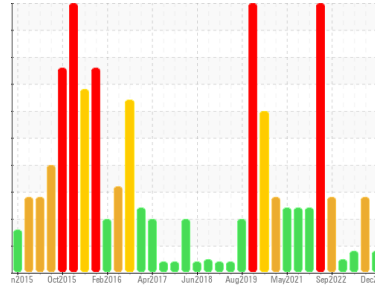




# PROBLEM SUMMARY

Sample Rating Trend



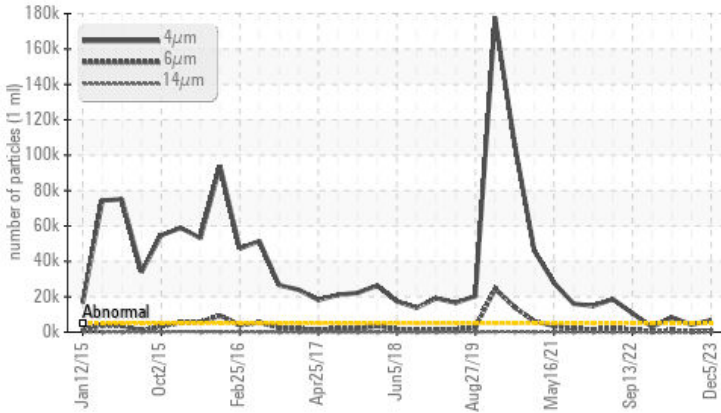
ISO



Area  
**BRUCE B/0B/54600**  
Machine Id  
**0B-54600-SG6-Avon Level Gauge**  
Component  
**Jet Turbine**  
Fluid  
**SHELL AEROSHELL 500 (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

## PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ABNORMAL	ATTENTION
Particles >4µm	ASTM D7647	>5000	▲ 6682	4243	▲ 8359
Oil Cleanliness	ISO 4406 (c)	>19/17/15	▲ 20/17/11	19/16/11	▲ 20/17/12
PrtFilter					

Customer Id: BRUTIV  
Sample No.: WC0628148  
Lab Number: 02602622  
Test Package: IND2+



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Kevin Marson +1 (289)291-4644 x4644  
[Kevin.Marson@wearcheck.com](mailto:Kevin.Marson@wearcheck.com)

To change component or sample information:  
Gloria Gonzalez +1 (289)291-4643 x4643  
[gloria.gonzalez@wearcheck.com](mailto:gloria.gonzalez@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

## HISTORICAL DIAGNOSIS

### WATER



#### 07 Aug 2023 Diag: Kevin Marson

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. We advise that you check for visible metal particles in the oil. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Light concentration of visible metal present. There is a moderate concentration of water present in the oil. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

view report



### ISO



#### 04 May 2023 Diag: Kevin Marson

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### NORMAL



#### 15 Dec 2022 Diag: Kevin Marson

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

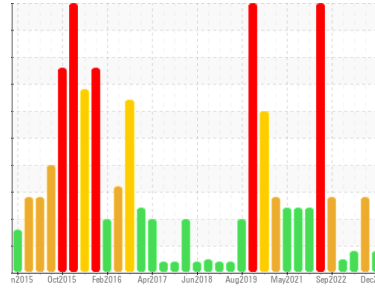
view report





# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Area  
**BRUCE B/0B/54600**  
 Machine Id  
**0B-54600-SG6-Avon Level Gauge**  
 Component  
**Jet Turbine**  
 Fluid  
**SHELL AEROSHELL 500 (--- GAL)**

### DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Particle Filter (Magn: 200 x)



### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0628148</b>	WC0642788	WC0548189
Sample Date	Client Info		<b>05 Dec 2023</b>	07 Aug 2023	04 May 2023
Machine Age	hrs	Client Info	<b>0</b>	0	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ATTENTION</b>	ABNORMAL	ATTENTION

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >2	<1	<1	<1
Chromium	ppm	ASTM D5185(m) >1	0	0	0
Nickel	ppm	ASTM D5185(m) >1	<1	<1	0
Titanium	ppm	ASTM D5185(m) >5	0	0	0
Silver	ppm	ASTM D5185(m) >2	<1	0	0
Aluminum	ppm	ASTM D5185(m) >1	<1	0	0
Lead	ppm	ASTM D5185(m) >2	0	0	0
Copper	ppm	ASTM D5185(m) >1	<1	<1	0
Tin	ppm	ASTM D5185(m) >1	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	<1	<1	0
Barium	ppm	ASTM D5185(m) 0	<1	0	0
Molybdenum	ppm	ASTM D5185(m) 0	0	0	0
Manganese	ppm	ASTM D5185(m) 0	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	0	0	0
Calcium	ppm	ASTM D5185(m) 0	0	<1	0
Phosphorus	ppm	ASTM D5185(m) 1000	<b>972</b>	1068	1049
Zinc	ppm	ASTM D5185(m) 5	<1	1	<1
Sulfur	ppm	ASTM D5185(m) 0	<b>79</b>	3	1
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

