

RECEIVED

Alpine, Texas, Feb. 7 1921

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

FEB 8 1921

Referred to Comr.

Dear Sir,

I am sending you under another cover four copies of report and maps of the survey made at Rio Grande City.

In framing the report I had in mind what you said as to wishing it to be so written that it could be used in evidence, consequently I have inserted a number of details and explanations &c which could have well been omitted in a report addressed to your Office, but perhaps necessary to an understanding of the facts and conditions &c by one not well versed in land matters or the technical side of surveying.

I have given perhaps too much space to the discussion of the field notes, but it seemed to me that the logical deductions from the tissue of errors and misstatements in the field notes was really the key to the solution of the puzzle.

I have also introduced all the claims, and statements supporting these claims advanced by Miss Kelsey and others, so that in case the matter goes to court the lawyers would have an idea on what the claims of these good people are based.

I emphasized at length the importance of the boundary survey, and the consequent care taken in making the maps, as the ordinary layman pays small attention to a map, and would rather take the word of some Mexican than the facts shown on a map, unless he was impressed with the fact that the map was of International importance and specially prepared as evidence of boundary.

I think the report covers the ground fairly well and answers all the questions at issue.

If there is any point which is left obscure or on which you wish more information please let me know.

I made two maps, one a sketch of the surveys simply, by their field notes so as to illustrate the problem to be solved, the other a map of what we actually did and what we found on the ground.

Please let me know whether the report in this shape suits your requirements as, if it does not, it can easily be remodeled.

Respectfully

R. L. Dod

P.S. I did not attach Bluchers sketch as you already had that and I did not want to confuse the matter by introducing too many maps.

The co-ordinates of Follett's R.P., will be found in his report which I have referred to which I refer.

counter 36924

Report of a Re-survey
of Porciones 80 to 90 inclusive,
Starr Co. Texas.
by R.S. Dod
Licensed Land Surveyor.
Jan. 1921.

Var 9°20'

Object of Survey.

To determine, by actual survey under the original field notes, the true location on the ground of Porciones 80 to 90, and their relation to surveys 163 A.C.H. & B., surveys 89 & 91 B.S. & F., survey 3 J.H. Degner, and other adjacent surveys.

Authority for the Survey.

The request of the Commissioner of the General Land Office of Texas made to me as Licensed Land Surveyor in a letter dated Oct 30 1920, to make the survey of the above named surveys in order to determine the location and area of State Lands lying between the north lines of the Porciones and 163, 164, 89, 565, sur 3, &c as shown on the map of Starr Co.

Data for the survey.

A working Sketch compiled from the Archives of the General Land Office giving the field notes of Porciones 75 to 90, and the field notes of surveys 163, 164, 89, 91, 566, 565, J.H. Degner 3, and other adjacent surveys.

Field notes of these Porciones and other surveys from personal inspection of the Records of the County Surveyors Office of Starr Co.

Maj. Follett's Report and Maps of the International survey of the Rio Grande in 1910-1911, from Roma to the Gulf, giving the location of his Precise line and Reference Points.

Certified Copy from the U.S. State Department, of Maj. Emory's survey of the Rio Grande in 1853.

Proceedings of the International (water) Boundary Commission, United States and Mexico, published in 1903 by Authority of the Secretary of State, containing the official maps of the survey of the Rio Grande from San Juan, above Rio Grande City, to the Gulf, and showing the location of the River and the international Boundary as surveyed by Emory and Salazar in 1852-1853, and as again surveyed by Follett and Zayas in 1898.

A report on a survey of the Porciones by Mr. J.J. Cooke, made for the owners of certain of the lands, kindly shown me.

Affidavits of Diego Zammudia, chairman for Mr. Van Merrick on his survey of J.H. Degner 3, as to the starting point.

Of J.P. Garza as to large stone near S.E. 83, and the location of the old river channel travelled by steamers relative to this stone.

Of E. Perez as to the same stone near his house, and location of old River channel near clump of willows south of stone.

Of Carlos Rivera as to finding a certain rock marked T M O in 88 in 1866.

Detailed information kindly given me by Mr. J.S. Monroe, County Surveyor of Starr County, as to an extended survey made by Mr. French under order of the District Court to determine the location of Porcion 90. Mr. Monroe accompanied and assisted Mr. French and kindly showed me on the ground many of the lines they had run and marked.

Method of Survey.

A Transit was used for courses with back and front rods, all angles checked by the needle. The instrument was tested for adjustment before, during and after the survey.

Course was taken experimentally from Monument R.P. 7 to Banco Mon. 55, given by Maj. Follett as S 12° 15' W. This course was carried to R.P. 4 where it was checked by solar observation for meridian, carried on to R.P. 2 in Rio Grande city, there was checked by azimuth on lightning rod on Court House, and again checked by Solar observation.

Latitude of our instrument checked within the reading of our 4" verticle circle with that of Maj. Follett's Map.

Distance was measured by a 50 vara steel tape, lines cut out and cleared. Chain tested before starting work and checked on R.P. 7 to Banco 55, 412.6 varas. Checked to 1 in 7000 on Folletts line R.P. 2 to R.P. 7. Checked closely with Frech-Monroe lines. Chainmen were never out of sight and hearing of the surveyor.

Preliminary examination of Field notes.

On looking over the field notes of the Porciones, we find it stated that they were surveyed by R.C. Trimble. The certificate of 80, 81, 82, 83, 84, 85 is dated Nov. 23 1853. Field notes of 80 & 81 were corrected on July 4 1857. No. 88, 89, 90, are also dated Nov. 23 1853. No 86 & 87 were surveyed July 24 1857, examined and approved Aug 5 /57 by Haynes Dist Sur.

It is stated that these surveys were made under an Act Feb. 10 1852, validating a Spanish Grant made in 1767.

Sur 80 calls to begin at a "stump and rock, known as the S.E. cor of said Porcion 80 and now in Lot 5, Block 13, Rio Grande City".

Sur 81 begins on sur 80. 82 begins on 81. 83 begins on 82. 84 begins on 83. 85 begins on 84. But 86 breaks this chain and calls to begin on 87. 87 begins on 88. 86 & 87 are both dated 1857, but 88 (1853) calls to begin on 87 (1857). 89 begins on 88 and calls the original post at S.E. cor. 90 begins at this original S.E. cor and calls to run to the original S.E. 90 with the old bearings. The beginning points all call for the River, and the south lines are meander lines.

This would seem to show that sur 80 to 86, inclusive, would depend one on the other, running east from original S.W. 80, and that 88, 89, & 90 surveyed at the same time would depend on the original S.E. 89 & S.E. 90, and that 86 & 87 were surveyed later on and inserted between 85 & 88, starting at 88. This would seem to be confirmed by the irregular width of 87, which is given as 1050 varas, while the others are 1300, except 80 which is double = 2600, and 90 given as 1425 between original corners.

Side lines of these surveys call to run back from the river N 9° 15' E, and their north lines at right angles to this course, N 80° 45' W.

