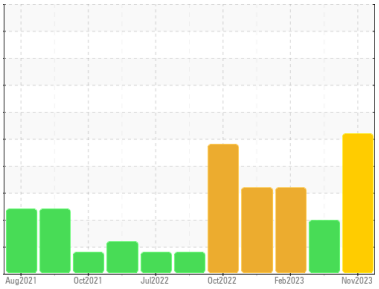
PROBLEM SUMMARY

Sample Rating Trend

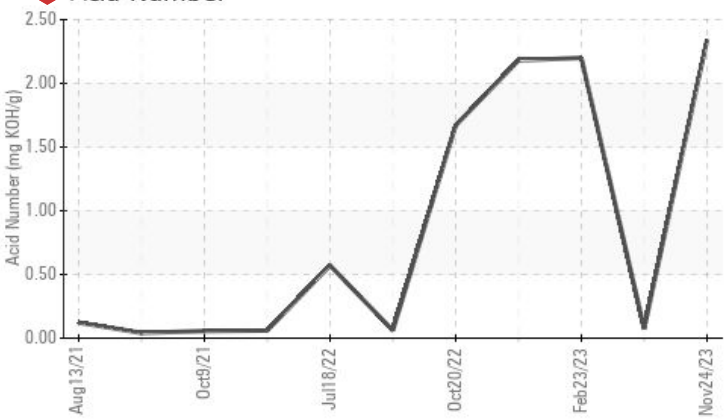


DEGRADATION

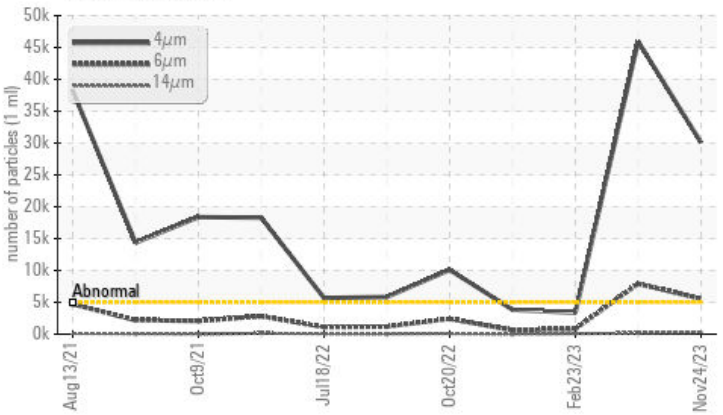
Area
VACUUM PUMP
Machine Id
B68189 - BUSCH ROTARY VANE
Component
Vacuum Pump
Fluid
BUSCH R530S (--- GAL)

COMPONENT CONDITION SUMMARY

Acid Number



Particle Trend



RECOMMENDATION

We advise that you check for a possible overheat condition. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	SEVERE
Particles >4µm		ASTM D7647	>5000	▲ **30099**	▲ 45925	3349
Particles >6µm		ASTM D7647	>1300	▲ **5574**	▲ 7913	814
Particles >14µm		ASTM D7647	>160	▲ **281**	144	71
Particles >21µm		ASTM D7647	>40	▲ **74**	17	16
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **22/20/15**	▲ 23/20/14	19/17/13
Acid Number (AN)	mg KOH/g	ASTM D8045		⬢ **2.34**	0.076	⬢ 2.20

Customer Id: PAPOMA
Sample No.: WC0872417
Lab Number: 06026369
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldridge +1
don.b505@comcast.net

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 Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check For Overheating	---	---	?	We advise that you check for a possible overheat condition.

HISTORICAL DIAGNOSIS

26 May 2023 Diag: Don Baldridge

CONTAMINANT

We recommend you service the filters on this component if applicable. 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. Appearance is layered. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

23 Feb 2023 Diag: Don Baldridge

DEGRADATION

We advise that you check for a possible overheat condition. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. The AN level is above the recommended limit.

view report

23 Nov 2022 Diag: Don Baldridge

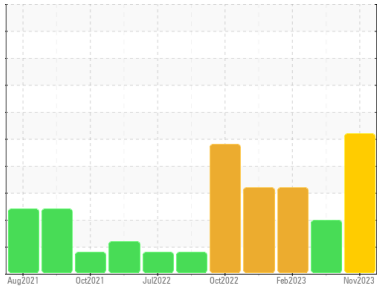
DEGRADATION

We advise that you check for a possible overheat condition. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. The AN level is above the recommended limit.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Area
VACUUM PUMP
Machine Id
B68189 - BUSCH ROTARY VANE
Component
Vacuum Pump
Fluid
BUSCH R530S (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check for a possible overheat condition. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a high amount of particulates present in the oil.

Fluid Condition
The AN level is above the recommended limit.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0872417**	WC0781480	WC0691452
Sample Date		Client Info		**24 Nov 2023**	26 May 2023	23 Feb 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	SEVERE

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

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

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**1**	0	<1
Barium	ppm	ASTM D5185m		**0**	2	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m		**0**	3	0
Calcium	ppm	ASTM D5185m		**2**	4	6
Phosphorus	ppm	ASTM D5185m		**2**	6	2
Zinc	ppm	ASTM D5185m		**0**	16	2
Sulfur	ppm	ASTM D5185m		**42**	43	48

