

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Southcentral Power Plant 13CTG-GLO

Component Bearing

SHELL TURBO J (500 GAL)

Recommendation

Resample at the next service interval to monitor.

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.

::2013 Apr2015 Sep2016 Mar2018 Mar2019 Dec2019 Sep2020 Jun2021 Dec2021 Apr20.										
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2				
Sample Number		Client Info		WC0784105	WC0631015	WC0631010				
Sample Date		Client Info		26 Apr 2023	27 Sep 2022	20 Jun 2022				
Machine Age	hrs	Client Info		0	0	0				
Oil Age	hrs	Client Info		0	81811	0				
Oil Changed		Client Info		Not Changd	Not Changd	N/A				
Sample Status				NORMAL	NORMAL	NORMAL				
WEAR METALS		method	limit/base	current	history1	history2				
Iron	ppm	ASTM D5185m	>20	<1	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	<1	0				
Lead	ppm	ASTM D5185m	>20	<1	<1	0				
Copper	ppm	ASTM D5185m	>20	0	0	0				
Tin	ppm	ASTM D5185m	>20	0	0	0				
Antimony	ppm	ASTM D5185m								
Vanadium	ppm	ASTM D5185m		0	0	0				
Cadmium	ppm	ASTM D5185m		0	0	0				
ADDITIVES		method	limit/base	current	history1	history2				
				•		4				
Boron	ppm	ASTM D5185m		0	0	<1				
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m		0	0	<1				
	• •									
Barium	ppm	ASTM D5185m		0	0	0				
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		0 <1	0	0				
Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 <1	0 0	0 0 0				
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 <1 9	0 0 0 0	0 0 0 0 0				
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 <1 9	0 0 0 0	0 0 0 0				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 <1 <1 9 2 <1	0 0 0 0 0 3	0 0 0 0 0				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 <1 <1 9 2 <1 6	0 0 0 0 0 0 3	0 0 0 0 0 2				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >15	0 <1 <1 9 2 <1 6 652	0 0 0 0 0 0 3 0	0 0 0 0 0 2 0 2				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>15	0 <1 <1 9 2 <1 6 652 current	0 0 0 0 0 0 3 0 15	0 0 0 0 0 2 0 26				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>15 >20	0 <1 <1 9 2 <1 6 652 current <1	0 0 0 0 0 0 3 0 15 history1	0 0 0 0 0 2 0 26 history2				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>15 >20	0 <1 <1 9 2 <1 6 652 current <1 7 <1 0.001	0 0 0 0 0 0 3 0 15 history1	0 0 0 0 0 2 0 26 history2				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>15 >20	0 <1 <1 9 2 <1 6 652 current <1 7 <1	0 0 0 0 0 0 3 0 15 history1	0 0 0 0 0 2 0 26 history2				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	>15 >20	0 <1 <1 9 2 <1 6 652 current <1 7 <1 0.001	0 0 0 0 0 0 3 0 15 history1 0 4	0 0 0 0 0 2 0 26 history2 0 9				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304 ASTM D6304	>15 >20 >2	0 <1 <1 9 2 <1 6 652 current <1 7 <1 0.001 11.5	0 0 0 0 0 0 3 0 15 history1 0 4 1	0 0 0 0 0 2 0 26 history2 0 9 0				
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Water ppm Water INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D6304	>15 >20 >2	0 <1 <1 9 2 <1 6 652 current <1 7 <1 0.001 11.5 current	0 0 0 0 0 0 3 0 15 history1 0 4 1	0 0 0 0 0 2 0 26 history2 0 9 0				

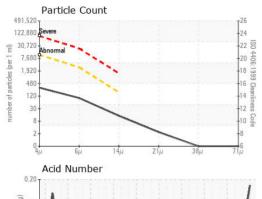
11.2

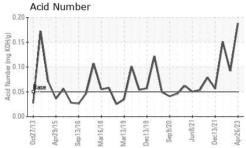
Sulfation

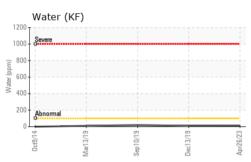
Abs/.1mm *ASTM D7415

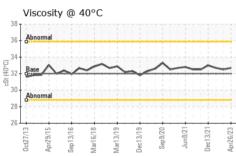


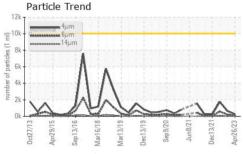
OIL ANALYSIS REPORT











FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	265	647	1747
Particles >6µm		ASTM D7647	>2500	86	197	584
Particles >14µm		ASTM D7647	>160	12	21	68
Particles >21µm		ASTM D7647	>40	2	6	18
Particles >38μm		ASTM D7647	>10	0	0	1
Particles >71μm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/14	15/14/11	17/15/12	18/16/13
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		4.0		
Acid Number (AN)	mg KOH/g	ASTM D8045	0.05	0.188	0.092	0.151
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	VLITE	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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	32.7	32.5	32.7
ASTM Color	scalar	*ASTM D1500	0.5	3.0	3.5	L5.0
SAMPLE IMAGES	;	method	limit/base	current	history1	history2
Color						
				3//		





Laboratory

Unique Number : 10493009

Sample No.

Lab Number : 05858544

: WC0784105

Bottom

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 26 May 2023 Tested

Diagnosed

: 31 May 2023 : 31 May 2023 - Jonathan Hester

Test Package: PLANT (Additional Tests: Color-ASTM, FT-IR)

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. **CHUGACH ELECTRIC** 5601 ELECTRON DR ANCHORAGE, AK US 99519

Contact: AARON LOVE aaron_love@chugachelectric.com

T:

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: