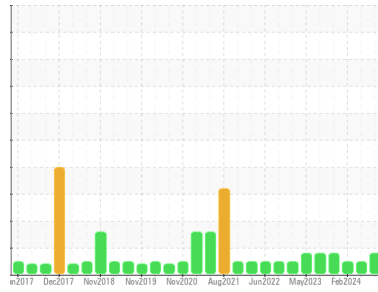




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
BUSCH VM3 / VP-2
 Component
Pump
 Fluid
USPI VAC 100 (--- GAL)

DIAGNOSIS

- Recommendation**
Resample at the next service interval to monitor.
- Wear**
The aluminum level is abnormal. All other component wear rates are normal.
- Contamination**
There is no indication of any contamination 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 condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USPM37611	USP0006320	USPM30291
Sample Date	Client Info		09 Jun 2024	15 Apr 2024	28 Feb 2024
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	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >90	<1	<1	0
Chromium	ppm	ASTM D5185m >5	0	0	0
Nickel	ppm	ASTM D5185m >5	0	0	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >7	▲ 11	6	7
Lead	ppm	ASTM D5185m >12	0	0	0
Copper	ppm	ASTM D5185m >30	<1	0	0
Tin	ppm	ASTM D5185m >9	<1	1	1
Vanadium	ppm	ASTM D5185m	<1	0	<1
Cadmium	ppm	ASTM D5185m	0	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	0	0	0
Magnesium	ppm	ASTM D5185m 0	0	0	0
Calcium	ppm	ASTM D5185m 0	4	5	6
Phosphorus	ppm	ASTM D5185m 1800	1404	1029	1086
Zinc	ppm	ASTM D5185m 0	0	0	5
Sulfur	ppm	ASTM D5185m 0	0	35	12

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >60	4	6	7
Sodium	ppm	ASTM D5185m	1	2	2
Potassium	ppm	ASTM D5185m >20	2	1	<1
Water	%	ASTM D6304 >.1	0.079	0.035	0.021
ppm Water	ppm	ASTM D6304 >1000	790	359	219

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	3641	1218	727
Particles >6µm	ASTM D7647	>1300	956	292	212
Particles >14µm	ASTM D7647	>160	43	28	20
Particles >21µm	ASTM D7647	>40	11	6	4
Particles >38µm	ASTM D7647	>10	2	0	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	19/17/13	17/15/12	17/15/11

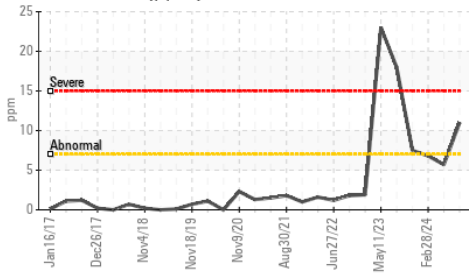
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	0.44	0.36	0.35

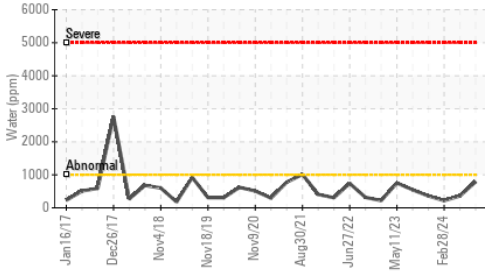


OIL ANALYSIS REPORT

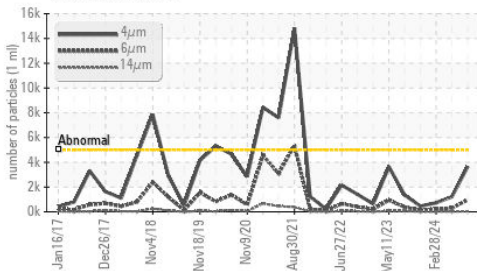
▲ Aluminum (ppm)



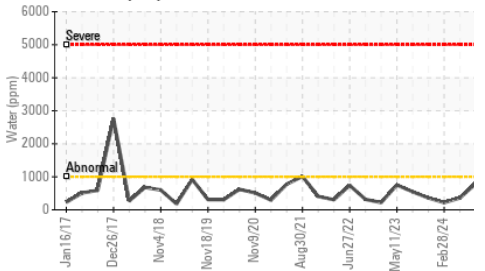
Water (KF)



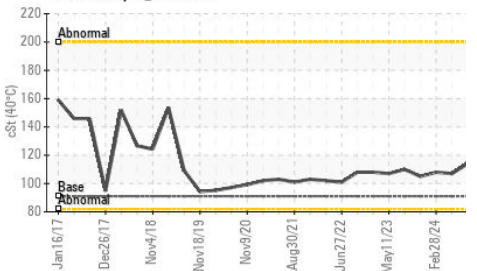
Particle Trend



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	114	107	108

SAMPLE IMAGES	method	limit/base	current	history1	history2
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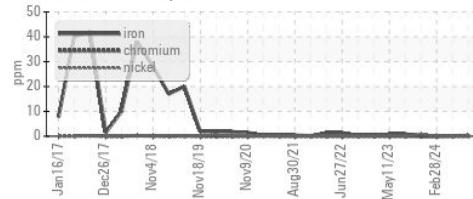
Color

Bottom

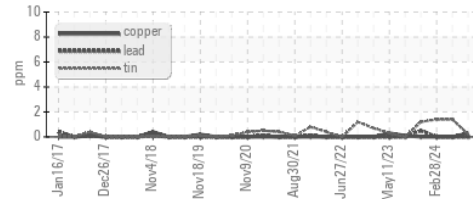


GRAPHS

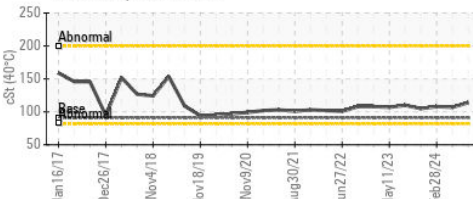
Ferrous Alloys



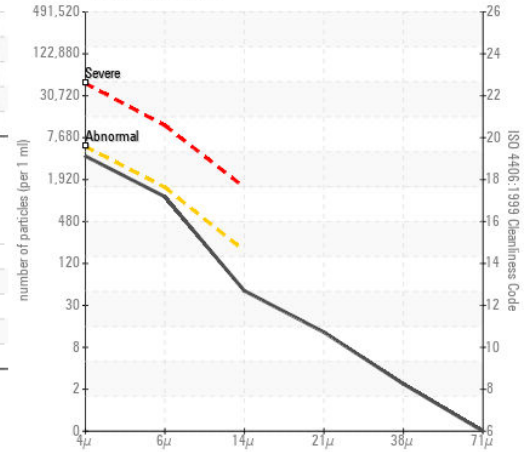
Non-ferrous Metals



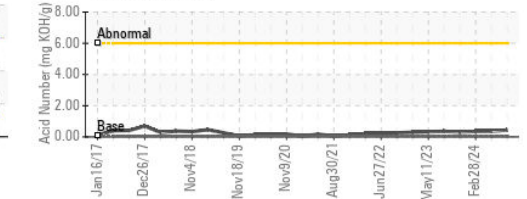
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : USPM37611
 Lab Number : 06205487
 Unique Number : 11072948
 Test Package : IND 2

Received : 10 Jun 2024
 Tested : 12 Jun 2024
 Diagnosed : 12 Jun 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