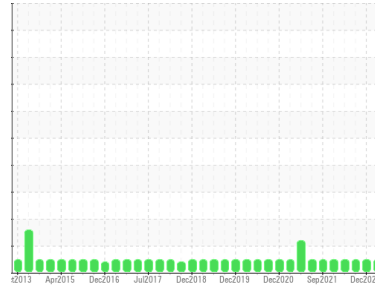




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Southcentral Power Plant
 Machine Id
12CTG-GLO
 Component
Bearing
 Fluid
SHELL TURBO J (500 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service. Color 3.0.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0784106	WC0567438	WC0631016
Sample Date	Client Info		26 Apr 2023	29 Dec 2022	27 Sep 2022
Machine Age	hrs	Client Info	0	0	79129
Oil Age	hrs	Client Info	0	0	79129
Oil Changed	Client Info		Not Changed	Not Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0	0
Chromium	ppm	ASTM D5185m >20	<1	0	0
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	<1	0	0
Aluminum	ppm	ASTM D5185m >20	<1	0	<1
Lead	ppm	ASTM D5185m >20	<1	0	0
Copper	ppm	ASTM D5185m >20	0	0	0
Tin	ppm	ASTM D5185m >20	0	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	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	0	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m	9	0	0
Calcium	ppm	ASTM D5185m	0	0	0
Phosphorus	ppm	ASTM D5185m	0	49	2
Zinc	ppm	ASTM D5185m	4	0	0
Sulfur	ppm	ASTM D5185m	0	0	32

CONTAMINANTS

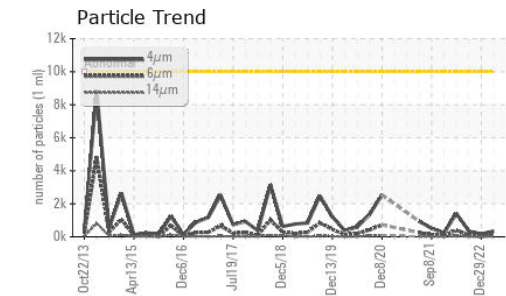
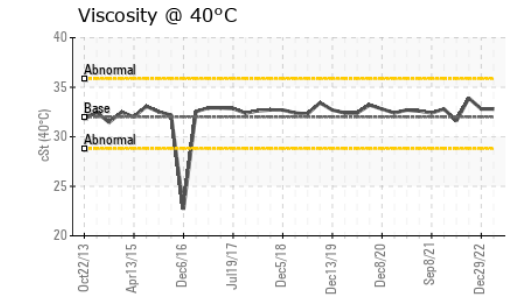
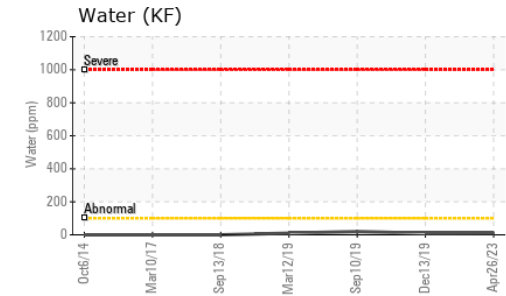
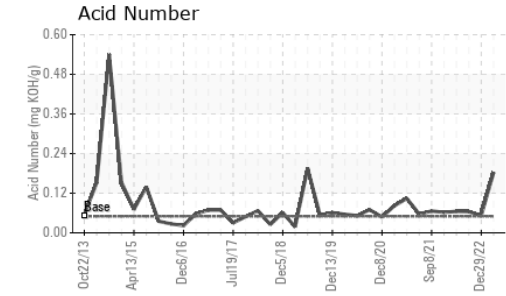
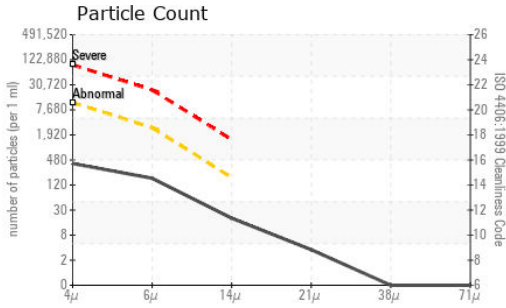
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	0	0
Sodium	ppm	ASTM D5185m	8	8	3
Potassium	ppm	ASTM D5185m >20	0	0	1
Water	%	ASTM D6304 >2	0.001	---	---
ppm Water	ppm	ASTM D6304	10.8	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	---	---
Nitration	Abs/cm	*ASTM D7624	1.7	---	---
Sulfation	Abs/.1mm	*ASTM D7415	11.0	---	---



OIL ANALYSIS REPORT



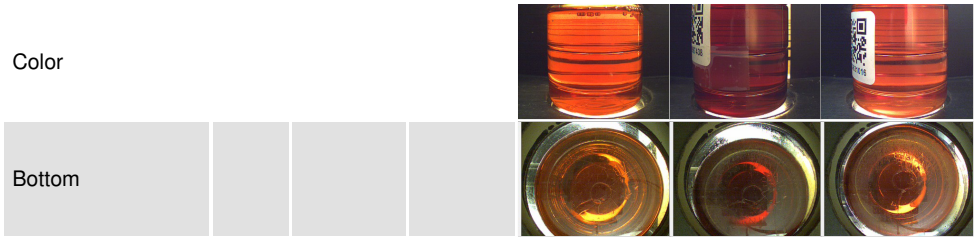
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	346	172	347
Particles >6µm	ASTM D7647	>2500	154	30	97
Particles >14µm	ASTM D7647	>160	17	0	15
Particles >21µm	ASTM D7647	>40	3	0	5
Particles >38µm	ASTM D7647	>10	0	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/14	16/14/11	15/12/7	16/14/11

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm *ASTM D7414		3.6	---	---
Acid Number (AN)	mg KOH/g ASTM D8045	0.05	0.183	0.052	0.064

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	>2	NEG	NEG	NEG
Free Water	scalar *Visual		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	32	32.8	32.8	33.9
ASTM Color	scalar *ASTM D1500	0.5	3.0	L5.5	L5.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color					
Bottom					



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0784106 **Received** : 26 May 2023
Lab Number : **05858552** **Tested** : 31 May 2023
Unique Number : 10493017 **Diagnosed** : 31 May 2023 - Jonathan Hester
Test Package : PLANT (Additional Tests: Color-ASTM, FT-IR)

CHUGACH ELECTRIC
 5601 ELECTRON DR
 ANCHORAGE, AK
 US 99519
 Contact: AARON LOVE
 aaron_love@chugachelectric.com

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)