



OIL ANALYSIS REPORT

Sample Rating Trend

UNKNOWN

Area

Power House

Machine Id

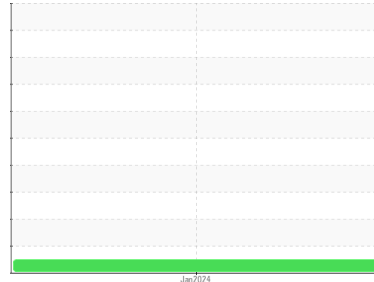
GENERAL ELECTRIC #1 Steam Turbine

Component

Bearing Lube

Fluid

MOBIL DTE OIL LIGHT (400 GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Analytical Ferrography: Results indicate normal conditions. Based on a brief phone discussion, this sample is a low-hours sample after a major overhaul so some small amount of atypical debris is to be expected. There are a handful of ferrous platelets present. There is a normal amount of ferrous rubbing wear and some small amount of polymers that I would expect to filter out in a relatively short amount of time.

Wear

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

Contaminants

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

Oil Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0854701	---	---
Sample Date	Client Info	11 Jan 2024	---	---
Machine Age	hrs	Client Info	0	---
Oil Age	hrs	Client Info	0	---
Oil Changed	Client Info	N/A	---	---
Sample Status		---	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.2	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
PQ	ASTM D8184	10	---	---
Iron	ppm	ASTM D5185m >120	0	---
Chromium	ppm	ASTM D5185m >5	0	---
Nickel	ppm	ASTM D5185m	0	---
Titanium	ppm	ASTM D5185m	0	---
Silver	ppm	ASTM D5185m	0	---
Aluminum	ppm	ASTM D5185m >4	0	---
Lead	ppm	ASTM D5185m >30	<1	---
Copper	ppm	ASTM D5185m >17	0	---
Tin	ppm	ASTM D5185m >10	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	112	---
Zinc	ppm	ASTM D5185m	68	---
Sulfur	ppm	ASTM D5185m	437	---

CONTAMINANTS

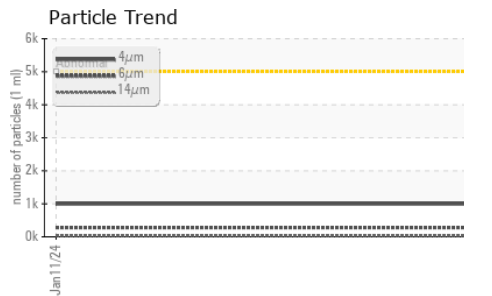
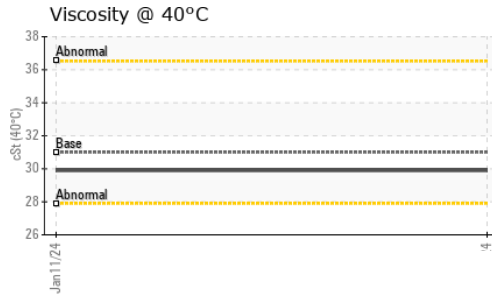
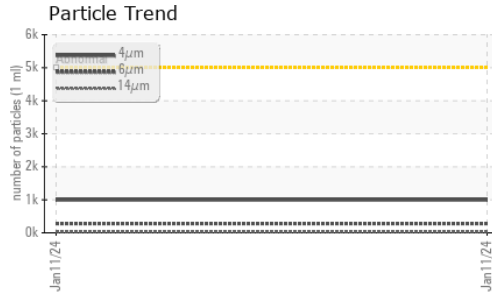
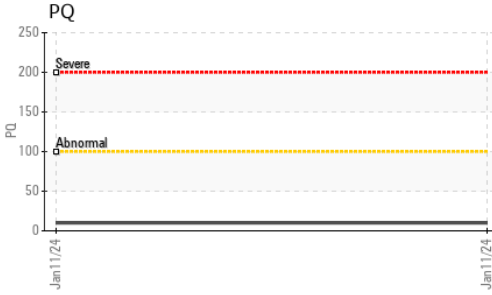
method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<1	---
Sodium	ppm	ASTM D5185m	0	---
Potassium	ppm	ASTM D5185m >20	0	---

