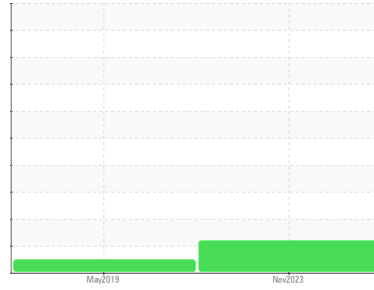




PROBLEM SUMMARY

Sample Rating Trend



ISO



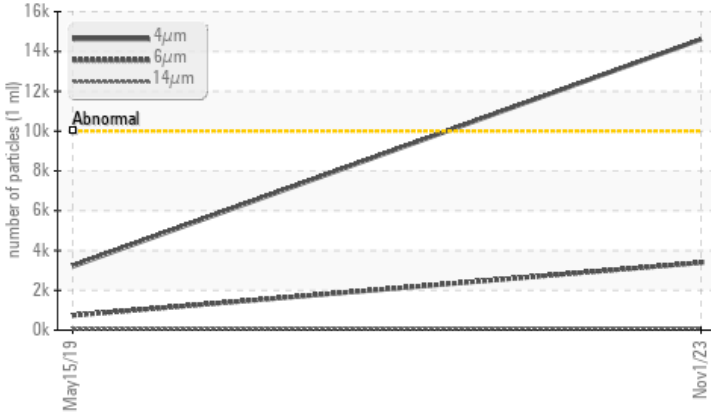
Machine Id
HS-3

Component
Refrigeration Compressor

Fluid
REFRIG COMP OIL ISO 68 (55 GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	NORMAL	---
Particles >4µm	ASTM D7647	>10000	▲ 14609	3205	---
Particles >6µm	ASTM D7647	>2500	▲ 3392	740	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 21/19/14	19/17/13	---

Customer Id: SMISTJ
 Sample No.: USP0003032
 Lab Number: 05996743
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

15 May 2019 Diag: Doug Bogart

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.

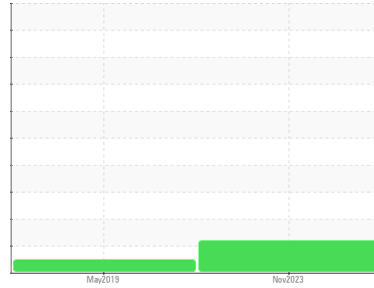
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
HS-3

Component

Refrigeration Compressor

Fluid

REFRIG COMP OIL ISO 68 (55 GAL)

DIAGNOSIS

▲ Recommendation

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 INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		USP0003032	USP181377	---
Sample Date	Client Info		01 Nov 2023	15 May 2019	---
Machine Age	hrs	Client Info	0	24077	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	Not Chngd	---
Sample Status			ATTENTION	NORMAL	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >8	0	0	---
Chromium	ppm	ASTM D5185m >2	<1	0	---
Nickel	ppm	ASTM D5185m	0	0	---
Titanium	ppm	ASTM D5185m	0	0	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >3	<1	0	---
Lead	ppm	ASTM D5185m >2	0	0	---
Copper	ppm	ASTM D5185m >8	<1	0	---
Tin	ppm	ASTM D5185m >4	0	0	---
Antimony	ppm	ASTM D5185m	---	0	---
Vanadium	ppm	ASTM D5185m	0	0	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	0	0	---
Barium	ppm	ASTM D5185m 5	0	0	---
Molybdenum	ppm	ASTM D5185m 5	0	0	---
Manganese	ppm	ASTM D5185m	0	0	---
Magnesium	ppm	ASTM D5185m 5	0	0	---
Calcium	ppm	ASTM D5185m 12	0	0	---
Phosphorus	ppm	ASTM D5185m 12	0	0	---
Zinc	ppm	ASTM D5185m 12	0	0	---
Sulfur	ppm	ASTM D5185m 1000	0	6	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	1	<1	---
Sodium	ppm	ASTM D5185m	0	0	---
Potassium	ppm	ASTM D5185m >20	<1	<1	---
Water	%	ASTM D6304 >0.01	0.003	0.006	---
ppm Water	ppm	ASTM D6304 >100	37.7	60	---

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 14609	3205	---
Particles >6µm	ASTM D7647	>2500	▲ 3392	740	---
Particles >14µm	ASTM D7647	>320	96	62	---
Particles >21µm	ASTM D7647	>80	16	15	---
Particles >38µm	ASTM D7647	>20	0	0	---
Particles >71µm	ASTM D7647	>4	0	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 21/19/14	19/17/13	---

