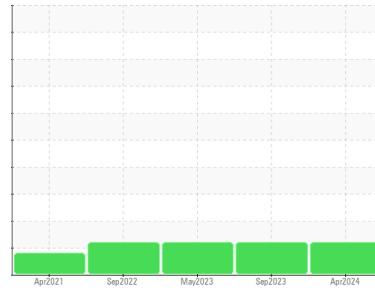




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
LOAF UPSTREAM LIFTING (S/N S0013JPEFTHBA3)
 Component
Gearbox
 Fluid
USPI FG GEAR 460 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All 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	USPM36598	USPM29661	USPM28852
Sample Date	Client Info	02 Apr 2024	18 Sep 2023	31 May 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	ATTENTION

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >200	6	2	1
Chromium	ppm	ASTM D5185m >15	<1	0	0
Nickel	ppm	ASTM D5185m >15	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	3	3	0
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	0	0	0
Magnesium	ppm	ASTM D5185m	<1	<1	<1
Calcium	ppm	ASTM D5185m	3	<1	0
Phosphorus	ppm	ASTM D5185m	611	584	578
Zinc	ppm	ASTM D5185m	1	<1	<1
Sulfur	ppm	ASTM D5185m	485	559	532

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	4	4	4
Sodium	ppm	ASTM D5185m	0	1	0
Potassium	ppm	ASTM D5185m >20	2	<1	<1
Water	%	ASTM D6304 >0.2	0.011	0.013	0.009
ppm Water	ppm	ASTM D6304 >2000	112	137.0	95.2

FLUID CLEANLINESS

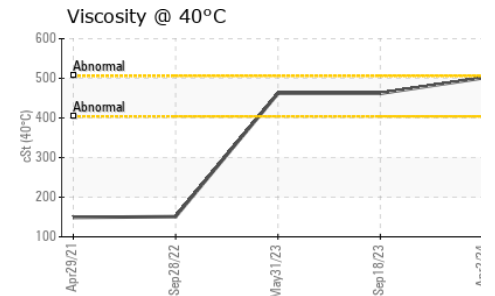
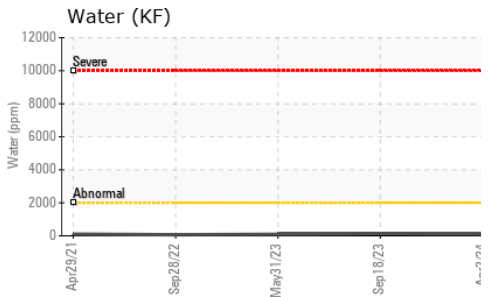
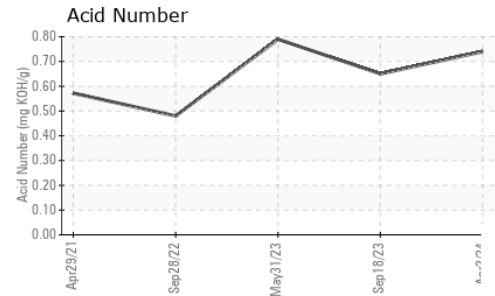
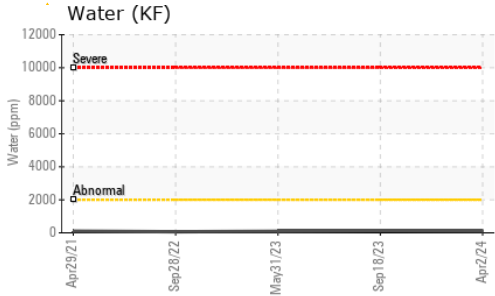
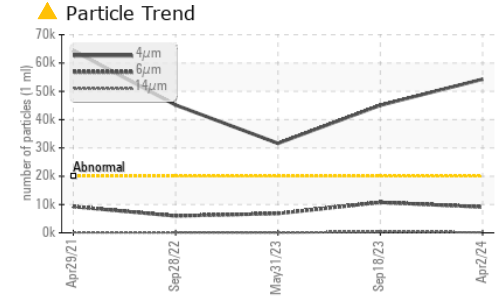
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	▲ 54268	▲ 45070	● 31621
Particles >6µm	ASTM D7647 >5000	● 9125	▲ 10775	● 6817
Particles >14µm	ASTM D7647 >640	156	343	88
Particles >21µm	ASTM D7647 >160	22	67	11
Particles >38µm	ASTM D7647 >40	1	7	5
Particles >71µm	ASTM D7647 >10	0	5	1
Oil Cleanliness	ISO 4406 (c) >21/19/16	▲ 23/20/14	▲ 23/21/16	● 22/20/14

