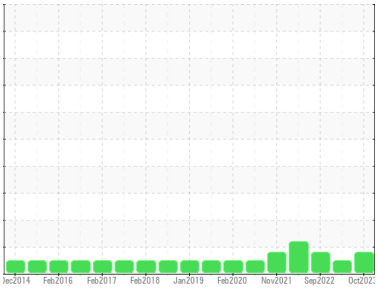
PROBLEM SUMMARY

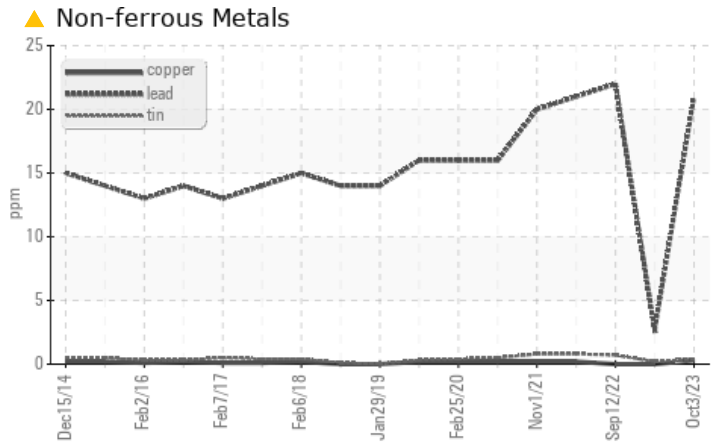
Area
MTR [739948]
Machine Id
TINHGEN3LUB
Component
Bearing
Fluid
ESSO TERESSO ISO 32 (410 LTR)

Sample Rating Trend



WEAR

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				ATTENTION	NORMAL	ATTENTION
Lead	ppm	ASTM D5185(m)	>20	▲ 21	3	▲ 22

Customer Id: ALGMIS
Sample No.: WC0862794
Lab Number: 02587642
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

28 Feb 2023 Diag: Kevin Marson

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

12 Sep 2022 Diag: Kevin Marson

WEAR

We recommend an early resample to monitor this condition.Lead ppm levels are noted. All other component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

07 Mar 2022 Diag: Kevin Marson

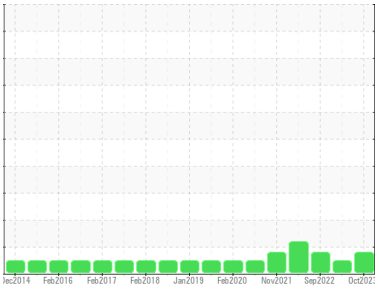
WEAR

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.Lead ppm levels are noted. All other 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

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
MTR [739948]
Machine Id
TINHGEN3LUB
Component
Bearing
Fluid
ESSO TERESSO ISO 32 (410 LTR)

DIAGNOSIS

▲ Recommendation

We recommend an early resample to monitor this condition.

▲ Wear

Lead ppm levels are noted. All other component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is 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		**WC0862794**	WC0678276	WC0678264
Sample Date		Client Info		**03 Oct 2023**	28 Feb 2023	12 Sep 2022
Machine Age	mths	Client Info		**0**	0	0
Oil Age	mths	Client Info		**60**	60	60
Oil Changed		Client Info		**Changed**	Not Changd	Not Changd
Sample Status				**ATTENTION**	NORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		**0**	0	0
Iron	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>20	**0**	0	0
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Lead	ppm	ASTM D5185(m)	>20	▲ **21**	3	▲ 22
Copper	ppm	ASTM D5185(m)	>20	**<1**	0	0
Tin	ppm	ASTM D5185(m)	>20	**<1**	<1	<1
Antimony	ppm	ASTM D5185(m)		**0**	0	1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

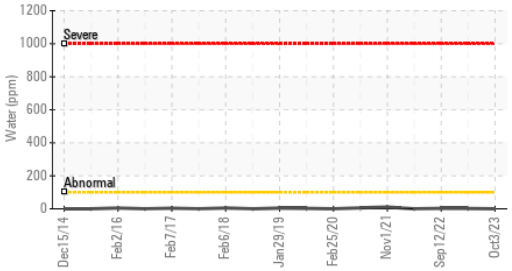
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**<1**	<1	0
Barium	ppm	ASTM D5185(m)		**<1**	0	0
Molybdenum	ppm	ASTM D5185(m)		**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)		**0**	0	0
Calcium	ppm	ASTM D5185(m)		**<1**	0	<1
Phosphorus	ppm	ASTM D5185(m)		**5**	<1	3
Zinc	ppm	ASTM D5185(m)		**3**	1	2
Sulfur	ppm	ASTM D5185(m)		**1467**	1901	1501
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	**3**	<1	2
Sodium	ppm	ASTM D5185(m)		**0**	0	0
Potassium	ppm	ASTM D5185(m)	>20	**0**	0	0
Water	%	ASTM D6304*	>2	**0.00**	0.001	0.001
ppm Water	ppm	ASTM D6304*		**0.00**	1.9	2.6

