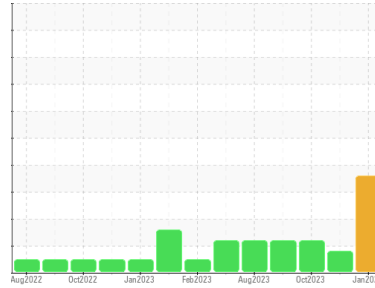


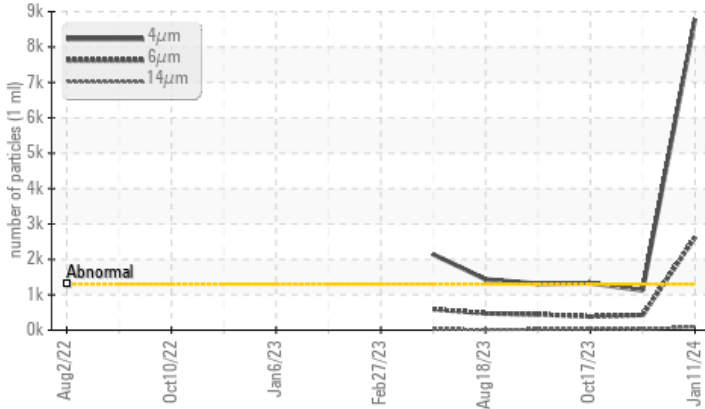


Area
THERMOFORMING
Machine Id
Line 8 Extruder B (S/N 4552-815132)
Component
Gearbox
Fluid
SUMMIT UNIPAR FG-320 (15)



COMPONENT CONDITION SUMMARY

Particle Trend



RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS

Sample Status			SEVERE	ATTENTION	ATTENTION
Particles >4µm	ASTM D7647	>1300	▲ 8793	▲ 1121	▲ 1330
Particles >6µm	ASTM D7647	>320	● 2626	▲ 426	▲ 381
Oil Cleanliness	ISO 4406 (c)	>17/15/13	● 20/19/14	▲ 17/16/12	▲ 18/16/12

Customer Id: DARDALTX
Sample No.: TO50001538
Lab Number: 06063574
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

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 Filter	---	---	?	We recommend you service the filters on this component.
Resample	---	---	?	Resample in 30-45 days to monitor this situation.
Information Required	---	---	?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.
Check Breathers	---	---	?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Seals	---	---	?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS

15 Nov 2023 Diag: Wes Davis



We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



17 Oct 2023 Diag: Wes Davis



We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



14 Sep 2023 Diag: Don Baldrige

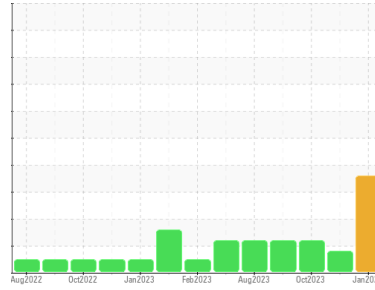


No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area
THERMOFORMING
 Machine Id
Line 8 Extruder B (S/N 4552-815132)
 Component
Gearbox
 Fluid
SUMMIT UNIPAR FG-320 (15)



DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		TO50001538	TO50001969	TO50001608
Sample Date	Client Info		11 Jan 2024	15 Nov 2023	17 Oct 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	Not Chngd	N/A
Sample Status			SEVERE	ATTENTION	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		11	10	12
Iron	ppm	ASTM D5185m >200	0	0	0
Chromium	ppm	ASTM D5185m >15	<1	0	0
Nickel	ppm	ASTM D5185m >15	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >25	2	0	<1
Lead	ppm	ASTM D5185m >100	0	0	0
Copper	ppm	ASTM D5185m >200	<1	0	1
Tin	ppm	ASTM D5185m >25	0	<1	<1
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	3	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m	0	1	0
Calcium	ppm	ASTM D5185m	1	3	4
Phosphorus	ppm	ASTM D5185m	703	635	697
Zinc	ppm	ASTM D5185m	0	0	0
Sulfur	ppm	ASTM D5185m	651	564	622

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	7	6	14
Sodium	ppm	ASTM D5185m	0	0	1
Potassium	ppm	ASTM D5185m >20	<1	0	0
Water	%	ASTM D6304 >0.2	0.004	0.004	0.004
ppm Water	ppm	ASTM D6304 >2000	45	49.4	46.6

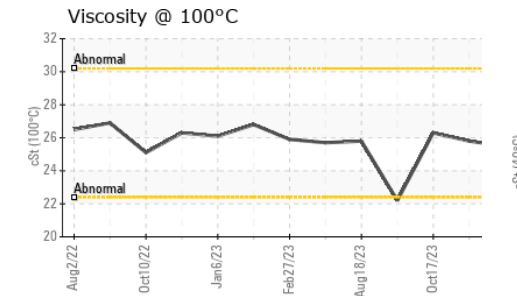
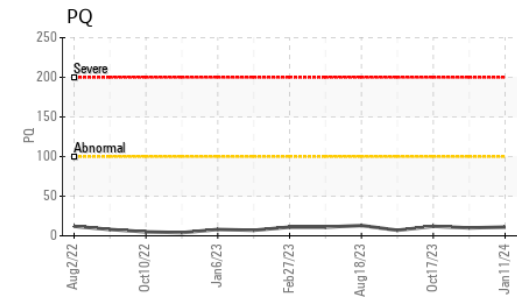
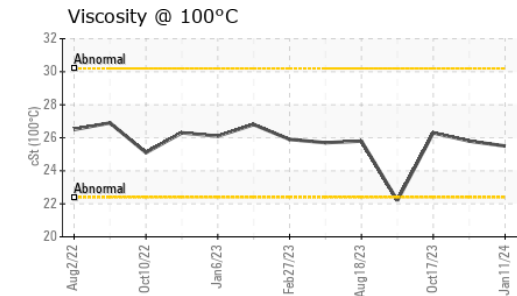
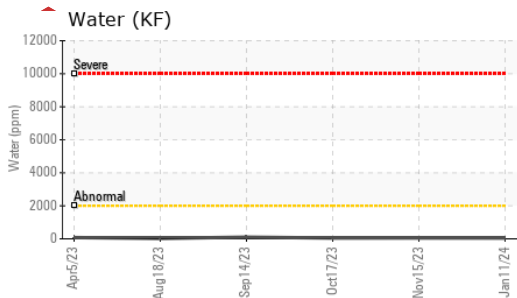
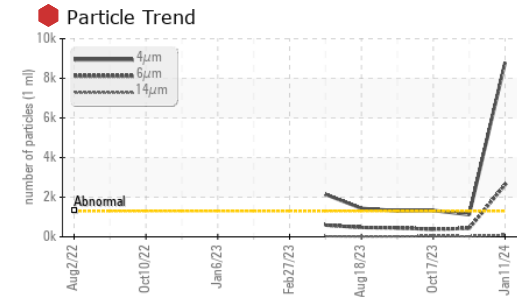
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>1300	8793	1121	1330
Particles >6µm	ASTM D7647	>320	2626	426	381
Particles >14µm	ASTM D7647	>80	97	28	34
Particles >21µm	ASTM D7647	>20	13	7	14
Particles >38µm	ASTM D7647	>4	0	1	2
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>17/15/13	20/19/14	17/16/12	18/16/12

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.65	0.62	0.71

OIL ANALYSIS REPORT

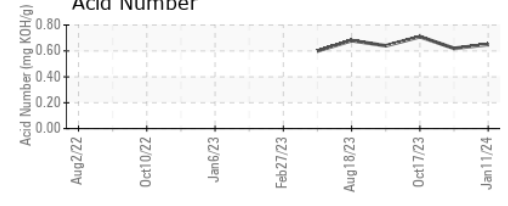
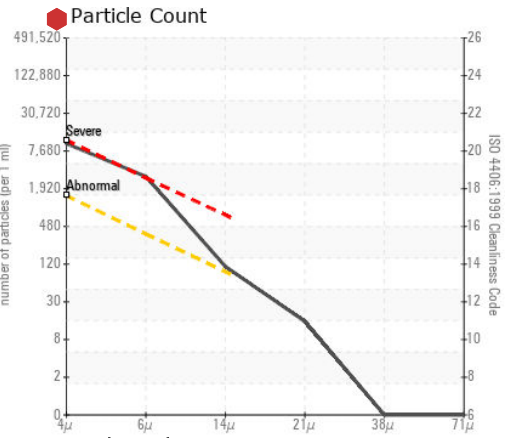
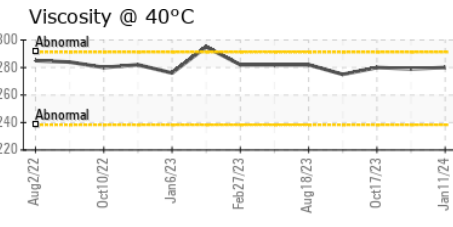
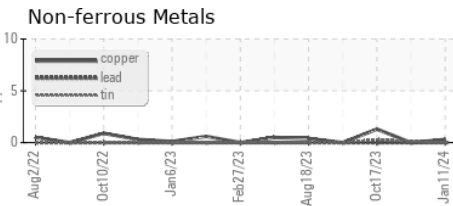
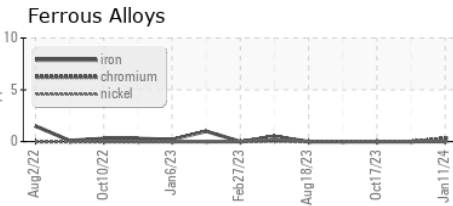


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	280	279	280
Visc @ 100°C	cSt	ASTM D445	25.5	25.8	26.3
Viscosity Index (VI)	Scale	ASTM D2270	117	119	122

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50001538 **Received** : 17 Jan 2024
Lab Number : 06063574 **Diagnosed** : 19 Jan 2024
Unique Number : 10834956 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, PrtCount, VI)

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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)