

Report on an Ice Circle in NE Utah, February 21, 2002

National Institute for Discovery Science
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Introduction

NIDS was contacted at 8:00 AM on the morning of February 21, 2002 regarding an “ice circle” that had mysteriously appeared on a ranch overnight. According to the report, at approx 7:00 AM on the morning of February 21, 2002 the circle—measuring 5 feet 9 inches in diameter—was discovered in an irrigation canal on a ranch in NE Utah. The local NIDS investigator, who is a retired deputy sheriff and an experienced tracker, was on the spot within less than an hour. The investigator immediately proceeded to take photographs (see Photos 2–5).

The ice was approximately 3/4 inch thick under the circle. The circle occurred near a spot where ranch cattle frequently drink water (see Photo 2 below). According to the investigator, the nearby cattle were behaving normally when he arrived.

Investigation

The circle appeared to be approximately 1/4 inch deep in the ice and multiple ice shavings found around the circumference suggested it had been gouged or cut rather than melted. Close examination of the groove showed no evidence of melted ice in or around the circumference. Rather, the groove suggested a sharp instrument had been used to carve the circle. Since the construction seemed to be relatively close to a perfect circle of diameter five feet nine inches, the investigator spent the first hour laboriously studying the center of the circle from multiple angles to determine whether an implement had been used in the center to inscribe the circle. No markings were found in the center of the circle.

Since the ice layer was very thin, about 3/4 inch thick at 7:00 AM, it was judged that fifteen to twenty pounds weight would have broken the ice-sheet at any time during the previous night. Therefore, the possibility of a person being supported on the ice at any time during the night while he/she carved the circle was negligible. According to the investigator, the pattern and location of ice-shards near the circumference suggested the implement that was used to carve the circle rotated in an anti-clockwise direction.

The temperature of the water then began to rise and within four hours, the thin layer of ice had melted. The water and rock patterns in the water were then closely studied to see if the circle could have formed naturally through some unusual combination of gradually lowered temperatures and atypical eddy patterns from the flow of irrigation water. No evidence was found to support this possibility. Further, since the groove had been carved into the top of the ice, it was deemed not possible to originate from underneath the ice layer.

An interview of the ranch personnel confirmed that the ice in the canal froze most nights and then melted by early afternoon as a result of a combination of heat from the sun and flowing

water through the canal. Data obtained independently from the local weather station confirmed that the temperature had dipped the previous night low enough to freeze the water.

The investigator's diagram of the location of the ice-circle and the distance to the irrigation head gates is shown below. This map can be compared with the photograph (see Photo 1 below). The irrigation head gates are used to adjust the flow of irrigation water through the canal.

Sampling

In order to see if any unseen chemical or material evidence had been left in or around the circle, it was decided to chemically analyze the ice from the groove itself. Three to four grams of the shavings were collected from close to and within, the circumference of the circle. Shavings were collected into a 50 ml sterile Falcon *BlueMax* tube (see Photo 5). Similar quantities of ice were collected into separate sterile tubes from the center of the circle and from an area of ice about 100 feet away from the circle. The latter sample served as a control.