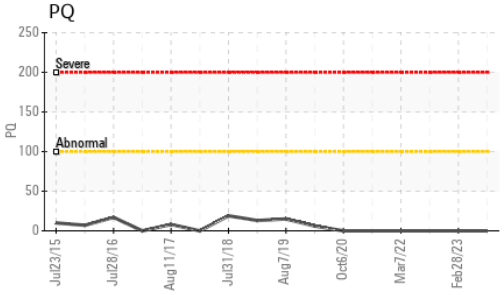
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	**849**	249	1181
Particles >6µm		ASTM D7647	>2500	**202**	57	97
Particles >14µm		ASTM D7647	>160	**8**	7	5
Particles >21µm		ASTM D7647	>40	**2**	2	1
Particles >38µm		ASTM D7647	>10	**0**	0	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/14	**17/15/10**	15/13/10	17/14/10

OIL ANALYSIS REPORT

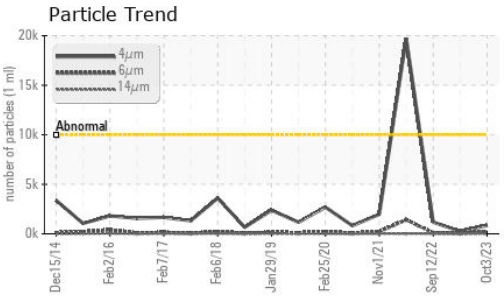
Water (KF)



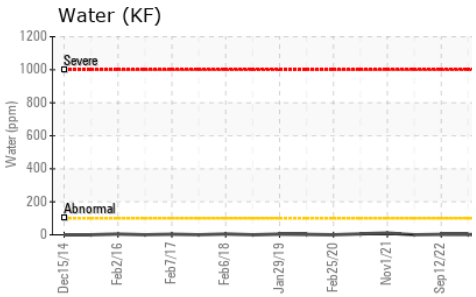
PQ



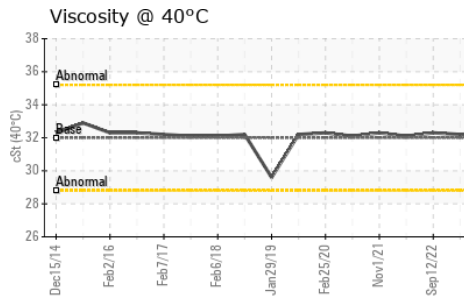
Particle Trend



Water (KF)



Viscosity @ 40°C

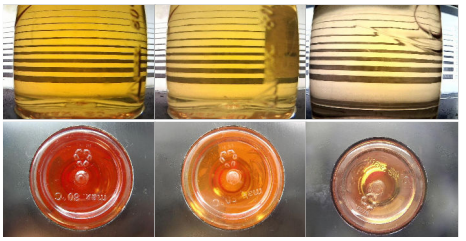


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		**0.12**	0.12	0.09

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**	NONE	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*	>2	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

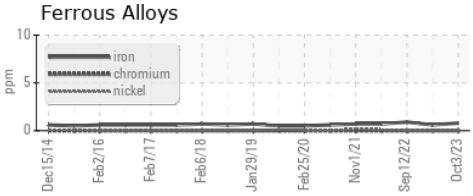
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	**32.3**	32.2	32.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

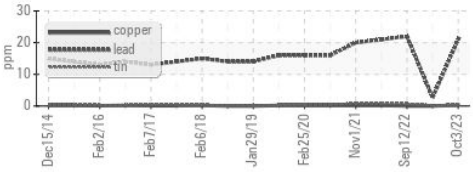


GRAPHS

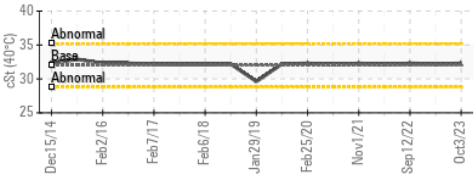
Ferrous Alloys



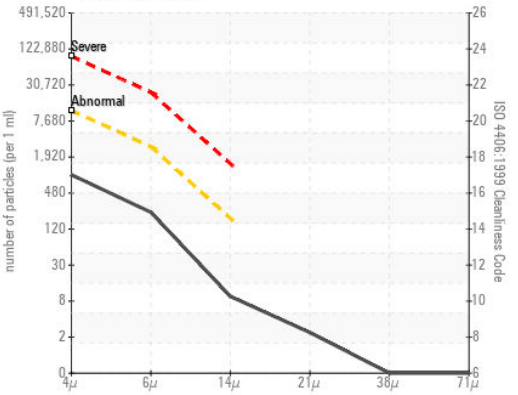
Non-ferrous Metals



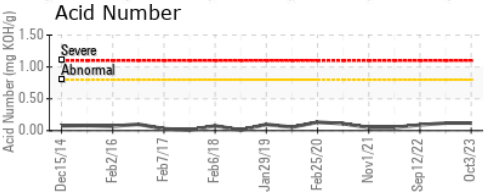
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGONQUIN POWER SYSTEMS INC.**
Sample No. : WC0862794 **Received** : 06 Oct 2023 354 DAVIS ROAD
Lab Number : 02587642 **Diagnosed** : 10 Oct 2023 OAKVILLE, ON
Unique Number : 5656708 **Diagnostician** : Kevin Marson CA L6J 2X1
Test Package : IND 2 (Additional Tests: KF, PQ, TAN Man) Contact: Antonino Champ Fernando

To discuss this sample report, contact Customer Service at 1-800-268-2131. antoninoChamp.fernando@algonquinpower.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (905)465-7065
Validity of results and interpretation are based on the sample and information as supplied. F: x: