

Las Vegas Hotel/Casino – High Touch Evaluation

Purpose

Resorts are a popular vacation attraction in Las Vegas for travelers. During the mandatory quarantine, a popular Resort was closed and chose to take the opportunity to evaluate how **PreventX 24/7** could help provide a safer surface environment for employees and guests now and in the future.

Summary of Results

A total of six sites were chosen for testing. At each site, there was a treated surface and an untreated surface. The following summarizes the results over a seven-day period:

- | | |
|------------------------------|---|
| • Site 1 Time Clock Scanner | The untreated site had 247% more cfu on the surface |
| • Site 2 Time Clock Keypad | The untreated site had 268% more cfu on the surface |
| • Site 3 Security Desk Phone | The untreated site had 2,757% more cfu on the surface |
| • Site 4 Security Desk Mouse | The untreated site had 367% more cfu on the surface |
| • Site 5 Bathroom Sink | The untreated site had 411% more cfu on the surface |
| • Site 6 Bathroom Urinal | The untreated site had 286% more cfu on the surface |

Passing levels when performing ATP testing is established at <200 cfu per **NewEraSOS** testing protocols.

- 5 of the 6 treated surface sites were below this passing level.
- The one treated surface site that was above the established 200 cfu passing level had a cfu level of 229. Note: The Day 1 test at this site upon arrival to the property showed a cfu level of 3,068. The Day 1 test at this site after cleaning and disinfecting showed a cfu level of 209. Over a 7-day period at this site, the cfu level increased 10%. Over the same 7-day period, the cfu level of the untreated site increased 730%.
- All 6 **untreated** surface sites were well above the passing level of <200 with cfu levels of 373, 528, 2,950, 616, 941, 527.

Conclusion/Discussion

The ATP results, (which directly correlate as Colony Forming Units (cfu)), show significantly less bacterial growth between surfaces that are treated with **PreventX 24/7** versus surfaces that are left untreated.

The raw data for the ATP testing performed and the protocols used are included in this report. All surfaces, both treated and untreated, were cleaned and disinfected after the initial test that was performed upon arrival to the property. The substantial increase of cfu on the untreated sites as compared to those treated with **PreventX 24/7** shows that the cfu levels on surfaces, left untreated, will not only increase over time, but will exponentially increase with more traffic through the facility or property making it nearly impossible for cleaning and for maintenance staff to keep cfu levels within an acceptable range.

Please understand, the testing performed at this property was when it was closed and when traffic was at a minimum. It is clear that elevated cleaning protocols along with the utilization of **PreventX 24/7** to protect surface between cleaning events will help maintain the healthiest of surface environment.

ATP Testing Protocol

Preparation

We established 6 different points of control, (*untreated surfaces vs treated surfaces with PreventX24/7*), that are considered high touch points with the current state of traffic being employees only. Normally with a casino full of patrons, we would choose a few different touch points that are more customer related. Since it's only employees, we chose the following locations for our data collection: 2 timeclocks with 2 tested surfaces each, 2 security desk phones, 2 security desk computer mice, 2 bathroom urinals and 2 bathroom sinks. All samples were evaluated using **ATP (Adenosine Tri-Phosphate methodology)**. The ATP test is a process of rapidly measuring actively growing microorganisms through detection of adenosine triphosphate.

Process

1. Pre-Test: All surfaces were ATP tested prior to any cleaning being performed for the day on the designated test areas. (*Test 1*)
2. After Initial ATP test, the areas were cleaned and disinfected using the Resorts' in-house cleaner, QT Plus. Each location was tested again for ATP. (*Post Clean Day 1*)
3. After 7 days, assuming normal cleaning processes were followed, all sample areas were retested to show the difference in bacterial growth between surfaces treated and untreated with **PreventX 24/7**. It was disclosed that no cleaning had been performed by staff for 24 hours prior. (*Final Test – Day 7*)
4. Treated samples are indicated in results with a (*T*).

Raw Data

Test Location	Test Sample	Test 1 – Day 1 – ATP*	Post Clean Day 1 - ATP	Final Test – Day 7
Time Clock	Left Scanner ^(T)	143	28	151
	Right Scanner	199	32	373
Time Clock	Left Keypad ^(T)	109	36	197
	Right Keypad	128	38	528
Security Desk	Left Phone	1730	55	2950
	Right Phone ^(T)	1931	46	107
Security Desk	Left Mouse	615	36	616
	Right Mouse ^(T)	748	30	168
Bathroom Sink	Frist Sink ^(T)	3068	209	229
	Second Sink	832	129	941
Bathroom Urinal	Second Urinal ^(T)	399	84	184
	Third Urinal	805	51	527