

# Part 2 | The California/Nevada State Boundary

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In the spring of 1863, J.F. Houghton of California and Butler Ives of Nevada were appointed chief surveyors to solve the ongoing California/Nevada boundary disputes. They hired John F. Kidder as Engineer in Charge of the field work, who was to mark the boundary line from a point on the 39th parallel near Lake

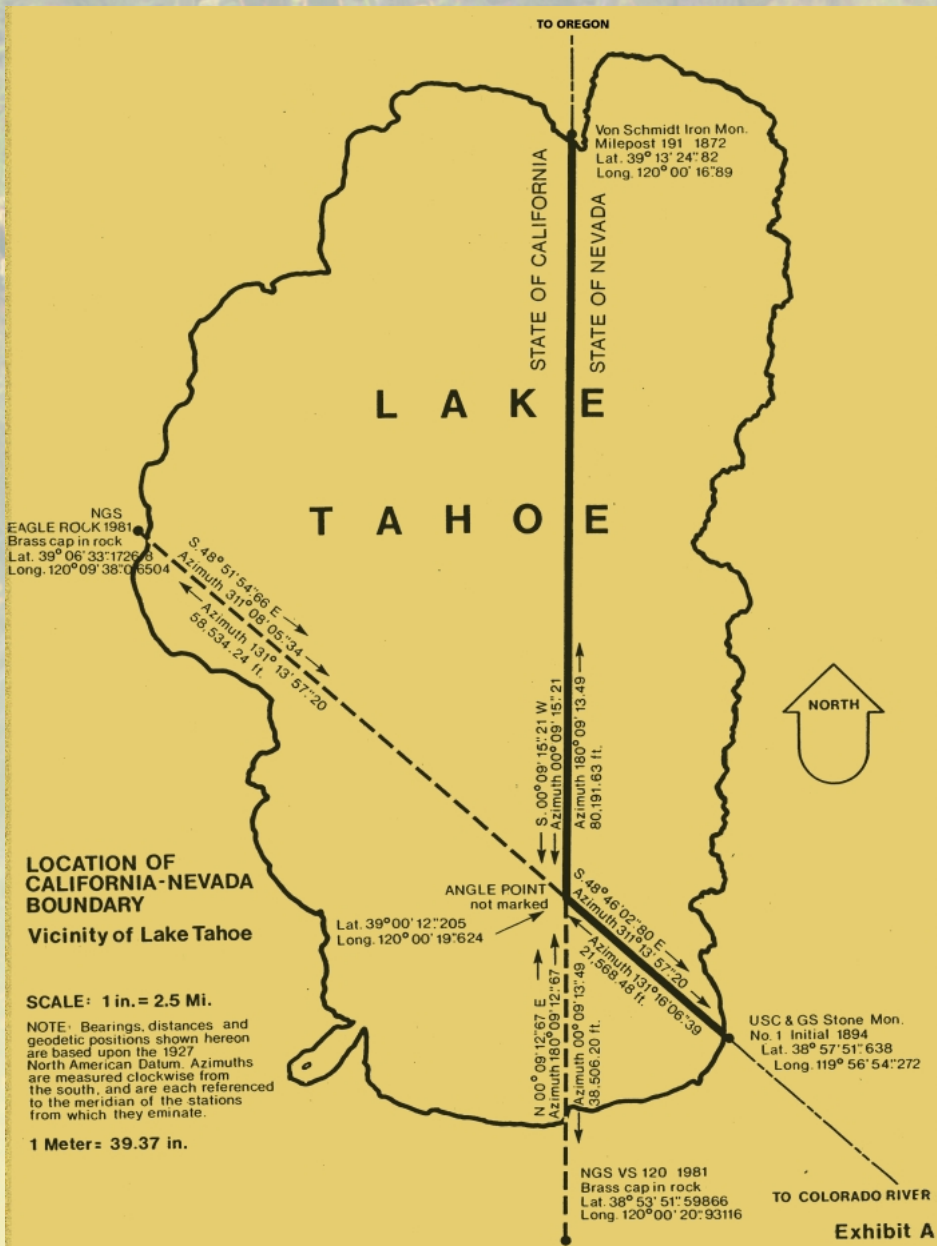
Bigler, north to the southern boundary of Oregon, and then southeasterly to a point where the 35th parallel crossed the Colorado River. Safety was an ever-present concern as the surveyors were required to cross the lands of hostile Indian tribes and overcome tremendous geographic obstacles. For the sum of \$25,000,

Houghton was expected to organize the project, hire technical consultants to cipher complex geodetic calculations, purchase equipment and supplies, pay his men's wages, provide and maintain a large train of pack animals, set cut stone monuments, prepare maps in triplicate, cover travel expenses, prepare reports, and settle all incidentals.

Kidder began the field work in late May of 1863 and by late July the surveyors completed their work on the 120th meridian and had returned to Lake Tahoe to blaze the oblique line southeasterly to the Colorado River. Their efforts were halted when they met up with Indians celebrating a seasonal festival. The crew turned back to wait out the festival, and on the night of October 29th, while camped between Adobe Meadows and Aurora, a 36-hour blizzard began. Winter arrived in the high country and ended field work for the Houghton-Ives survey of 1863.

Snow wasn't the only threat to the Houghton-Ives survey because money was running out at the same time that the crew was shivering in camp. Most of the \$25,000 dollars appropriated for the job was already spent and yet the work was only half complete. The oblique line that the field crew was forced to abandon near Aurora was essentially a precisely-calculated random line. Had the survey been completed as planned, Engineer in Charge John Kidder would have continued this line to its terminus as determined by Lt. Joseph Ives in 1861. There, Kidder would have measured the falling between his line and Ives' position. With this data he would have returned along the oblique line to Lake Tahoe, applying appropriate corrections and resetting his monuments along the way. The oblique line would have then been marked from Lake Tahoe to the 37th parallel of north latitude, which until 1867 was Nevada's southerly boundary.

