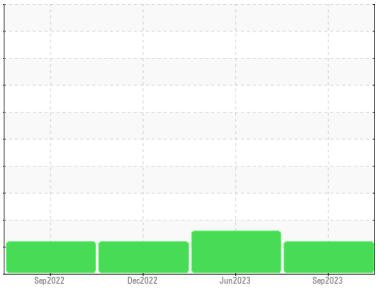
PROBLEM SUMMARY

Sample Rating Trend



VISUAL METAL

Machine Id
BUSCH M-VAC-PMP (S/N 5585111)
Component
Vacuum Pump
Fluid
USPI VAC 100 (--- GAL)

COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION
White Metal	scalar	*Visual	NONE	▲ **MODER**	▲ MODER	NONE

Customer Id: TYSAMAPRO
Sample No.: USPM29748
Lab Number: 05961790
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Alert	---	---	?	We were unable to perform a particle count due to metal particles present in this sample.

HISTORICAL DIAGNOSIS

25 Jun 2023 Diag: Doug Bogart

VISUAL METAL

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.Moderate concentration of visible metal present. All component wear rates are normal. Light concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

14 Dec 2022 Diag: Jonathan Hester

ISO

Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

15 Sep 2022 Diag: Doug Bogart

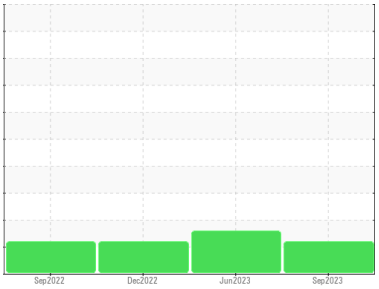
ISO

Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Machine Id
BUSCH M-VAC-PMP (S/N 5585111)
Component
Vacuum Pump
Fluid
USPI VAC 100 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Wear
Moderate concentration of visible metal present. All component wear rates are normal.

Contamination
No other contaminants were detected in the oil.

Fluid 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		**USPM29748**	USPM27134	USPM24468
Sample Date		Client Info		**23 Sep 2023**	25 Jun 2023	14 Dec 2022
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**1**	<1	0
Chromium	ppm	ASTM D5185m	>20	**0**	0	0
Nickel	ppm	ASTM D5185m	>20	**0**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**3**	2	<1
Lead	ppm	ASTM D5185m	>20	**0**	2	0
Copper	ppm	ASTM D5185m	>20	**<1**	<1	0
Tin	ppm	ASTM D5185m	>20	**<1**	1	<1
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

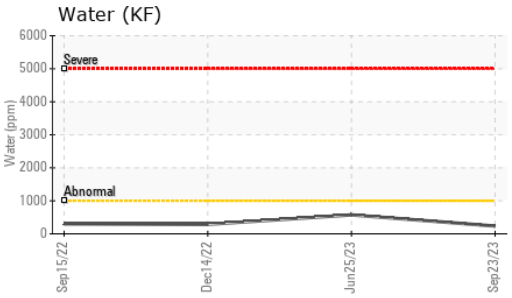
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	0
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m	0	**1**	0	<1
Calcium	ppm	ASTM D5185m	0	**<1**	0	0
Phosphorus	ppm	ASTM D5185m	1800	**487**	506	124
Zinc	ppm	ASTM D5185m	0	**0**	0	7
Sulfur	ppm	ASTM D5185m	0	**564**	55	0

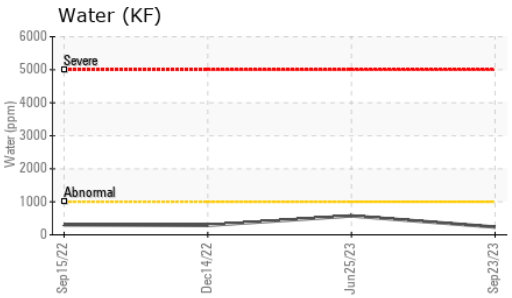
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**3**	4	<1
Sodium	ppm	ASTM D5185m		**<1**	<1	0
Potassium	ppm	ASTM D5185m	>20	**2**	2	0
Water	%	ASTM D6304	>.1	**0.023**	0.057	0.028
ppm Water	ppm	ASTM D6304	>1000	**235.1**	573.7	287.1

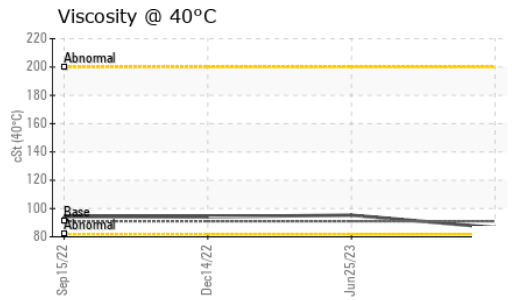
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	**---**	---	▲ 8649
Particles >6µm		ASTM D7647	>1300	**---**	---	▲ 1341
Particles >14µm		ASTM D7647	>160	**---**	---	16
Particles >21µm		ASTM D7647	>40	**---**	---	5
Particles >38µm		ASTM D7647	>10	**---**	---	1
Particles >71µm		ASTM D7647	>3	**---**	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	**---**	---	▲ 20/18/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.05	**0.13**	0.208	0.12

OIL ANALYSIS REPORT





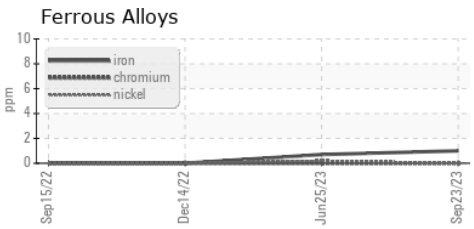


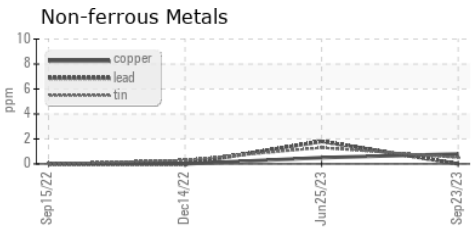
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ **MODER**	▲ MODER	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	▲ LIGHT	NONE
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	>.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

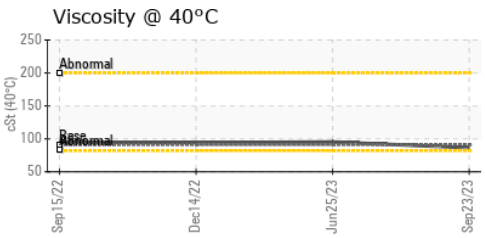
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	91	**86.5**	95.3	94.2

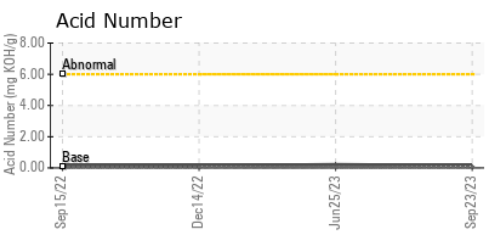
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM29748
Lab Number : 05961790
Unique Number : 10668341
Test Package : IND 2

Received : 26 Sep 2023
Diagnosed : 27 Sep 2023
Diagnostician : Doug Bogart

TYSON -AMARILLO-PRO
AMARILLO, TX
US
Contact: SERVICE MANAGER
T:
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)