### CONTAMINANTS

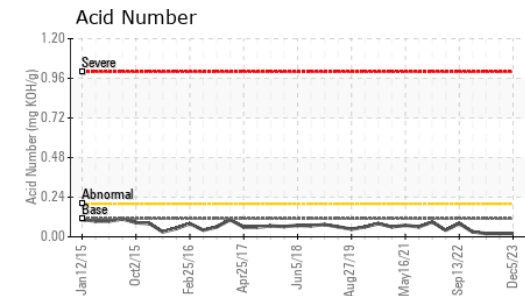
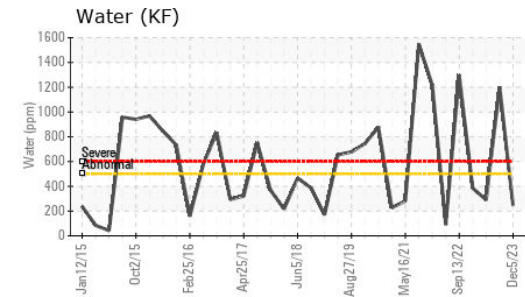
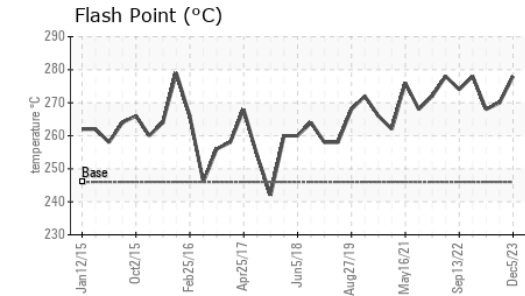
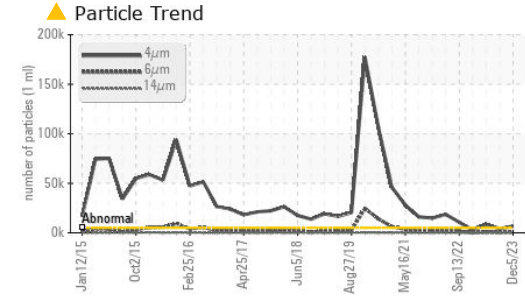
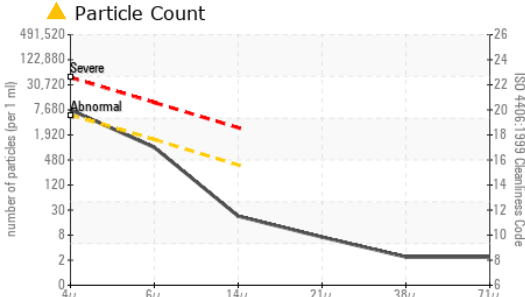
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >5	<1	<1	<1
Sodium	ppm	ASTM D5185(m) >5	<1	<1	<1
Potassium	ppm	ASTM D5185(m) >20	0	0	0
Water	%	ASTM D6304* >0.05	<b>0.024</b>	▲ 0.120	0.028
ppm Water	ppm	ASTM D6304* >500	<b>248</b>	▲ 1202.6	289.2

### FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	▲ <b>6682</b>	4243	▲ 8359
Particles >6µm	ASTM D7647	>1300	<b>844</b>	423	1006
Particles >14µm	ASTM D7647	>320	<b>19</b>	15	23
Particles >21µm	ASTM D7647	>80	<b>6</b>	6	6
Particles >38µm	ASTM D7647	>20	<b>2</b>	1	1
Particles >71µm	ASTM D7647	>4	<b>2</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>19/17/15	▲ <b>20/17/11</b>	19/16/11	▲ 20/17/12



# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0628148  
**Lab Number** : 02602622  
**Unique Number** : 5695707  
**Test Package** : IND2+ ( Additional Tests: BottomAnalysis, PrtFilter, Spat, VI, Visual )

**Bruce Power - Bruce A PdM**  
 P.O.Box 1540, 177 Tie Road., RM-222 U2 Column 2N11 615'  
 Tiverton, ON  
 CA N0G 2T0  
 Contact: Pierre Adouki  
 pierre.adouki@brucepower.com  
 T: (519)361-2673  
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.11	<b>0.02</b>	0.02	0.02

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	▲ VLITE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	25.3	<b>25.6</b>	25.3	25.8
Visc @ 100°C	cSt	ASTM D7279(m)	5.2	<b>5.1</b>	---	5.1
Viscosity Index (VI)	Scale	ASTM D2270*	141	<b>130</b>	---	128
COC Flash Point	°C	ASTM D92*	246	<b>278</b>	270	268

SAMPLE IMAGES		method	limit/base	current	history1	history2
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