In his report to Governor Leland Stanford, Surveyor General J.F. Houghton ac-





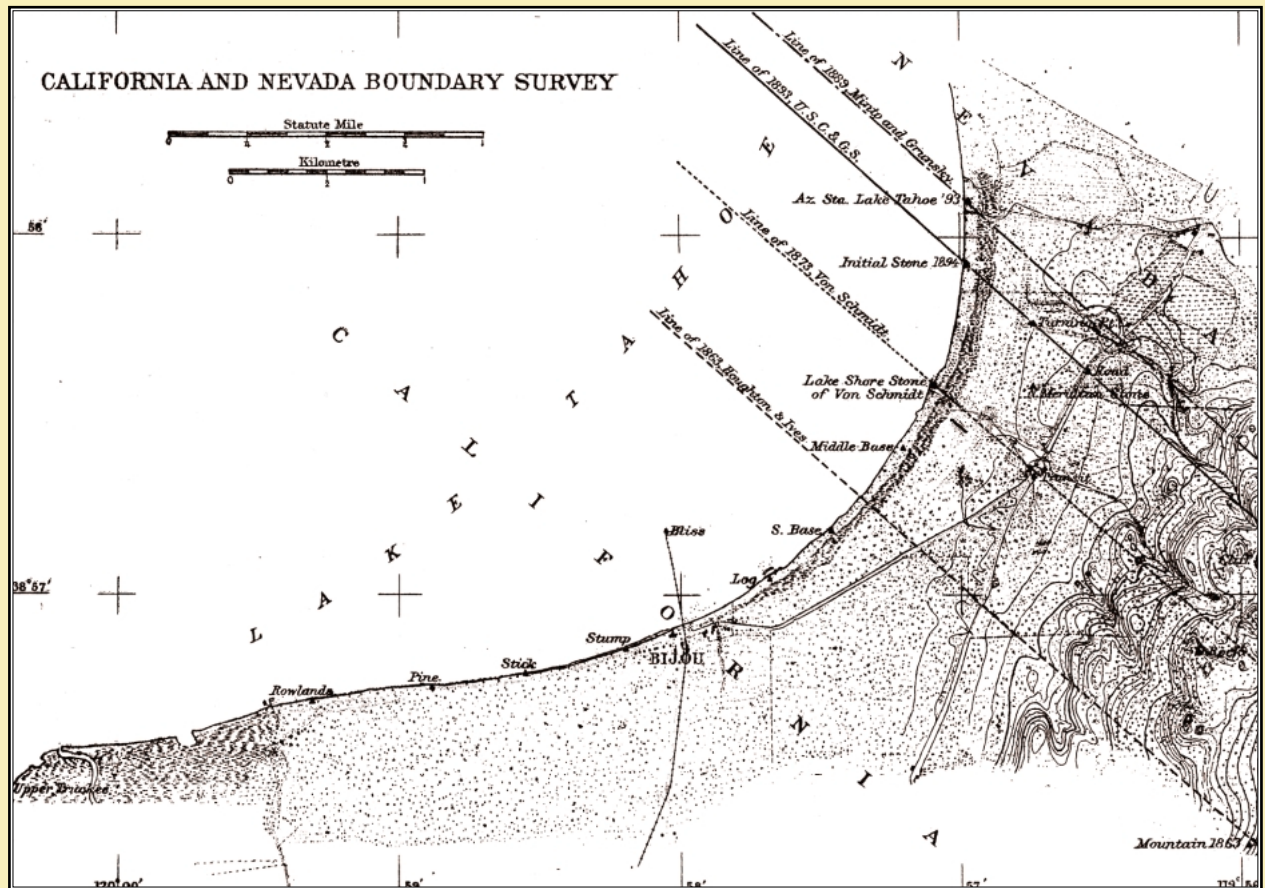
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knowledge that because the oblique line was not completed and corrected, it could not be considered entirely accurate. He requested an additional \$20,000 to complete the survey as planned, but unfortunately, the money never materialized. California and Nevada had to make do with things as Kidder left them. It didn't take long for problems to resurface.

### CA/OR Border

In March of 1867, Congress authorized a survey of "the 42nd parallel of north latitude, so far as

it constitutes the common boundary between the States of California and Oregon." The General Land Office (GLO) hired astronomer and surveyor Daniel Major to execute the work. Major's instructions were to establish the intersection of the 42nd parallel of north latitude with the 120th meridian west from Greenwich and survey and mark the common boundary west to the Pacific Ocean. By 1870 his survey was completed and accepted by the GLO. Perhaps the first thing people noticed about his map was that he did not show the Houghton-Ives monument of 1863 at the northeast corner of California. However, he did plot topographical features common to those plotted on the earlier survey, and therefore government cartographers were able to establish a spatial relationship between the two. What they found did not look good. Careful comparison of the maps revealed a considerable difference of opinion regarding the location of California's northeast corner. This conflict was especially disturbing to the GLO because the public lands surveys were being closed on the Houghton-Ives line. If that line fell it would take other



surveys with it. Matters would only get worse with time. Yet again, something had to be done.

### The Von Schmidt Survey of 1872-73

In June of 1872, Congress authorized another survey of the common boundary between California and Nevada. GLO Commissioner Willis Drummond hired astronomer and surveyor Alexey W. Von Schmidt to do the field work. A sum of more than \$41,000 was appropriated for the survey, so it appears that someone important learned a lesson from underfunding Houghton and Ives. Drummond had complete confidence in Major's location of the northeast corner so he instructed Von Schmidt to begin there and proceed south along the 120th meridian. Von Schmidt developed other plans.

