



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**SANY SY365 CA347 - CHICAGO MACHINERY (S/N SY036MBJ81638)**

Component  
**Left Final Drive**

Fluid  
**CITGO PREMIUM GEAR 80W90 (--- GAL)**

## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LW0009057</b>	LW0001950	LW0002170
Sample Date		Client Info		<b>23 May 2024</b>	14 Dec 2021	23 Jul 2021
Machine Age	hrs	Client Info		<b>4655</b>	2337	2337
Oil Age	hrs	Client Info		<b>2655</b>	0	337
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR

Gear wear is indicated.

Iron	ppm	ASTM D5185m	>500	<b>▲ 568</b>	296	107
Chromium	ppm	ASTM D5185m	>10	<b>6</b>	4	2
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>2</b>	2	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>25	<b>● 39</b>	● 32	17
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>50	<b>2</b>	1	1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<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

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

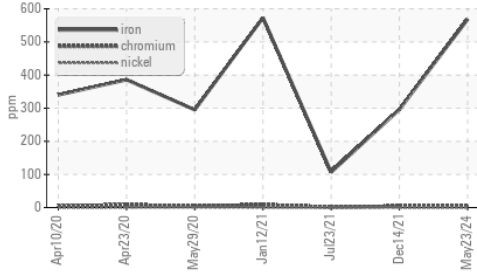
Silicon	ppm	ASTM D5185m	>75	<b>▲ 204</b>	▲ 127	52
Potassium	ppm	ASTM D5185m	>20	<b>13</b>	12	6
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

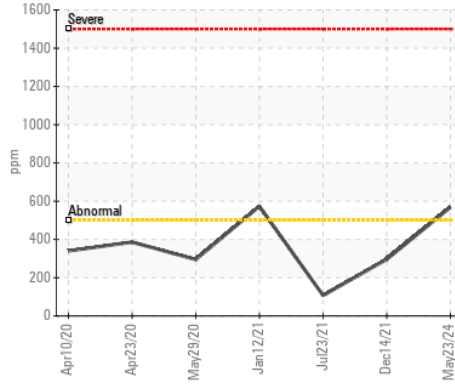
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>6</b>	6	4
Boron	ppm	ASTM D5185m		<b>0</b>	23	4
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>&lt;1</b>	1	1
Manganese	ppm	ASTM D5185m		<b>6</b>	4	2
Magnesium	ppm	ASTM D5185m		<b>25</b>	28	14
Calcium	ppm	ASTM D5185m		<b>81</b>	66	24
Phosphorus	ppm	ASTM D5185m		<b>342</b>	434	412
Zinc	ppm	ASTM D5185m		<b>43</b>	11	0
Sulfur	ppm	ASTM D5185m		<b>25346</b>	20135	20532
Visc @ 40°C	cSt	ASTM D445		<b>163</b>	170	170

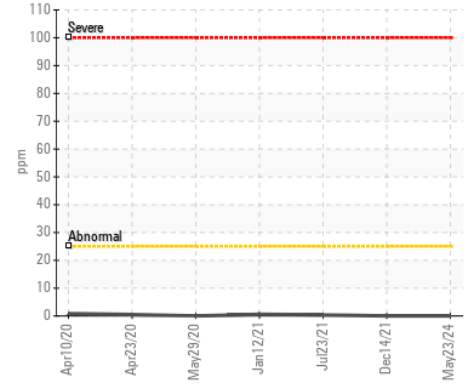
▲ Ferrous Alloys



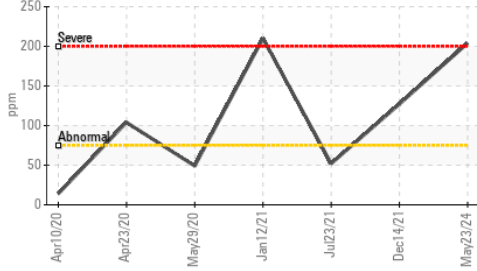
▲ Iron (ppm)



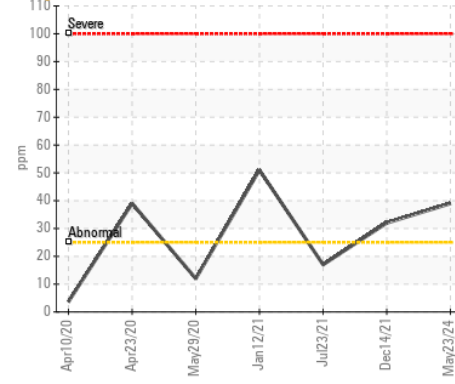
Lead (ppm)



