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Alpine, Texas, Feb. 26 1920

Hon. J. T. Robison  
Commissioner Gen Land Office  
Austin, Texas

Dear Sir,

I enclose herewith Plat and report on resurvey of Blk 2 CCSDRGNG Pecos Co. made under your instructions for Mr B. T. Corder, Sanderson, Tex.

The point at issue was a disagreement as to the north line of Blk 2 and the south line of Bur 14, a more recent survey.

We were able to identify several original corners and from them to derive the course of the original lines, and placed the north line under your instructions by course and distance from the nearest old corner.

The report I think will explain the Plat sufficiently to enable you to understand the facts found. Any further explanation or information you may think necessary I will gladly supply if possible.

Respectfully

*R. L. Dod*

State Surveyor

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Referred to Map

counter 33768

Report  
of a resurvey of  
Block 2 C.C.S.D.R.G.N.G.Ry.  
Pecos Co. Texas  
by R.S.Dod.  
State Surveyor.

Object of resurvey.

To determine on the ground, from the original marks and field notes, the true position of certain surveys of land in Blk 2 C.C.S.D.R.G.N.G.Ry. Co in Pecos and Terrel Counties, and more particularly the north line and west line of this Block of land.

Authority for the resurvey.

A letter of instructions issued to me as State Surveyor by the Commissioner of the General Land Office of Texas, at the request of Mr. B.T. Corder, owner of certain of the lands in question, authorizing and instructing me to make the above survey, dated Feb. 10 1920.

Data for the Re-survey.

A working sketch of said ~~land~~, furnished by the General Land Office. Plat of lines run and corners marked on a survey of certain of these lands and adjacent tracts by Mr. Lea, Co. Sur. Pecos Co. and on file in the General Land Office. County Maps of Terrel and Pecos Counties.

Method of Survey.

Course.

The course of lines run was determined by surveyors transit with 5 1/2" needle, checked by solar observation for meridian.

Distance.

Double Stadia measurement was used to determine distance. Target rod in front. Self reading rod as back rod.

Stadia wires checked on the ground by standard steel tape.

Preliminary examination of field notes.

On looking over the field notes of surveys in Block 2, we note that it purports to have been originally surveyed by Mr. H.C. Barton in Aug. 1881, and that marked corners with bearings are called for at N.W. cor 51, N.W. 46, ~~S.W. 45~~ S.W. 45, S.W. 42, S.W. ~~31~~ 31.

There are several calls for "piles of pebbles" at other points, but no bearings or other marks being given, there would be no way of identifying these pebble corners on the ground.

No marked corner is noted north of the N.W. cor sur 51, hence course and distance would control north from this corner.

The marked corner called for at the S.W. cor sur 42 is on the west line of the Block, hence the west line of the Blk will be a meridian through the S.W. cor sur 42.

History of the survey.

We went on the ground to a pile of pebbles shown us as the original S.W. cor sur 51. We found a pile of pebbles or small rocks, 1" to 2" in dia. which had evidently been artificially placed in position, as no similar aggregations of pebbles were found near by. The grass had grown up around them and the pebbles had settled in the soil, showing age.

From this pile of pebbles the east edge of the cap rock on a peak bore N 50° W, and a rocky point or bluff at the south end of a ridge bore S 50° W, at a variation of 11° 30' E on my instrument, needle in adjustment and fully charged. We noted the reading of the needle at different hours on the same course, during the survey, and at various points on all the lines run, and found it very steady, no local disturbance and very slight diurnal change.

The mound and bearings above described fitted the calls for the S.W. cor sur 51, and the mound appeared old enough to have been placed in 1881.

From this point, with the variation noted for the bearings, we ran north

1923 varas and at 13 varas east, found a pile of five rocks laid on a pile of pebbles. On removing the rocks, the pile of pebbles showed plainly to have been placed there but were partly covered by grass and soil accumulation.

Testing out the peaks and ridges on the approximate course given for the two bearings called for at N.W. 51, we found the south edge of a cap rock on a peak and a rocky point ~~at~~ at the south end of a ridge which measured by transit the angle of divergence called for, but required a var. of  $12^{\circ}15'$  for the needle reading of the courses called for. We searched for another pebble mound, particularly near the point where course at  $11^{\circ}30'$  var. from either bearing would cross our meridian, but found no indication of another mound. We tested the peaks and ridges in sight from various points to try to find something that would fit the calls at  $11^{\circ}30'$  and approximate the course and distance from S.W. 51 but found nothing that would answer the description in the field notes nearly as well as the above described mound and bearings.

Assuming that these were the N.W. & S.W. original corners of survey 51 and that they would fix the meridian through that point as traced by the footsteps of the original survey, we ran the required course, North at  $11^{\circ}9'E$ , and marked the distances for the miles along this line.

