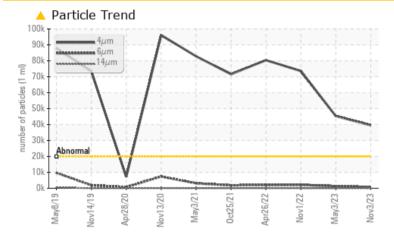


# **PROBLEM SUMMARY**

### Area Fermentation Machine Id Lightnin FFG34SB01 Seed Fermentor, Agitator Component Gearbox Fluid

# JAX FGG-AW ISO 220 (11 GAL)

# COMPONENT CONDITION SUMMARY



## RECOMMENDATION

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

PROBLEMATIC TEST RESULTS							
Sample Status			ATTENTION	ABNORMAL	ABNORMAL		
Particles >4µm	ASTM D7647	>20000	<b>A</b> 39548	45268	<u> </u>		
Oil Cleanliness	ISO 4406 (c)	>21/19/16	<b>A</b> 22/17/12	<b>2</b> 3/18/12	▲ 23/18/12		

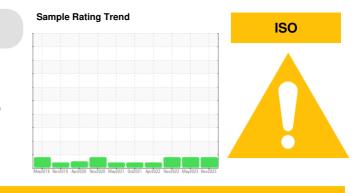
Customer Id: NOVFRANC Sample No.: WC0847262 Lab Number: 06000484 Test Package: IND 2



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 <u>customerservice@wearcheck.com</u>



## **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

## HISTORICAL DIAGNOSIS

# 03 May 2023 Diag: Doug Bogart



No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of silt (particulates < 6 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

### 01 Nov 2022 Diag: Angela Borella

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

26 Apr 2022 Diag: Angela Borella

the oil is suitable for further service.

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. The AN level is acceptable for this fluid. The condition of





# **OIL ANALYSIS REPORT**

# Fermentation Lightnin FFG34SB01 Seed Fermentor, Agitator Component Gearbox

Fluic

JAX FGG-AW ISO 220 (11 GAL)

# DIAGNOSIS

## Recommendation

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

# Wear

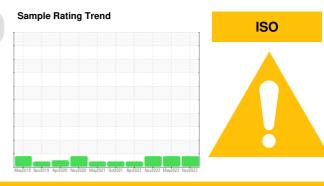
All component wear rates are normal.

## Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

## Fluid Condition

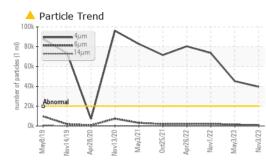
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

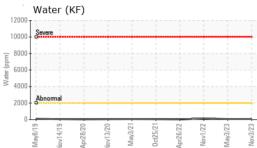


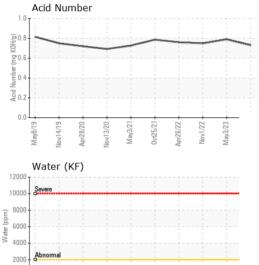
SAMPLE INFORM	<b>/IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0847262	WC0774923	WC0663719
Sample Date		Client Info		03 Nov 2023	03 May 2023	01 Nov 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	8	11	12
Chromium	ppm	ASTM D5185m	>15	0	0	0
Nickel	ppm	ASTM D5185m	>15	1	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	<1	<1
Lead	ppm	ASTM D5185m	>100	<1	0	0
Copper	ppm	ASTM D5185m		<1	0	0
Tin	ppm	ASTM D5185m	>25	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		0	<1	1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	<1
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		0	4	0
Calcium	ppm	ASTM D5185m		12	8	13
Phosphorus	ppm	ASTM D5185m		628	589	592
Zinc	ppm	ASTM D5185m		0	0	6
Sulfur	ppm	ASTM D5185m		738	426	774
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	2	2	2
Sodium	ppm	ASTM D5185m		1	0	0
Potassium	ppm	ASTM D5185m	>20	<1	<1	0
Water	%	ASTM D6304	>0.2	0.007	0.006	0.014
ppm Water	ppm	ASTM D6304	>2000	70.6	67.4	144.8
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	<b>A</b> 39548	45268	▲ 73580
Particles >6µm		ASTM D7647	>5000	764	1335	2149
Particles >14µm		ASTM D7647	>640	23	29	34
Particles >21µm		ASTM D7647	>160	3	6	4
Particles >38µm		ASTM D7647	>40	0	0	0
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>A</b> 22/17/12	▲ 23/18/12	▲ 23/18/12
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.73	0.79	0.75

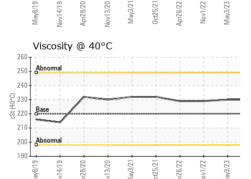


# **OIL ANALYSIS REPORT**



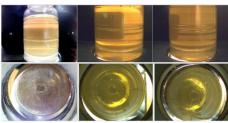




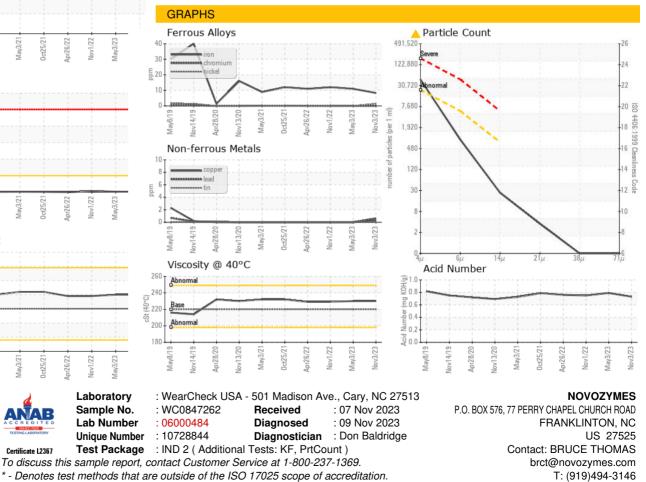


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	230	230	229
SAMPLE IMAGES	S	method	limit/base	current	history1	history2

Color



Bottom



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Submitted By: CHASE MCGEE

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