PLANT

PetroCard™ MORE THAN JUST FUEL.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Area
STEAM AND POWER
Machine Id
420.0160 RECOVERY FD FAN
Component
Steam Turbine
Fluid
SHELL TURBO T ISO 68 (--- GAL)

RECOMMENDATION

We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. Please note that there was too much water present in the oil to perform a viscosity test.

WEAR

All component wear rates are normal.

CONTAMINATION

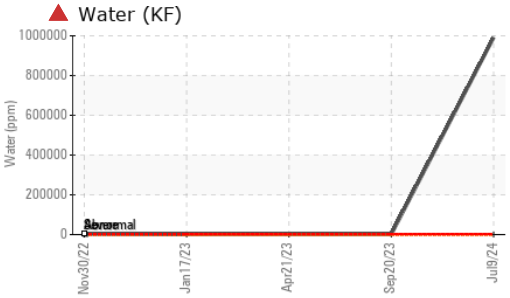
Sample consists almost entirely of free water. There is a high concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

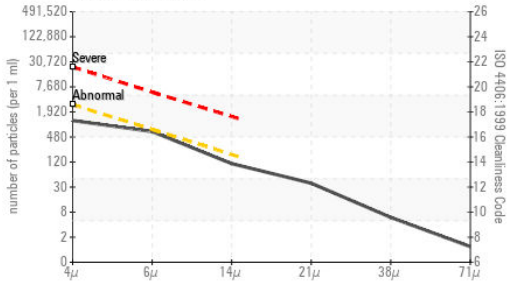
The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PE0001511	PE0001415	PE0000915
Sample Date		Client Info		09 Jul 2024	20 Sep 2023	21 Apr 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	1
Filter Age	hrs	Client Info		0	0	1
Oil Changed		Client Info		N/A	N/A	Filtered
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				SEVERE	ABNORMAL	ABNORMAL
PQ		ASTM D8184		78	13	12
Iron	ppm	ASTM D5185m	>15	2	<1	0
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	3	2	0
Lead	ppm	ASTM D5185m		0	<1	0
Copper	ppm	ASTM D5185m	>5	0	<1	0
Tin	ppm	ASTM D5185m	>5	2	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>15	<1	<1	0
Potassium	ppm	ASTM D5185m	>20	9	<1	0
Water	%	ASTM D6304	>0.03	▲ 99.0	▲ 0.030	▲ 0.031
ppm Water	ppm	ASTM D6304	>300	▲ 990000	▲ 300	▲ 310
Particles >4µm		ASTM D7647	>2500	1044	---	931
Particles >6µm		ASTM D7647	>640	569	---	507
Particles >14µm		ASTM D7647	>160	97	---	86
Particles >21µm		ASTM D7647	>40	33	---	29
Particles >38µm		ASTM D7647	>10	5	---	4
Particles >71µm		ASTM D7647	>3	1	---	0
Oil Cleanliness		ISO 4406 (c)	>18/16/14	17/16/14	---	17/16/14
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	● LAYRD	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.03	▲ 0.2%	0.2%	▲ 0.2%
Sodium	ppm	ASTM D5185m		139	0	0
Boron	ppm	ASTM D5185m		3	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		0	0	3
Calcium	ppm	ASTM D5185m		0	<1	28
Phosphorus	ppm	ASTM D5185m		4	9	11
Zinc	ppm	ASTM D5185m		0	18	6
Sulfur	ppm	ASTM D5185m		36	34	0
Acid Number (AN)	mg KOH/g	ASTM D8045	.05	0.116	0.079	0.174
Visc @ 40°C	cSt	ASTM D445	68	---	67.0	67.2

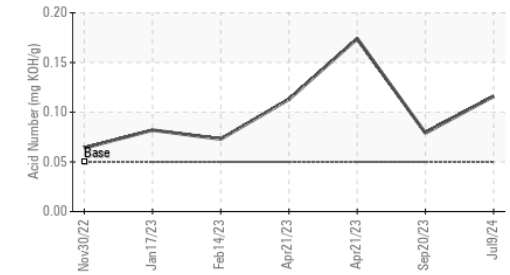
Water (KF)



