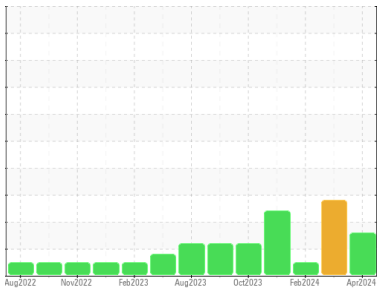
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
Thermoforming
Machine Id
Line 3 D Extruder (S/N X-8264)
Component
Bevel Helical Gearbox
Fluid
{not provided} (8 GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
Elemental level of silicon (Si) above normal indicating ingress of seal material. The amount and size of particulates present in the system are acceptable.

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		**TO50002194**	TO50002233	TO50002204
Sample Date		Client Info		**17 Apr 2024**	29 Mar 2024	29 Feb 2024
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Filtered	Not Changd
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**18**	9	12
Iron	ppm	ASTM D5185m	>150	**3**	3	0
Chromium	ppm	ASTM D5185m	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185m	>10	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>25	**3**	2	2
Lead	ppm	ASTM D5185m	>100	**<1**	0	0
Copper	ppm	ASTM D5185m	>50	**2**	<1	<1
Tin	ppm	ASTM D5185m	>10	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	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		**<1**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	0
Magnesium	ppm	ASTM D5185m		**<1**	<1	<1
Calcium	ppm	ASTM D5185m		**0**	4	0
Phosphorus	ppm	ASTM D5185m		**552**	643	531
Zinc	ppm	ASTM D5185m		**2**	8	2
Sulfur	ppm	ASTM D5185m		**500**	570	440

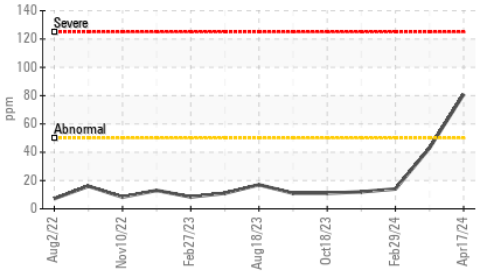
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	▲ **81**	43	14
Sodium	ppm	ASTM D5185m		**0**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**1**	<1	<1
Water	%	ASTM D6304	>0.1	**0.001**	0.003	0.012
ppm Water	ppm	ASTM D6304	>1000	**3**	27	126

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	**1191**	▲ 2489	581
Particles >6µm		ASTM D7647	>320	**300**	▲ 851	190
Particles >14µm		ASTM D7647	>80	**40**	▲ 166	34
Particles >21µm		ASTM D7647	>20	**20**	▲ 78	16
Particles >38µm		ASTM D7647	>4	**3**	▲ 12	3
Particles >71µm		ASTM D7647	>3	**0**	▲ 2	1
Oil Cleanliness		ISO 4406 (c)	>17/15/13	**17/15/12**	▲ 18/17/15	16/15/12

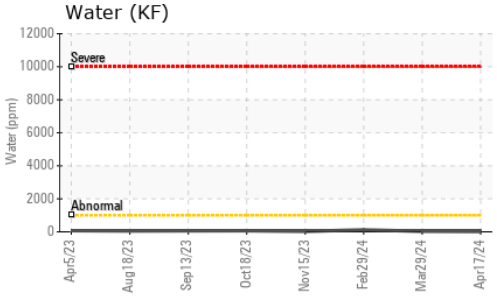
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.79**	0.75	0.75

OIL ANALYSIS REPORT

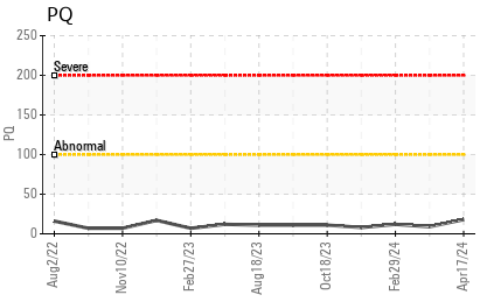
Silicon (ppm)