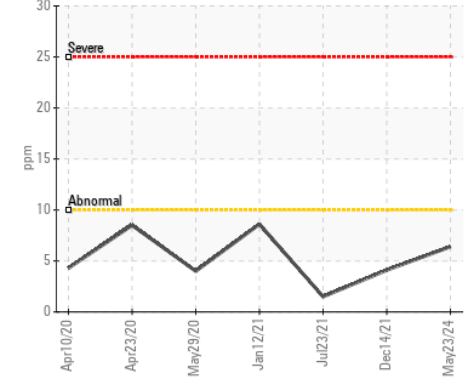
▲ Silicon (ppm)



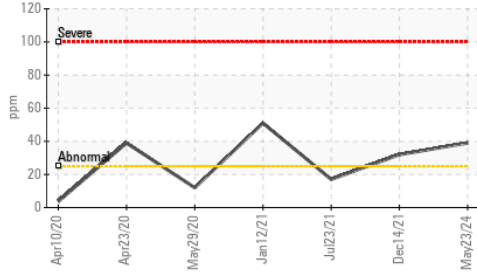
● Aluminum (ppm)



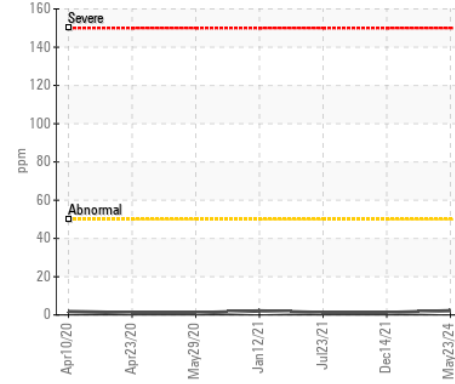
Chromium (ppm)



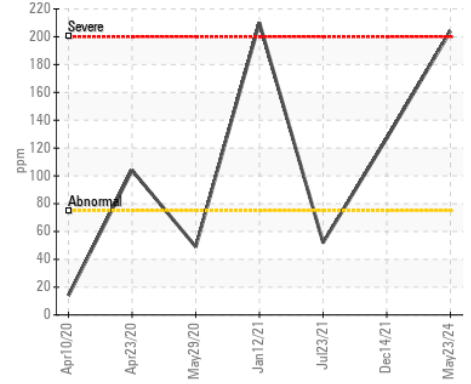
● Aluminum (ppm)



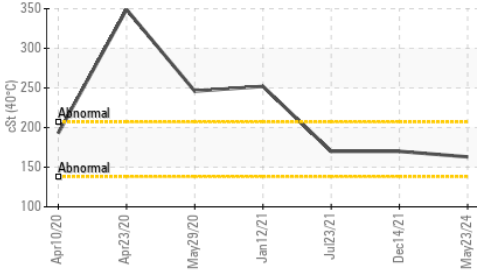
Copper (ppm)



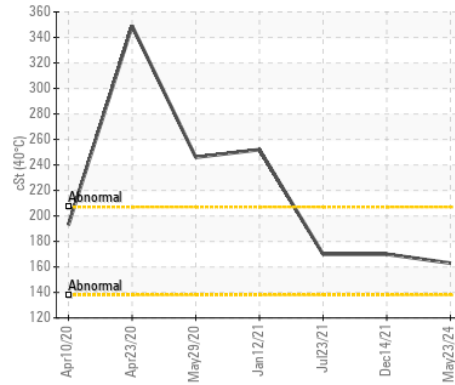
▲ Silicon (ppm)



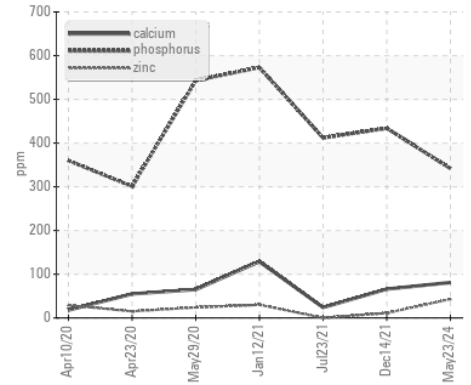
Viscosity @ 40°C



Viscosity @ 40°C



Additives



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LW0009057  
**Lab Number** : 06197102  
**Unique Number** : 11059225  
**Test Package** : MOB 1

**Received** : 31 May 2024  
**Tested** : 03 Jun 2024  
**Diagnosed** : 04 Jun 2024 - Don Baldrige

**CHICAGO MACHINERY INC**  
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 F:

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)