



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area  
**COR**  
Machine Id  
**LONGGEN1BRGDS**  
Component  
**Bearing**  
Fluid  
**SHELL TURBO T ISO 68 (25 LTR)**

## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0790718</b>	WC0790737	WC0681476
Sample Date		Client Info		<b>06 Nov 2023</b>	15 Feb 2023	20 Jun 2022
Machine Age	mths	Client Info		<b>316</b>	307	299
Oil Age	mths	Client Info		<b>9</b>	17	9
Filter Age	mths	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changd
Sample Status				<b>ATTENTION</b>	ABNORMAL	SEVERE

## WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

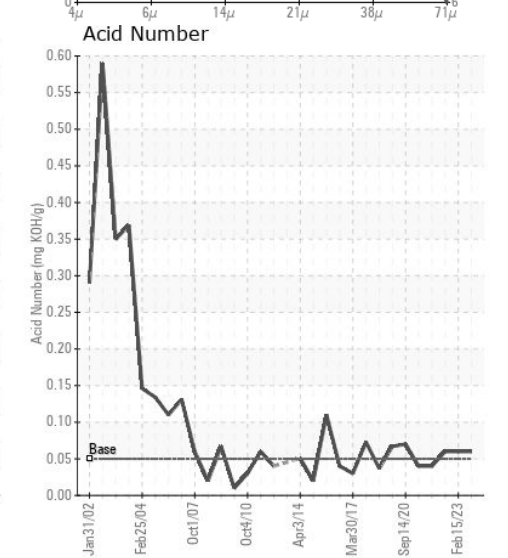
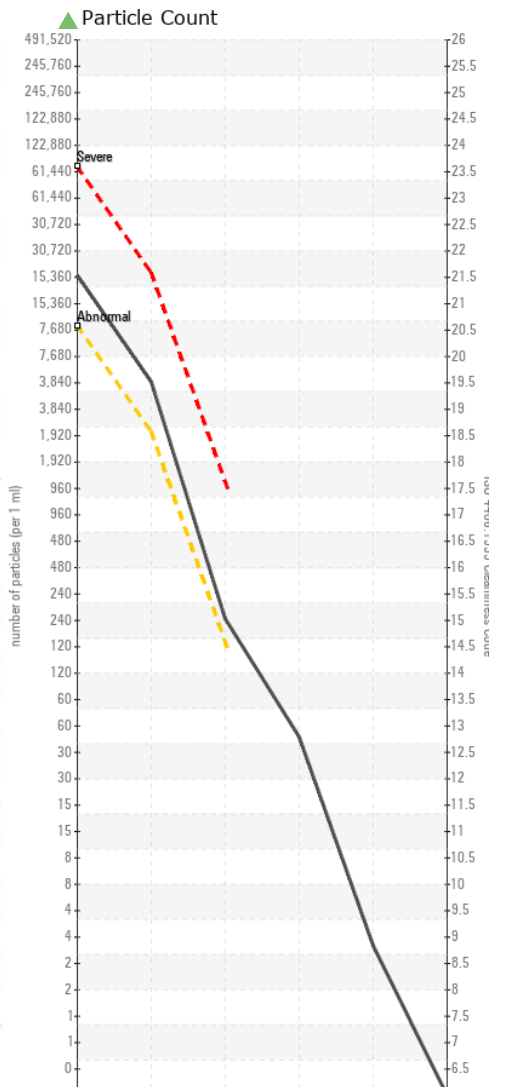
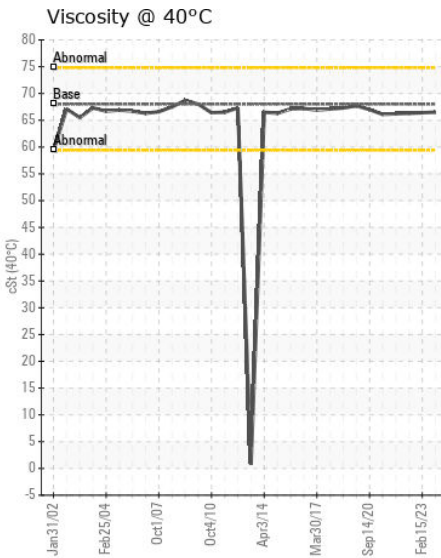
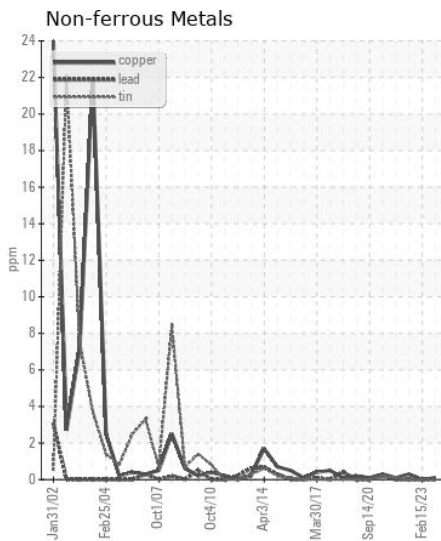
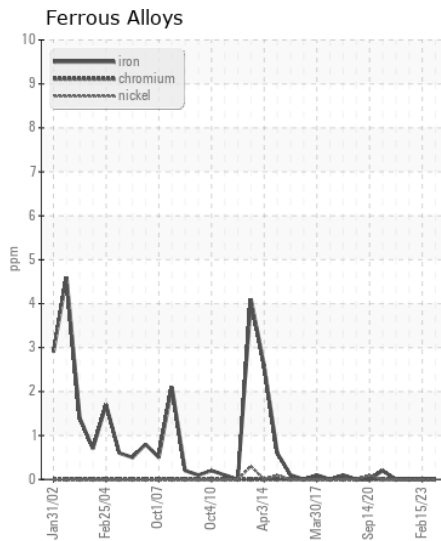
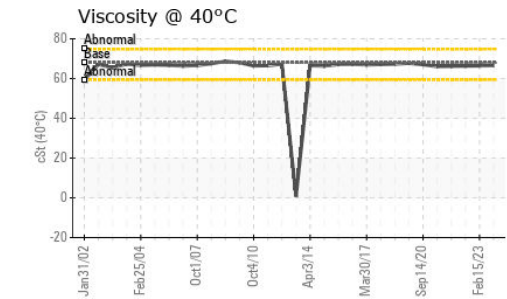
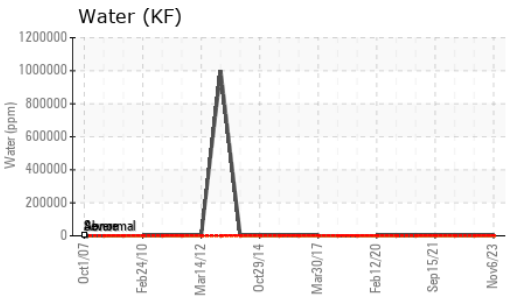
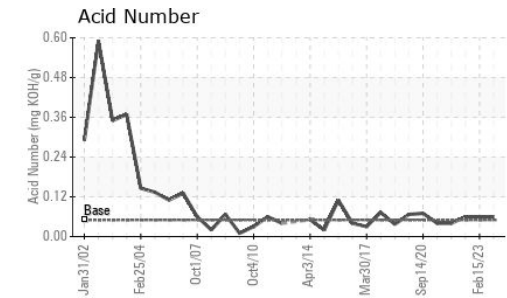
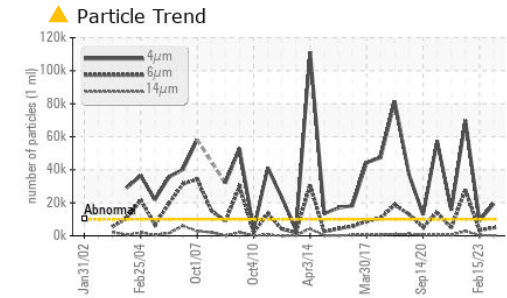
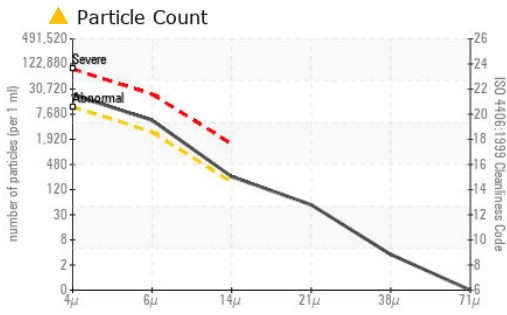
There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	0	<1
Water	%	ASTM D6304*	>2	<b>0.002</b>	0.001	0.002
ppm Water	ppm	ASTM D6304*		<b>22</b>	13.0	15.9
Particles >4µm		ASTM D7647	>10000	<b>▲ 19356</b>	9211	▲ 69961
