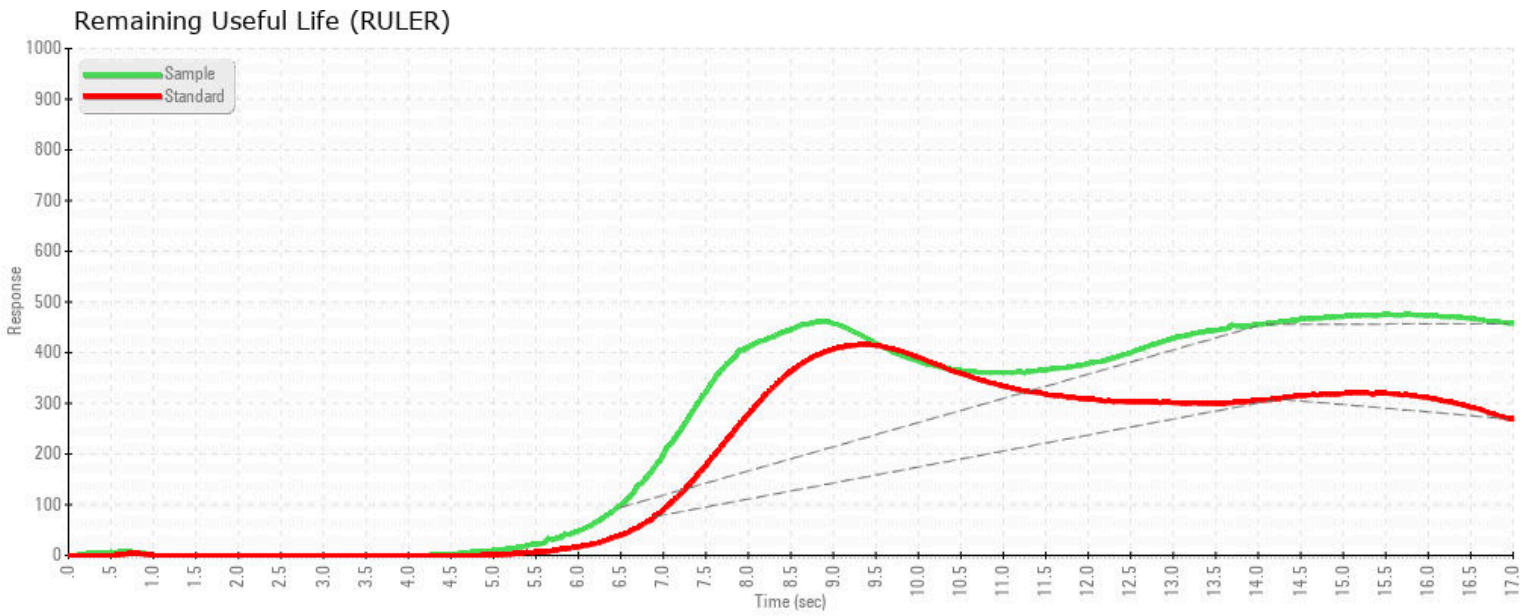
T:

F:

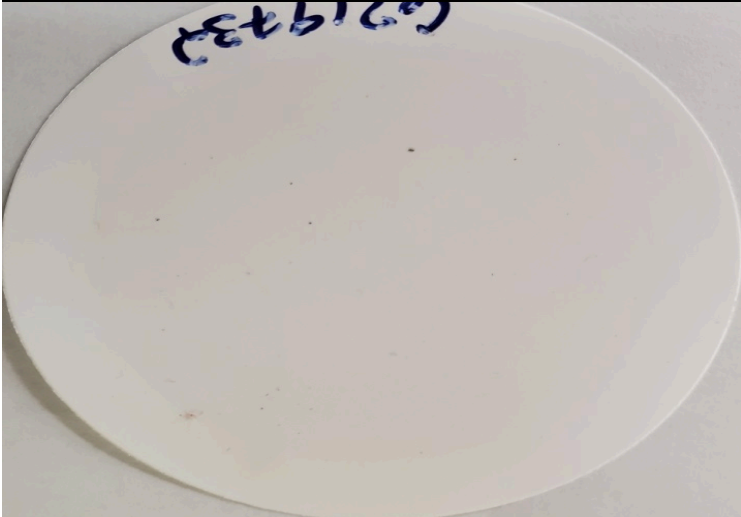
To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)



MPC (Varnish Test)



Sample Color & Clarity



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