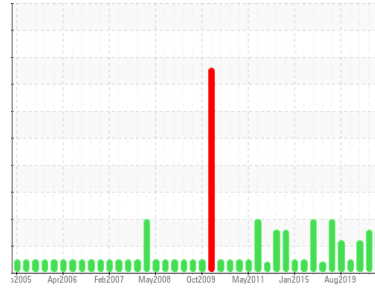




# PROBLEM SUMMARY

Sample Rating Trend



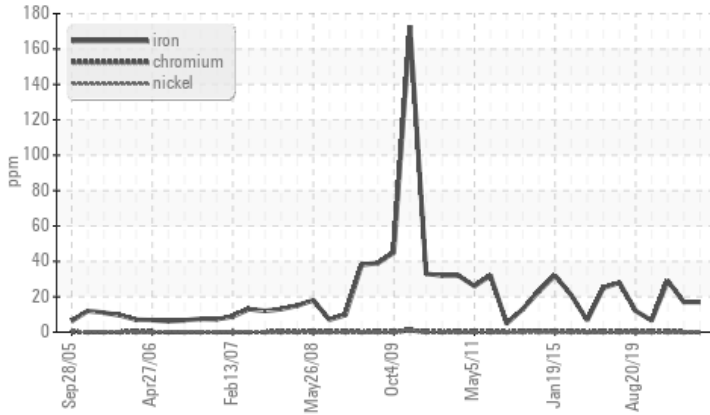
WEAR



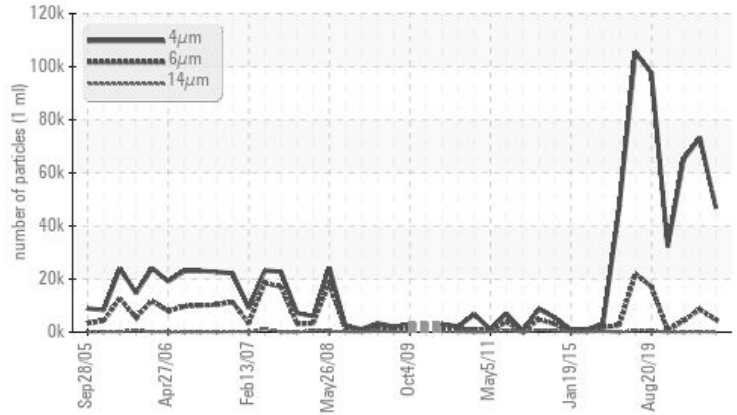
Machine Id  
**30**  
Component  
**Turbine**  
Fluid  
**R&O OIL ISO 68 (--- QTS)**

## COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



▲ Particle Trend



## RECOMMENDATION

No corrective action is recommended at this time.  
Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m >15	▲ 17	▲ 17	▲ 29
Particles >6µm		ASTM D7647 >1300	▲ 4682	▲ 8542	▲ 4299
Oil Cleanliness		ISO 4406 (c) >--/17/14	▲ 23/19/13	▲ 23/20/14	▲ 23/19/13

Customer Id: COLALB  
Sample No.: WC0813274  
Lab Number: 05923408  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 14 Sep 2022 Diag: Angela Borella

#### WEAR



No corrective action is recommended at this time. Resample at the next service interval to monitor. The iron level is abnormal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 16 Nov 2021 Diag: Doug Bogart

#### WEAR



No corrective action is recommended at this time. Resample at the next service interval to monitor. The iron level is abnormal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 08 Sep 2020 Diag: Don Baldrige

#### NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

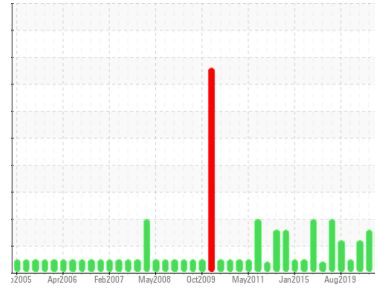
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**30**  
 Component  
**Turbine**  
 Fluid  
**R&O OIL ISO 68 (--- QTS)**

## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### ▲ Wear

The iron level is abnormal. All other 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>WC0813274</b>	WC0700744	WC0577566
Sample Date	Client Info		<b>13 Aug 2023</b>	14 Sep 2022	16 Nov 2021
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>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >15	<b>▲ 17</b>	▲ 17	▲ 29
Chromium	ppm	ASTM D5185m >4	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>&lt;1</b>	1	0
Lead	ppm	ASTM D5185m	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m >5	<b>2</b>	2	2
Tin	ppm	ASTM D5185m >5	<b>0</b>	0	0
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 5	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m 5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m 5	<b>6</b>	0	0
Calcium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m 100	<b>2</b>	0	2
Zinc	ppm	ASTM D5185m 25	<b>23</b>	6	0
Sulfur	ppm	ASTM D5185m 1500	<b>0</b>	3	89

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>1</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	0

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>46707</b>	73230	65233
Particles >6µm	ASTM D7647	>1300	<b>▲ 4682</b>	▲ 8542	▲ 4299
Particles >14µm	ASTM D7647	>160	<b>51</b>	153	80
Particles >21µm	ASTM D7647	>40	<b>5</b>	11	14
Particles >38µm	ASTM D7647	>10	<b>0</b>	1	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/14	<b>▲ 23/19/13</b>	▲ 23/20/14	▲ 23/19/13

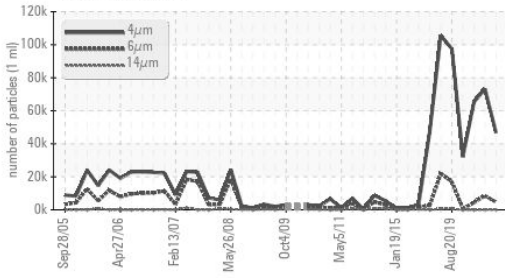
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.08	<b>0.087</b>	0.074	0.054

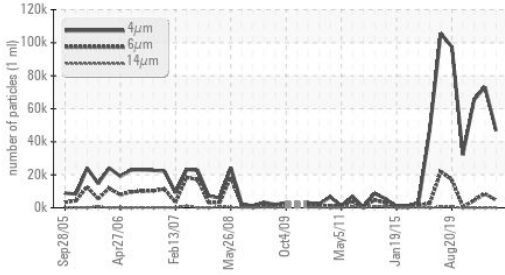


# OIL ANALYSIS REPORT

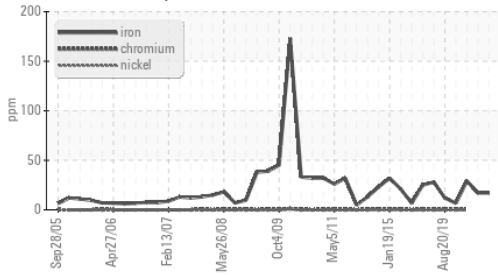
## ▲ Particle Trend



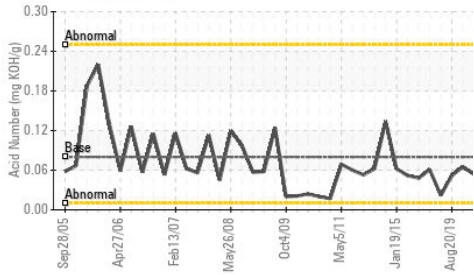
## ▲ Particle Trend



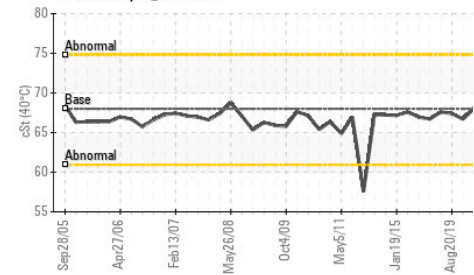
## ▲ Ferrous Alloys



## Acid Number



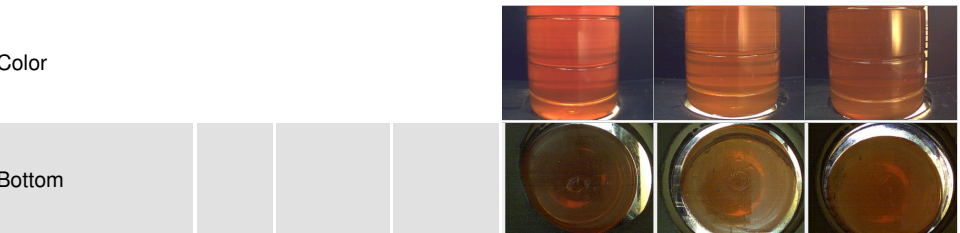
## Viscosity @ 40°C



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	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.03	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

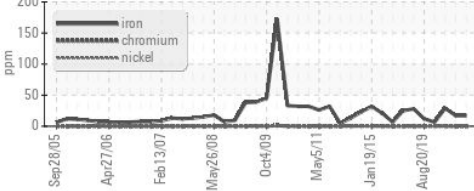
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 68	67.6	68.0	68.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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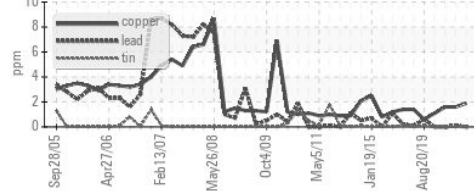


## GRAPHS

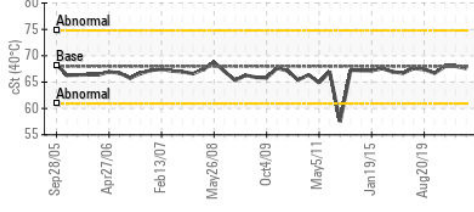
### ▲ Ferrous Alloys



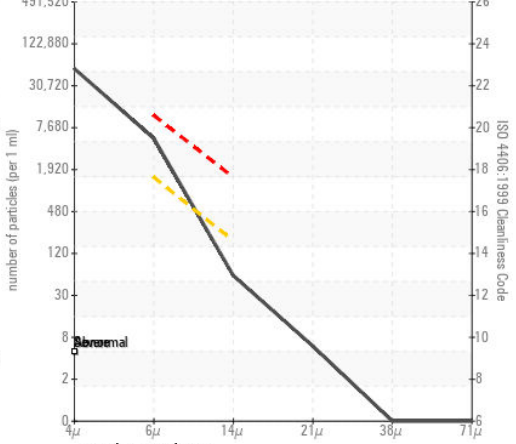
### Non-ferrous Metals



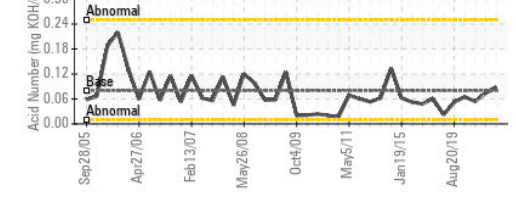
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0813274 **Received** : 14 Aug 2023  
**Lab Number** : 05923408 **Diagnosed** : 15 Aug 2023  
**Unique Number** : 10603355 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF )

**AURIA SOLUTIONS**  
 P.O. Box 580  
 Albemarle, NC  
 US 28001  
 Contact: STEPHEN MOSS  
 smoss@iacna.com  
 T: (704)983-8334  
 F: (704)983-8372

Certificate L2367  
 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)