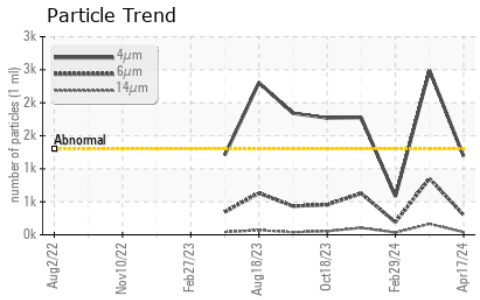
Water (KF)



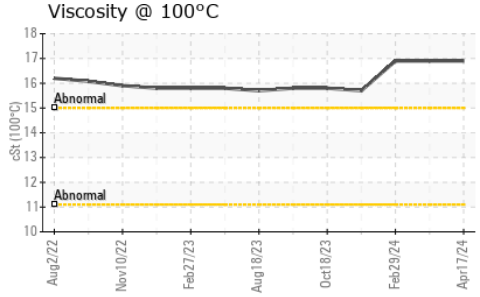
PQ



Particle Trend



Viscosity @ 100°C



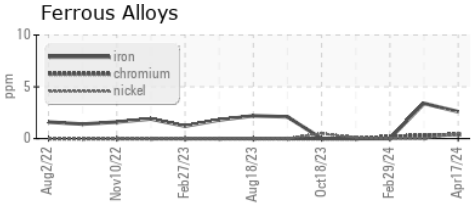
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	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	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**164**	162	164
Visc @ 100°C	cSt	ASTM D445		**16.9**	16.9	16.9
Viscosity Index (VI)	Scale	ASTM D2270		**110**	111	110

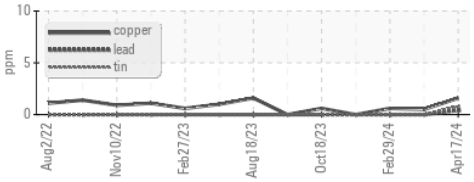
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

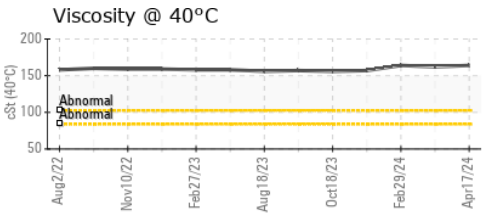
Ferrous Alloys



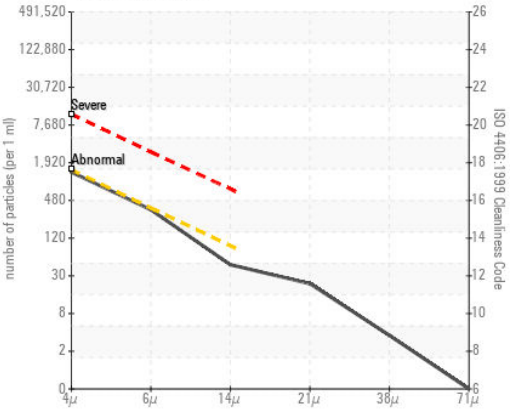
Non-ferrous Metals



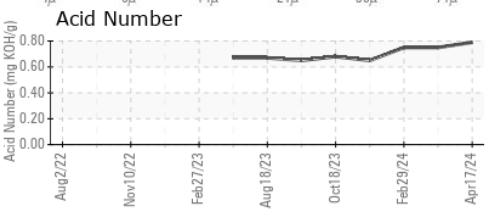
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50002194
Lab Number : 06156963
Unique Number : 10992386
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, PrtCount, VI)

Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 25 Apr 2024 - Jonathan Hester

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)

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Report Id: DARDALTX [WUSCAR] 06156963 (Generated: 04/25/2024 07:52:54) Rev: 1

Submitted By: YON PALOMINO