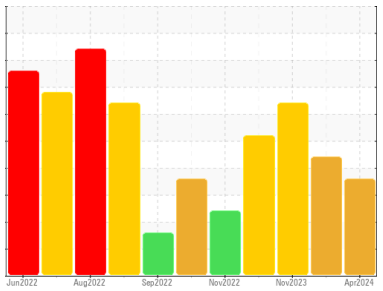
OIL ANALYSIS REPORT

Sample Rating Trend



DIRT

Area
Thermoforming
Machine Id
Line 12 B Extruder (S/N 46270220-10300-1)
Component
Bevel Helical Gearbox
Fluid
MOBIL SHC 632 (21 GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. 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. Elemental level of silicon (Si) above normal indicating ingress of seal material.

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**TO50002281**	TO50001927	TO50001756
Sample Date		Client Info		**17 Apr 2024**	16 Nov 2023	09 Nov 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Not Changd**	Not Changd	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**9**	4	11
Iron	ppm	ASTM D5185m	>150	**2**	6	3
Chromium	ppm	ASTM D5185m	>10	**0**	<1	0
Nickel	ppm	ASTM D5185m	>10	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**0**	2	0
Lead	ppm	ASTM D5185m	>100	**0**	0	0
Copper	ppm	ASTM D5185m	>50	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	<1	2
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	<1	0
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m		**1**	<1	0
Calcium	ppm	ASTM D5185m		**<1**	2	1
Phosphorus	ppm	ASTM D5185m		**428**	446	464
Zinc	ppm	ASTM D5185m		**0**	0	0
Sulfur	ppm	ASTM D5185m		**475**	151	245

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	▲ **222**	▲ 97	▲ 80
Sodium	ppm	ASTM D5185m		**0**	1	<1
Potassium	ppm	ASTM D5185m	>20	**0**	1	0
Water	%	ASTM D6304	>0.1	**0.003**	▲ 0.808	▲ 0.128
ppm Water	ppm	ASTM D6304	>1000	**33**	▲ 8080	▲ 1280

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	▲ **61850**	---	▲ 2740
Particles >6µm		ASTM D7647	>320	▲ **10222**	---	▲ 1493
Particles >14µm		ASTM D7647	>80	▲ **190**	---	▲ 254
Particles >21µm		ASTM D7647	>20	▲ **32**	---	▲ 86
Particles >38µm		ASTM D7647	>4	**3**	---	▲ 13
Particles >71µm		ASTM D7647	>3	**0**	---	1
Oil Cleanliness		ISO 4406 (c)	>17/15/13	▲ **23/21/15**	---	▲ 19/18/15

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.60**	---	0.50

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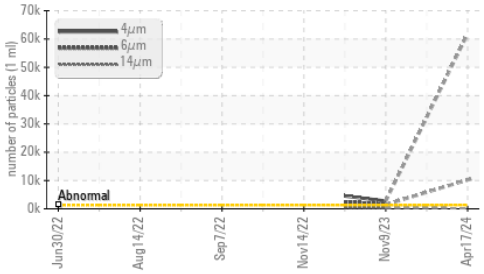
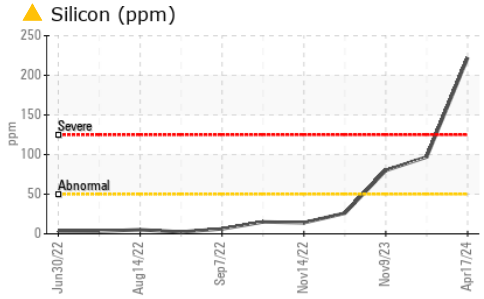
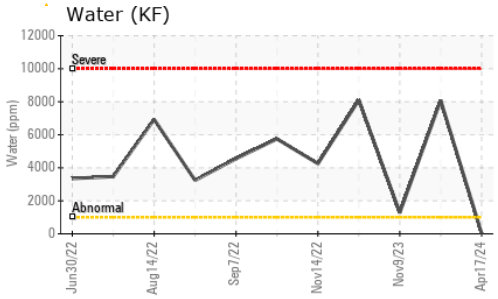
Particle Trend



