



# OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Machine Id  
**BELL B45E B93A645EK03007699**  
Component  
**Rear Left Final Drive**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

## WEAR

Gear wear is indicated.

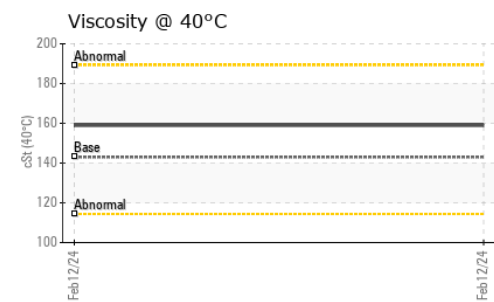
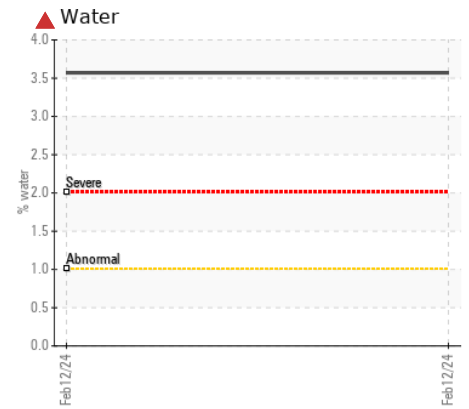
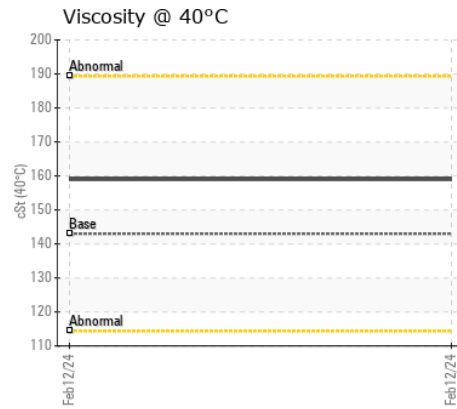
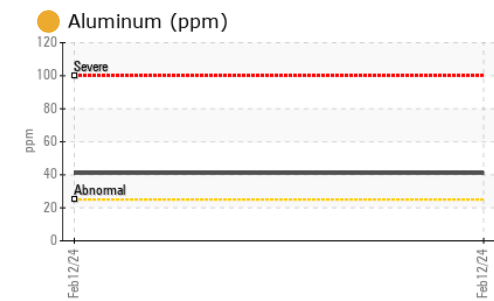
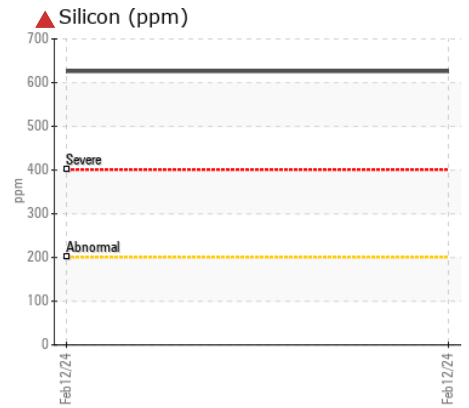
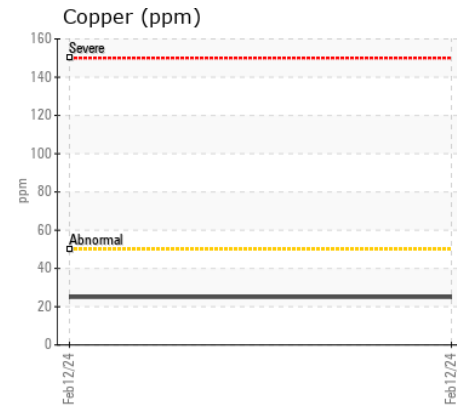
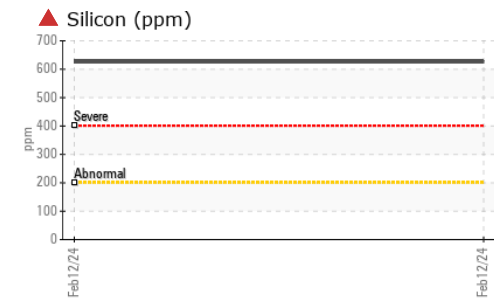
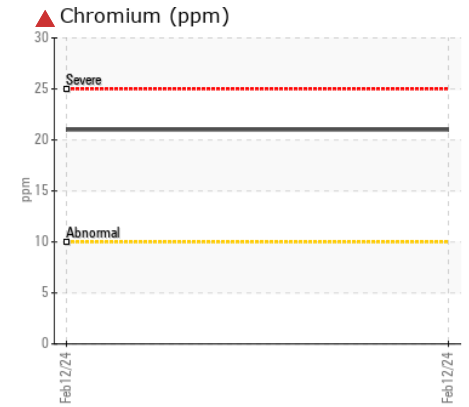
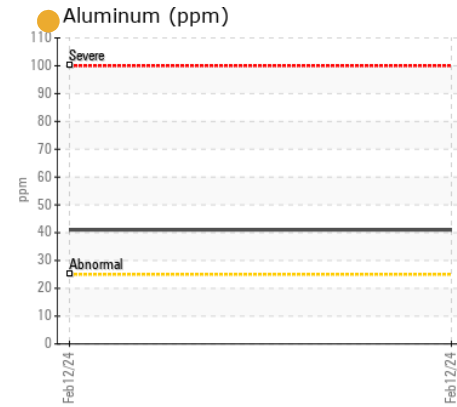
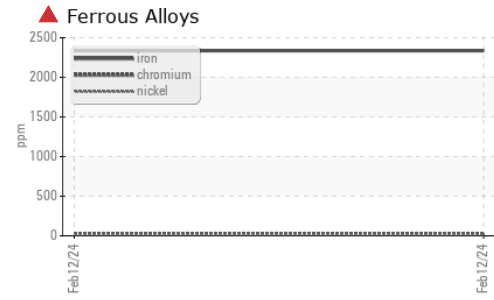
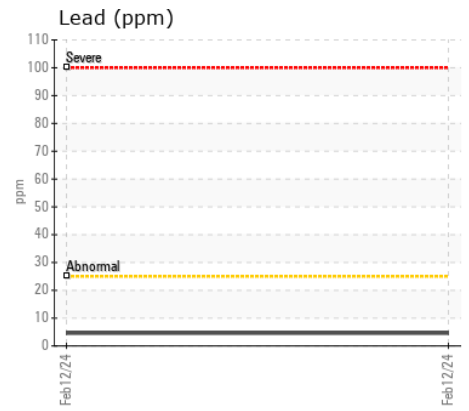
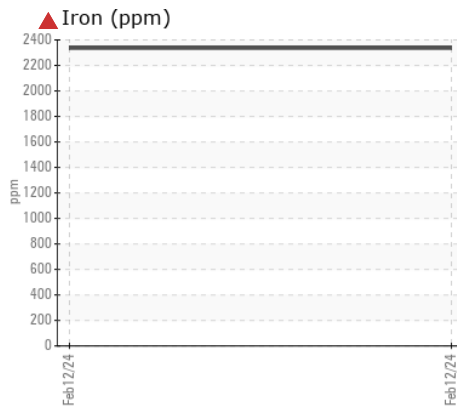
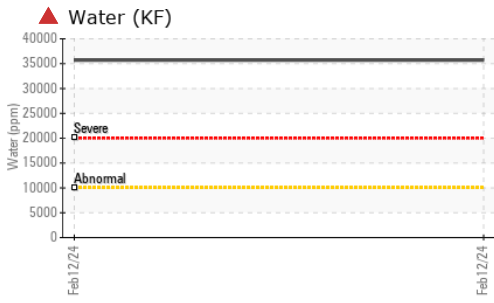
## CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a high concentration of water present in the oil.

## FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		BE0003736	---	---
Sample Date		Client Info		12 Feb 2024	---	---
Machine Age	hrs	Client Info		4170	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				SEVERE	---	---
PQ		ASTM D8184	>3000	1871	---	---
Iron	ppm	ASTM D5185m	>HR:1=	▲ 2336	---	---
Chromium	ppm	ASTM D5185m	>10	▲ 21	---	---
Nickel	ppm	ASTM D5185m	>10	21	---	---
Titanium	ppm	ASTM D5185m		6	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	● 41	---	---
Lead	ppm	ASTM D5185m	>25	5	---	---
Copper	ppm	ASTM D5185m	>50	25	---	---
Tin	ppm	ASTM D5185m	>10	3	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>201	▲ 626	---	---
Potassium	ppm	ASTM D5185m	>20	17	---	---
Water	%	ASTM D6304	>1.01	▲ 3.57	---	---
ppm Water	ppm	ASTM D6304	>10001	▲ 35700	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>1.01	▲ 0.2%	---	---
Sodium	ppm	ASTM D5185m	>170	9	---	---
Boron	ppm	ASTM D5185m	400	11	---	---
Barium	ppm	ASTM D5185m	200	0	---	---
Molybdenum	ppm	ASTM D5185m	12	4	---	---
Manganese	ppm	ASTM D5185m		26	---	---
Magnesium	ppm	ASTM D5185m	12	30	---	---
Calcium	ppm	ASTM D5185m	150	77	---	---
Phosphorus	ppm	ASTM D5185m	1650	572	---	---
Zinc	ppm	ASTM D5185m	125	63	---	---
Sulfur	ppm	ASTM D5185m	22500	17437	---	---
Visc @ 40°C	cSt	ASTM D445	143	159	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : BE0003736

Lab Number : 06101977

Unique Number : 10900207

Test Package : MOBCE ( Additional Tests: KF )

Received : 27 Feb 2024

Tested : 28 Feb 2024

Diagnosed : 29 Feb 2024 - Jonathan Hester

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)

Four Seasons Equipment Inc.

8111 Mills Road

Houston, TX

US 77064

Contact: Vaughan Phillips

vphillips@fourseasons-equip.com

T: (800)234-5007

F: