



## Scientific study of material found in Agam Kuan

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**Abstract:** Water is essential for all life on Earth and is the most vital resource. We know that water covers around three-fourths of the surface of Earth. But in India, the water at some places treated as holy water and Agam Kuan is one of that. It is believed that many of the skin problems chicken pox and itching were treated. So, to find the uniqueness in the water we compared it with other two waters taken from normal well and Ganga River on the basis of different parameters such as pH value, Turbidity, Conductivity, Hardness, Arsenic and element like Ca, Mg, Cl, Ni, S, F and others..

**Keywords:** pH, Conductivity, TDS,  $\text{CaCO}_3$ , Ca, Mg, Cl, Fe,  $\text{SO}_4$ , F.

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### Introduction:

Agam Kuan is an ancient well, dated back to the period of Mughal emperor 304 -232 BCE for the purpose of tortured before he embraced Buddhism. It is most famous archaeological site in east of Patna and south west of Gulzarbagh station, Bihar India. It is discovered in 1902-1903 by British Laurence Waddell, exploring the running of Patliputra identified by Agam Kuan.

It is also known as 'Unfathomable Well', as it was once a part of the infamous Hell Chamber of King Ashoka used for torturing people. It is circular in shape about 4.5 m (15 ft) in diameter. It contains wooden ring about 19m (62 ft), linked with brick in upper 13m (43 ft) and 32m (105 ft) depth.

It is a belief that a King Ashoka had killed his hundred brothers and dropped them all in this well. So, locals believe that throwing coins and flowers in this well fulfil their wishes. This place is also used by people for conducting various rituals and Hindu weddings.

The water level of Agam Kuan always remains same, in the flood it never increases and in the drought never decreases.

The Ganga, also Ganges is trans-boundary river of Asia which flows through the nations of India and Bangladesh. The 2,525 km (1,569mi) river rises in the western Himalayas in the India state of Uttarakhand, and flows south and east through the Gangetic Plain of North

India into Bangladesh, where it empties into the Bay of Bengal. It is the third largest river in the world by discharge.

Water sample was taken from a normal well situated at kadam kuan.

#### Methods of study:

- The whole of our team visited the site Agam Kuan, Gulzar Bagh and physical measurement were done at the site.
- The water sample was collected from Agam Kuan.
- Water samples from the nearest Ganges ghat (Gaighat), Mangal Talab, Patna city and Normal Well (Rajendra Nagar) were collected.
- Comparisons between the collected water samples were studied.
- Medicinal properties of Agam Kuan water were also studied.

#### Result:

During the analysis of water sample following characteristics were found:-

<b>Test parameter</b>	<b>Agam Kuan</b>	<b>Normal well</b>	<b>Ganga River</b>
pH	7.44	7.32	8.24
Conductivity	3114	2181	531.6
TDS	1521	1066	261.4
CaCO <sub>3</sub>	480.2	292.04	121.52
Ca	81.0822	125.112	42.506
Mg	96.985	40.563	19.2
Cl	214.2	266.22	34.68
Fe	0.15	0.13	0.23
So <sub>4</sub>	18	34.65	32.64
F	2.364	2.173	0.911

#### Conclusion:

From the obtained data we can conclude that the pH of all the three water is normal.

From the analysis of Agam kuan we observe that it has more amounts of TDS, conductivity, CaCO<sub>3</sub>, Mg and F as compare to normal well and Ganga River.

In normal well Ca, Cl and SO<sub>4</sub> is in more amount and Fe<sub>4</sub> is more in Ganga River as compared.

#### References :

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