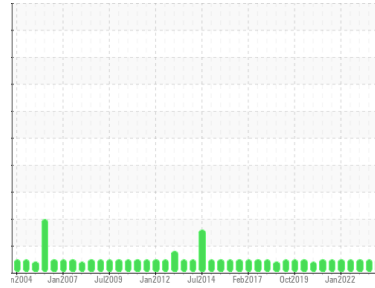




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**FES 7021 - BC 6 FES-1160 (S/N 321129)**

Component  
**Refrigeration Compressor**  
Fluid  
**USPI 1009-68 SC (165 GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are 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>USP0008289</b>	USP0004508	USP250163
Sample Date	Client Info		<b>20 Mar 2024</b>	21 Dec 2023	14 Jun 2023
Machine Age	hrs	Client Info	<b>21247</b>	20098	15872
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
Iron	ppm	ASTM D5185m >8	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m >2	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >8	<b>0</b>	<1	0
Tin	ppm	ASTM D5185m >4	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m	<b>0</b>	1	0
Phosphorus	ppm	ASTM D5185m	<b>0</b>	<1	0
Zinc	ppm	ASTM D5185m	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m 50	<b>0</b>	5	0

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Potassium	ppm	ASTM D5185m >20	<b>1</b>	<1	0
Water	%	ASTM D6304 >0.01	<b>0.003</b>	0.004	0.003
ppm Water	ppm	ASTM D6304 >100	<b>34</b>	48	28.2

## FLUID CLEANLINESS

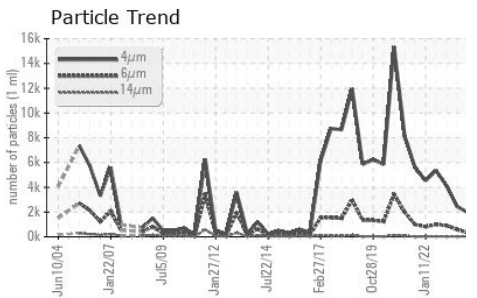
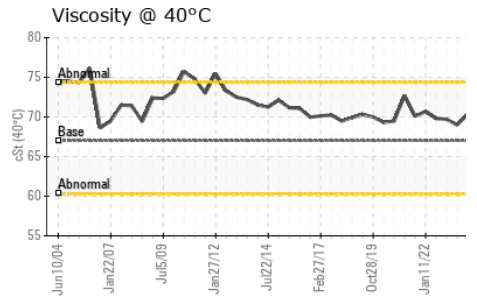
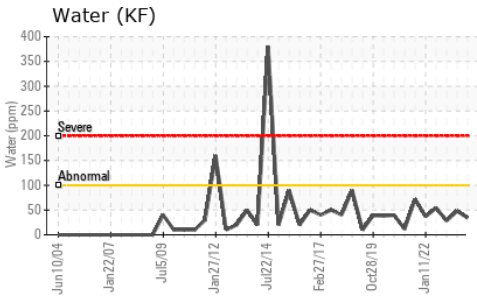
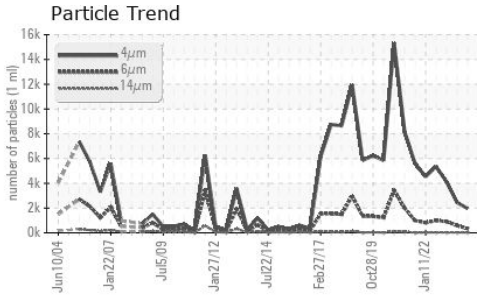
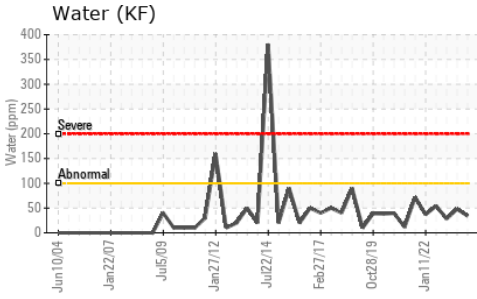
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>1963</b>	2441	4100
Particles >6µm	ASTM D7647 >2500		<b>333</b>	586	907
Particles >14µm	ASTM D7647 >320		<b>25</b>	34	30
Particles >21µm	ASTM D7647 >80		<b>6</b>	4	6
Particles >38µm	ASTM D7647 >20		<b>1</b>	0	0
Particles >71µm	ASTM D7647 >4		<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>--/18/15	<b>18/16/12</b>	18/16/12	19/17/12

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.005	<b>0.028</b>	0.014	0.014



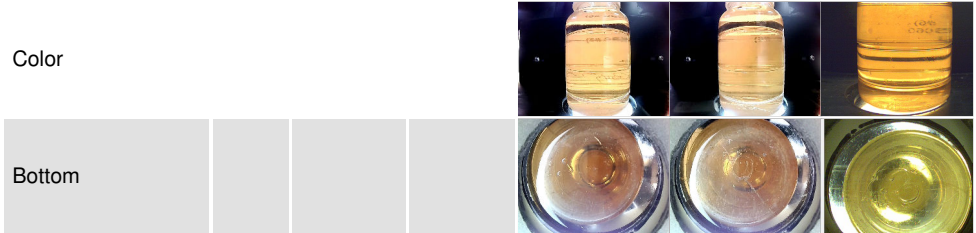
# OIL ANALYSIS REPORT



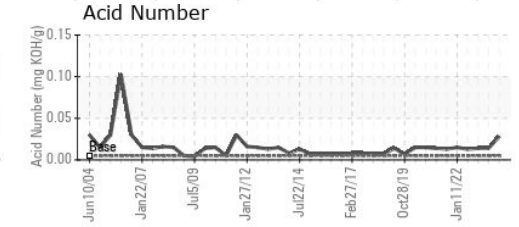
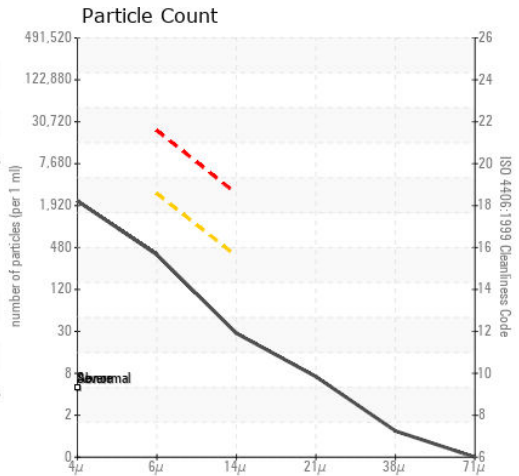
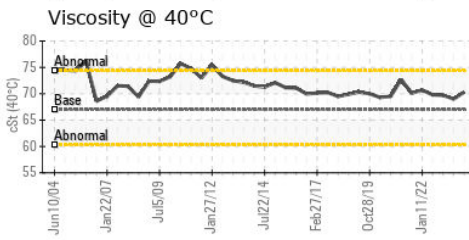
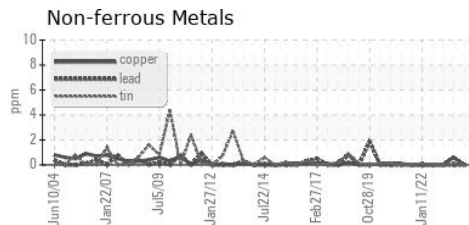
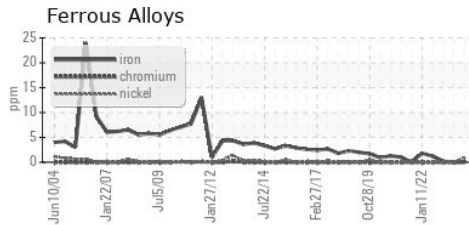
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67	70.3	69.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : USP0008289  
 Lab Number : 06133438  
 Unique Number : 10952903  
 Test Package : IND 2  
 Received : 29 Mar 2024  
 Tested : 01 Apr 2024  
 Diagnosed : 01 Apr 2024 - Doug Bogart

**BLUE BELL-SYLACAUGA**  
 423 NORTH NORTON  
 SYLACAUGA, AL  
 US 35150  
 Contact: FAYE TAYLOR  
 faye.taylor@bluebell.com  
 T: (256)249-6100  
 F: (256)249-6197

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)