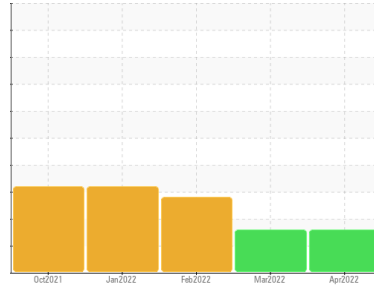


PROBLEM SUMMARY

Sample Rating Trend



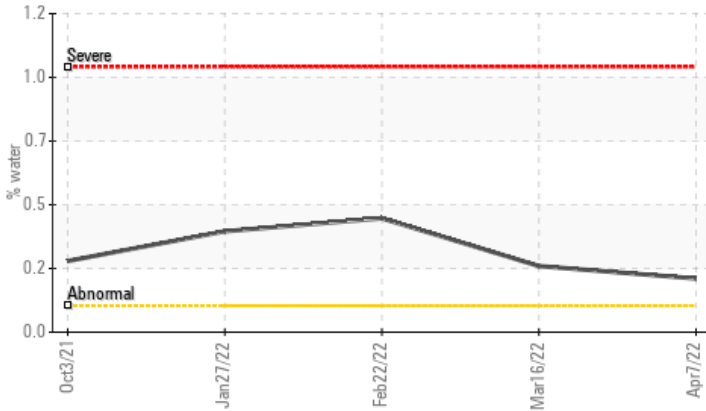
WATER



Machine Id
FRICK FRICK A
Component
Screw Compressor
Fluid
ISO 100 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Water



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.1	▲ 0.202	▲ 0.249	▲ 0.429
ppm Water	ppm	ASTM D6304	>1000	▲ 2027.0	▲ 2493.7	▲ 4296.1

Customer Id: GARROW
Sample No.: TO70000044
Lab Number: 05535253
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

16 Mar 2022 Diag: Jonathan Hester

WATER



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 light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



22 Feb 2022 Diag: Jonathan Hester

WATER



We advise that you follow the water drain-off procedure for this component, and use off-line filtration to improve the cleanliness of the system fluid. Resample at the next service interval to monitor. All component wear rates are normal. Insufficient sample was received to conduct all the routine laboratory tests. There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil. The condition of the oil is acceptable for the time in service.

view report



27 Jan 2022 Diag: Jonathan Hester

WATER



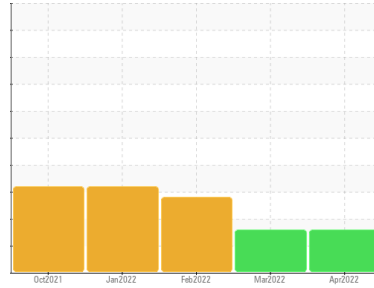
We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a light concentration of water present in the oil. Elemental level of silicon (Si) above normal. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
FRICK FRICK A
 Component
Screw Compressor
 Fluid
ISO 100 (--- 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

There is a light concentration of water present in the oil. 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	TO70000044	TO70000041	TO50000456
Sample Date	Client Info	07 Apr 2022	16 Mar 2022	22 Feb 2022
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	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >60	0	0
Chromium	ppm	ASTM D5185m >4	0	0
Nickel	ppm	ASTM D5185m	0	0
Titanium	ppm	ASTM D5185m	0	0
Silver	ppm	ASTM D5185m	0	0
Aluminum	ppm	ASTM D5185m >5	0	0
Lead	ppm	ASTM D5185m >10	0	0
Copper	ppm	ASTM D5185m >30	0	0
Tin	ppm	ASTM D5185m >15	<1	<1
Vanadium	ppm	ASTM D5185m	0	0
Cadmium	ppm	ASTM D5185m	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<1
Barium	ppm	ASTM D5185m	0	0
Molybdenum	ppm	ASTM D5185m	0	0
Manganese	ppm	ASTM D5185m	0	0
Magnesium	ppm	ASTM D5185m	0	0
Calcium	ppm	ASTM D5185m	0	0
Phosphorus	ppm	ASTM D5185m	19	17
Zinc	ppm	ASTM D5185m	0	0
Sulfur	ppm	ASTM D5185m	2165	2118

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	16	15
Sodium	ppm	ASTM D5185m	0	0
Potassium	ppm	ASTM D5185m >20	<1	2
Water	%	ASTM D6304 >0.1	0.202	0.249
ppm Water	ppm	ASTM D6304 >1000	2027.0	2493.7