We note that in every tract the sum of the side lines is 50,000 vrs, an average of 25,000 vrs; in depth by 1300 vrs. in width, and the area in most cases is given as $25,000 \times 1300 = 32,500,000$ sq. vrs. But the area of Sur. 80 (which from the bend northward in its South line should contain less than twice this amount) is given as 65,771,750 sq. vrs. which would require a width of 2,630.8 vrs. if the South line were a straight line. Also, the area of 81 is given as 32,832,000 vrs. 332,000 vrs. too many. The area of 84 is given as 32,195,300, a shortage of 304,700, whereas the loss from the bend in South line by the meanders would be about 70,500. The area of 86 and 87 is not given in field notes but 90 is given as 36,800,000 sq. vrs. while the average of the sides is 25,000 and the width is given as 1425 vrs. would give 35,625,000 vrs. not taking into account the bend in the South line.

We note; 1st that if the date of the certificate is the date of the survey, then 9 of these tracts of land 13 miles long with 9 or 10 miles of river front and marked bearings called for in the field notes at almost every corner on the line at the north and on the river front were surveyed on the same day.

Second, that the areas given, where they differ from the regular area, $25,000 \times 1300 = 32,500,000$ vrs., can not in any one case be made to fit the calls in the field notes for length and width, and meander line, one or the other must be wrong.

The surveyor seems to have settled on a common width of 1300 vrs. for each tract (double for 80) as above noted. He could fix his side lines to suit himself, but having done this; it is then absolutely essential that;

(1). His field notes should close, or in other words, that the courses and distances on his river line should bring the survey back to the beginning point.

(2). That the river meanders should be some where near the actual course of the river at the time of the survey, or they are at once known to be fictitious calls and must be rejected, as they are contradictory to the facts on the ground.

On looking at the field notes of sur 80 we noted above that they had been made in 1853 and corrected in 1857. On figuring the two calls between the S.E. and S.W. corners 1853, we find an error of 252 in N. and 264 in W. The corrected field notes 1857 show an error of 8.6 N. and 1.7 W.

Sur 81, taking original calls is in error 187.9 N. 646 W. but the courses given were evidently taken from the side lines of the tract and not from the meridian, as the resultant gives 3841 N. 1300.7 W. which nearly fits the difference in length of sides = 3870 and width 1300. We note this error as a similar error may account for discrepancies found in other meander calls. The corrected field notes fail to close by 10 vrs N. and 6.6 W.

Sur 82 has no corrected field notes of record. The calls given fail to reach the beginning point by 300 varas northing and would run 54 varas too far west. If we make the east side line 74 varas shorter than the west side of 82, instead of 230 vrs longer as called for, the call given for the south line will come out 5 vrs east of the beginning point. If we retain the length given the sides, the south line will require a call of N 70° 43' W 1321 vrs to run from the S.E. to the S.W. corner.

Looking now at the field notes of 83 and comparing them with those of 82, we find their north lines one continuous line, the length of the west line 82 and east line 83 the same, and the middle line common to the two surveys. But if we follow the calls in the field notes of the

two surveys, we have the common line shorter than the west line 82, and the east line 83 still shorter than either the west line 82 or the common line. So the side calls contradict the meander calls. Change the call in 82 as above and change the call in 83 from N 85° W 1307 to S 89° 13' W 1319 and both surveys will close and leave the distances on the side lines as called for.

The details of errors are tabulated and attached to this report, and I do not wish to introduce at this place more details than will suffice to show that it is absolutely necessary to change one or the other of these contradictory calls given in the field notes before it will be possible to retrace them on the ground and get back to the beginning point.

South line of sur 84 calls S 70° W 1385, which course measured from the side line nearly closes. Change this angle by subtracting 9° 15', the course of the side line, to bring the call to a course from the meridian, and the distance to 1385 and it will nearly close.

Sur 86 & 87 (1857) nearly close on their calls. "Examined and approved" by Dist. Sur.

88	will not close, must change course and distance or side lines,
89	" " " " " " " " " "
90	" " " " " " " " " "

In the attached Sketch I have shown the course and distance of these meander lines as corrected to fit length given side lines.

Just below this I have shown the actual calls of the field notes as a connected line, as they would be traced on the ground from the field notes. Note that they shorten the width of sur 84 from 1300 to 916.5, lengthen the width of 85 from 1300 to 1359, make 88 only 1261 wide, and survey 90 only 1090 varas instead of 1425. The total difference between meander calls and side line calls is shown at the end of the run. The meander calls fall short 673 varas in easting, and 895 varas in southing. In other words, if we started to survey the south lines by their field notes from the S.W. cor sur 80 and followed the field note calls we would fail to reach the S.E. cor sur 90 as located by the lines of the surveys, by 673 varas east and 895 varas south.

The result of this examination of the field notes would seem to be that we are forced to reject the meander calls as given and correct them to fit the length of side lines and width of surveys, in order to retrace the surveys on the ground, as the comparison of calls shows that it would be impossible to follow these meanders and place the surveys on the ground as called for in width and shown on the original plat of these surveys made by Mr. Trimble.

The second criterion for a survey line calling to meander a stream, is that the calls shall locate the line reasonably close to the actual course of the stream at the time the survey purports to have been made.

To make this comparison we must know accurately the position of the river or stream at the time of the survey. In this case each survey calls either directly or by implication to start at a point on the bank of the Rio Grande, run to another point on the river and to return with the "margin" or meanders of the stream. The calls for distance out from these original points on the river would control the location of the surveys, in the absence of any original marked corners on the north.

In this case the River is the Rio Grande, the centre of whose channel is the International Boundary, and whose history shows a continuous shifting of the channel, at times moving slowly, at others by leaps and bounds.

The exact location of the channel as the as the boundary between the United States and Mexico is of grave importance to both countries and a careful survey of the River was made by Emory and Salazar in 1852 - 1853 and the international boundary fixed by this survey, known as the Emory Salazar line and a map was made of the river in 1853 where it was found by this survey.

Another survey was made by Follett and Corella and Zayas in 1898 and maps made of the river as it was then found and on these maps they also placed the river as found in 1853 by the Emory Salazar line. These maps in 54 sheets cover the valley of the Rio Grande from San Juan above Rio Grande City, to the Gulf of Mexico, and were made part of the Official Report of the International Boundary Commission, published by the Authority of the Secretary of State, in two volumes in 1903. On page 269, 271, is found the authorization of the Secretary of State for the publication of the 54 sheets of map.

In the Engineers Report, page 199 vol 1, signed by Follett and Corella, we read; "We have shown in blue on the tracings an enlargement of the Emory-Salazar channel as surveyed by them in 1853. Separate surveys were made by the two men. As Emory's map was on a larger scale than that of Salazar, we have amplified it up to 1 in 5000 and used it throughout. The differences between it and Salazar are slight. This has been put on our maps from points common to then two maps where such could be identified. For some 20 miles below Rio Grande City this fits nicely."

On index sheet No 2 ~~xx~~ Vol 1 Page 208 we find at the base of the map a note that the Lat. & Long. was obtained from the Comision Exploradora of Mexico, their location of the south tower of Matamoras Cathedral being used.

We have then in these 54 sheets an authoritative, true and exact location of the channel of the Rio Grande in 1853, tied to points on the ground common to Emory's map of 1853 and Follett's map of 1898 and the statement that from ~~the~~ Rio Grande City for 20 miles east the Emory Channel is exactly reproduced on the 1898 map.

