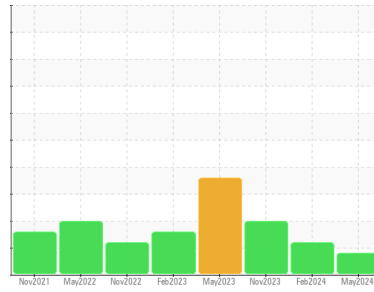




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

VACUUM PUMP

Machine Id

B68187 - BUSCH ROTARY VANE - ZIPPER 1

Component

Vacuum Pump

Fluid

BUSCH R530S (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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		WC0856054	WC0872479	WC0872415
Sample Date	Client Info		06 May 2024	01 Feb 2024	04 Nov 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Changed	Not Changd	Not Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

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	3	8	0
Chromium	ppm	ASTM D5185m	>20	<1	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	0	0
Lead	ppm	ASTM D5185m	>20	0	0	<1
Copper	ppm	ASTM D5185m	>20	<1	0	<1
Tin	ppm	ASTM D5185m	>20	<1	2	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		<1	0	<1
Calcium	ppm	ASTM D5185m		2	0	<1
Phosphorus	ppm	ASTM D5185m		0	0	<1
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		2805	801	1511

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>15	1	0	2
Sodium	ppm	ASTM D5185m		3	3	<1
Potassium	ppm	ASTM D5185m	>20	1	0	<1

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ 15617	▲ 22132	▲ 47176
Particles >6µm	ASTM D7647	>1300	▲ 1254	● 2222	▲ 11337
Particles >14µm	ASTM D7647	>160	37	41	▲ 383
Particles >21µm	ASTM D7647	>40	10	9	▲ 63
Particles >38µm	ASTM D7647	>10	0	0	1
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	▲ 21/17/12	▲ 22/18/13	▲ 23/21/16

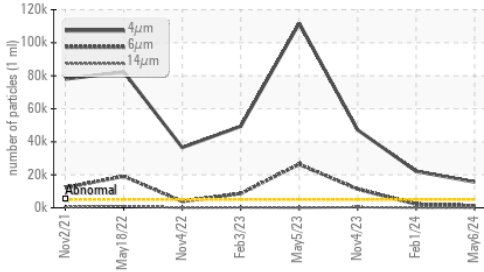
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.087	0.15	0.10

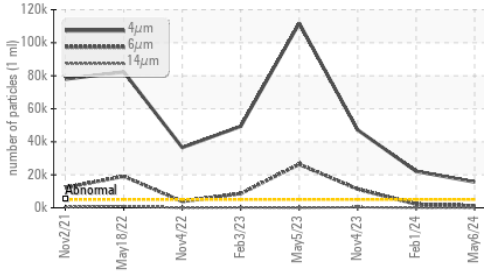


OIL ANALYSIS REPORT

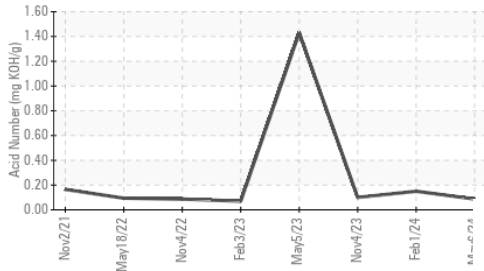
▲ Particle Trend



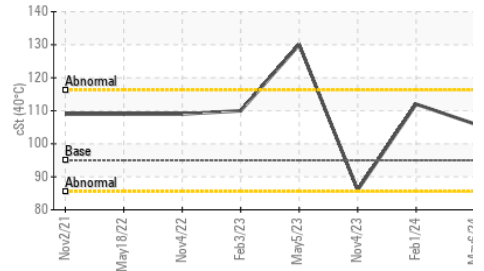
▲ Particle Trend



Acid Number



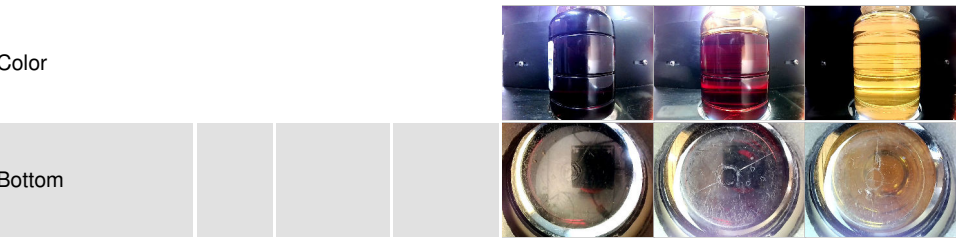
Viscosity @ 40°C



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	LIGHT
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

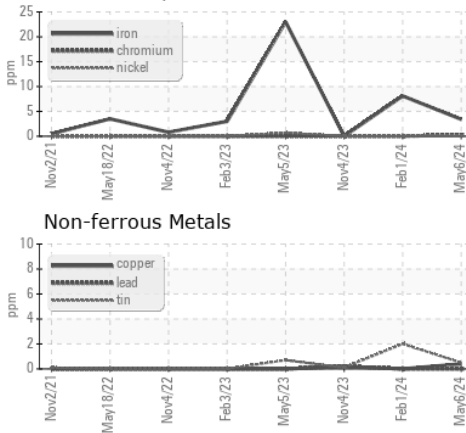
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	95.0	106	112

SAMPLE IMAGES

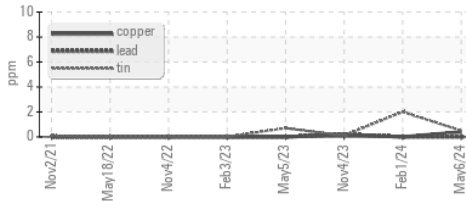


GRAPHS

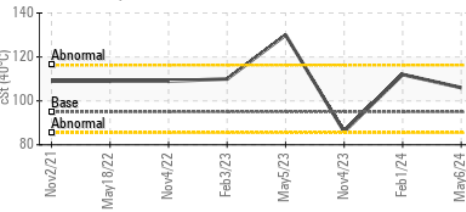
Ferrous Alloys



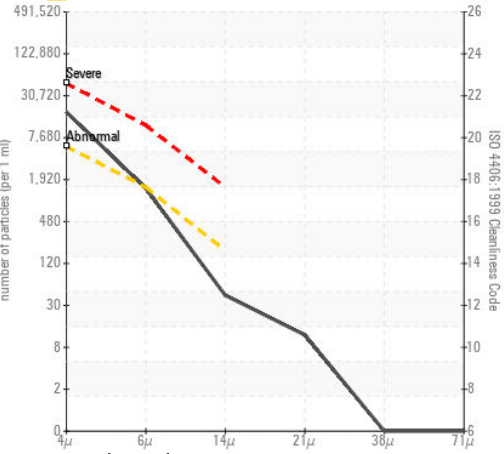
Non-ferrous Metals



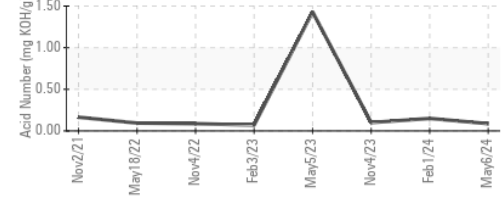
Viscosity @ 40°C



▲ Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0856054 **Received** : 10 May 2024
Lab Number : 06175448 **Tested** : 13 May 2024
Unique Number : 11021501 **Diagnosed** : 14 May 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: PrtCount)

PAPILLION FOODS
 10808 S 132ND ST
 OMAHA, NE
 US 68138
 Contact: NEIL ARIANO
 njariano@hormel.com

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)