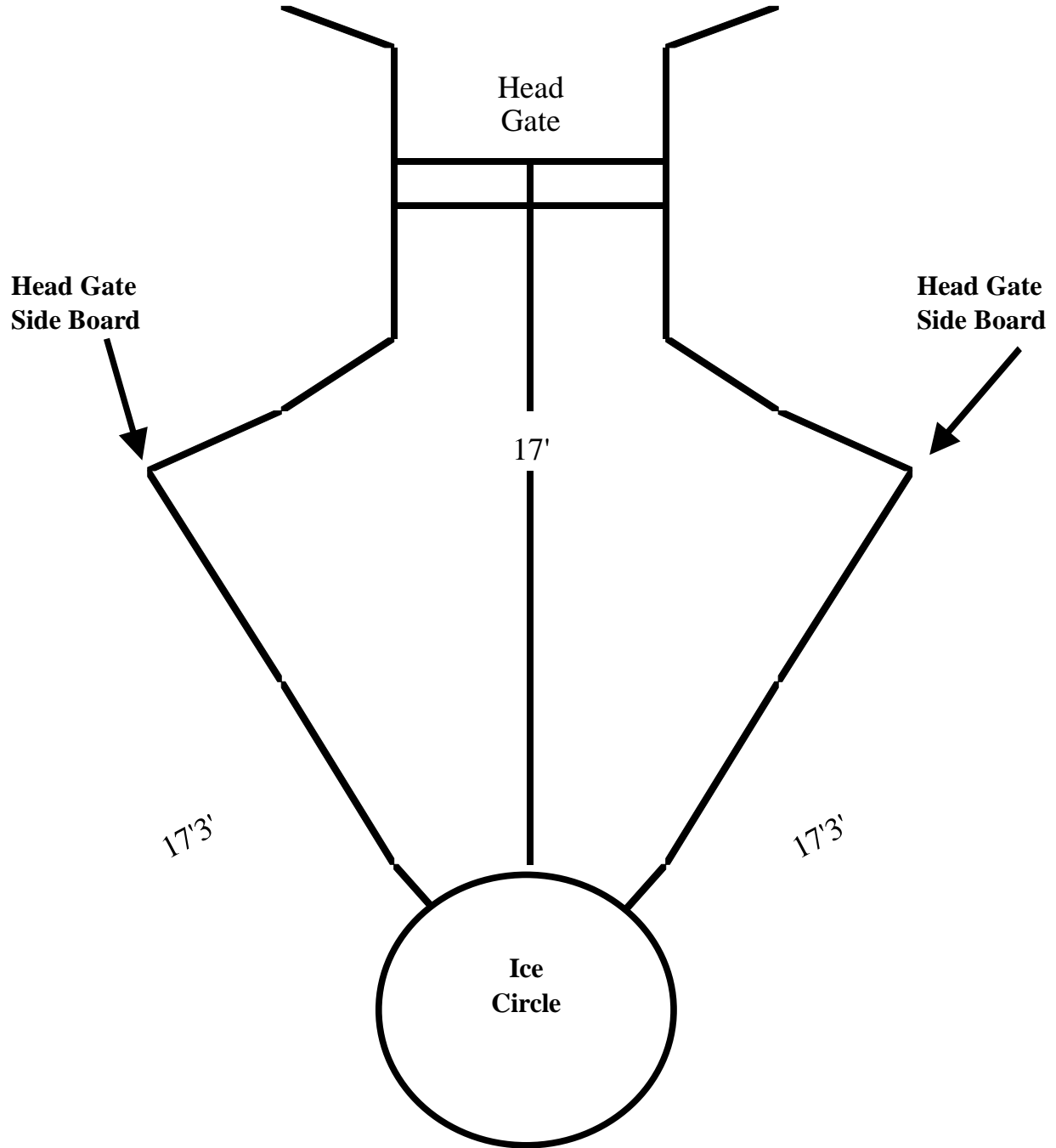
Photo 1. Location of the ice-circle and proximity to the irrigation head gates (compare with map below).

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Ice Circle

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Readings for magnetic fields, electric fields & EM radiation on a Trifield meter in a 100-yard radius around the circle were negative. Once the ice circle had melted, several hours were spent studying the mud near the water's edge and the surrounding environment for any sign of tracks or other marks. It should be emphasized that this work was accomplished by an experienced tracker. No tracks (except cow prints), unusual footprints or vehicle tire indentations were found in a hundred yard radius of the circle.

Analysis

All three sets of ice shavings were sent to EarthTech laboratories in Austin Texas for X-ray fluorescence (XRF) analysis. XRF analysis, which can easily detect elements from Si (14) through Uranium (92) and above, showed an elemental distribution similar to ordinary tap water. In addition, there were no differences in elemental composition between control and analytical samples from the ice circle.

Discussion

Although relatively rare, ice circles of varying sizes have been reported in North America, Europe and the Soviet Union. Their origin and mode of formation remain unknown. See, for example, a report on an ice circle of 15 feet diameter that appeared on December 2, 2000 in Delta Ontario: <http://www.rense.com/general6/ice.htm>.

A glance at the pattern of blown ice shards as seen in the photo of the Delta Ice Circle (click on link above) indicates an interesting similarity to the pattern of blown frost/snow seen at five o'clock and seven o'clock, in Photos 1 and 2 respectively, of the present report (see below). This similarity may be coincidence or it may provide additional clues as to the mechanism of ice-circle formation.

In summary, investigation of the ice circle in NE Utah suggests an implement was used to create a near perfect circle of 5 feet 9 inches in diameter into very thin ice. It was concluded from investigation that the circle had been carved or gouged, possibly by anti-clockwise rotation of a hard or sharp implement, and not melted into the ice. Elemental analysis showed no unusual concentrations of any elements in the ice-shards gathered from the groove. There was a complete absence of any markings, prints or tracks in or around the formation to suggest how it might have been formed. This case, in the absence of further input, remains unsolved.



Photo 2. Photo taken three hours after discovery.



Photo 3. Regions of blown frost and snow surrounded the ice-circle.



Photo 4. Ice shavings were visible in and near the groove, suggesting the circle had been carved, not melted into the ice.



Photo 5. Investigator collected ice-shavings into a 50 ml BlueMax Tube.