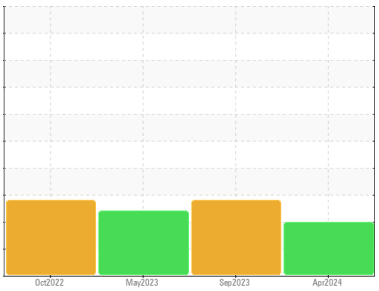
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
LOG DOWNSTREAM LIFTING (S/N MARK 1/PO835)
Component
Gearbox
Fluid
USPI FG GEAR 460 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
The aluminum level is abnormal. All other component wear rates are normal.

Contamination
There is a high 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		**USPM36601**	USPM29664	USPM28854
Sample Date		Client Info		**02 Apr 2024**	18 Sep 2023	31 May 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				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**20**	15	9
Chromium	ppm	ASTM D5185m	>15	**<1**	0	0
Nickel	ppm	ASTM D5185m	>15	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	▲ **35**	▲ 38	▲ 32
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>200	**<1**	0	<1
Tin	ppm	ASTM D5185m	>25	**<1**	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**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**3**	2	2
Calcium	ppm	ASTM D5185m		**29**	21	10
Phosphorus	ppm	ASTM D5185m		**570**	549	495
Zinc	ppm	ASTM D5185m		**5**	0	3
Sulfur	ppm	ASTM D5185m		**597**	637	723

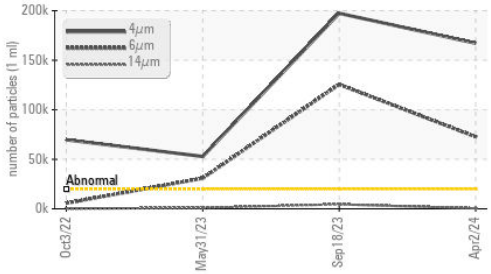
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**37**	39	34
Sodium	ppm	ASTM D5185m		**21**	20	12
Potassium	ppm	ASTM D5185m	>20	**2**	<1	1
Water	%	ASTM D6304	>0.2	**0.004**	0.003	0.002
ppm Water	ppm	ASTM D6304	>2000	**44**	28.1	20.8

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	▲ **167161**	▲ 197383	▲ 52844
Particles >6µm		ASTM D7647	>5000	▲ **72708**	▲ 125640	▲ 30798
Particles >14µm		ASTM D7647	>640	**464**	▲ 4533	▲ 953
Particles >21µm		ASTM D7647	>160	**63**	▲ 324	47
Particles >38µm		ASTM D7647	>40	**0**	3	4
Particles >71µm		ASTM D7647	>10	**0**	0	2
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **25/23/16**	▲ 25/24/19	▲ 23/22/17

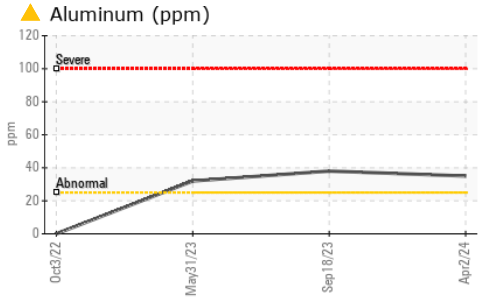
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.44**	0.36	0.41

OIL ANALYSIS REPORT

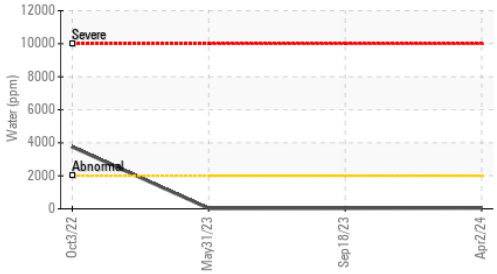
Particle Trend



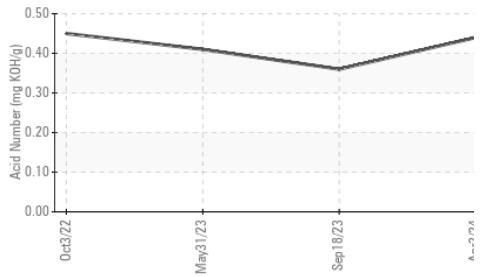
Aluminum (ppm)



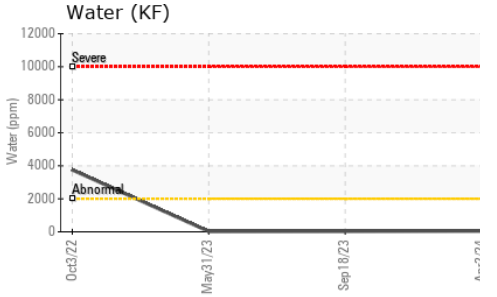
Water (KF)



Acid Number



Water (KF)



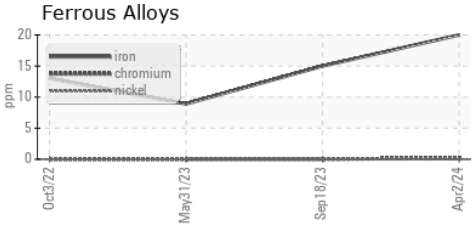
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Sand/Dirt	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 PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**430**	432	432

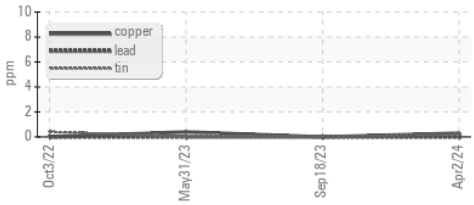
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

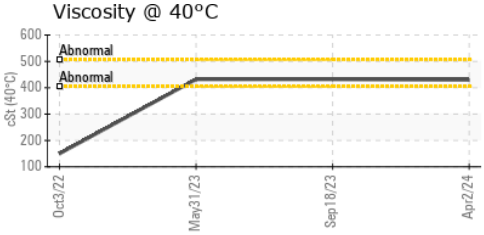
Ferrous Alloys



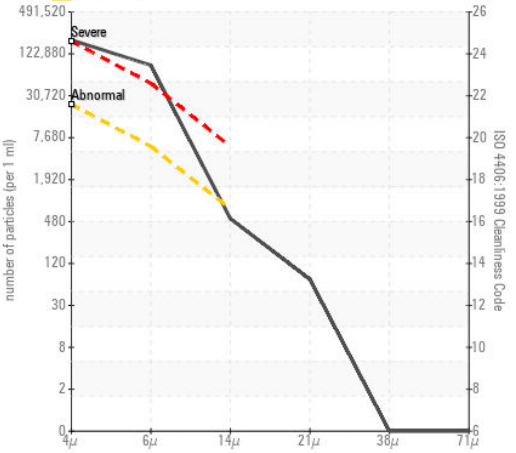
Non-ferrous Metals



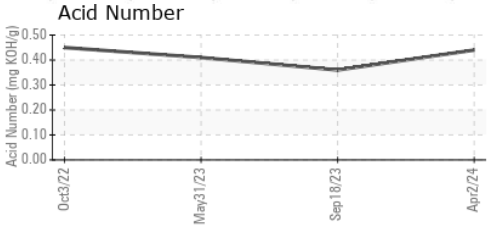
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM36601
Lab Number : 06136428
Unique Number : 10955893
Test Package : IND 2

Received : 02 Apr 2024
Tested : 03 Apr 2024
Diagnosed : 04 Apr 2024 - Doug Bogart

Certificate L2367

SMITHFIELD FOODS - KINSTON

KINSTON, NC
US
Contact: SERVICE MANAGER

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: