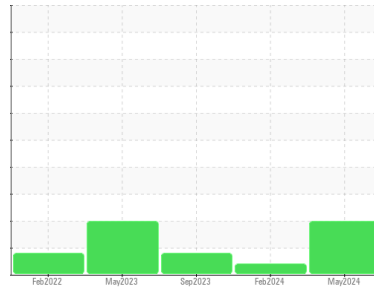




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
PELLET MILL 1
 Component
Gearbox
 Fluid
USPI FG GEAR 220 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of particulates 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	USPM36404	USPM30321	USPM29799
Sample Date	Client Info	29 May 2024	28 Feb 2024	28 Sep 2023
Machine Age	hrs	0	0	0
Oil Age	hrs	0	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	3	<1	0
Chromium	ppm	ASTM D5185m >15	<1	0	0
Nickel	ppm	ASTM D5185m >15	<1	<1	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	2	<1	5
Lead	ppm	ASTM D5185m >100	<1	0	0
Copper	ppm	ASTM D5185m >200	<1	0	0
Tin	ppm	ASTM D5185m >25	<1	<1	0
Vanadium	ppm	ASTM D5185m	<1	<1	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	2	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	0	0
Manganese	ppm	ASTM D5185m	<1	0	0
Magnesium	ppm	ASTM D5185m	2	0	4
Calcium	ppm	ASTM D5185m	5	7	6
Phosphorus	ppm	ASTM D5185m	508	560	549
Zinc	ppm	ASTM D5185m	2	0	0
Sulfur	ppm	ASTM D5185m	391	502	486

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	4	2	2
Sodium	ppm	ASTM D5185m	1	1	0
Potassium	ppm	ASTM D5185m >20	2	<1	0
Water	%	ASTM D6304 >0.2	0.001	0.001	0.001
ppm Water	ppm	ASTM D6304 >2000	9	5	0.00

FLUID CLEANLINESS

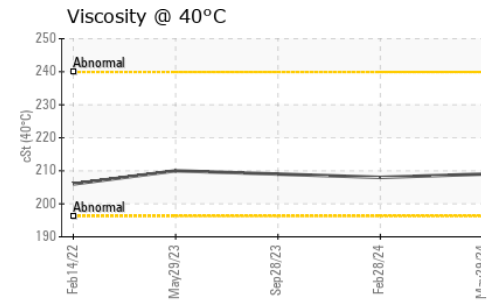
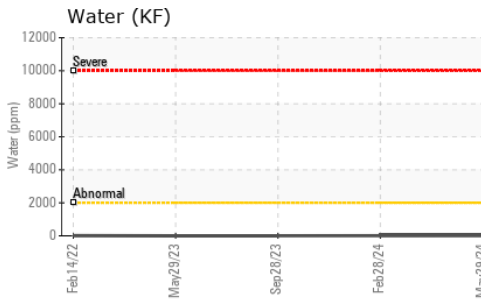
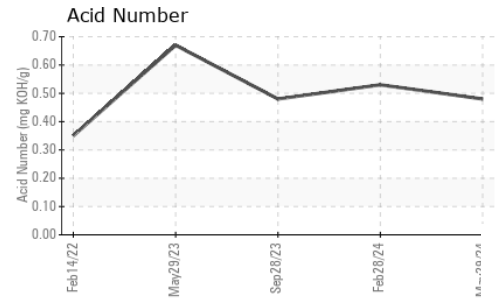
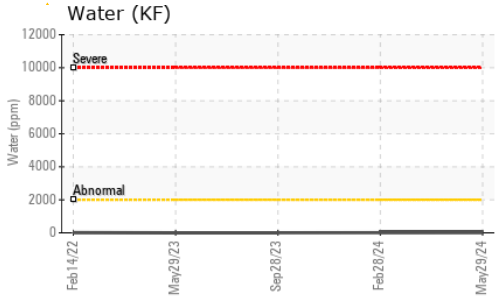
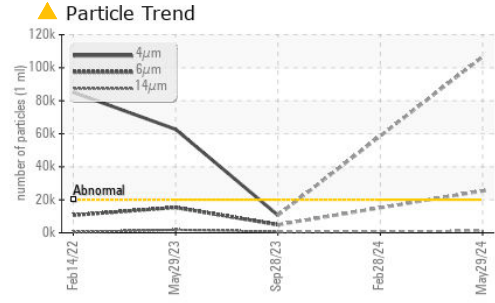
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >20000	▲ 106652	---	10641
Particles >6µm	ASTM D7647 >5000	▲ 25405	---	4889
Particles >14µm	ASTM D7647 >640	● 1140	---	● 666
Particles >21µm	ASTM D7647 >160	● 319	---	90
Particles >38µm	ASTM D7647 >40	17	---	6
Particles >71µm	ASTM D7647 >10	4	---	1
Oil Cleanliness	ISO 4406 (c) >21/19/16	▲ 24/22/17	---	● 21/19/17

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.48	0.53	0.48



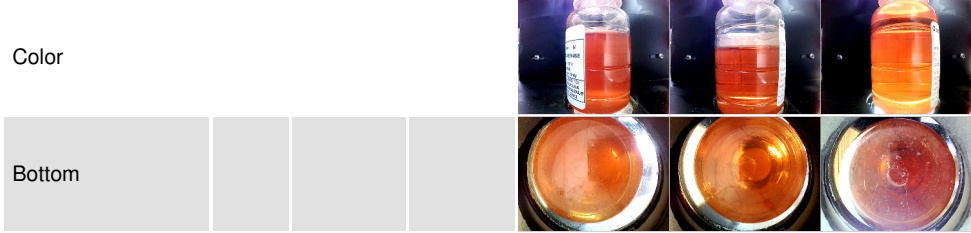
OIL ANALYSIS REPORT



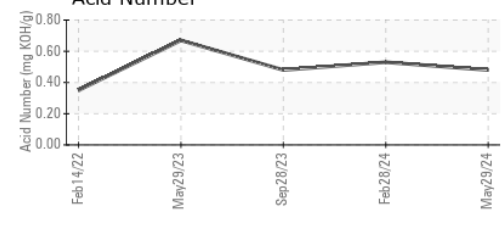
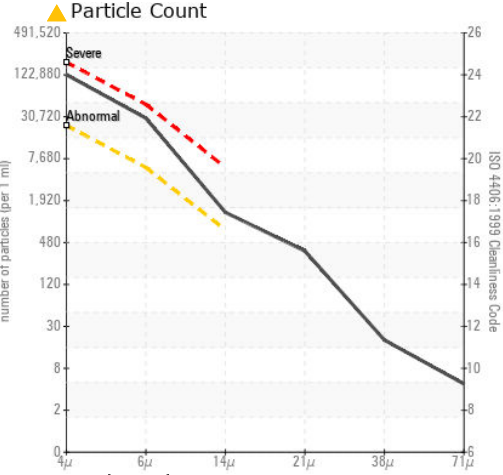
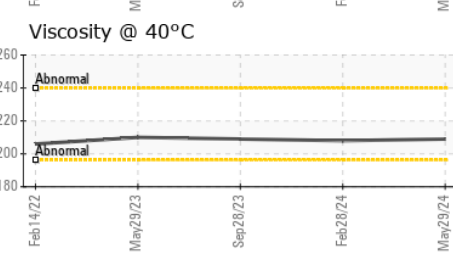
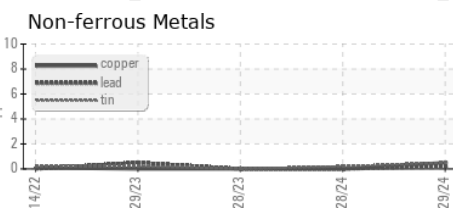
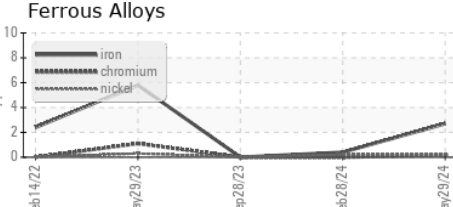
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	209	208	209

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USPM36404
Lab Number : 06198209
Unique Number : 11060332
Test Package : IND 2
Received : 03 Jun 2024
Tested : 06 Jun 2024
Diagnosed : 06 Jun 2024 - Doug Bogart

CARGILL FEED & NUTRITION - MILTON
 1425 E HIGH ST
 MILTON, WI
 US 53563
 Contact: Sean Bertrand
 sean_bertrand@cargill.com

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)