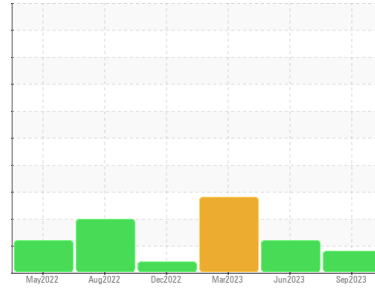




PROBLEM SUMMARY

Sample Rating Trend



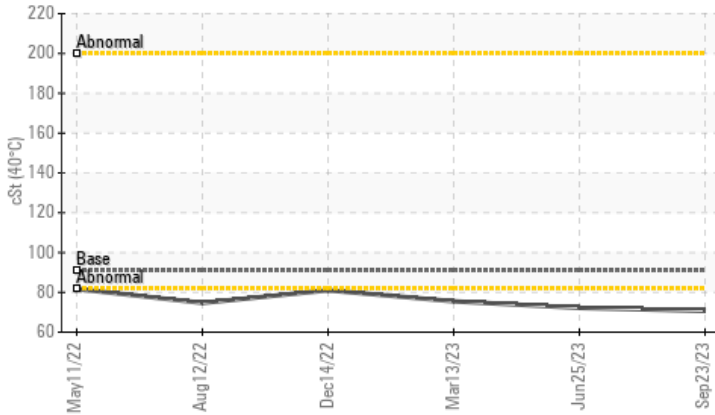
VISCOSITY



Machine Id
BUSCH VP-2A (S/N C6815)
 Component
Vacuum Pump
 Fluid
USPI VAC 100 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



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 a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ATTENTION	ABNORMAL
Debris	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Visc @ 40°C	cSt	ASTM D445	91	▲ 70.7	▲ 72.2	▲ 75.5

Customer Id: TYSAMAPRO
 Sample No.: USPM29742
 Lab Number: 05961774
 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 a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

25 Jun 2023 Diag: Doug Bogart

VISCOSITY



Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. The oil viscosity is lower than normal. Confirmed. The AN level is acceptable for this fluid.

[view report](#)



13 Mar 2023 Diag: Doug Bogart

DIRT



We recommend an early resample to monitor this condition. The iron level is abnormal. Elemental level of silicon (Si) above normal. The amount and size of particulates present in the system are acceptable. The oil viscosity is lower than normal. Confirmed. The AN level is acceptable for this fluid.

[view report](#)



14 Dec 2022 Diag: Jonathan Hester

VISCOSITY



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The oil viscosity is lower than normal. The AN level is acceptable for this fluid.

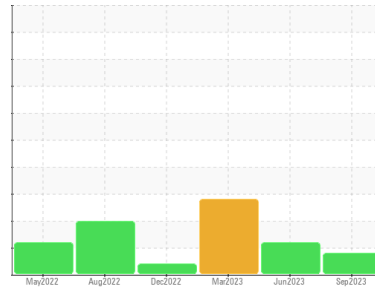
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
BUSCH VP-2A (S/N C6815)

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 a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

Contamination

Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition

The oil viscosity is lower than normal. Confirmed. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	USPM29742	USPM27145	USPM27568
Sample Date	Client Info	23 Sep 2023	25 Jun 2023	13 Mar 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ATTENTION	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	<1	2	▲ 35
Chromium	ppm	ASTM D5185m >20	0	0	<1
Nickel	ppm	ASTM D5185m >20	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >20	3	1	<1
Lead	ppm	ASTM D5185m >20	0	2	0
Copper	ppm	ASTM D5185m >20	3	2	1
Tin	ppm	ASTM D5185m >20	<1	1	0
Vanadium	ppm	ASTM D5185m	<1	0	<1
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	0	<1	0
Barium	ppm	ASTM D5185m 0	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	<1
Manganese	ppm	ASTM D5185m	<1	<1	1
Magnesium	ppm	ASTM D5185m 0	<1	0	0
Calcium	ppm	ASTM D5185m 0	<1	0	0
Phosphorus	ppm	ASTM D5185m 1800	554	576	544
Zinc	ppm	ASTM D5185m 0	0	0	2
Sulfur	ppm	ASTM D5185m 0	244	130	0

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	11	12	▲ 19
Sodium	ppm	ASTM D5185m	<1	<1	<1
Potassium	ppm	ASTM D5185m >20	<1	2	<1
Water	%	ASTM D6304 >.1	0.024	0.050	0.023
ppm Water	ppm	ASTM D6304 >1000	241.5	506.6	231.6