We can now transfer this map of the Rio Grande in 1853, the date of the survey of the Porciones, to our sketch and compare the true course of the river at that time with the meander calls of the porciones.

We have a common point in the Court House at Rio Grande City. We measured on the ground from this point to Follett's R.P. 2 and from there to the S.E. cor of lot 5 Blk 13, where S.W. cor Por. 80 is located by its field notes, we can make the same measurements by scale on the 1898 map and so locate the S.W. cor 80 relative to all points on the map.

The 1898 map is drawn on a scale of 1 to 10000 or 300 varas to 1 inch so that the distance between any two points on that map can be readily measured and transferred to our sketch or map on scale of 2000 vrs to 1".

The width of 1' of Long on parallel 26° 20' is 1965.6 varas and the minute lines on the 1898 map scale 1960 on the 300 to 1" scale, which is within the thickness of a pencil line of right. By measuring from the Court house 600 varas east to Long. 98° 49', we can make the same measurement by the 2000 to 1" scale on our map and have an exact reproduction of the relative position of this meridian with the court house and the S.W. cor Por. 80. We can from this point put in the other meridians, and in the same way reproduce the parallels of latitude.

We can now measure from the intersection of the meridians and parallels east or west, and north or south, to any number of points on the Emory channel on the 1898 map and reproduce these points on our sketch and have an exact transfer of the Rio Grande channel in 1853.

This was done and the Emory Channel is shown on our sketch in its true position relative to S.W. cor Por. 80, and the south lines of all the Porciones as called for in their field notes and so platted on our sketch.

A glance at the sketch shows that it is impossible to give the porciones the distance called for on their side lines and the relative position of their north lines given in their field notes and bring the south corners or meander lines any where near an agreement with the course of the Rio Grande at the time they claim to have been surveyed.

This would seem to force a conclusion that the meander lines were not actually run, and that the calls are fictitious.

There is another set of calls given on the side lines of all the 1853 Porciones, i.e. calls for distance from the river to the crossing of the Brownsville road. Each side line calls to cross this road at a certain distance from the river corner or from its own north corner.

The road from Rio Grande to Brownsville is shown on the 1898 maps on index sheets 2, 1, 2, & 3, and on sheets 52 and 53.

Mr. Follett shows this road on his 1911 maps and placed the R.P.s on his precise line on or near the road. No 3 47 metres east of iron bridge over Los Olmos creek, No 4 141 metres west of monument on a hill at La Cruz Ranch. No 7 1 meter from N.E. cor of church at Garcia Ranch. We found these monuments on our survey of the Brownsville road and checking their location on sheets 52 & 53 of the 1898 map find that the road is practically the same road today that it was in 1898, and 1911, and probably very ~~the~~ close to the old road in 1853. The road has been repaired and rebuilt from time to time and in places moved to better ground. At Olmos creek where it now crosses on a bridge it used to cross the creek some 300 vrs below. R.P. No 6 is not on the present road but on a road some 500 varas south, which was followed by the 1911 survey and shown on their map as the Brownsville road.

We can from this data and our survey place the present Brownsville road on our sketch. Now if we measure from this road the calls for points on the river called for on the side lines of the porciones we find that we have a south line for the surveys which fairly well fits the course of the river in 1853.

But if we measure back from Trimble's meander line to his calls for road crossings mark these points and connect them, as shown by broken line in the sketch, we have a road line south of the actual road, just as his meander line is south of the actual river line.

We note that Mr. Trimble describes and locates original corner S.W. 80 S.W. 90, and S.E. 90, and we later find by actual measurement that his call for 2400 varas south to the river from the road on the west line of 84 fits very closely with the measured distance from a point on the present road 388 south and 482 east of R.P. 4 to a point on the river bank as located by the Emory map, and the same point on the river located on the ground by the evidence of the two Mexicans, one living on the bank at this point, which point, or line is marked as west line of 84 by a large stone said to be a monument of the original survey of the grant.

We tested the calls on east and west lines 90 on the ground as shown on map of this survey, and found them fitting fairly well with the old river channel.

In other words, the only line, so marked by natural or artificial objects called for in the field notes that it could be retraced on the ground, which can be brought anywhere near agreement with footsteps of the original surveyor, is the line of the Brownsville road and the measurements from it to the river as it was at the time of the survey.

It would seem probable from the above facts that Trimble did run a base line along the Brownsville road and tied to S.W.80, S.E. & S.W.90, and perhaps S.W.84, and that on this line he based his survey, figuring his meander calls not from actual survey of the river but from a general knowledge of the course of the river between the fixed points.

We note that Mr. Trimble's river corners call for bearing trees, but it would be almost impossible, under the shifting conditions of the channel, that these bearings should still exist even if the field notes warranted the supposition that they had ever been actually marked.

On looking over the calls on the north line of the Porciones, the calls are reasonable and there seems no reason why they should not be retraced on the ground, except on the call for N.W. corner sur 82. The call on east line of sur 81 is to pass the N.W. corner sur 82 at 1610 varas, but the difference between the length of east line of 81 and west line 82, starting from a common point on the river, is 2050, and nothing in the notes to indicate which of the contradictory calls should prevail.

Note. This preliminary examination of the field notes is, from the surveyors stand point absolutely necessary before he can go into the field and retrace the footsteps of the original surveyor. For while it is taken for granted that the original surveyor did actually do what he says, in his field notes, that he did, yet it is a recognized fact that in any extended survey, the surveyor ordinarily ran only such lines and marked such corners as, in his judgement, were sufficient for his purpose. The balance of the lines said to have been run, were calculated from the lines and corners actually run.

Hence the field notes must be carefully examined to find (1) a beginning point so particularly described and fixed by calls for natural or artificial objects that it can be legally identified on the ground as a fixed point in the survey, and this point must be of such relative importance to the survey, and so located on the ground as to make it probable that the original surveyor did himself actually go to this point, and that he would probably have run lines to and from it as called for in his field notes.

(2) the courses and distances of all calls must be calculated to see whether lines run as called for would actually reach the points named. If not, it must be determined where the error lies, and which of the contradictory calls should prevail. Which lines were probably run, and which calculated only.

For instance. We find on examining a number of recorded field notes of Blocks of river surveys, that two methods have been generally used for this work, by the old surveyors of Texas Lands. The one was to actually meander the course of the stream, figure the width of surveys on these meanders, and place the corners on the bank of the stream and call for the distance out from the stream for the side lines, without actually running them.

The other method was to survey a base line at a convenient distance from the stream and at each, or at certain, survey lines run offsets to the river bank place the corners and calculate a meander line to reach from one point to the other approximating the actual course of the stream as noted at the corners.

A comparison of the field notes with the actual course of the stream at the date of survey, will generally show which method was probably used and the surveyor can then follow the actual footsteps of the original surveyor and locate the lines as actually surveyed. Whereas if he does not determine how the original survey was made, he may be lead into an inextricable tangle of errors by trying to locate calculated, or so called "paper calls" on the ground.

This statement is based not on theory but on actual experience in the field. The correctness of the field note calls as to course, distance and acreage, when tested, give a basis for a legitimate conclusion as to the competency and reliability of the original surveyor, and the credence to be given to his statements of fact, and the credibility or dependence to be placed on the calls given in his field notes.

History of the survey.

We went Folletts R.P. No 2 in Rio Grande city at the corner of Britton Ave & first street, took bearings on lightning rod on Court House, and ran S 18° 20' W with 1st St. 92.5 vrs thence S 71° 40' E 189.6 varas, or 147 varas south, and 151 varas east, to lot 5 Blk 13 for the S.W. corner por. 80.

Returning to the middle of the street running west of Blk 13, we ran down a cleared road or trail S 18° 20' W 523 varas to a point on the bank of the present channel of the Rio Grande. This was a dirt bank almost perpendicular, 20' above the water. From this point we took readings on points up and down the river, as shown on our map with the connecting bank sketched in.

From a point just south of the S.E. corner lot 5 we took readings on a prominent river bank in Mexico and on the water tower, for future reference.

Having this S.W. corner 80 locating the west point of the survey, we then went to R.P. 7 near the church at Garcia to try and locate the original corner 90.

From R.P.7 we ran S 12°15'W 412.5 varas to Banco 55. At we reached a bank on the north edge of a dried mud bottom, on across at 400 the edge of the Banco San Domingo.

From B.55 we ran N 87°E across this dry overflow bottom, at 200 bank, at 314 a road. Thence N 40°25'E 343 vrs to a large rock about 3'x14" x18" under a fence, said to be a mark on the original east line of Por.90, and I was told it had been so recognized and accepted for many years by adjacent land owners, and had been accepted by the Dist. Court of Starr Co. in a suit involving boundaries of Por.90.

From this rock we ran S 9°15'W, at 660 crossed a ranch road, at 900 reached a low timbered bank bordering a dried mud bottom, course N 20°W, at 1420 opposite bank. From 1400 vara point a white painted 4"x 4" post marked I B C No8 C de L, S 29°30'E 200.5 vrs near middle of dried bottom, which looks like the dried bottom of a shallow pool, channel or lagoon, about 200 yards wide and extending back beyond where we crossed it from R.P.7. From the 1400 vara point the top of belfry of church, bears N 8°30'W

Then we returned to the big rock under the fence which is 448 vrs east and 125 vrs south of R.P.7, and ran N 9°15'E 252 varas to Brownsville road 237 centre of road, 285 new road bed recently built.

The call for S.E.90 in the field notes is S 9°15'W 1060 varas from the Brownsville road, this distance would bring us to a point a little north of the low bank crossed at 900 from big rock. Platting this on our map it comes out some 200 varas east of the Emory channel. Mr. Trimble says he found the old post in an old labor, so it may have been some way from the river bank. The list of Bancos on page 204 vol 1 of the Proceedings of the International Boundary Commission, states that Banco 55 was cut off in 1866. The map on sheet 50 shows that between /53 and /66 a new channel was formed running north of, and cutting out part of the /53 channel and presumably obliterating the old corner post and bearing trees described by Mr Trimble in 1853.

From the point where this line reached the Brownsville road, 490 east and 113 north of R.P.7 we ran a traverse up the road to a point on a marked west line of 90, run by French and Monroe, and as we understand accepted by the Court, this point we find to be N 80°45'W 1772 varas, or the width at right angles across sur 90, and 443.5 varas N 9°15'E of our starting point at crossing of east line 90 on Bville road.

Note. The details of the traverse up the Bville road are attached to this report.

We here turned S 9°15'W and ran along this marked line toward the river. At 300 vrs dropped off a bank some 12' high, at 500 reached top of low ridge or bar running N.W. & S.E. at 2050 a low bank, at 2900 a low bank on edge of shallow dry channel through field, course about S 20°W, at 3344 edge of deep swale or sink, heavy escoba growth, some large mesquites to right, at 4000 steep bank about 12' high extending both ways some distance on 100 varas further a low bank lined with small timber, about 150 further another timber lined dry channel.

The call is from river to road 3970, to north edge lake 3890, across lake 200. We measured 300 from road to bank, then 200 across swag. The 4000 bank would nearly fit distance from road.

Platting this call on map shows 4000 vara point on south side of the Emory channel.

Returning to road crossing on wbl 90, we ran a traverse on up the road at 126.5 varas west we crossed another west line of 90 said to have been surveyed by Mr. Hord. On N 80°45'W 2713 varas and N 9°15'E 763.3 varas to point on a fence line supposed to mark the line between 88 & 87.

We inspected but did not connect with R.P.6 as we were running the main travelled Brownsville road, and R.P.6 is on a road to the south.

This monument and the lower road are near the same high bank referred to on wbl 90, and is shown on Mr. Folletts map of 1911 survey as nearly paralleling the Bville road from Los Olmos creek to near R.P.7. This bank is a very noticeable topographic feature and seems to be the dividing line between the river bottom and the upland, as evidenced by the difference soil and vegetation.

Platting the calls for river from road on 88 & 87 the distances call for, fits the Emory channel.

The road crossing on west line 88 is on the west bank of a drain, and 100 varas north of the high bank, we were told that the old road ran 50 varas out from the foot of the bank, but there is no sign of it now. The fence on this line runs N 8°40'E and could be seen for a mile or more running north over some low hills.

From the road crossing on this wbl 88 we continued our traverse up the Bville road across 87 & 86 to a point on the fenced wbl 86 a distance of 2380 vrs N 80°45'W and 1262.4 N 9°15'E. These are the 1857 surveys, and 86 does not call for 85, but 85 the senior survey does call for its east line to pass the N.W. cor 86. There is a call of 3440 to the river on east line 85, platting this comes out way north of the Emory channel and close

to the 1898 survey.

From this point on wbl 88 we continued our traverse up the road and reached P.R.5 on the north side of the road at a point North 86 varas and east 60 varas, or a total from R.P.7 by our line of N 3721 and W 5950 by Mr. Folletts figures he ran N 3731 and W 5936 a difference in distance of some 11 varas and about 0°05' in course.

We continued our traverse across 85 to a point N 80°45'W ~~xx~~ 1312 vrs and N 9°15'E 214.5 varas. Platting the road call on this west line of 85 3300 varas comes out far north of the Emory channel.

We ran on up the Bville road N 80°45'W ~~xxxx~~N 1307 and N 9°15'E 449.1 to a point on a marked line between 84 and 83.

From this point we ran North 388.3 vrs and west 482 vrs to R.P.4, being a total of N 1378 and W 2902 from R.P.5, Folletts figures 1387 W 2899.

From our point on marked ebl 83 we ran our traverse on up the road, and at 1285 varas N 80°45'W and 400.4 vrs N 9°15'E we passed 92 varas north of a very large rock set in the ground at the corner of a fence and said to be a corner of a subdivision of 83. on N 80°45'W 2709 in all, and N 9°15'E 1042.5 we reached R.P.3, in the corner of a field, a little north of the road and east of the bridge, Total from R.P.4 N 1076 W 2025 Folletts figures N 1087 W 2028.

There was no marked line at this point but the east line of 81 should pass near the monument R.P.3. Platting this call to the river 3270 will reach the Emory channel, but at a place where it runs so nearly north and south that it does not make a very good check.

From R.P.3 we ran on up the road and at 56 varas S 74°57'W we reached the east end of the bridge. On up the road, at station 6 of our traverse about to steps N.W. of the N.W. cor of the corral at old fort Riggold, we took an observation on the water tower S. 50°W, and we here turned from the main road and ran S 66°50'W to a point in the narrow street which passes north of Blk 13 Rio Grande City, and then on down the street to Lot 5, a distance from R.P.3, N 80°45'W ~~xxxxxx~~ 4150.7 and N 9°15'E 1267.6, or N 1918.6 and W. 3893.2 N 1918 and W. 3884 by Mr. Folletts figures.

This traverse shows a total width of the Porciones from the ebl 90 as above described, to S.W. 80, of 16343 varas, the call in the field notes is 15475, showing an excess on the ground of 868 varas over the given width, and a distance of 5415.8 N 9°15'E, or along the side lines of surveys, add to this the call from road to river on ebl 90, 5415.8 plus 1060 = 6475.8

but by field note calls for side lines and north lines this should be 6910, this - 6476 = 437 shortage in our measurement, from the field note calls. That is to fit the length of the side lines the uncertain S.E. 90 should go 437 varas south of where the call from the present Bville road puts it. Applying this to our map would bring the Bville road 182 varas south of the big rock, but there is no road there and the only road we crossed below the big rock was at 606 varas. The present Bville road fits the Follett 1911 map from the Garcia church, and R.P.7. The Garcia church is shown on sheet 50 of the 1898 survey and does not quite reach the road in its present position, but if the road were 437 varas further south it would show on the map and it is not so shown.

Our measurements along the road check with Folletts with an error in the totals of 30 varas in northing and 22 in westing so that our distance can not be far out. Consequently Trimble's calls must be in error some where as they contradict the maps of 1911, and 1898, Folletts measurement and the measurements of this survey.

But we noted above that the difference between ebl 81 and ~~244~~ wbl 82 as given in the field notes was 2050 varas, but that the call on ebl 81 was to pass the N.W. cor 82 at 1610 varas. 2050-1610 = 440. Subtract this difference in northing from the 6910 of the field note calls and we have 6910-440 = 6470 a substantial agreement with our measurements and a strong corroboration of the position given on our map for original S.E. 90. And a further corroboration by the facts as found on the ground, of the theory deduced from preliminary examination of field notes, that Mr. Trimble ran the Bville road and tied on to S.W. 80, S.W. & S.E. 90, and that this survey so far at least has actually retraced the footsteps of the original surveyor.

The investigation of the marked line of 83 & 84 confirms this. We return to the stake on this marked line wbl 84, 388 south and 482 east of R.P.4, and S 46°10'E from cross on the hill.

We turned toward the river and ran down a lane part of the way, with a fence to the east all of the way. We found some stakes with tacks in them on this line, but could not follow them as they ran into the fence on the east. We found that from our stake on the Bville road a line run S 8°50'W 2247 varas reached a large rock under the fence. This rock is some 14"x 18"x 30" and was pointed out as a mark on the original east line of sur 83. The rock was identified as in its original location by an old

old mexican who lives some 100 yards west of the rock, he has known the rock as long as he can remember, and it has always been in its present position, and his father had told him it was a mark on the original line of the grant, and as far as he knew had always been so considered.

He also stated that he could remember when the river ran near some willows south (qte varas as we measured it) of the bank, and he had seen the steamboats running there. He said the bank had wased off and had moved a little north.

Mr. Lopez and others stated that the general opinion locally, was in accordance with this statement, both as to rock and river.

77 varas S $8^{\circ}50'W$ from the rock we reached the top of a steep dirt bank some 15' high, on the bank were some large mesquites, none, in my opinion, old enough to have been marked at the time of the survey of '83.

On at 153 varas from this bank, in the bottom, we reached a large willow 1 varas in dia. tall, and well grown, but now partly dead and hollow at the heart, there was a clump of large willows near by and a line of willows ran nearly east.

From our stake on the Bville road it was S $8^{\circ}50'W$ 2247 to big rock 2324 to bank, 2474 to willows. Trimble's call is S $9^{\circ}15'W$ 2400, platting this on our map reaches the Emory channel 1853.

From our line at the foot of the bank we took readings on the course of the bank. It ran to a point N $88^{\circ}W$ about 300, then turned south a little and ran to a point west 600, then turned back northward out of sight.

This check on the distance from road to river and the evidence of the old position of the river corroborates, as noted above, the fact that the location of the present Bville road, and the relative position of the Emory channel of 1853, and the Trimble calls from the road to the river on what the evidence would seem to indicate were the original lines of the old survey would seem to indicate that these were the lines run and called for in the Trimble survey of the Porcions.

We returned to our point on the Bville road on east line 83 and started north. We found here a line cut out and staked running on the average N $8^{\circ}40'E$. There was some little difference in course, a minute or two one way and the other, between stakes till we left the hills, on the mesa the line was straight. We followed this line as it was cut out and well cleared, which saved much time in chopping, and because we were told that it ran directly to the N.W. corner 163, one of the points with which we wished to connect.

At several points we found stakes set by the hubs with figures in feet but we could not make them agree with our measurements.

Running then, N $8^{\circ}40'E$ from Bville road, at 15237 we reached the centre of the Corpus Christi or Falfurias road, this would be 17484 vrs from the big rock. Trimble's field notes call for this line to cross the Corpus Christi road at 17365 vrs from the river.

At 22638 varas from Bville road, or 24885 vrs from the big rock, we set a stake, from which a mesquite 10" bears S $34^{\circ}15'W$ 39.5 vrs. This mesquite had been blocked into apparently by someone looking for bearing tree marks called for by Mr. Trimble at N.E. 83, 24885 vrs from the river.

From our stake a mesquite stump 10" bears S $8^{\circ}40'W$ 25.1 varas. This stake would be 153 varas north of the 24885 vrs measured from a point 2400 varas south of the Bville road instead of from the big rock.

From this stake we ran N $8^{\circ}40'E$ 1666 varas to a fence corner claimed to be the N.W. corner Porcion 84. No trees near by.

From this fence corner we ran on N $8^{\circ}40'E$ 985 varas to a new 4"x4" mes. post, about 3' above the ground, marked N.W. 163, standing about 4 varas west of fence corner. The fence runs east at a course of S $81^{\circ}01'E$

This post "N.W. 163" is 27689 varas N $8^{\circ}40'E$ from a point 2400 varas S $8^{\circ}50'W$ from our stake in Bville road, and 2804 varas north of where the field note call for distance from the river on the east line of 83 will place the N.E. corner of Porcion 83.

As the country was brushy, and no straight line cut out, we set a flag at a big rock under a fence some 2600 varas west, which rock was claimed to be the N.W. corner of Por. 82.

Returning to the new N.W. 163 post we found the course to the flag to be N $81^{\circ}14'W$.

A line had been cut out N $80^{\circ}55'W$ along which we measured and at 707 varas found a very old mesquite post 4"x4" about 18" above ground, marked "J P K" 4 varas north, This places it about 10 varas north of flag line

This is supposed to be, and probably is, the original S.W. 89 B.S. & F. as surveyed by Mr. van Merrick in 1875 for J.P. Kelsey.

Running on N $80^{\circ}55'W$ at 1454 varas we found a conglomerate rock 12" x 14" x 14" lying on the ground some 5 varas north, and a mesquite tree S $84^{\circ}30'W$ 35.5 vrs. This tree has a long, old burn or blaze on the east side some 3" wide and a growth of wood some 2.5" on the sides. The wood showing in the blaze or burn, is smooth and unmarked. The growth of wood on the sides is not sufficient for a normal cut as long ago as 1853, and the tree

does not look old enough to have made a bearing at the date of the survey

I was told that this rock was supposed to mark the N.W. cor of 83.

This rock is about 15 varas north of our flag line.

~~From~~ The cleared line we were on stopped here, but 40 varas north another cut line started and ran to the flag. We moved over to this line and measured to another, similar conglomerate rock under the fence N81°14'W 2126 varas from the new post N.W. 163.

This rock is claimed to be the N.W. cor porcion 82, and I was told that both Trimble bearings were at this corner.

The Trimble description of his N.W. cor Por. 82 is a post 5' high from which a mesquite bears S 88°30'E 11 vrs. a mes. bears S 32°30'E 10 vrs.

I was shown a mesquite east of the rock and a mesquite stump S.E. of the rock as the Trimble bearings, and a post in the fence which I was told had been cut from the stump shown as the S.E. bearing.

At one time I worked for several years surveying old lines in the old Fisher and Miller Colony surveyed in 1845, where I saw and studied the marks on hundreds of old colony bearings, mesquites, live oaks, post oaks &c. We had there three sets of corners, the old colony corners made in /45 District survey work put in some 20 to 25 years later, and County surveyors work from /79 on down to date, and we had to make a special study and comparison of the marks on the bearing trees to distinguish one set from the other and to trace the often dim marks on the colony bearings, so that I have had some experience in detecting the traces of old marks which have been perhaps partly worn away by exposure and overgrown by new bark and wood.

I looked carefully over the mesquite standing east of the rock and am absolutely certain that there are no definite marks on this tree and I could find no sign of its ever having been marked. It is old and now dead, about 9" in dia, and forks into two main limbs about 3' from the ground

The limb on the south is still on the tree, the one to the north had broken off and lay on the ground. I examined the trunk and the south limb, and raised the broken limb and fitted it to its place and examined it, but found no traces of any marks. To an experienced eye the axe mark never disappears from wood until the wood wholly disintegrates. Even when the dim line of nicks in the harder grain ridges is all that is left, this is unmistakable. In marking a mesquite the axe always cuts into the wood as the bark is so thin and leaves its unmistakable imprint on the wood.

The fence post was also carefully examined and no old marks found. there were two recent hacks probably made when it was cut from the stump.

The stump was carefully examined and no marks found.

I then chained ten varas from the stump and eleven from the tree, as called for in the field notes and where these measurements came together I set a pin and set the instrument over it and tested the course to each bearing. I found that the tree to bear S 78°30'E, the call is 88°30', and the stump was S 15°15' east, the call is 32°30'. Even if we shifted our variation to a degree west of north so as to make the first tree read S 88°30'E, the stump would read only S 25°15'E instead of 32°30'. I tried another stump to the south west, it read S 39°45'W and was way over distance.

The point reached by distance from the two points was 5 varas west of the rock under the fence.

The result of this investigation showed that these trees were unmarked, and that it was absolutely impossible to find a point from which they would satisfy the calls for the bearings at Mr. Trimble's N.W. cor 82.

The only original mark on this line was the old "JPK" post for S.W. 89 B.S. & F. 707 varas west of the new N.W. 163. The field notes of 89 call for its S.W. cor to be 1075 varas N 80°45'W from the N.E. cor Por. 83. If the east line of 83 were run N 9°15'E, instead of N 8°40'E, it would come out 280 varas east of new N.W. 163, 707 and 280 = 987 still lacks 78 varas of distance called for, and it is also 2804 varas too far north.

In 1877 Mr. van Merrick seems to have discovered his mistake for in his original survey of sur 163 A.C.H. & B. he places the west corner of 163 3205-985 = 2220 varas north of 83, as shown in the field notes of record in the Archives of the General Land Office.

A later set of field notes for sur 163 were made by Mr. Eivert in 1879, he states that the upper west corner of 163 is 23900 varas from a stone on the old bank of the river S.E. 83. But unfortunately for this statement our actual measurement from this stone at or near the S.E. cor 83 to the new N.W. 163 or the old "JPK" post is 27551 varas an excess of 2651 varas.

The N.W. cor 163 is now marked by the new post above described, which is not far from the south line of 89 B.S. & F. as fixed by the old "JPK" post, and later on we were shown a very old 5' mesquite post marked 163 & 164, near the S.W. cor 164, S.E. 163 which we will describe later. So that it would seem probable that sur 89 and sur 163 are probably now marked and fenced approximately in their true position as to northing, that is where they were originally surveyed, and this location is by actual mea-

surement 2651 varas north of the north line of Por. 83 as measured from the big rock, or 2804 varas if measured from the old Emory channel or Trimble's call from the Bville road. Mr. Eiverts call of 23900 is shown to be erroneous, and Mr. Merricks call in 89 for porcion 83 is corrected by his call two years later in 1877 in his survey of 163. And no trace of any of Trimble's corners for the Porciones 84, 83, and 82, could be found so course and distance from the river would prevail.

These facts would seem to settle the relative position of the north lines of the porcions, at least of porcions 82, 83, and 84, and the surveys 89, 91, and 163 and 164.

But as certain other marks and objects had been called to our attention, two rock mounds and a rock said to be marked TMO 88, as locating the corners of certain ~~88~~ the porcions far north of their distance from the river, and as the south corner of J.H. Degner sur 3, surveyed by Von Merrick in 1872, had a bearing on a natural object El Junco water hole, easily identified, and a call from this corner of 3 for the N.W. cor Por. 89, we decided to run these lines and investigate the marks, mounds & mentioned.

We made inquiry among owners and residents, of Mr. Monroe County Surveyor, as to his own investigations and those of Mr. French, read over the report of Mr. Cocke's survey, kindly loaned us, but failed to find any one who had heard of the finding of any original marked corners or bearings of Trimble's work on the north lines of the porciones.

On looking over the field notes of surveys 163, 164, 565, 566, it will be noted that the south lines of these surveys have the same calls for course and distance as the north line of the porcions. So that the lines we proposed to run were both the south lines of these surveys and the north lines of the porcions. These lines had been cut out and run by French and Monroe. We found the course the same as we had been using, and our chaining checked closely with theirs.

We started at the corner of the fence claimed for the N.W. cor 84, as stated by Mr. Lopez, and described above. There are no trees near this point so there were no bearings to identify it.

Thence we ran S 80°45'E 1300 varas along a fence line to a stake. Thence S 9°15'W, at 304 crossed a fence, at 720 passed 120 varas N80°45'W from a large rock mound. The mound was of scattered lime rock covering a circle of some 6' diameter, one rock set in the ground near the centre. If piled up the rocks would make a mound 2 1/2' high. They had been brought there by some one, no simillar rocks in sight. The amount of rock moved suggested the importance of the work for some purpose. No marks on the rocks .

Returning to our line we ran on S 9°15'W 615, 1335 in all to a new post marked S.W. 163.

Thence S 80°45'E at 1004 varas pass 144 varas N 9°15'E of a very old mesquite post 5ft. high, marked on one side 163, on the other 164, it had rotted off at the ground and was leaning against a mesquite tree, where it was first found. This is old enough to be the original post set at S.E. 163, but how near it is to its original position could not be determined. There is a bearing called for, mes. S4°W 32 vrs, but it was not found.

On S 80°45'E 296 vrs, 1300 varas in all to a stake, on S 80°45'E 291 vrs and N 9°15'E 250 vrs to the second rock mound referred to above. This mound was about the same size, and of the same kind of shaley limestone, as the first mound, but was not so badly scattered. No information to be had as to who had built it or why it was placed where it was found. They do not fit any calls of the adjacent surveys.

Returning to our 1300 vara point, we turned S 9°15'W and ran 620 vrs to a new post marked S.W. 164.

Thence S 80°45'E at 1065, (call is 1070) a post marked S.E. 163, on 235 varas, 1300 varas in all to a stake.

Thence S 9°15'W 685 to a stake.

Thence S 80°45'E, at 128 varas reach Falfurias road near 11 mile post at 985 vrs cross a fence, 1050 to a stake. Returning to point where we crossed the fence, and running with fence N 8°40'E, at 1046 cross a line cut out N.W & S.E., on 28 vrs ~~to~~ 1074 vrs in all to a fence corner and large rock. This rock is firmly set in the ground on a small low rise or hillock, about 300 varas from the Falfurias road. The rock is a lime rock about 2 1/2' at base, 2 1/2' high above the ground, and some 10" thick. The top is rounded off or arched. On its east face are deeply scratched in letters 1 1/2" "T M C 186-" and "JPK" lightly scratched below.

This rock I was told was first found by a mexican herder in 1866, and he did not see it again for some years when he showed it to Mr. Kelsey, who I believe marked it with the JPK. Those who saw it described it as marked "T M O 88" with part of the last 8 broken off. This 88 was supposed to mean that it was a corner of Porcion 88. The letters T M O were supposed to be the initials of the owners Trinidad, Manuel, the O unknown.

I was told that Mr. Cocke's survey established the contention that this was a corner of Por. 88. On referring to his report of survey made in

April 1910 for the owners of certain of these surveys, he states that he finds all corners of 89, 91, & 753, that part of 163 is lost in conflict with Por. 83 & 84, that the T O M rock is corner of Por 88, but taken for 87

He states that he ran down the Corpus Christi road S $38^{\circ}W$ 1000 vrs to "a stake in the north line of Por. 87, which is 252.6 vrs N $81^{\circ}30'W$ from the T O M rock", N.E. 87. And he states that this TMO rock is 24900 vrs N $8^{\circ}30'E$ from a "base line" measured from a stone on line of ~~88~~ 84 to a stone on line of 89 (90?) "original corners and no others found."

This last statement is very nearly in accordance with our measurements. A line from the big rock near S.W. 84 to the bis rock on ~~ubl~~ 90 passes some 800 varas south of our point on the Bville road on east line 87, which point on the road fits river call 4950 to Emory channel. Add the 800 south of this point, the call 20250 from road to N.E. 87 which fits our survey, and the 1074 measured up to the TMO rock, and ~~the excess of 2804~~ 800, 20250, 1074, 2804 = 24928 within 28 varas of his measurement.

But this statement of Mr. Cooke contradicts absolutely his conclusions, as the distance north of the N.E. cor 87 is to be measured from the river or the Browns ~~wild~~ road according to Trimble's original field notes.

It is absurd and unreasonable to attempt to locate the N.E. cor 87 by from "a point on a line between the two old rocks", as the south line of the porciones is not a straight line but an irregular meander line on any theory of construction, and the calls from the Bville road confirm this. It might be proper to run N $9^{\circ}15'E$ from the rock near S.W. 84 the distance called for in the field notes, and then run the north lines of the porciones as called for to the N.E. cor 87, but this would come out 3878 vrs S $9^{\circ}15'W$ and a little east of Mr. Cooke's location of the corner at the TMO rock.

If we reverse Mr. Cooke's calls and run from the TMO rock west along the course and distance called for to the N.E. cor 83, and then S $9^{\circ}15'W$ the distance called for on the east line of 83, Mr. Cooke would come out some 3800 varas N $8^{\circ}30'E$ of the stone he recognizes as the S.E. cor 83, and calls for as one of the points from which he locates his N.E. 87.

So that apparently neither by his own measurements, nor by ours, can he possibly locate the N.E. cor 87 by the calls in the field notes of the Trimble survey any where near the TMO rock.

On looking carefully at the markings on the so called TMO rock, I find that it reads plainly T M C 186-. The figures are evidently a date and not a survey number. The 1 is as plain as the 8 & 6, and the 6 has been mistaken for a broken 8. A sliver of rock has fallen off making a break close to the 6 and erasing the last figure, but the 6 is plainly a 6 from the straight edge on the left, not showing the indentation between the two circles of an 8. The fact that this rock was first seen in 1866 is a confirmation of this date 186-. This rock with the initials and date is located near the Falfurias road, an old highway, it is set on a mound well drained and reminds me of the initialed tombstones I have seen elsewhere on other old Texas roads, especially on the old San Antonio road along the Pecos, and I am inclined to think that this TMC rock is the headstone of the grave of some traveller who died or was killed along the old Falfurias road.

Returning from our excursion to the TMC rock to our stake at the supposed N.E. cor 87 on south line of 565, we ran S $9^{\circ}15'W$ 100 varas, Thence S $80^{\circ}45'E$ 1304.5 varas. (This is the only difference between our chaining and the French-Monroe line)

Thence N $9^{\circ}15'E$ 400 varas to a stake and three flat rocks,

Thence S $80^{\circ}45'E$, at 100 vrs set small mound for S.W. 566, on 1635 varas in all to a stake, from which a line was cut out and staked S $19^{\circ}15'W$.

Thence S $80^{\circ}45'E$ and S $31^{\circ}45'E$ 303 varas to a rock at a fence post, rock marked "AM". From which a tank dam in El Junco water hole bears N $23^{\circ}E$ about 200 varas, north bank of El Junco about 400 varas.

This "AM" rock is supposed to mark the south corner of sur. 3 J.H. Degner, surveyed in 1872 by Mr. van Merrick, the bearing at the south corner is given in the field notes as a "post N $67^{\circ}W$ 750 vrs from the N.W. cor Por. 89", also S $23^{\circ}W$ 400 vrs from a Huisache tree on north bank of a waterhole called ~~El Junco~~ El Junco.

This water hole has been long known, and was the only watering in that part of the range and is easily identified.

The Huisache tree, I was told, stood on the north bank and was marked. Mr. Lopez stated that he had seen it, but that it had been cut down.