In the spring of 1872, Professor George Davidson of the U.S. Coast Survey was in the Verdi area making observations to locate the 120th meridian in relation to the Houghton-Ives line. State Geologist J.D. Whitney and U.S. Geologist Clarence King requested his services to facilitate geographical surveys which

were being executed nearby. Davidson used telegraphic time signals and made independent calculations for the longitude. Von Schmidt was present for some of this work and was much impressed with Davidson's use of the telegraph. In fact he was so impressed he wrote to Commissioner Drummond and requested permission to use Davidson's location of the 120th meridian and run the line north to Oregon instead of south from Major's corner. He mailed his letter and went straight to work on this new strategy. By the time he received Drummond's negative reply he had already blazed about a hundred miles of flag line on his way north. The Commissioner was not pleased about this change in plans and ordered Von Schmidt to conduct the survey per the original instructions. Upon receiving the news, Von Schmidt dropped everything and headed for Major's monument at the northeast corner of the state. From there he surveyed south along the 120th meridian, setting monuments along the way.

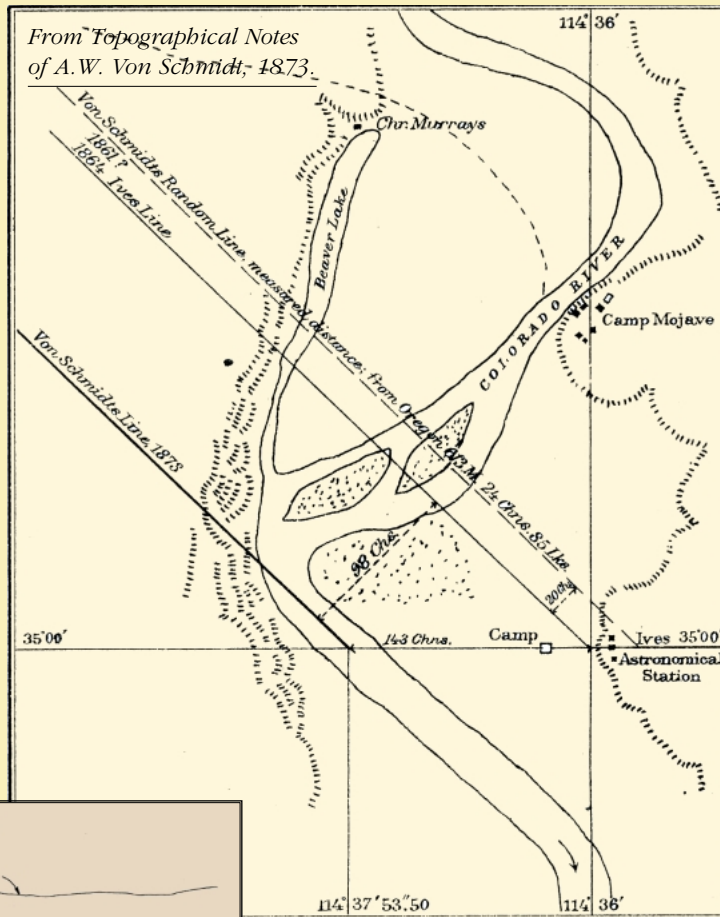
By late September he had traveled far enough to encounter the northerly terminus of the line Drummond ordered him



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to abandon. It was more than three miles easterly of the line he was currently on. That discovery must have been very discouraging. However, his faith in Davidson was unshakable, so he stuck with the professor's opinion on the location of the 120th meridian. He returned to Major's monument, chained easterly, and set a new monument for the northeast corner of California. He then surveyed south along this line to the north shore of Lake Tahoe. At that point he dispersed his crew and returned to San Francisco for the winter.

Von Schmidt returned to the field in the spring of 1873 and set a cast iron state line monument at the north shore of Lake Tahoe. He made observations to locate the angle point in California's easterly boundary, and then made his



ing this monument, a common point in the two surveys, was to try and clear things up. The last thing he wanted was more trouble.

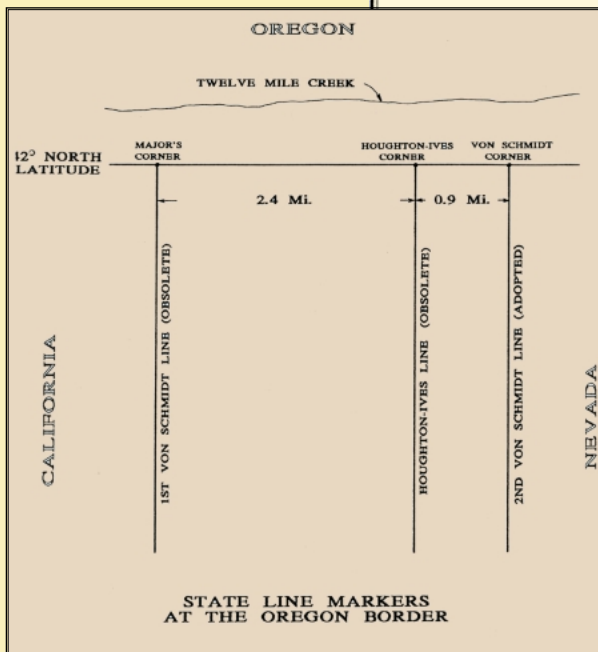
Unlike Von Schmidt, Major used the 1868 monument as instructed. That's not surprising since he set it himself. It also comes as no surprise that he didn't like Von Schmidt's monument any more than Von Schmidt liked his. Major's map of 1873 showed Von Schmidt's monument at the northeast corner of California to be in error by some three miles. After so much effort and money spent, the citizens still had no satisfaction.

### Grunsky and Minto Survey

By 1889, Von Schmidt's work in California had aroused enough suspicion to inspire the Legislature to commission another survey. Legislators appropriated \$5,000 "to correct and establish" the oblique line. Surveyor General Theo. Reichert hired C.E. Grunsky and

William Minto, civil engineers, to make things right. Reichert instructed the engineers to tie into the new transcontinental control net established by the U.S. Coast and Geodetic Survey. The control net came along some years after Von Schmidt, and likely brought its inaccuracies to light. One can only speculate as to why so little money was authorized, considering that 16 years earlier the Von Schmidt survey cost more than \$40,000. Perhaps the intent of the Grunsky-Minto survey was primarily to confirm the deficiencies in Von Schmidt's oblique line and thereby assist in determining if another full-blown effort was warranted.

The same Professor Davidson who helped Von Schmidt in 1872 helped Grunsky and Minto establish fresh initial points at each end of the oblique line. They surveyed a dozen or so miles of the line southeasterly from Lake Tahoe and then quit for lack of money. Now there was yet another line on a map already abundant with conflicting opinions. At the north shore of Lake Tahoe Von Schmidt determined Houghton and Ives



way along the oblique line to the Colorado River. When he arrived he found the river to be in a different place than where Lt. Ives found it in 1861. In his notes, Von Schmidt indicated that he re-established the intersection of the 35th degree of north latitude and the Colorado River, and then corrected back along the oblique line all the way to Lake Tahoe.

### Disagreement at the Corner

In September of 1872, GLO Commissioner Willis Drummond hired Daniel Major to survey Nevada's northern boundary. Just as he instructed Von Schmidt several months earlier, he directed Major to use the monument of 1868 at the northeast corner of California as the initial point of the survey. Undoubtedly his intent in us-



to be about 3,100 feet west of the “correct” position. In turn, Grunsky and Minto concluded that Von Schmidt set his line about 1,600 feet too far west. Disagreements of a similar magnitude existed at the south shore of the lake and all along the California-Nevada boundary.