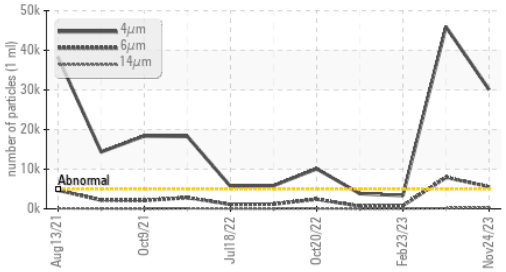
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**8**	9	7
Sodium	ppm	ASTM D5185m		**7**	<1	8
Potassium	ppm	ASTM D5185m	>20	**0**	<1	0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **30099**	▲ 45925	3349
Particles >6µm		ASTM D7647	>1300	▲ **5574**	▲ 7913	814
Particles >14µm		ASTM D7647	>160	▲ **281**	144	71
Particles >21µm		ASTM D7647	>40	▲ **74**	17	16
Particles >38µm		ASTM D7647	>10	**4**	3	2
Particles >71µm		ASTM D7647	>3	**1**	2	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **22/20/15**	▲ 23/20/14	19/17/13

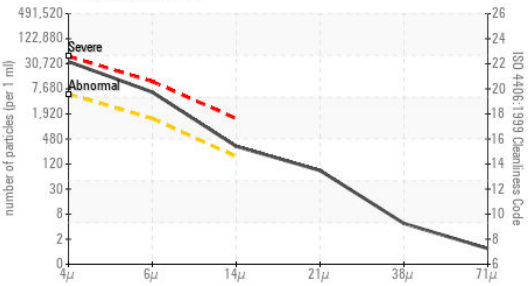
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		⬢ **2.34**	0.076	⬢ 2.20

OIL ANALYSIS REPORT

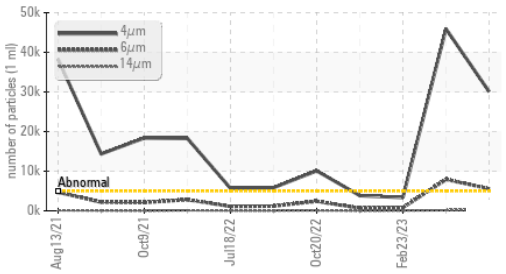
Particle Trend



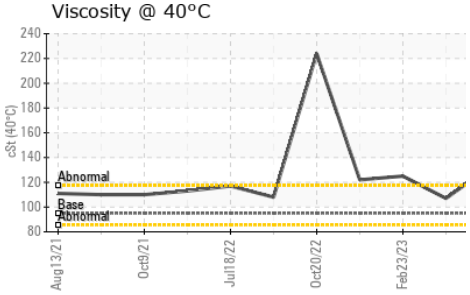
Particle Count



Particle Trend

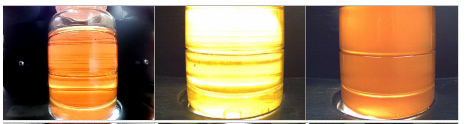


Viscosity @ 40°C



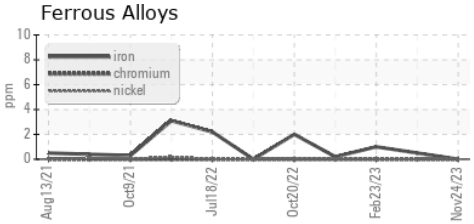
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	▲ LAYRD	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	95.0	**132**	107	125

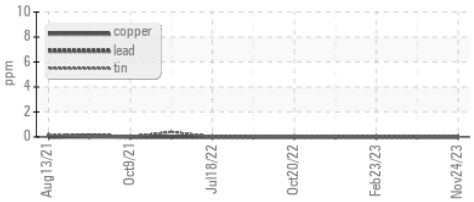
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

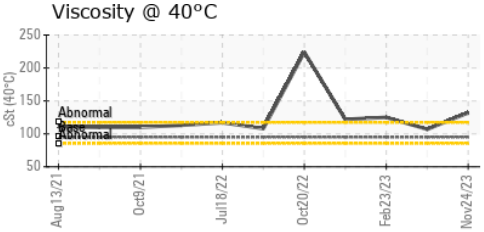
Ferrous Alloys



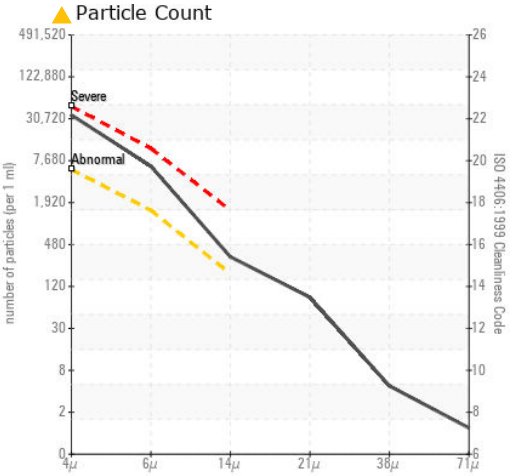
Non-ferrous Metals



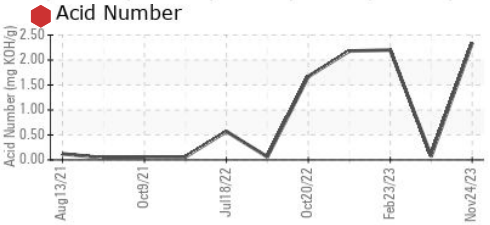
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0872417 **Received** : 06 Dec 2023
Lab Number : 06026369 **Diagnosed** : 07 Dec 2023
Unique Number : 10776160 **Diagnostician** : Don Baldridge
Test Package : IND 2 (Additional Tests: PrtCount)

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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US 68138
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T:
F:

Report Id: PAPOMA [WUSCAR] 06026369 (Generated: 12/08/2023 06:29:32) Rev: 1

Submitted By: NEIL ARIANO