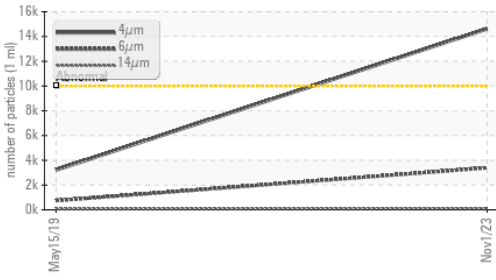
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.10	0.012	0.007	---



OIL ANALYSIS REPORT

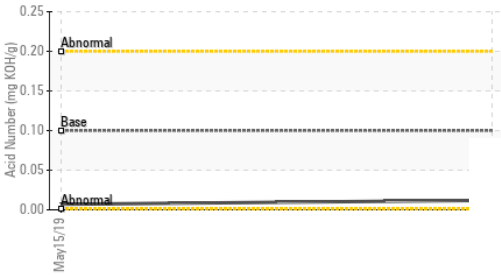
Particle Trend



Water (KF)



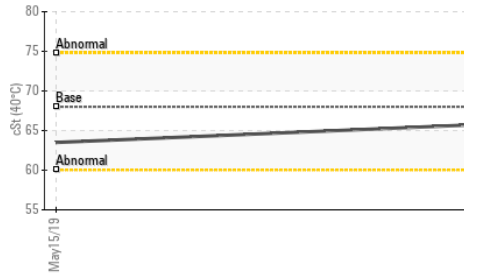
Acid Number



Water (KF)



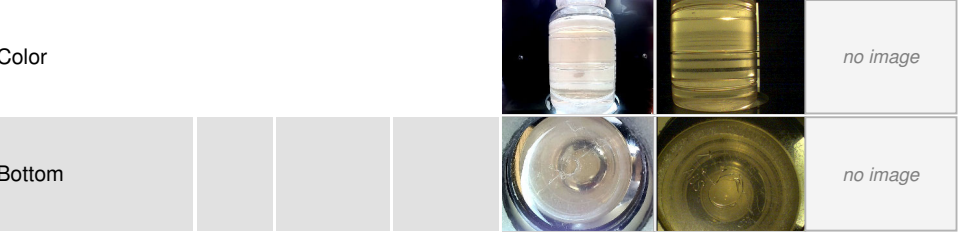
Viscosity @ 40°C



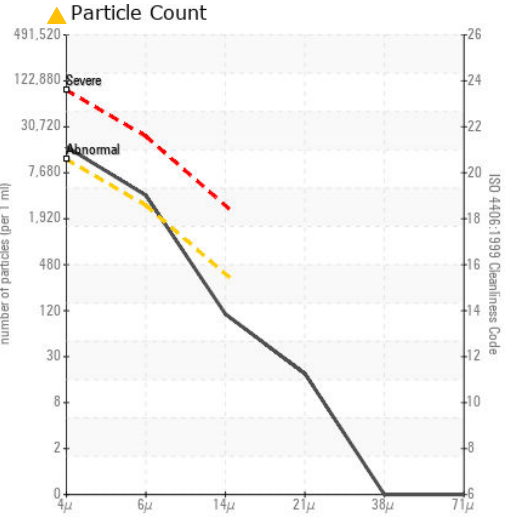
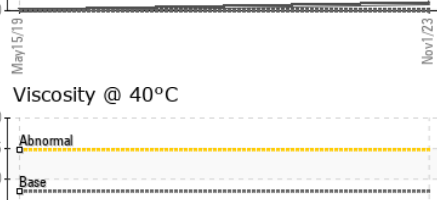
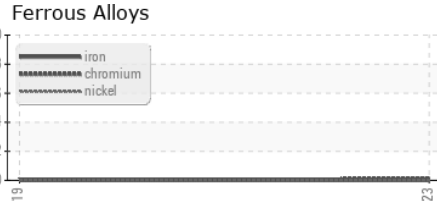
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	65.8	63.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0003032 **Received** : 02 Nov 2023
Lab Number : 05996743 **Diagnosed** : 06 Nov 2023
Unique Number : 10725103 **Diagnostician** : Doug Bogart
Test Package : IND 2

SMITHFIELD FOODS - ST JAMES
 ST JAMES, MN
 US
 Contact:

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)

T:
F: