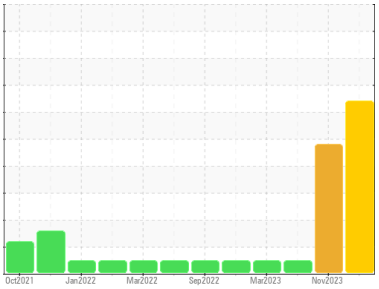
PROBLEM SUMMARY

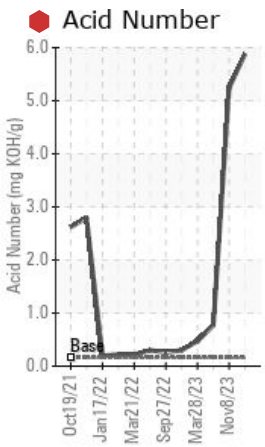
Sample Rating Trend

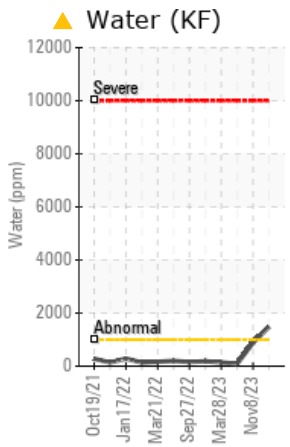


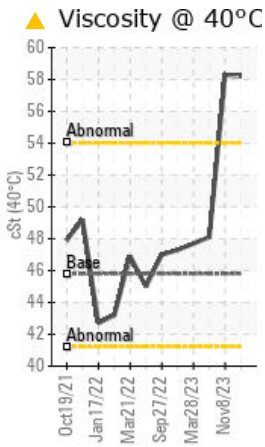
DEGRADATION

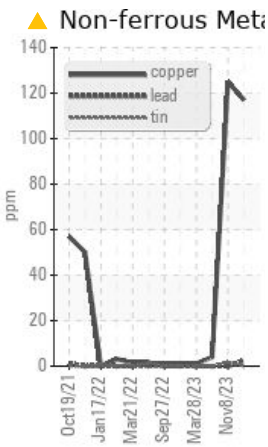
Machine Id
AE002 (S/N AIF109-776)
Component
Air Compressor
Fluid
USPI MAX FG AIR 46 (--- GAL)

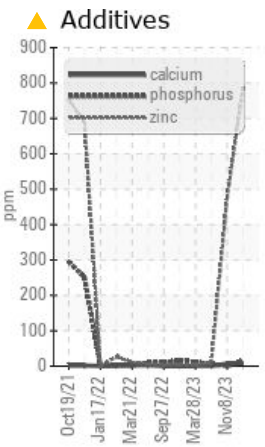
COMPONENT CONDITION SUMMARY











RECOMMENDATION

Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	NORMAL
Copper	ppm	ASTM D5185m	>80	▲ **117**	▲ 125	4
Zinc	ppm	ASTM D5185m	0	▲ **785**	▲ 474	8
Water	%	ASTM D6304	>0.1	▲ **0.148**	0.088	0.008
ppm Water	ppm	ASTM D6304	>1000	▲ **1480**	883.1	87.4
Acid Number (AN)	mg KOH/g	ASTM D8045	0.16	⬢ **5.88**	⬢ 5.24	0.77
Emulsified Water	scalar	*Visual	>0.1	▲ **0.2%**	NEG	NEG
Visc @ 40°C	cSt	ASTM D445	45.8	▲ **58.2**	▲ 58.3	48.1

Customer Id: SMIKIN
Sample No.: USPM26278
Lab Number: 06008342
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

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Recommend drain oil if not already done and flush with cleaner before refilling with oil.
Flush System	---	---	?	Recommend drain oil if not already done and flush with cleaner before refilling with oil.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

08 Nov 2023 Diag: Doug Bogart

DEGRADATION

Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition.The copper level is abnormal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The oil viscosity is higher than normal. The AN level is above the recommended limit. Zinc level high. Confirmed.

