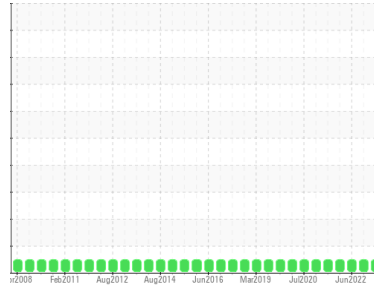




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Ravenswood SP-24224**  
 Machine Id  
**T5 (S/N 23963)**  
 Component  
**Hydraulic System**  
 Fluid  
**MOBIL AERO HF (280 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is 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		<b>WC0783105</b>	WC0783077	WC0632677
Sample Date	Client Info		<b>04 Jul 2023</b>	10 Jan 2023	22 Jun 2022
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>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184*	>50	<b>0</b>	0	0
Iron	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1
Chromium	ppm	ASTM D5185(m)	>15	<b>0</b>	0
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>0</b>	<1
Lead	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1
Copper	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	<1
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0
Antimony	ppm	ASTM D5185(m)		<b>&lt;1</b>	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0
Molybdenum	ppm	ASTM D5185(m)	0.0	<b>0</b>	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0
Magnesium	ppm	ASTM D5185(m)	0.4	<b>0</b>	0
Calcium	ppm	ASTM D5185(m)	0.0	<b>&lt;1</b>	0
Phosphorus	ppm	ASTM D5185(m)	426	<b>454</b>	455
Zinc	ppm	ASTM D5185(m)	0.9	<b>3</b>	3
Sulfur	ppm	ASTM D5185(m)	93	<b>158</b>	154
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1

## CONTAMINANTS

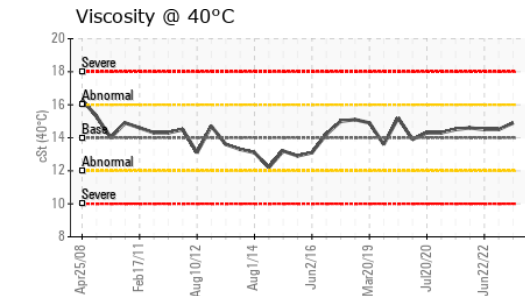
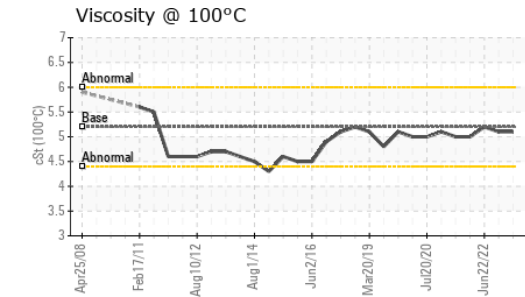
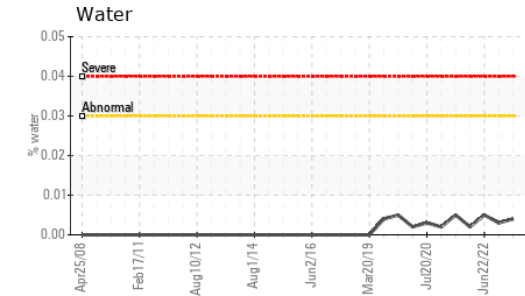
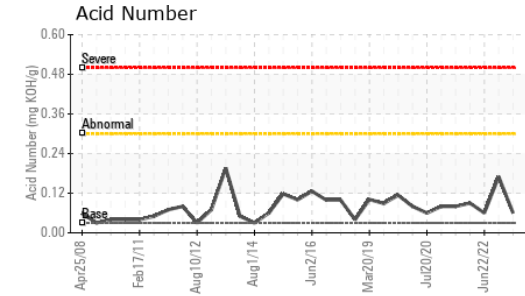
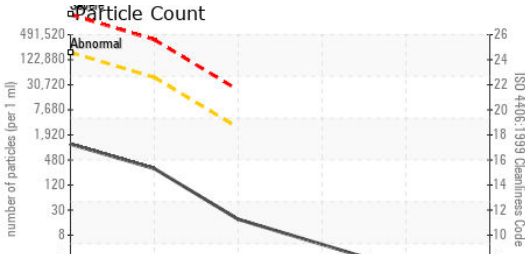
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>10	<b>1</b>	1
Sodium	ppm	ASTM D5185(m)	>10	<b>&lt;1</b>	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1
Water	%	ASTM D6304*	>0.03	<b>0.004</b>	0.003
ppm Water	ppm	ASTM D6304*	>300	<b>41.7</b>	33.5

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*		<b>0</b>	0
Nitration	Abs/cm	ASTM D7624*		<b>3.4</b>	3.3
Sulfation	Abs/.1mm	ASTM D7415*		<b>53.3</b>	52.8



# OIL ANALYSIS REPORT



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Vestas American Wind Technology Inc.  
**Sample No.** : WC0783105 **Received** : 18 Aug 2023  
**Lab Number** : **02576756** **Diagnosed** : 21 Aug 2023  
**Unique Number** : 5629816 **Diagnostician** : Kevin Marson  
**Test Package** : IND 2 ( Additional Tests: FT-IR, KF, KV100, PQ, TAN Man, VI )

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 CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>160000	<b>1011</b>	255	749
Particles >6µm	ASTM D7647	>40000	<b>262</b>	52	101
Particles >14µm	ASTM D7647	>2500	<b>16</b>	1	4
Particles >21µm	ASTM D7647	>640	<b>4</b>	0	3
Particles >38µm	ASTM D7647	>160	<b>1</b>	0	2
Particles >71µm	ASTM D7647	>40	<b>1</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>24/22/18	<b>17/15/11</b>	15/13/7	17/14/9

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*		<b>43.4</b>	43.3	43.9
Acid Number (AN)	mg KOH/g ASTM D974*	.03	<b>0.06</b>	0.17	0.06

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar Visual*	NONE	<b>NONE</b>	NONE	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*	>0.03	<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)	14.0	<b>14.9</b>	14.5	14.5
Visc @ 100°C	cSt ASTM D7279(m)	5.2	<b>5.1</b>	5.1	5.2
Viscosity Index (VI)	Scale ASTM D2270*	370	<b>326</b>	341	353

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

