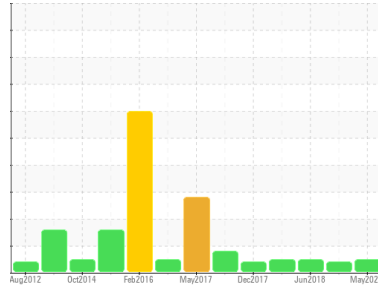




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**[BEFORE STRAINER]**

Machine Id

**FES HSSC-11 FES (S/N 01649-004-1-01-02)**

Component

**Refrigeration Compressor**

Fluid

**USPI 1009-68 SC (--- 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>USPM36154</b>	USP186588	USP185733
Sample Date	Client Info	<b>14 May 2024</b>	12 Aug 2018	25 Jun 2018
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >8	<1	5	5
Chromium	ppm	ASTM D5185m >2	<1	0	0
Nickel	ppm	ASTM D5185m	<1	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >2	<1	0	0
Aluminum	ppm	ASTM D5185m >3	<b>2</b>	<1	<1
Lead	ppm	ASTM D5185m >2	<1	0	<1
Copper	ppm	ASTM D5185m >8	<1	<1	<1
Tin	ppm	ASTM D5185m >4	<1	0	0
Antimony	ppm	ASTM D5185m	---	0	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	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	<1	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m	<1	0	0
Phosphorus	ppm	ASTM D5185m	<1	0	0
Zinc	ppm	ASTM D5185m	<1	27	26
Sulfur	ppm	ASTM D5185m 50	<b>0</b>	33	11

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	<1	<1	<1
Sodium	ppm	ASTM D5185m	<b>0</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>1</b>	<1	<1
Water	%	ASTM D6304 >0.01	<b>0.002</b>	0.009	0.008
ppm Water	ppm	ASTM D6304 >100	<b>19</b>	90	80

## FLUID CLEANLINESS

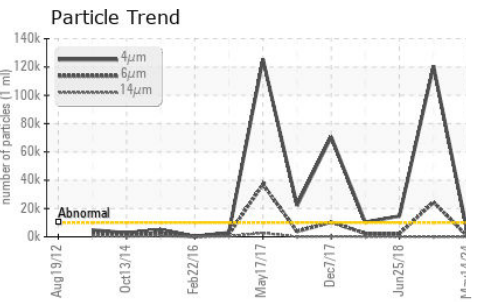
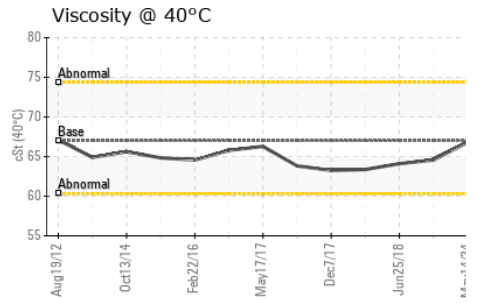
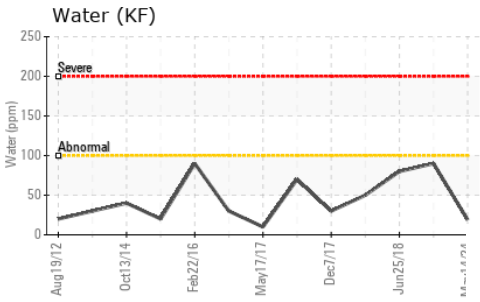
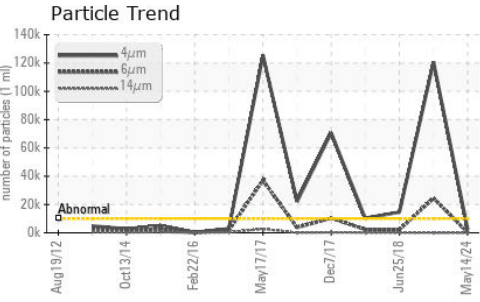
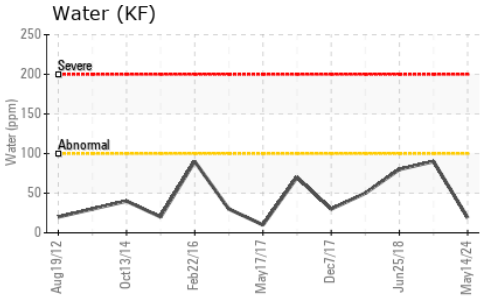
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	<b>2596</b>	120626	14597
Particles >6µm	ASTM D7647 >2500	<b>290</b>	▲ 24458	2185
Particles >14µm	ASTM D7647 >320	<b>19</b>	49	35
Particles >21µm	ASTM D7647 >80	<b>4</b>	8	6
Particles >38µm	ASTM D7647 >20	<b>0</b>	0	0
Particles >71µm	ASTM D7647 >4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	<b>19/15/11</b>	▲ 24/22/13	21/18/12

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974 0.005	<b>0.013</b>	0.008	0.007



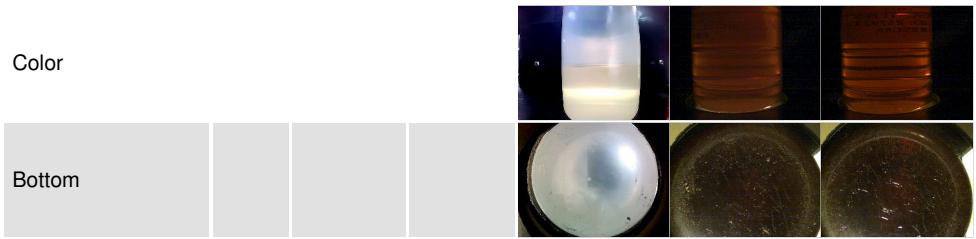
# OIL ANALYSIS REPORT



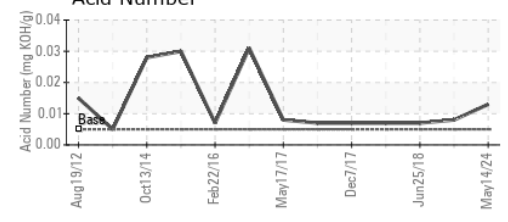
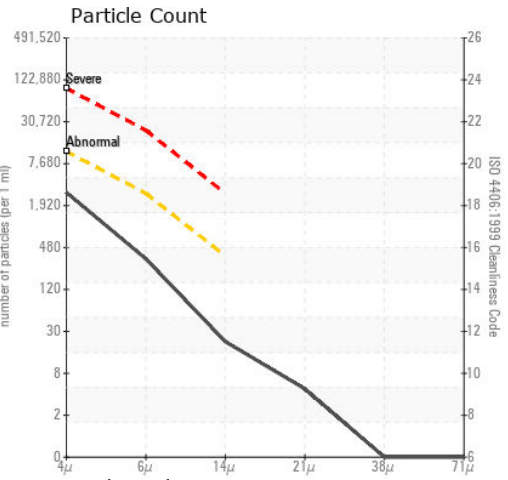
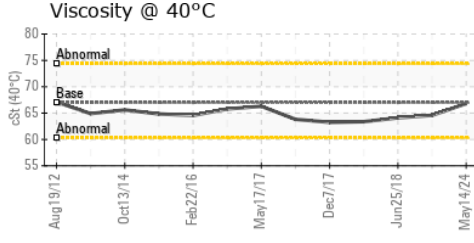
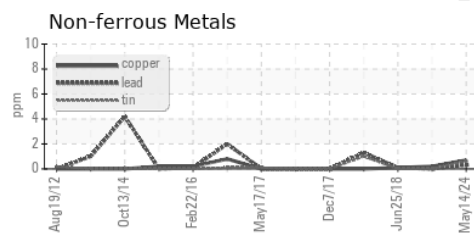
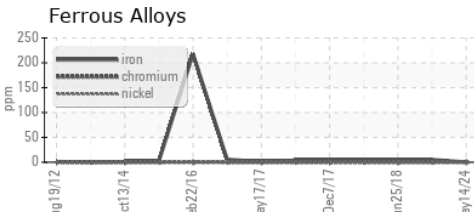
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	<b>66.8</b>	64.58	64.1

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USPM36154  
**Lab Number** : **06180207**  
**Unique Number** : 11031533  
**Test Package** : IND 2  
**Received** : 15 May 2024  
**Tested** : 16 May 2024  
**Diagnosed** : 18 May 2024 - Jonathan Hester

**JBS SWIFT and COMPANY - GRAND ISLAND**  
 GRAND ISLAND, NE  
 US  
 Contact: RICK DUVAL

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)

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 F: (402)423-6661