view report

03 Aug 2023 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

28 Mar 2023 Diag: Doug Bogart

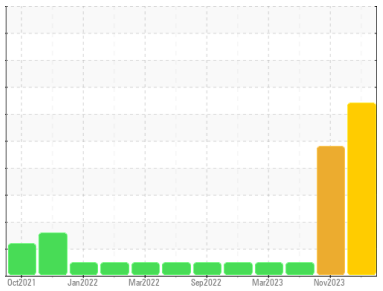
NORMAL

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



DEGRADATION

Machine Id
AE002 (S/N AIF109-776)
Component
Air Compressor
Fluid
USPI MAX FG AIR 46 (--- GAL)

DIAGNOSIS

Recommendation
Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition.

Wear
The copper level is abnormal.

Contamination
There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition
The oil viscosity is higher than normal. The AN level is above the recommended limit. Zinc level high. Confirmed.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USPM26278**	USPM23316	USPM26280
Sample Date		Client Info		**13 Nov 2023**	08 Nov 2023	03 Aug 2023
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				**SEVERE**	SEVERE	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>70	**6**	6	<1
Chromium	ppm	ASTM D5185m	>15	**0**	<1	0
Nickel	ppm	ASTM D5185m	>6	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**2**	3	<1
Lead	ppm	ASTM D5185m	>20	**2**	0	0
Copper	ppm	ASTM D5185m	>80	▲ **117**	▲ 125	4
Tin	ppm	ASTM D5185m	>15	**0**	2	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	0
Barium	ppm	ASTM D5185m	0	**<1**	4	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**1**	<1	<1
Magnesium	ppm	ASTM D5185m	0	**1**	<1	0
Calcium	ppm	ASTM D5185m	0	**8**	7	<1
Phosphorus	ppm	ASTM D5185m	0	**16**	0	7
Zinc	ppm	ASTM D5185m	0	▲ **785**	▲ 474	8
Sulfur	ppm	ASTM D5185m	0	**24**	0	7

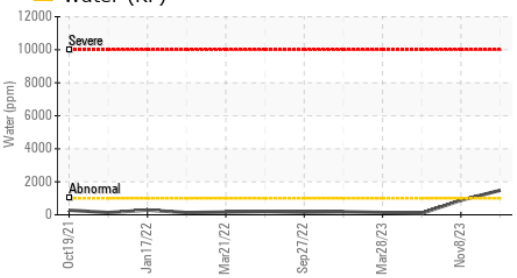
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>12	**0**	0	0
Sodium	ppm	ASTM D5185m		**10**	6	2
Potassium	ppm	ASTM D5185m	>20	**2**	4	<1
Water	%	ASTM D6304	>0.1	▲ **0.148**	0.088	0.008
ppm Water	ppm	ASTM D6304	>1000	▲ **1480**	883.1	87.4

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	**4647**	2157	326
Particles >6µm		ASTM D7647	>2500	**723**	616	120
Particles >14µm		ASTM D7647	>320	**11**	53	14
Particles >21µm		ASTM D7647	>80	**2**	17	4
Particles >38µm		ASTM D7647	>20	**0**	2	1
Particles >71µm		ASTM D7647	>4	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	**19/17/11**	18/16/13	16/14/11

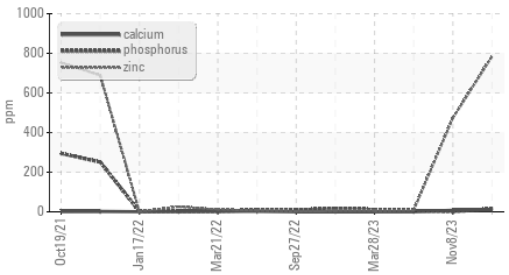
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.16	**5.88**	5.24	0.77

OIL ANALYSIS REPORT

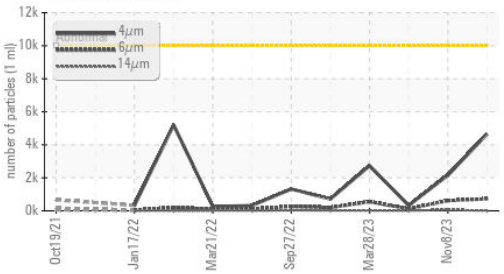
Water (KF)



