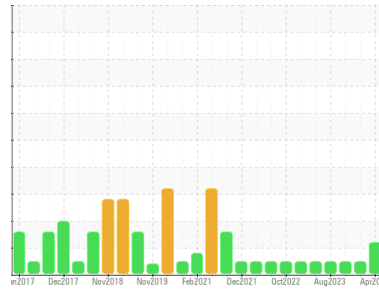




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**BUSCH VM3 / VP-3**  
 Component  
**Pump**  
 Fluid  
**USPI VAC 100 (--- GAL)**

## DIAGNOSIS

### Recommendation

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 suitable for further service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>USP0006318</b>	USPM30299	USPM31349
Sample Date	Client Info	<b>15 Apr 2024</b>	28 Feb 2024	26 Nov 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >90	<b>6</b>	0	0
Chromium	ppm	ASTM D5185m >5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m >3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >7	<b>0</b>	0	1
Lead	ppm	ASTM D5185m >12	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >30	<b>0</b>	0	0
Tin	ppm	ASTM D5185m >9	<b>1</b>	<1	1
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 0	<b>0</b>	0	2
Calcium	ppm	ASTM D5185m 0	<b>0</b>	6	8
Phosphorus	ppm	ASTM D5185m 1800	<b>878</b>	1060	1225
Zinc	ppm	ASTM D5185m 0	<b>0</b>	5	0
Sulfur	ppm	ASTM D5185m 0	<b>8</b>	14	28

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >60	<b>1</b>	7	7
Sodium	ppm	ASTM D5185m	<b>1</b>	2	<1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	3
Water	%	ASTM D6304 >.1	<b>0.075</b>	0.021	0.037
ppm Water	ppm	ASTM D6304 >1000	<b>757</b>	218	371

## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 25856</b>	628	389
Particles >6µm	ASTM D7647 >1300	<b>▲ 4772</b>	143	117
Particles >14µm	ASTM D7647 >160	<b>108</b>	10	17
Particles >21µm	ASTM D7647 >40	<b>8</b>	3	5
Particles >38µm	ASTM D7647 >10	<b>0</b>	1	1
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 22/19/14</b>	16/14/10	16/14/11

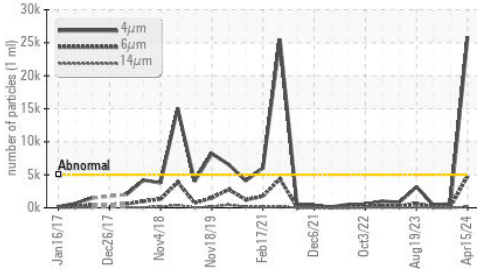
## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	<b>0.74</b>	0.35	0.31

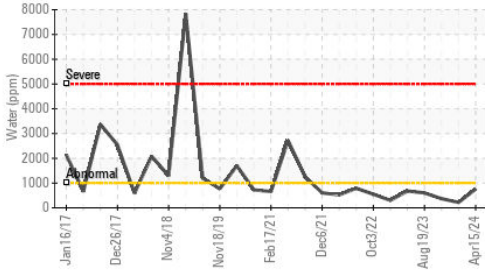


# OIL ANALYSIS REPORT

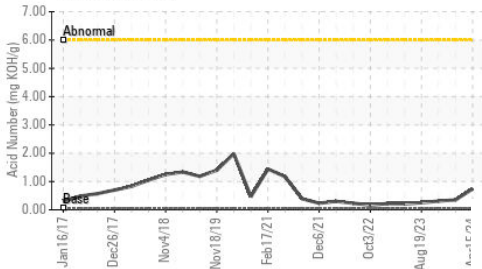
## Particle Trend



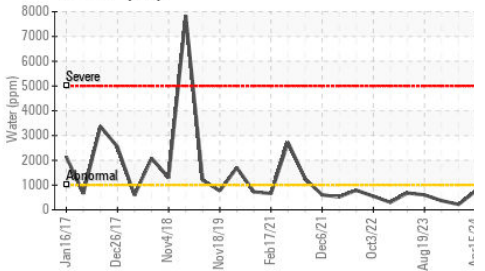
## Water (KF)



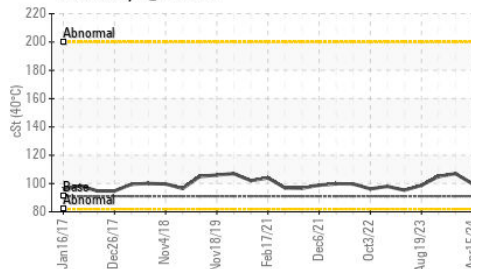
## Acid Number



## Water (KF)



## Viscosity @ 40°C



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	99.7	107	105

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

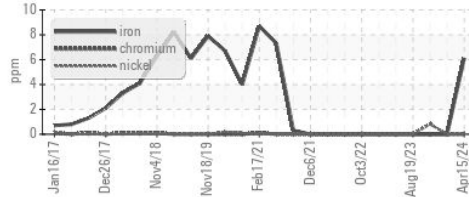


Bottom

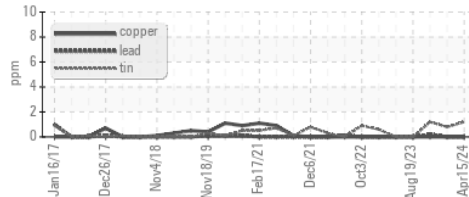


## GRAPHS

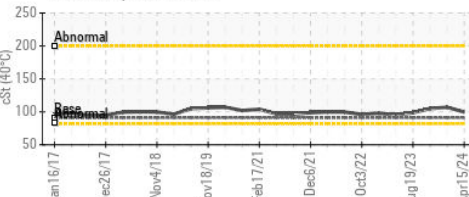
### Ferrous Alloys



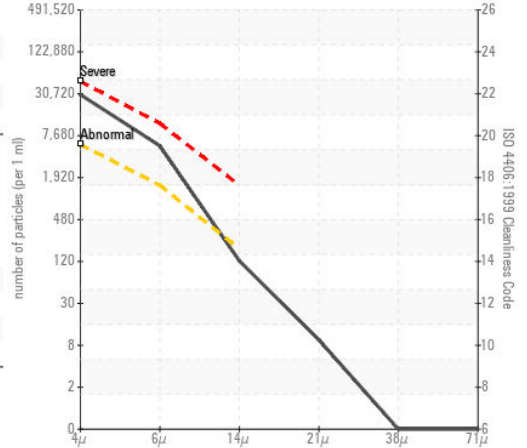
### Non-ferrous Metals



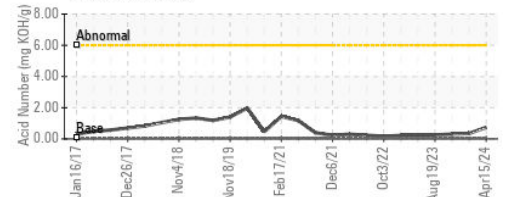
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : USP0006318  
 Lab Number : 06150369  
 Unique Number : 10980447  
 Test Package : IND 2

Received : 16 Apr 2024  
 Tested : 17 Apr 2024  
 Diagnosed : 17 Apr 2024 - Doug Bogart

TYSON-DAKOTA CITY-PRO  
 P.O. BOX 515  
 DAKOTA CITY, NE  
 US 68731  
 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: (605)235-2960