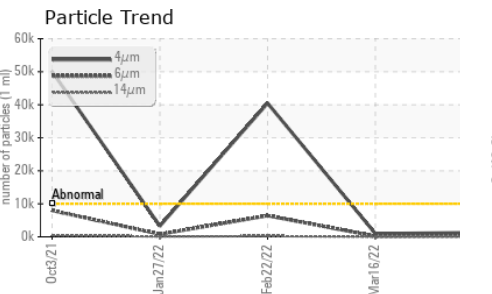
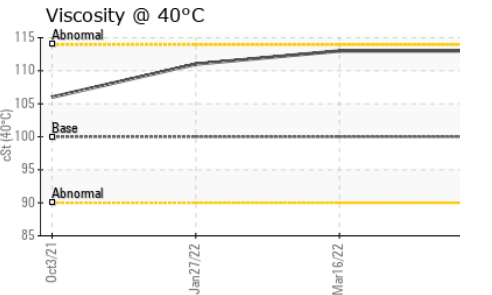
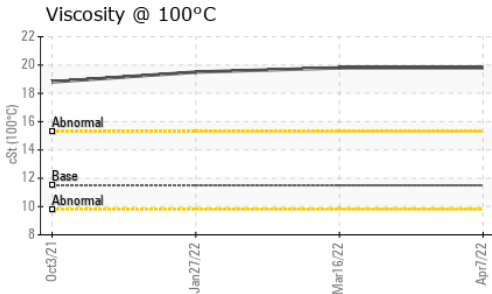
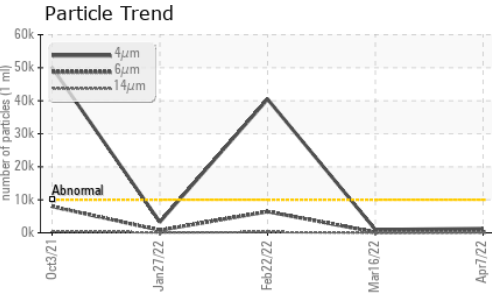
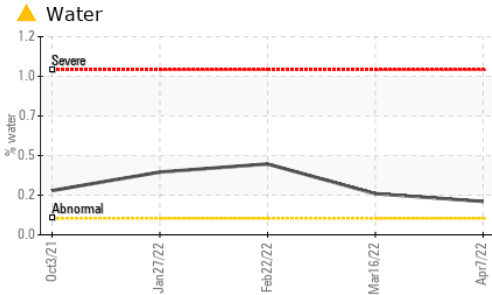
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	1280	975	40464
Particles >6µm	ASTM D7647 >2500	349	177	6430
Particles >14µm	ASTM D7647 >320	34	24	207
Particles >21µm	ASTM D7647 >80	11	7	40
Particles >38µm	ASTM D7647 >20	1	0	0
Particles >71µm	ASTM D7647 >4	0	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	17/16/12	17/15/12	23/20/15

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.205	0.231

OIL ANALYSIS REPORT



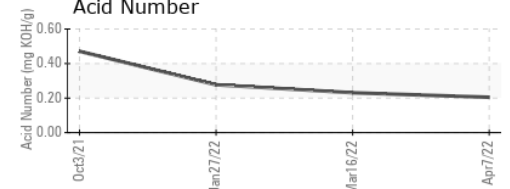
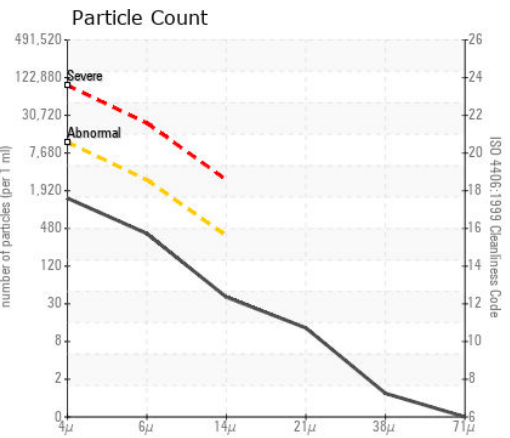
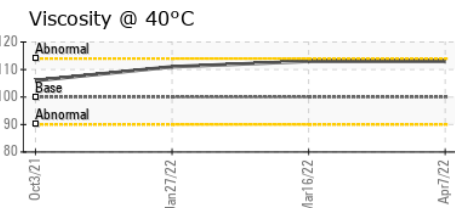
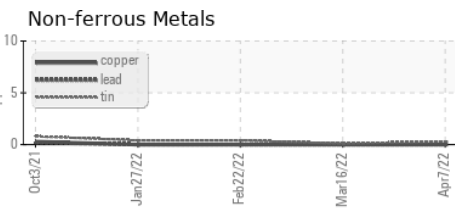
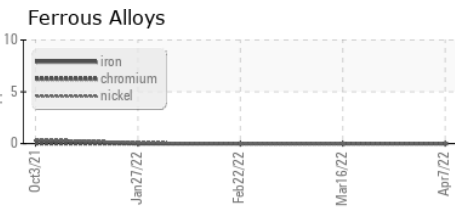
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	113	---
Visc @ 100°C	cSt	ASTM D445	11.5	19.8	---
Viscosity Index (VI)	Scale	ASTM D2270	102	198	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO70000044 **Received** : 03 May 2022
Lab Number : 05535253 **Diagnosed** : 05 May 2022
Unique Number : 9959542 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

GARLAND RENEWABLES
 3175 ELM GROVE RD
 ROWLETT, TX
 US 75089
 Contact: DUSTIN FRY
 dustin@morrowrenew.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)

T:
F: