
Salt Plains of Oklahoma¹

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There are several salt plains in the state of Oklahoma. They are located in the northwestern and southwestern sections of the state. The dominant features of the salt plains are their constant flatness and the thin sprinkling of salt on the surface of the sandy and silty material of which they are composed.

The largest salt plain in Oklahoma lies in the eastern part of Alfalfa County, approximately four miles east of Cherokee. The plain is elliptical in shape. It is about twelve miles long, north and south, and six miles wide. It lies in the basin of the Salt Fork of the Arkansas River. The surface of the plain is as flat as a floor and is devoid of vegetation with the exception of a few small low mounds that support a sparse growth of salt-tolerant grasses. A thin veneer of salt is visible on its surface. The soil of the salt plain is composed of very fine sand and silt material. There are no salt springs visible on the plain, and during the dry season there is no water in the sandy beds of the streams. When a hole is dug into the sand, salt water will rise until the hole is filled to within about six inches of the surface. The brine is very strong, nearly if not quite saturated.

Two more of Oklahoma's salt plains, Big Salt Plain and Little Salt Plain, are located on the Cimarron River in northwestern Oklahoma. They are similar, and only the larger will be described. This plain varies in width from one-half mile to over a mile, and it extends in a northwest-southeast direction for approximately eight miles. On the south bank of the Cimarron the bluffs of red shale and sandstone capped with gypsum rise directly from the edge of the plain to a height of one hundred feet. The basic material of the plain, which is a part of the bed of the Cimarron River, is composed of sand and silt. The Big Salt Plain, in general, has a thin crust of salt on its surface. A major accumulation of salt is at the mouth of Buffalo Creek where it empties into the Cimarron River from the south. There are approximately one hundred acres covered by salt incrustation from one inch to over twelve inches in thickness. There are some open water spots in this area of salt incrustation, the waters of which are crystal clear. However, upon tasting the water, the high concentration of salt is readily noted. The farmers living in the immediate vicinity use this salt for their livestock.

Another salt plain is in Blaine County. It lies near the head of Salt Creek about two miles southeast of Southard, Oklahoma. Here springs

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issue from a red and blue mottled cross-bedded sandstone which outcrops about one hundred feet below the Ferguson gypsum. The water from these springs furnish enough brine to make a large amount of salt.

Several more Oklahoma salt plains are in the southwestern corner of the state. One is in Beckham County near the city of Carter, Oklahoma. This plain with an area of approximately forty acres is about one mile from the North Fork of the Red River. There are more than twenty springs on this salt plain.

The Harmon County salt plains are located on the south side of Elm Fork of the Red River. The salt springs "boil" up from the floor of the plains, a short distance back from the river.

Three salt plains in Jackson County lie close together on the west side of Sandy Creek about three miles from its mouth and the same distance south of the city of Eldorado. The water comes from springs located in the beds of the streams. The floor of Sandy Creek is covered with a salt veneer. This veneer of salt is very thin and the water does not seem to have a high concentration of salt.

It is apparent that salt from these plains has been used only to a limited extent in recent years and has been mined from only a few places. It is considered by several writers that large areas of salt are available in sufficient concentration for commercial development. One of the drawbacks generally cited is the lack of railroad transportation near the salt plains. The writer does not agree that this is necessarily the critical factor. It may be that no one with the initiative and capital has desired to bring the salt of these plains into production against the producers already supplying the existing market demands.