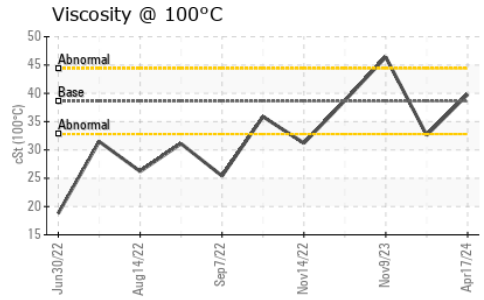
Silicon (ppm)



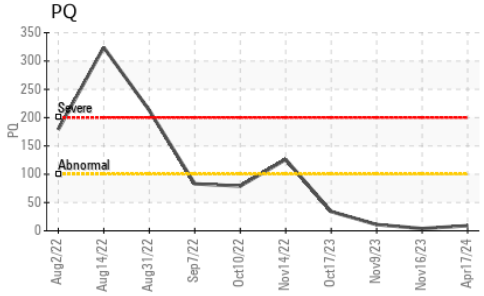
Water (KF)



Viscosity @ 100°C



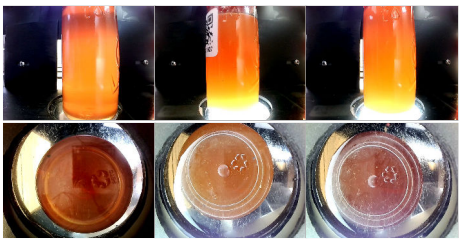
PQ



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**	MODER	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	HAZY	HAZY
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	0.2%	0.2%
Free Water	scalar	*Visual		**NEG**	NEG	NEG

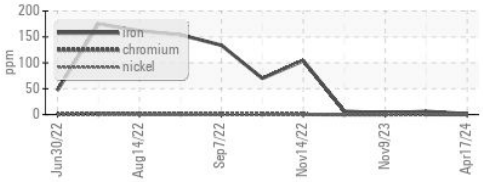
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	325.8	**326**	335	328
Visc @ 100°C	cSt	ASTM D445	38.6	**39.8**	32.6	46.4
Viscosity Index (VI)	Scale	ASTM D2270	169	**174**	137	202

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

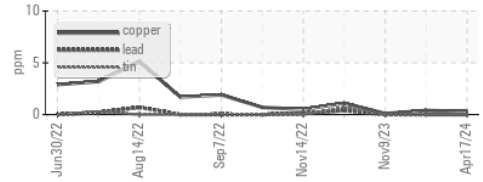


GRAPHS

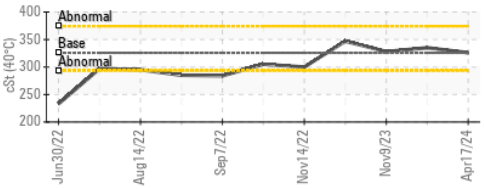
Ferrous Alloys



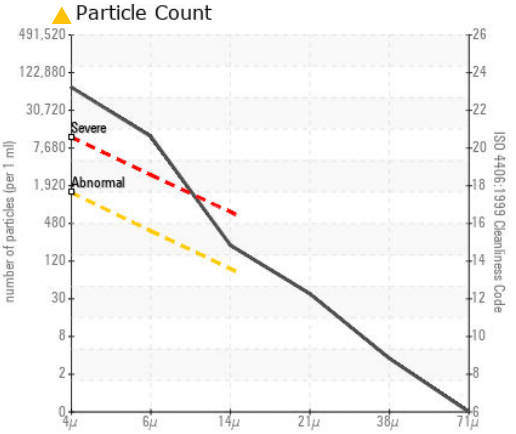
Non-ferrous Metals



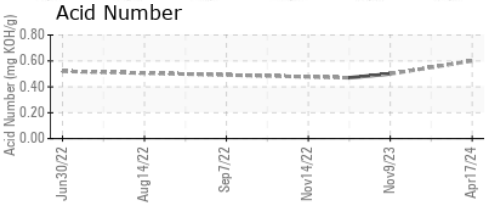
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50002281
Lab Number : 06155948
Unique Number : 10991371
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, PrtCount, VI)

Received : 22 Apr 2024
Tested : 23 Apr 2024
Diagnosed : 24 Apr 2024 - Don Baldridge

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] 06155948 (Generated: 04/24/2024 14:03:36) Rev: 1

Submitted By: YON PALOMINO