**The USC&GS Survey of 1893-99**

Because of the continuing disparities, California pressured the federal government to find money to solve the problem once and for all. In 1892, Congress appropriated funds, but only for a survey of the oblique line. The following year the United States Coast and Geodetic Survey began the most precise survey yet. The USC&GS made astronomic observations to locate each end of the oblique line and connected the two points using a triangulation network. Running from northwest to southeast, they reportedly missed their closing station at the Colorado River by less than 500 feet. They corrected back along the entire line, and reset temporary monuments using proportionate corrections. Along the way they discovered that Von Schmidt had not done similarly as he reported to the GLO. By locating many of his monuments, they ascertained that he corrected back only about 1/3 of the way to the lake. There he intersected his random line and put an unauthorized kink in the boundary. At no point did he faithfully trace the inverse between his astronomic positions at each end of the line.

The USC&GS survey was in progress from 1893 to 1899. It had the best resources and most advanced technology of any survey up to that time. Finally, there was a highly accurate and well-monumented boundary between California and Nevada—at least between Lake Tahoe and the Colorado River.

**Steps to Resolving the Conflict**

In 1977, California brought suit against Nevada in the United States Supreme Court. The time had come to establish their common boundary with certainty and eliminate potential confusion regarding tax collection and other issues of jurisdiction. Since 1873 both states acquiesced to the Von Schmidt line north of Lake Tahoe. The problem was that neither state’s

legislature enacted statutes adopting the Von Schmidt line. Despite the fact that almost no one knew where it was, the Houghton-Ives line was still the official boundary from Lake Tahoe to Oregon.

The oblique line as surveyed by the USC&GS did not figure into California’s initial argument because, unlike the Von Schmidt line, it had been adopted by both states by statutes. It was known to be substantially accurate and well-monumented. Since 1899 it had been accepted without reservation by both states. On the surface the situation looked much better than along the 120th meridian, but before the conclusion of litigation the location of this line would be argued as well.

Along with questions about tax collection and jurisdiction there were also land title issues regarding state school and selection lands between the lines marked in 1863, 1873, and 1899. Some federal lands acquired and subsequently sold by Nevada were eventually found to have belonged to California. Consequently, Congress enacted a law that protects the property rights of parties whose chain of title emanated from the wrong state.

**Litigation Intensifies**

As the litigation got into full swing, claims and counter claims flew about with a level of intensity that no one anticipated. Once shaken from her complacency, Nevada had no problem generating creative alternatives. Her primary argument was for the Houghton-Ives line, even though its very existence was un-

known but to a handful. Another suggestion was to extend a line south to Lake Tahoe from the 1868 Major monument at the northeast corner of California. One alternative offered for the oblique line was based on the work of Houghton and Ives. Another was based on Von Schmidt, which is interesting, since Nevadans considered him an “*officious intermeddler*” who caused them to lose land to California. In short, all of Nevada’s suggestions would have pushed the common boundary to the west. California’s counter argument was to resurvey the entire line from Oregon to the Colorado River using state of the art technology and then adopt the new line as official once and for all. This would have pushed the boundary somewhat into Nevada with the result of annexing several casinos. The Golden State was prepared for this contingency; an Assemblyman from Long Beach sponsored a bill exempting those casinos from California’s anti-gambling laws.

**Peace at Last**

In 1980, the Supreme Court of the United States decreed that the boundary between California and Nevada would consist of the Von Schmidt line as marked between Oregon and the north shore of Lake Tahoe, and the USC&GS line as marked from the south shore of Lake Tahoe to the Colorado River. The Court allowed the states to determine the location of the intersection of these two lines inside the lake, which they soon did using monumentation provided by the National Geodetic Survey. After 80 years of doubt and disagreement there was peace in the neighborhood at last. ↓

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*Von Schmidt monument at northeast corner of California. Inset: Inscribed rock at Von Schmidt monument, northeast corner of California: “1872, A. W. Von Schmidt,*

*Photos courtesy of Judge James H. Thompson.*

