

W. D. TWICHELL.
SURVEYOR.

Texas Land Boundaries a Specialty.

AMARILLO, TEXAS, Dec. 27th 1902.

Hon. Charles Rogan,
Austin, Texas.

Dear Sir:-

Inclosed I hand you my report completing my survey of the vacancy between Blocks K 4 and K 5; and Blocks K 6 and K 7 by authority of your instructions dated Aug. 13th 1902.

On Dec. 23rd I traced the West line of Block K 5 from the S^W. corner of Block K 5 as described in my report forwarded you on the 20th of this month and found and identified the well known earth monument and semicircular trench placed by John Summerfield, the locating surveyor at the N.W. corner of Survey No. 91 Block K 5. This monument is still distinct, the old trench being about 2 1/2 feet wide, and four inches deep, and 12 feet in diameter, protected with a dense turf and firm soil which has preserved its form.

The monument is directly under the old L S drift fence and the trench lies under and to the South of the fence, in such a position that an angle toward the South in the old fence, has prevented cattle from drifting over the trench and obliterating it. The fact that this monument is at this angle in ~~the~~ the old L S drift fence, causes this monument to be well known generally, and it has been well known to me for about 15 years.

The distance between the West corners of Block K 5 is 10 miles and 24 varas and the course of the line connecting these two corners converges upon the line connecting the East corners of Block K 5, 8 minutes, leaving the distance between the monuments at the North corners of Block K 5 about 10 miles and 27 varas. and the North line of Block K 5 appears to be parallel with the general course of its South line within one minute. Hence course and distance further identifies the four corners of Block K 5.

The true meridians together with the magnetic variation shown on my sketch forwarded to ^{you} on the 20th inst. explain why the original compass lines are

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not straight and further identify the position of the monuments, by showing the monuments would be where they are if placed with a compass, at a uniform variation.

At four miles and 13 varas North from the S.W. corner of Block K 5 I found a Summerfield pit, 26 varas West of a direct line ~~connecting~~ between the Block corners. At 5 miles and 16 varas I found a similar pit 25 varas West from the direct Block line, and at 8 miles and 30 varas I found a similar pit 20 1/2 varas West from the Block line. While these pits are not in the direct block line, they are near a compass line connecting the block corners as indicated by magnetic courses on accompanying sketch and if the usual diurnal variation (12 minutes) be considered they are probably on the compass line originally run. Their relative distance ^{considered with} and the surface of the ground further verifies their being the original pits. The character of soil in and surrounding these pits is the same as is on the surface generally and hence the depression is not caused by a burrowing animal, and their uniform size and rectangular shape indicate they were made to mark a survey line, many years ago.

It may assist your office in solving land boundaries for this district to know that the general (accepted) rule for magnetic variation has many exceptions here, and while that is true every where I have been, the differences here are unusual. To illustrate, the magnetic declination determined by U S geological survey at Hereford is 11°35' E. at Dimmitt is 12°23' E. at Bovina is 10°15' E. These declination observations are carefully made and the observer informs me the difference is not caused by local or artificial conditions. You will observe the general rule for magnetic declination is reversed in the instances given and the change is abnormal. The same observer informs me that the diurnal variation is 12'. Some twelve years experience in tracing lines by comparing by comparing the land boundary with the true meridian has revealed to me that these exceptions (reversing the general rule) are common,

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though the differences are usually much less than those cited above. Hence it appears the magnetic needle tends to confuse rather than solve our land boundaries. A retrace that shows the true ^{meridian} ~~meridian~~ of the original compass lines, will place the land boundaries on the map as they are on the ground.

After determining the true course connecting the N.W. and S.W. corners of Block K 5, I placed the South boundary of Block K 6 at right angles to that course, and marked the survey corners as indicated on the accompanying sketch. My connection from the S.W. corner of Block K 6 to the N.W. corner of Block K 7, as determined by the Mabry survey, reveals the usual difference between chaining with a 20 varas chain and measuring with a 50 varas tape, the chaining being longer notwithstanding the intention in each survey was to measure the true distance. When the Mabry survey was made the tape was not in general use; and it is now more generally used because of its greater accuracy.

By request of interested parties I include a connection to the N.E. corner of Capitol league 375 which I identified upon the ground by the position of the Capitol fence which I located in 1886. The original four pits are still plain.

I am reliably informed that a well near the West line of Survey No. 98 Block K 7 is 360 feet deep, and is frequently worthless on account of quicksand. This trouble appears to be general in this part of the county and seriously affects the salable value of the land.

Yours respectfully
W. D. Twichell
State Surveyor

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Countdown 20642

Handwritten notes in cursive script, mostly illegible due to fading and bleed-through.

Sketch "C" Deaf Smith County

State Surveyor W.D. Twichell
report and certified sketch of
connections disclosing a
vacancy between South line
of Block K⁵, K⁶ and North
line of Block K⁴ & K⁷, and
connecting with N.E. corner
of Capitol league no. 375.

Filed July 22/1903
John J. Terrell
Counr.
by C. von Preuberg
County Clerkman.

AMERICAN LEGAL



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W. D. TWICHELL

Capitol League Co.
Deaf Smith County

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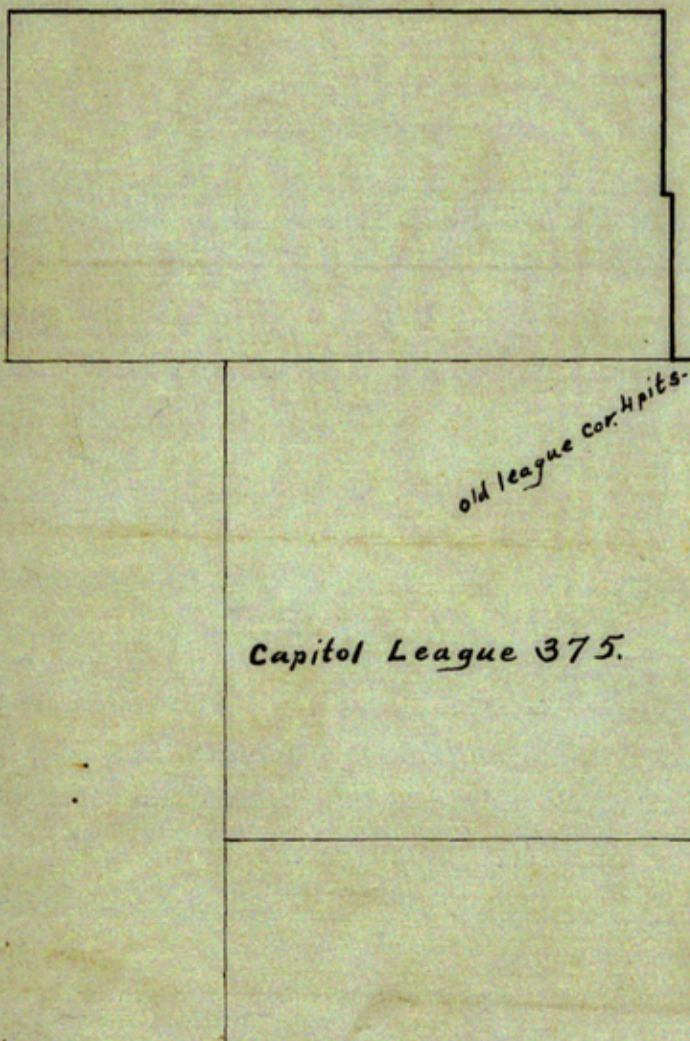
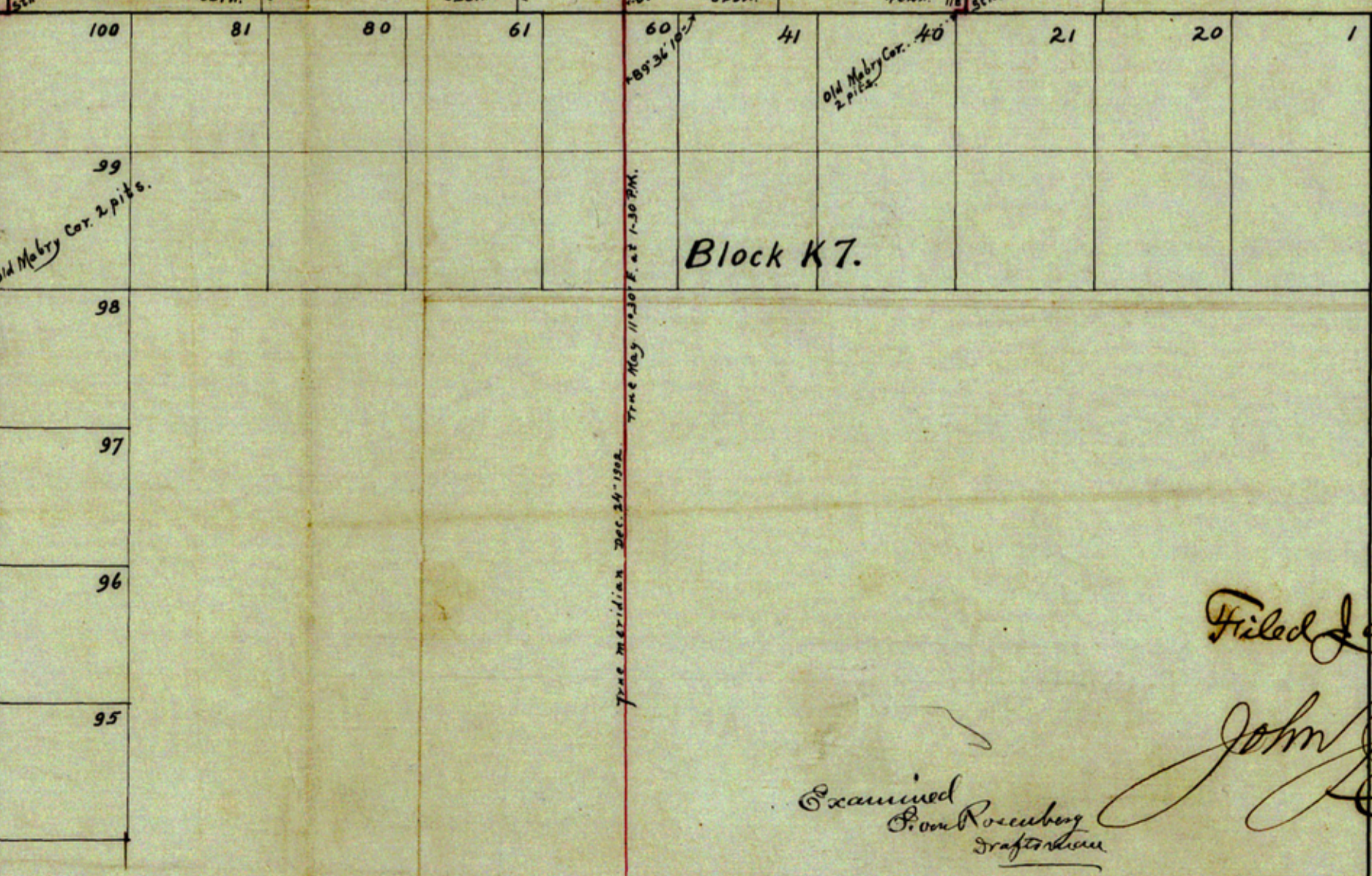
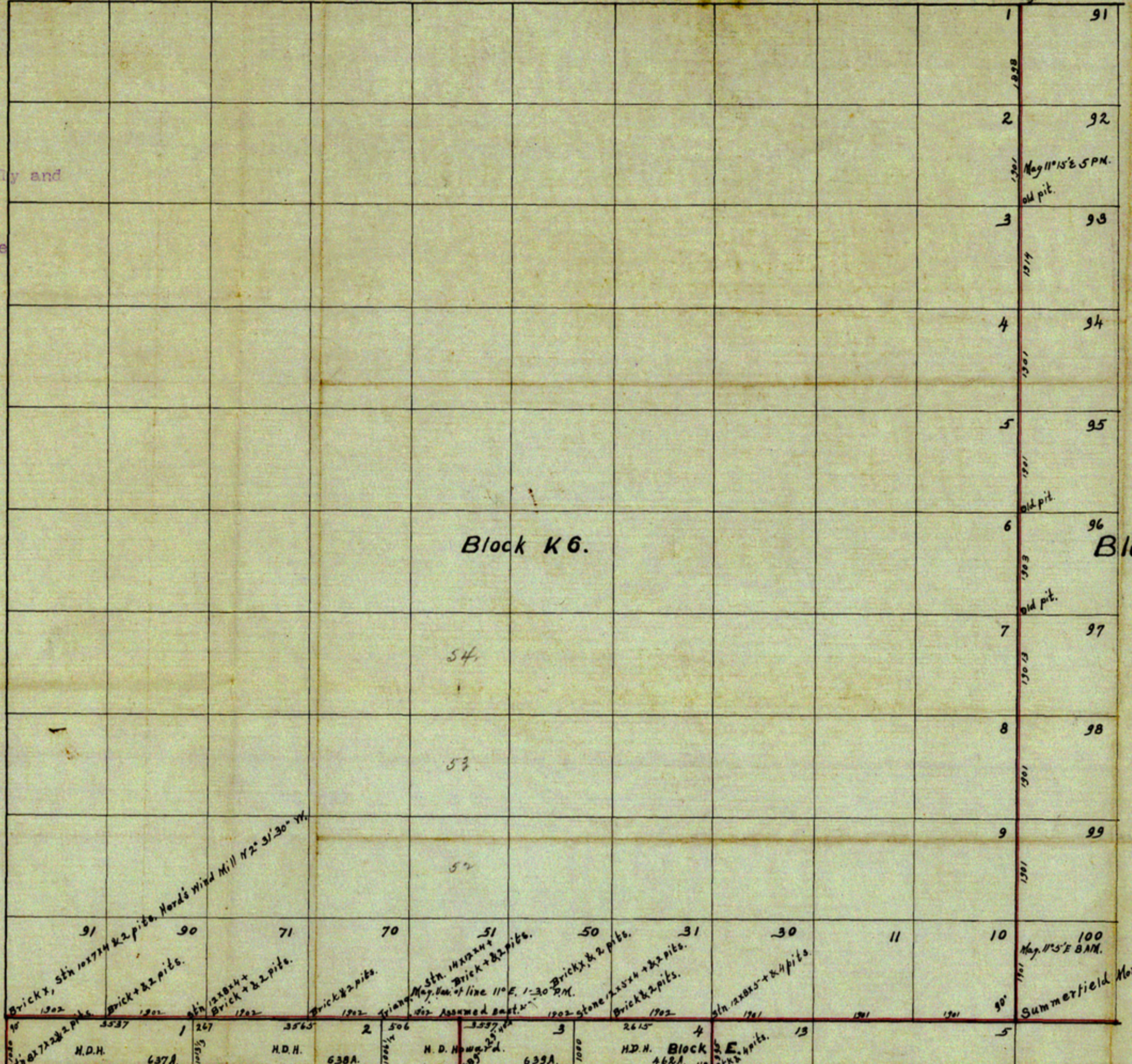
Sketch C

I, W.D. Twichell, state surveyor, do hereby certify that this map is true and correct, and that it truly and correctly represents the position of the surveys shown, as determined by an actual survey made by me Dec. 23rd 24th 25th 1902.

W.D. Twichell State Surveyor.

I, G.R. Jowell, County Surveyor of Deaf Smith County Texas, do hereby certify that this map is true and correct, and that it truly and correctly represents surveys 1, 2, 3, 4, and 5 block E as surveyed by me Dec. 23rd 24th 1902.

G.R. Jowell County Surveyor.



Filed Jan. 22nd 1903.

John J. Jowell
Commissioner

Examined
B. von Rosenberg
Draftsman

SKETCH FILE No. C
COUNTY Deaf Smith

CONSTITUTION 1902