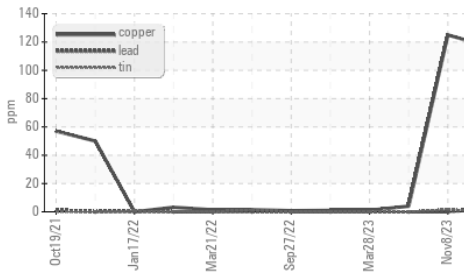
Additives



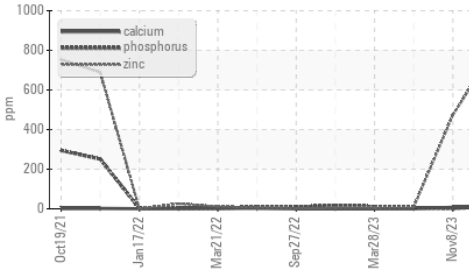
Particle Trend



Non-ferrous Metals



Additives



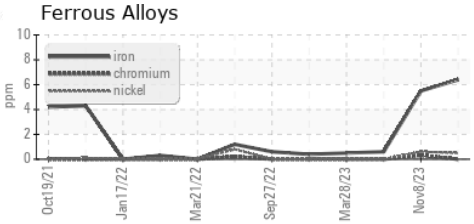
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.8	▲ **58.2**	▲ 58.3	48.1

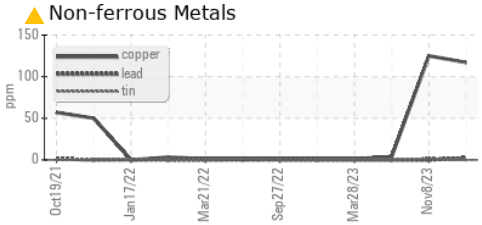
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

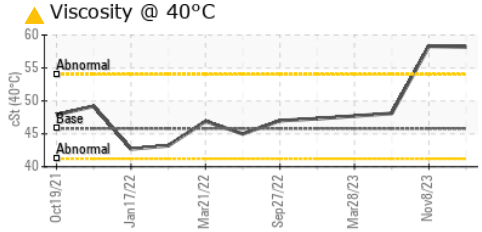
Ferrous Alloys



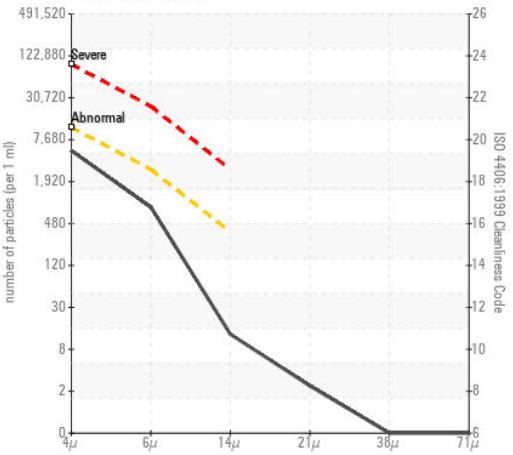
Non-ferrous Metals



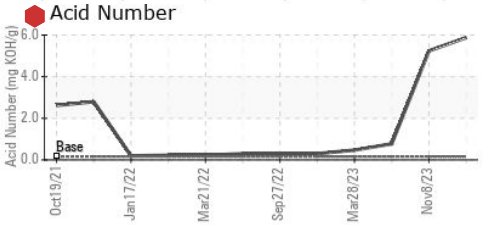
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM26278
Lab Number : 06008342
Unique Number : 10742104
Test Package : IND 2

Received : 15 Nov 2023
Diagnosed : 21 Nov 2023
Diagnostician : Doug Bogart

SMITHFIELD FOODS - KINSTON

KINSTON, NC
US
Contact: SERVICE MANAGER

T:
F:

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)