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	997	---	---
Particles >6µm	ASTM D7647 >1300	280	---	---
Particles >14µm	ASTM D7647 >160	30	---	---
Particles >21µm	ASTM D7647 >40	10	---	---
Particles >38µm	ASTM D7647 >10	0	---	---
Particles >71µm	ASTM D7647 >3	0	---	---
Oil Cleanliness	ISO 4406 (c) >19/17/14	17/15/12	---	---





OIL ANALYSIS REPORT



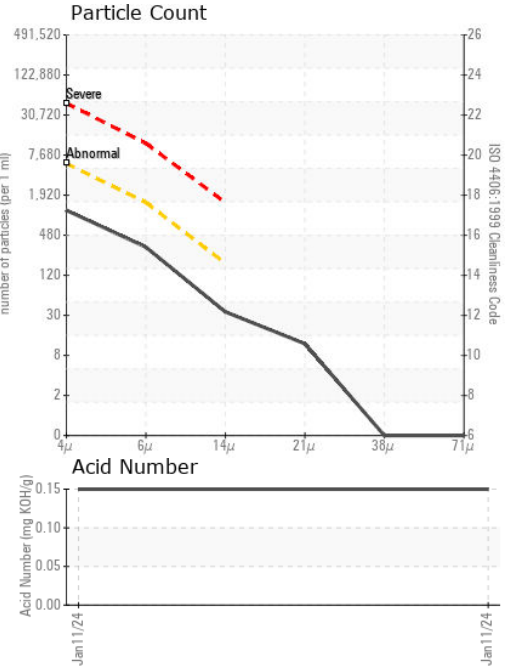
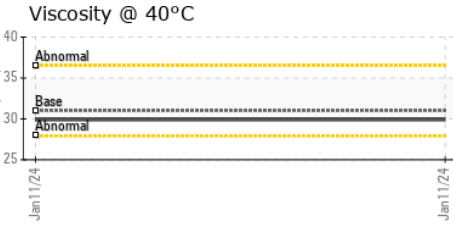
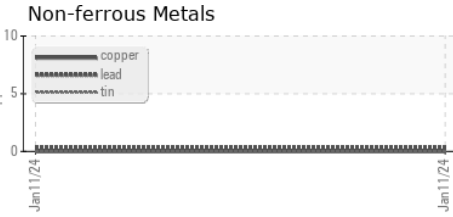
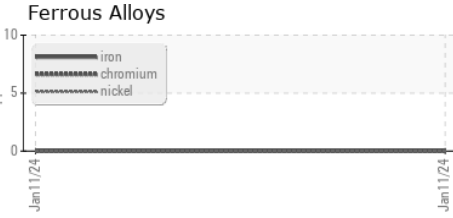
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.15	---	---

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	>0.2	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	31	29.9	---	---

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0854701 **Received** : 12 Jan 2024
Lab Number : 06060336 **Diagnosed** : 22 Jan 2024
Unique Number : 10831718 **Diagnostician** : Aaron Black
Test Package : PLANT (Additional Tests: A-FERR)