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.74	0.65	0.79



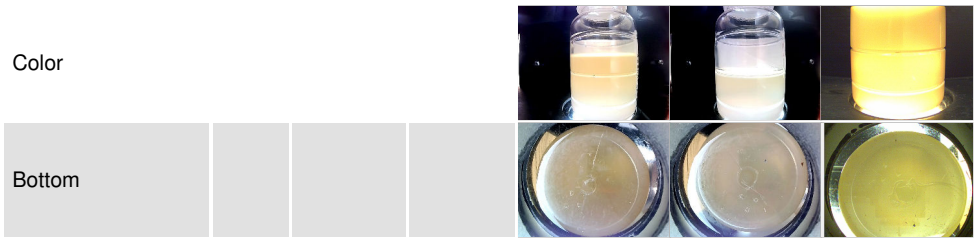
OIL ANALYSIS REPORT



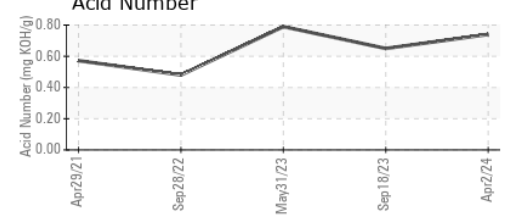
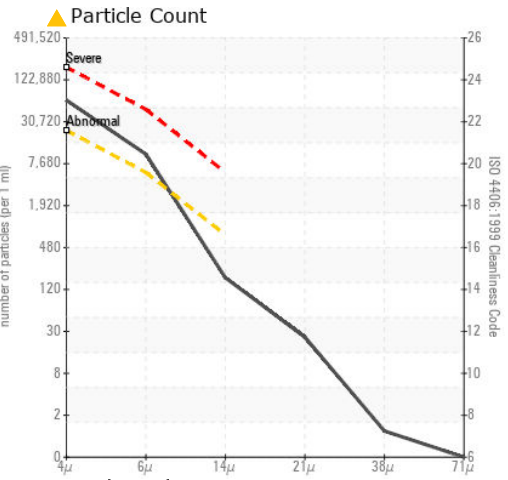
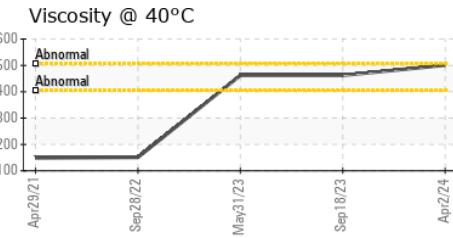
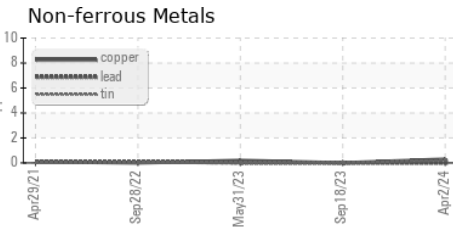
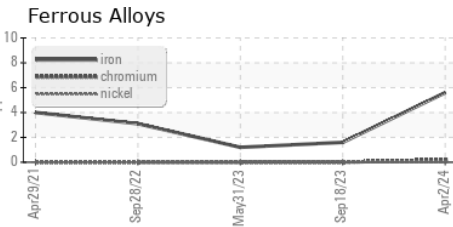
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	501	462	462

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM36598
Lab Number : 06136431
Unique Number : 10955896
Test Package : IND 2
Received : 02 Apr 2024
Tested : 03 Apr 2024
Diagnosed : 04 Apr 2024 - Doug Bogart

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)