Two miles north, at the S.W. corner sur 70 a pile of pebbles was called for. This point fell by course and distance in the bed of a rocky draw or creek. There was an abundance of rock for some distance each way from this point and we found a rock mound some 43 varas north of the mile point and 2 east, this mound was not very old. It would seem reasonable to expect a pile of pebbles to have been actually used to mark a corner anywhere near this point two miles north of N.W. 51.

At 9500 varas we found a corner described in Mr. Leas Sketch, with a cedar bearing and X on a flat rock, 27.8 varas north and 2.8 east of our point, and a pasture fence, supposed to be on or near the north line of the Block was 222.5 varas north of our five mile point.

This measurement would fix a point on the north line of Block 2 as run by distance from the above described N.W. corner 51. We marked it, took bearings, and returned to the S.W. corner 51 to try and locate the west line of the Block from the original S.W. corner sur 42.

Again using the variation,  $11^{\circ}30'E$ , required by the bearings of N.W. 46, S.W. 51 and N.E. 45, we ran S  $45^{\circ}W$  2688 varas to a point for the S.W. corner 45 where the field notes called for a mound of pebbles and two bearings.

At 2688 we found nothing. But the round Mt. in a valley given as the N.E. bearing was in plain sight, and the top sharp enough to give a fair reading. Setting on this at the course called for and moving along this course we ran over a pile of pebbles, ~~sank in the grass, evidently artificial and similar~~ to those seen at N.W. & S.W. 51 above described. Turning the instrument N  $10^{\circ}W$  it cut a rocky point as called for in field notes for S.W. 45, but I judged it to be nearer 300 varas than 200 varas distant. It was on the edge of the bluff bounding the valley on the north, and the corner was near the foot of the slope.

The variation for these bearings is  $11^{\circ}30'E$ , the same as at S.W. 51. The distances West 1907 and South 1958 between the two corners is irregular.

From this pebble mound we ran again S  $45^{\circ}W$  2688 and west 1975 to a point 104 varas north of a rock mound. This rock mound stands at or near the point or nose of a triangular mesa that divides two canyons, one from north west, the other south of west. Setting on this mound and turning N  $68^{\circ}30'W$  we cut a large boulder split half way down the middle, and lying at the end of the cap rock of the mesa at the point. On turning back N.E. to the round Mt. the needle reading was N  $68\frac{1}{2}^{\circ}E$  instead of N  $69\frac{1}{2}^{\circ}E$  as called for. But the position of the mound and the unmistakable "rock cleft in center", would seem to identify this mound as the original corner. The ~~xxxxxx~~ dagger has disappeared, but I was told that Mr. O.W. Williams of Stockton found the stumps on the course called for 18 varas from this rock mound.

Here again the identified bearing requires 11°30' var. and distance between corners is irregular and excessive.

This leads to the conclusion that the original surveyor was careless in measuring his distances and in the course of his lines between corners, if he actually ran them. But that when he had made a corner he was more particular in reading his bearings, as three of the corners out of four show.

Consequently to follow his footsteps it is preferable to take his definite calls for courses to his bearings than to try to work out a meridian course from the relative position of corners so irregularly placed.

Accepting then the reading on these bearings, 11°30'E as the true course for the original lines in Block 2, will move the line run and described above 9°21' to the west, or 66.5 varas west and .4 vrs south of the point above described.

Turning west at 11°30' var. at 1789 varas we pass 31.4 varas south of a flag in a rock mnd said to be a line run by Mr. Lea, on at 1900, point for N.W.81.

On west at 692 vrs pass 31.5 vrs south of a rock mnd and flag said to be Mr. Lea's line on 1900 in all to point for N.E.79. On another 24 vrs north. Seen N.E.79 we pass 37.4 varas the north fence is 261 by Mr. Lea. On west at 1 to point for N.W. 79, from 146.5 vrs and North 40.7 vrs. This point will be due north of the old corner above described as S.W.42 and 9500 varas north of the old corner described as N.W.51.

It is to be noted that our N.E.81 is 28.8 vrs south of Mr. Lea's corner and we are 31.4 south of his line a mile west, and 31.5 half a mile on, and at two miles are 32 south of his line, and at the S.W.14 we are 37 south. In other words we nearly parallel his line as found marked except at the S.W.14, which would seem to show that the same variation was used as that obtained from the Barton bearings.

We marked all mile points and the marks and bearings are given on the plat.

We took a solar observation on the north line, from latitude taken at noon of the same day by direct and reverse reading, which should eliminate instrumental error, and using the observed latitude should make it the correct latitude for that point. On this solar meridian so established the needle read zero with 11°27' var. showing that the variation used in our survey was nearly true north.

The attached Plat of the survey shows the corners found and their relative position, the bearings at we made and the marks on the plat.

The run north from N.W.51 was carefully measured and under your instructions will fix a point on the north line of the Block. The connection with S.W.42 gives location of west line and the intersection of this with the North line will be the N.W. corner of the Block which we so marked.

This location of the North line and N.W. corner of Block 2 was all that was necessary to settle the points at issue, and can readily be projected east if necessary.

All which is respectfully submitted

*R. D. Dod*

State Surveyor