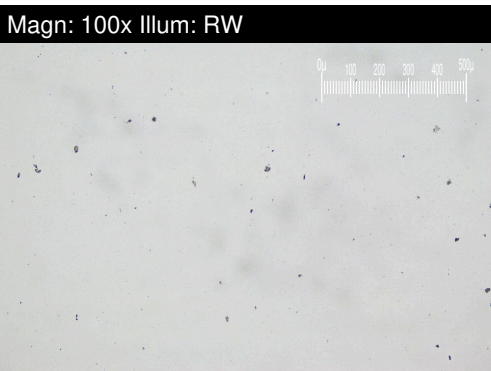
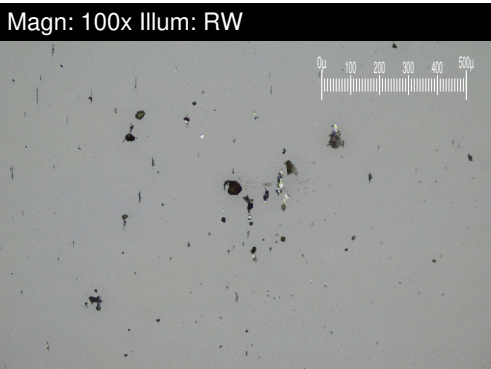
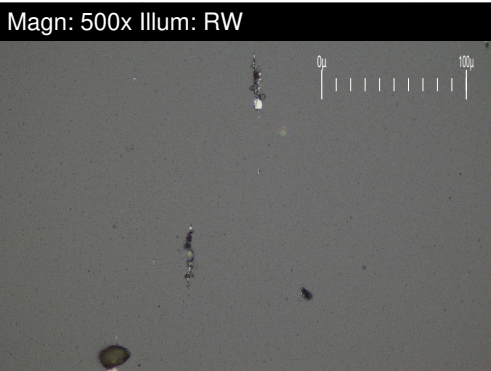
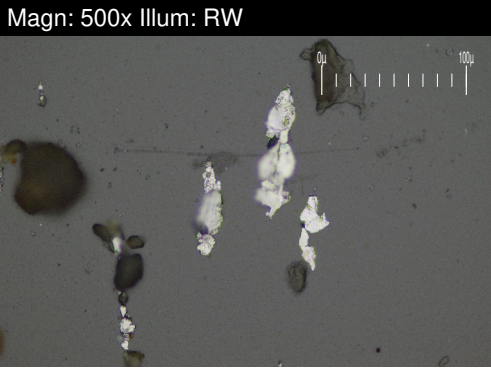
GRAPHIC PACKAGING INTERNATIONAL
 100 GRAPHIC PACKAGING INTERNATIONAL
 MACON, GA
 US 31206
 Contact: DARYL SPRINGER
 daryl.springer@graphicpkg.com
 T: (478)784-3677
 F:

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)



FERROGRAPHY REPORT

Area
Power House
 Machine Id
GENERAL ELECTRIC #1 Steam Turbine
 Component
Bearing Lube
 Fluid
MOBIL DTE OIL LIGHT (400 GAL)



FERROGRAPHY	method	limit/base	current	history1	history2
Ferrous Rubbing	Scale 0-10	*ASTM D7684	1		
Ferrous Sliding	Scale 0-10	*ASTM D7684	1		
Ferrous Cutting	Scale 0-10	*ASTM D7684			
Ferrous Rolling	Scale 0-10	*ASTM D7684			
Ferrous Break-in	Scale 0-10	*ASTM D7684			
Ferrous Spheres	Scale 0-10	*ASTM D7684			
Ferrous Black Oxides	Scale 0-10	*ASTM D7684			
Ferrous Red Oxides	Scale 0-10	*ASTM D7684			
Ferrous Corrosive	Scale 0-10	*ASTM D7684			
Ferrous Other	Scale 0-10	*ASTM D7684			
Nonferrous Rubbing	Scale 0-10	*ASTM D7684			
Nonferrous Sliding	Scale 0-10	*ASTM D7684			
Nonferrous Cutting	Scale 0-10	*ASTM D7684			
Nonferrous Rolling	Scale 0-10	*ASTM D7684			
Nonferrous Other	Scale 0-10	*ASTM D7684			
Carbonaceous Material	Scale 0-10	*ASTM D7684			
Lubricant Degradation	Scale 0-10	*ASTM D7684			
Sand/Dirt	Scale 0-10	ASTM D7684			
Fibres	Scale 0-10	*ASTM D7684			
Spheres	Scale 0-10	*ASTM D7684			
Other	Scale 0-10	*ASTM D7684	1		

WEAR

All component wear rates are normal.
 The ferrography results are normal indicating no abnormal wear in the system.

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