Particles >6µm		ASTM D7647	>2500	<b>▲ 4798</b>	▲ 3447	■ 27895
Particles >14µm		ASTM D7647	>160	<b>▲ 216</b>	▲ 403	■ 2741
Particles >21µm		ASTM D7647	>40	<b>46</b>	▲ 121	■ 621
Particles >38µm		ASTM D7647	>10	<b>3</b>	5	▲ 20
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	1
Oil Cleanliness		ISO 4406 (c)	>20/18/14	<b>▲ 21/19/15</b>	▲ 20/19/16	■ 23/22/19
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Boron	ppm	ASTM D5185(m)		<b>0</b>	0	0
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Calcium	ppm	ASTM D5185(m)		<b>0</b>	4	0
Phosphorus	ppm	ASTM D5185(m)		<b>4</b>	0	2
Zinc	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Sulfur	ppm	ASTM D5185(m)		<b>7</b>	19	27
Acid Number (AN)	mg KOH/g	ASTM D974*	.05	<b>0.06</b>	0.06	0.06
Visc @ 40°C	cSt	ASTM D7279(m)	68	<b>66.5</b>	66.4	66.3



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0790718  
**Lab Number** : 02605960  
**Unique Number** : 5707046  
**Test Package** : IND 2 ( Additional Tests: KF, PQ, PrtCount, TAN Man )

**ALGONQUIN POWER SYSTEMS INC.**  
 354 DAVIS ROAD  
 OAKVILLE, ON  
 CA L6J 2X1  
 Contact: Antonino Champ Fernando  
 antoninoChamp.fernando@algonquinpower.com  
 T: (905)465-7065  
 F: x:

*To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.*