



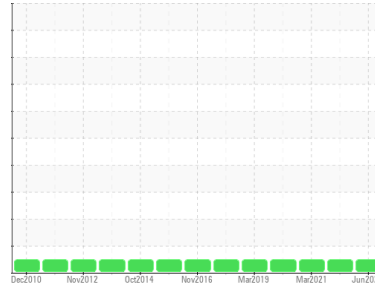
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Carleton Univ. LOEB Ch#1**  
 Machine Id  
**CARRIER 0909Q18793**  
 Component  
**Chiller**  
 Fluid  
**CASTROL AIRCOL SW 68 (--- GAL)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The water content is negligible. There is no indication of any contamination in the oil.

### 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		<b>GTT0001327</b>	GTT2784	GTT2785
Sample Date	Client Info		<b>15 Jun 2023</b>	07 Dec 2021	01 Mar 2021
Machine Age	hrs	Client Info	<b>0</b>	---	---
Oil Age	hrs	Client Info	<b>0</b>	---	---
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >8	<b>0</b>	<1	<1
Chromium	ppm	ASTM D5185(m) >2	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	<b>0</b>	---	---
Titanium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Silver	ppm	ASTM D5185(m) >2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185(m) >3	<b>&lt;1</b>	<1	<1
Lead	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m) >8	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185(m) >4	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	---	---
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Barium	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Magnesium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	---	---
Calcium	ppm	ASTM D5185(m) 0	<b>0</b>	---	---
Phosphorus	ppm	ASTM D5185(m) 800	<b>1854</b>	---	---
Zinc	ppm	ASTM D5185(m) 5	<b>5</b>	<1	<1
Sulfur	ppm	ASTM D5185(m) 10	<b>0</b>	---	---
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >15	<b>2</b>	---	---
Sodium	ppm	ASTM D5185(m)	<b>&lt;1</b>	---	---
Potassium	ppm	ASTM D5185(m) >20	<b>0</b>	---	---
ppm Water	ppm	ASTM D6304* >100	<b>177</b>	159	124

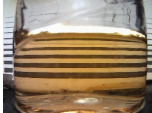

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974* 0.05	<b>0.03</b>	0.023	0.025

# OIL ANALYSIS REPORT

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68	<b>62.4</b>	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

## GRAPHS



**Sample No.** : GTT0001327      **Recieved** : 28 Dec 2023  
**Lab Number** : 02605678      **Diagnosed** : 06 Jan 2024  
**Unique Number** : 5698763      **Diagnostician** : Bill Quesnel  
**Test Package** : IND 2 ( Additional Tests: KV40 )

*To discuss this sample report, contact Customer Service at 1-905-847-9300 Ext 26.*

*Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.*

*Damages: Seller shall in no event be liable for special, incidental, or consequential damages, of a commercial nature, resulting from any cause.*

**Carrier Commerical Service**  
 C/O Conduent Div of Carrier Canada, 1-2740 Matheson Blvd  
 Mississauga, ON  
 CA L4W 4X3  
 Contact: Brian Raymundo  
 Brian.Raymundo@carrier.com

T:  
F: