

Area
STEAM AND POWER
 Machine Id
269.0090 #2 BOILER FEED WATER PUMP
 Component
Pump
 Fluid
SHELL MORLINA S4 B 68 (--- 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 silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PE0001417	---	---
Sample Date	Client Info		20 Sep 2023	---	---
Machine Age	hrs	Client Info	0	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		N/A	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.1	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		12	---	---
Iron	ppm	ASTM D5185m >90	1	---	---
Chromium	ppm	ASTM D5185m >5	0	---	---
Nickel	ppm	ASTM D5185m >5	0	---	---
Titanium	ppm	ASTM D5185m >3	0	---	---
Silver	ppm	ASTM D5185m >3	0	---	---
Aluminum	ppm	ASTM D5185m >7	2	---	---
Lead	ppm	ASTM D5185m >12	<1	---	---
Copper	ppm	ASTM D5185m >30	<1	---	---
Tin	ppm	ASTM D5185m >9	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	<1	---	---
Phosphorus	ppm	ASTM D5185m	148	---	---
Zinc	ppm	ASTM D5185m	0	---	---
Sulfur	ppm	ASTM D5185m	191	---	---

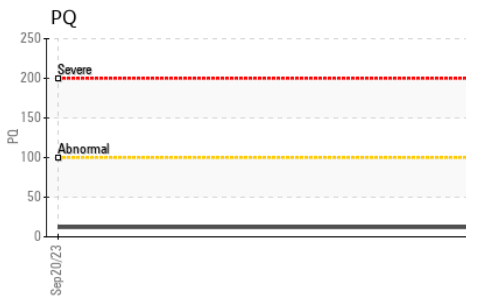
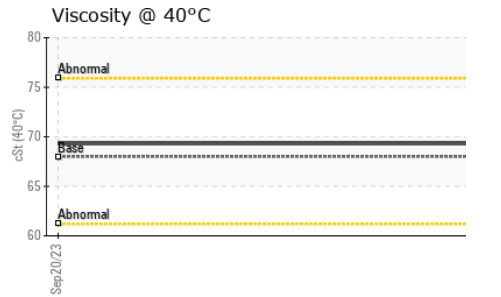
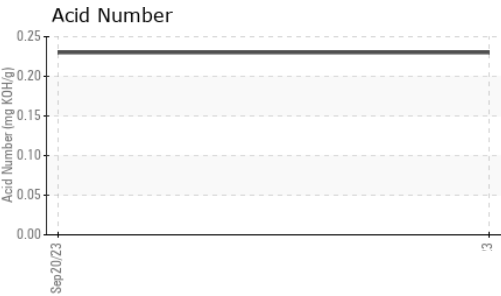
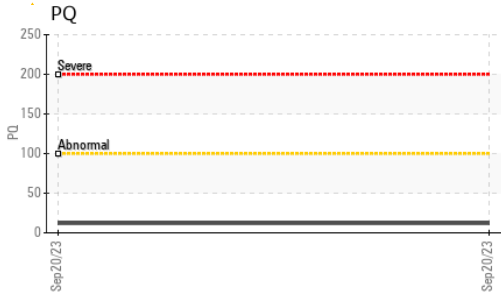
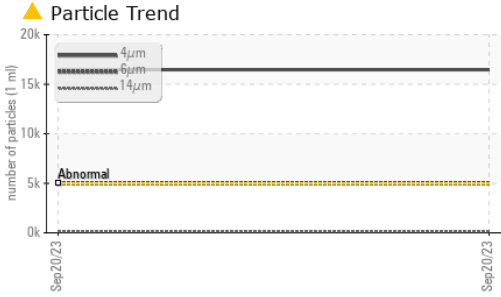
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	1	---	---
Sodium	ppm	ASTM D5185m	<1	---	---
Potassium	ppm	ASTM D5185m >20	<1	---	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 16467	---	---
Particles >6µm	ASTM D7647	>1300	▲ 4979	---	---
Particles >14µm	ASTM D7647	>160	129	---	---
Particles >21µm	ASTM D7647	>40	37	---	---
Particles >38µm	ASTM D7647	>10	3	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/19/14	---	---

OIL ANALYSIS REPORT



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.23	---	---

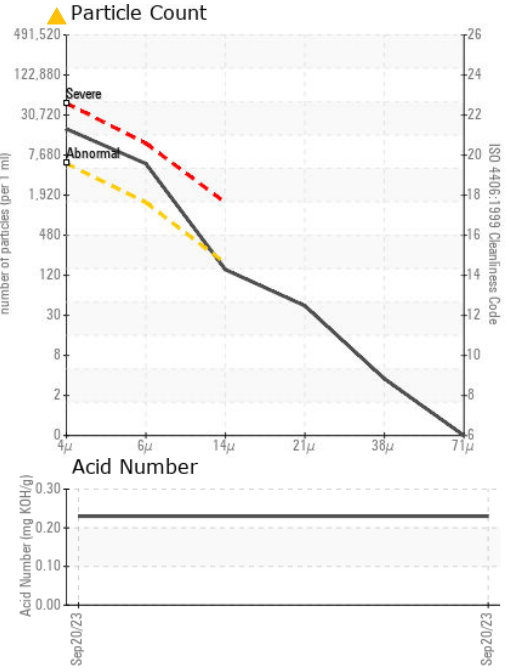
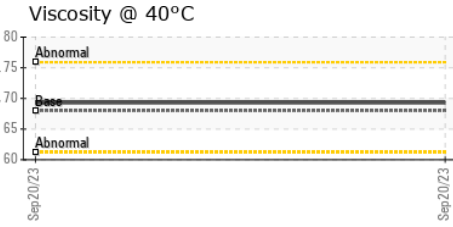
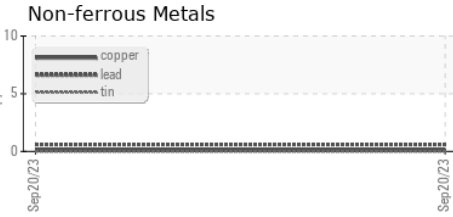
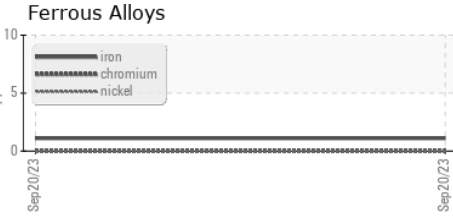
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>.1	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	69.3	---	---

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. : PE0001417 **Received** : 04 Oct 2023
Lab Number : **05968802** **Diagnosed** : 06 Oct 2023
Unique Number : 10675353 **Diagnostician** : Don Baldrige
Test Package : PLANT (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)
 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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