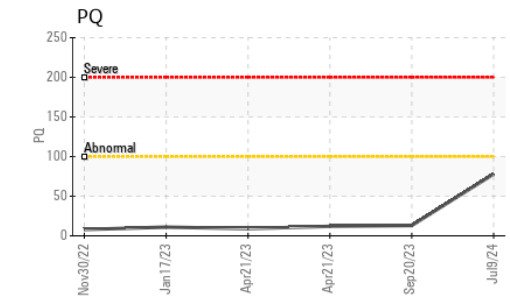
Particle Count



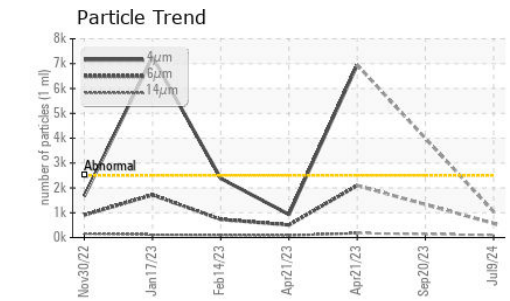
Acid Number



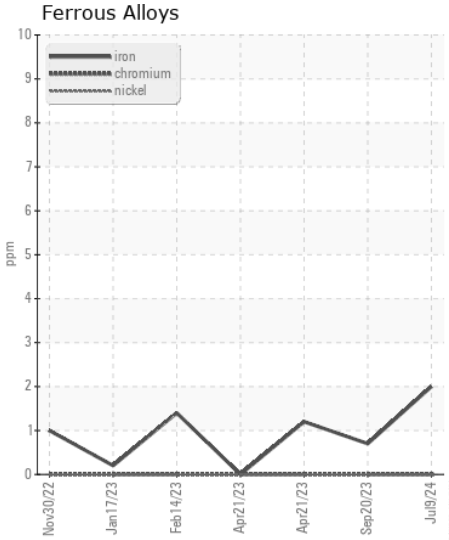
PQ



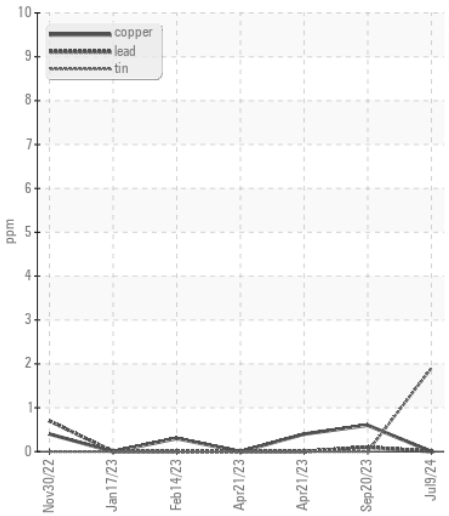
Particle Trend



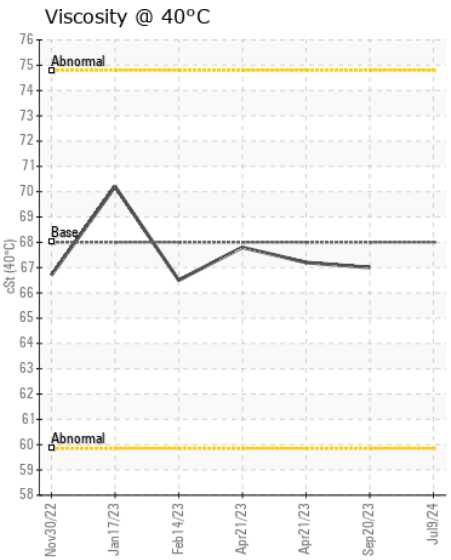
Ferrous Alloys



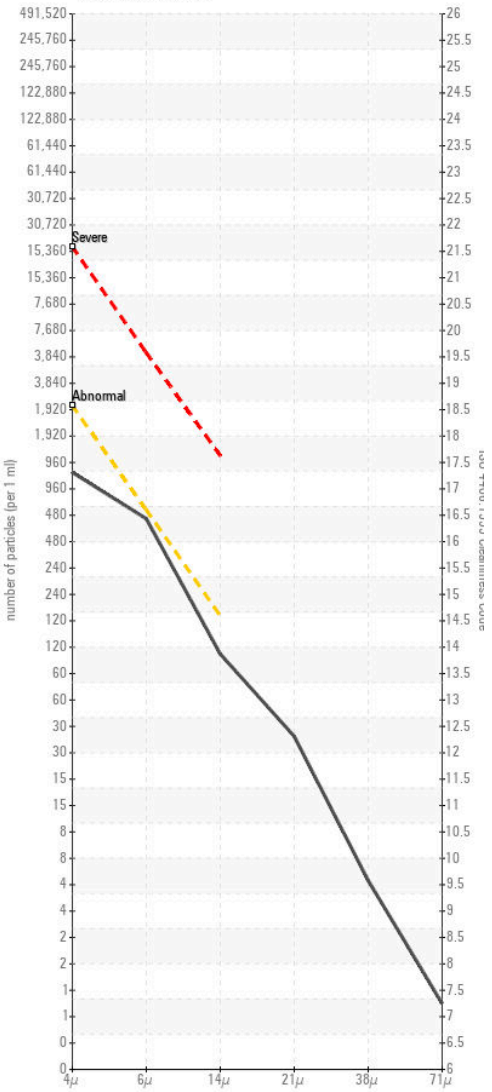
Non-ferrous Metals



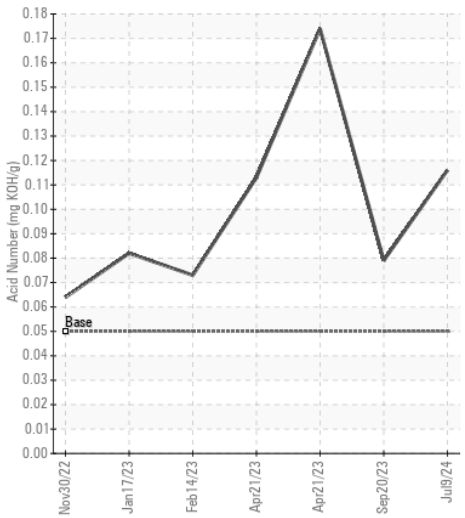
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0001511
Lab Number : 06236686
Unique Number : 11125520
Test Package : PLANT (Additional Tests: ICP, KF, KV40, PQ, PrtCount, SCREEN)

Received : 15 Jul 2024
Tested : 18 Jul 2024
Diagnosed : 19 Jul 2024 - Jonathan Hester

Certificate L2367

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)

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