FLUID CLEANLINESS

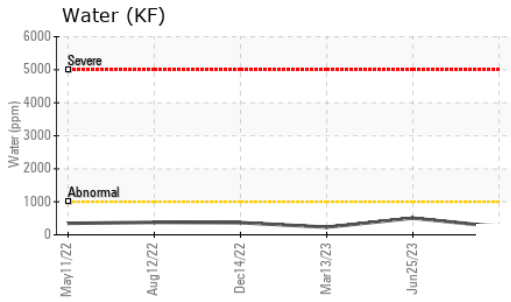
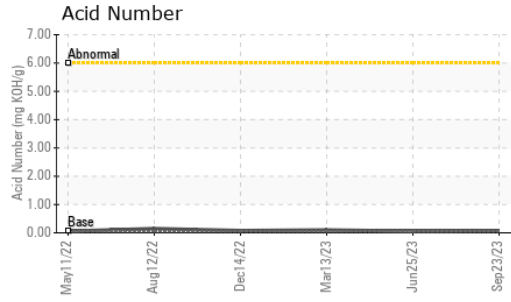
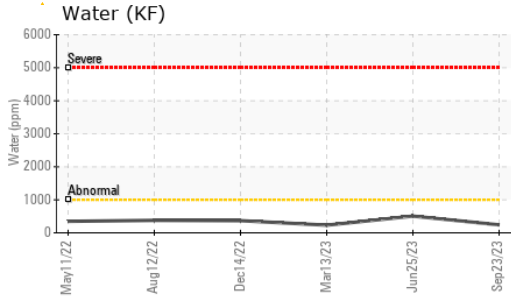
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	---	▲ 5609	790
Particles >6µm	ASTM D7647 >1300	---	1209	161
Particles >14µm	ASTM D7647 >160	---	68	5
Particles >21µm	ASTM D7647 >40	---	11	1
Particles >38µm	ASTM D7647 >10	---	1	0
Particles >71µm	ASTM D7647 >3	---	1	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	---	▲ 20/17/13	17/15/10

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	0.081	0.06	0.102



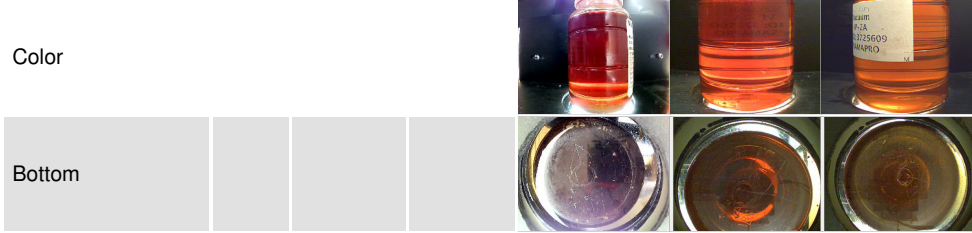
OIL ANALYSIS REPORT



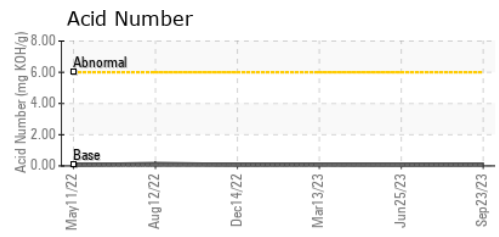
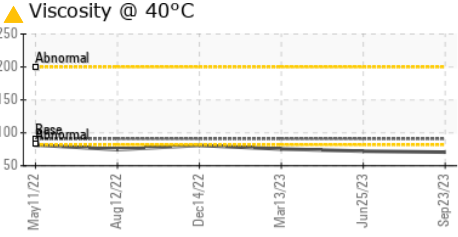
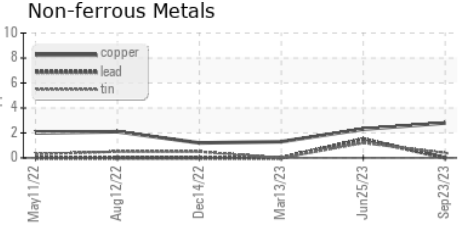
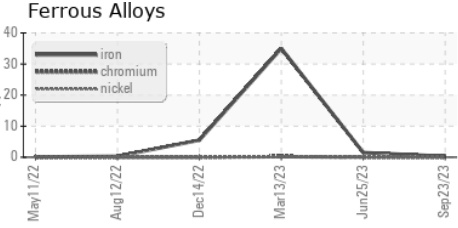
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 91	▲ 70.7	▲ 72.2	▲ 75.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM29742 **Received** : 26 Sep 2023
Lab Number : 05961774 **Diagnosed** : 27 Sep 2023
Unique Number : 10668325 **Diagnostician** : Doug Bogart
Test Package : IND 2

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

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)

T:
F: