Mrs. K's Chemystery Cache

0																	1
2	3											4	5	6	7	8	9
0	1											2	3	4	5	6	7
8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

Coordinates:
N ¤ ©° ¥◀. β ☼ Ψ
W ⌂Δ◊° □▬ . Λ ╩ Ξ

The Avon Police Department is seeking the help of a local chemist to aid in an investigation. The case revolves around an undisclosed location, which is thought to be a UFO crash site. Avon police had previously sought the help of a local chemist, Dr. Heisenberg, who was asked to determine the contents of some small vials of material found on board the ship. The vials are labeled with alien symbols. The scientist soon realized that the vials contained elements. He drew a diagram and did some testing in the lab. On the website, is a summary of his results. Around the time that he finished this list of properties of the samples, another piece of information was located on board the crashed ship. It was, what appeared to be, coordinates to a location on a planet. The scientist was working in the lab one evening, when he realized that some numbers could be assigned to the spaces on the diagram, giving him a clue to decipher the coordinates, which he believed to indicate a location on Earth. That night, Dr. Heisenberg headed home to discuss this with his wife, but on the way, something happened. His car was later found near a corn field, which had a circular pattern where the corn had been knocked down. His current location is uncertain. Police suspect foul play. Police are now asking that a brave and intelligent chemist step forward to finish the work of the missing scientist. APD detectives have since discovered that other similar crash sites have yielded coordinates, which point to large plastic containers hidden somewhere on Earth. The person who chooses to help solve this chemystery may find treasure hidden by the aliens, or may discover that knowledge is its own reward.

Use the clues to fill in the table, and then use the numbers to decipher the code.

and ^ and ? are the only ones in their family.
has the highest conductivity of the elements in its group.
® and ¤ and ¥ and Ξ and © and ? and Ψ and ▉ are in the second period.
© does not appear to form bonds with other elements
^ reacts with sodium to form Na_2^
Δ has the largest atomic radius of all of the samples

® and ß and Ξ are gases at room temperature
Σ and Ψ and Δ are metals that react violently with water and are in the same family
Ψ reacts with ^ to form Ψ_2^
ß is in the same family as Ψ
® is diatomic and can form -3 ions
¤ ions have a +2 charge
Ξ has the highest electronegativity
Λ has the highest malleability of the group two elements
« is an alkaline earth metal
█is found in all organic molecules
┼ has electrons only in one principle energy level
¥ has a ground state electron configuration ending in p^1.
╔ is has the highest atomic mass in its family
╦ and ╔ are not reactive.
☺ and ◊ are halogens.
☺ is the least reactive of the halogens
♫ is the first D block element
♣ and ♥ and ◄ are in period 3
♣ forms +3 ions.
♥ is in the same family as █
♀$^{+4}$ is isoelectronic with ╦ and is not a representative element
♂ could have an electron configuration with s^2d^4, but it has a configuration with s^1d^5
☻ tends to form four covalent bonds
╩ is more ductile than ♪ which is more ductile than ◦ which is more ductile than ☼
╩ atoms are smaller than ♂ atoms, and have 25 electrons.
▬ forms compounds with ¤ with a formula of $¤_3▬_2$
□ atoms have 23 protons
⌂ atoms tend to lose three electrons
↕ is less brittle than Ω, but more brittle than ☼