Mr. Cooke in his report states that he finds this "AM" rock is N $69^{\circ}30'E$ 98 varas from where he would place the south cor. of 3.

The exact location of this corner was immaterial for our purpose, which was to determine the correctness of van Merrick's call for N.W. 89. and the result of our survey showed that Mr. van Merrick must have been mistaken in his location of this corner, as he was in his call at S.W. 89 B.S. & F.

Our survey shows that the south line of 566 as above located from the original south line of 89 B.S. & F. is 3530 varas north of the north line

of porcion 89 as located by its field notes from the Emory chanel of /53 and Trimbles call for the Brownsville road.

Balancing our actual run from the S.E.cor 90 to east line 83 and on N 8°40'E to new N.W.163, and on to point 40 varas N 80°45'W of S.W.line sur 3, shows that we had fallen back 30 varas in easting, but it also shows that the north lines of Porcions 86 as run from the east is 726 varas S 9°15'W of the same line run from the west. This is caused by the location by course and distance from both road and river of the N.E.cor of Por.83.

Por 86 & 87 were surveyed four years after the date of certificate of the surveyor on the field notes of the bal of these Porciones and as noted above 86 does not call for 85, and although 85 does call for 86, the call fo a corner four years before it was made is doubtful at least. It would seem to indicate some error in Mr. Trimbles calculations, just as we find the contradictory calls on west line 82 referred to above..

The facts developed in the survey would seem to show that the only line actually run by Mr. Trimble which can be traced by the field note ~~call~~ calls is the line along the Brownsville road and his connection with the original S.W.80, S.E. and S.W.90 and perhaps S.W.84, and that these calls fit fairly well the facts on the ground and the course of the Emory 1853 channel. That the porcions can be run out according to their field notes by collating these calls and putting in porcions 90, 89, 88, 87, 86, from the east as called for, and porcions 80, 81, 82, 83, 84, 85, from the west.

That if the call ~~22~~ 1610 varas instead of 2050 is held to prevail on west line 82 it will bring that survey nearer its true position on the 1853 river. That the call for the river and the Brownsville road would prevail over calls for connection with other porcions, though the line should of course run N 9°15'E instead of N 8°40'E.

In this survey the division lines between the surveys as marked by fences &c were considered as lines of agreement between adjacent owners, and in that sense not affected by this survey.

Also that from all the facts found and measurements made and lines run on this survey it appears that the north lines of the Porcions as run from points fixed on the ground by their field notes, will not reach the south lines of 89 B.S. & F. sur. 163 & 164 as now located on the ground by recently marked corners and certain old posts, by 2804 varas, and will not reach the south lines of 565 & 566 by some 3500 varas. And that no corners marks or bearings were found on or near the south lines of the above named surveys that would indicate the contrary, or could be identified as the Trimble marks or corners called for in his survey of the porcions.

It might seem that we had neglected one apparently obvious line of investigation, that is to rerun Trimbles meander call and search for some of his bearings called for on the river, but a staement of the conditions actually existing and the changes in the past since 1853 will explain our not making the attempt. I quote from the Engineers report in vol 1 page 202 of the Proceedings of the Boundary Commission.

" 2nd Difficulty of tracing the present boundary. When a Banco cuts off the old channel begins to be built up at once. In some cases, but a few hours elapse before the moutn of each arm is closed by a sand bar. Each succeeding flood leaves deposit in the old channel so that in time it becomes prtially or wholly filled up and obliterated. For instance, in No.s 8, 17, 18, and 36, but one bank of the old river was anywhere traceable, and in case of 17 even this was only marked by a fence row and some trees; while 36 had no bank at all on one side, but simply a tree or two and a tradition that the river was once there." signed by W.W. Follett and E. Corella.

We have three tracings of the river one in 1853, one in 1898, one in 1911, which show on comparison the changes that have taken place between these dates, but there are other shiftings which have been made and unmade between these dates of which there is no record. Take the Banco San Domingo, near S.E.90. We have the channel in 1853 making a loop or ox bow to the N.E. Then we have the map of 1898 showing a cut off which the list of Bancos, as noted above, says was made in 1866, showing that between 1853 and 1866 the river had made a new channel and ran much farther north than in 1853. Tradition is that this rise in the /60s was one of the highest on record, and we saw on the ground that it had built up what is now a heavily timbered banco right on top of the Emory channel of 1853. Under these conditions it would be a waste of time to try and retrace the river in 1853 on the ground.

We noted that the river calls for 87 fell on the 1898 channel and did not reach the 1853 river. From the history of the San Domingo banco, one would think it possible that between 1853 and 1857 the river might have shifted north to where it was in 1898.

The only certain calls would be those of surveys made in 1853 in which year the actual survey of the river was made and mapped by Emory-Salazar.

My attention was called to the fact that near the mouth of Los Olmos creek the river was shown to have followed practically the same channel on all three maps, and I went there to see if there were anything in the conditions of soil or contour to hold the river in one channel for so long a time.

I went to the present mouth of Olmos Creek, which I located on our map by observations on the water tower, the Court House and Church in Rio Grande city. I found that the creek had made a cut off and now ran into the river below where it did some years ago, the old channel being still plainly marked. The creek for some distance skirts the foot of a high bank and then turns into the river across a small bottom.

The River itself has moved south some 200 varas but its general course is practically straight as shown in the older maps. This I have platted on our map.

The most noticeable feature was the high bank on the Mexican side, nearly perpendicular, and the land above it covered with a heavy growth of brush and timber. Seen through the glass it seemed to be a yellow clay.

The bank on the American side, where we stood was evidently a fill, but just above us it rose into a high bank 20' to 25'. North of us was a small field and on examining the soil we found it a heavy, yellow clay, broken into large clods by plowing, the clods were so tough that it took a blow from a hammer to break them.

Apparently the channel once cut in this heavy soil would resist erosion almost like rock, and the flood water would have little effect when running over it. The channel is nearly straight so there would not be the tendency to cut a new channel that there is in the case of a pronounced bend.

The above presents I think all the facts developed by our survey and what evidence we could procure on the ground. We may have omitted some matter of importance in the history of the survey, and may have gone into too much detail in discussion of the field notes. If there is any matter requiring further explanation, or any further information needed which I can supply, I shall be glad to do so if you will kindly notify me.

Respectfully submitted

Alpine, Texas
Feb. 1921



Licensed Land Surveyor

To the
Hon. J. T. Robison
Commissioner General Land Office
Austin, Texas

Sh. Table (25)

Report on Survey in
Star County by R.S.
Dodd in vicinity of Portions
80 to 90 and Surveys
163, 164 and others to
northward of same.

Recd. Filed
Filed
Received, Feb 8, 1921

J. T. Robison,
Comm -

D. C. Clark

See sketch in Roll Sketches
C.C.

In re Stam to vacancies

1621

Alpine, Texas, May 31 1923

JUN 4 1923

Referred to Map

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

Dear Sir,

I found your favor of the 18 th inst. waiting me on my return from work in Presidio Co. and have carefully noted the contents.

In reply to your request for further information as to the basis of my location of the lines of the Porciones, I would say that I have nothing material to add to what I said in my former report, but perhaps I can state it more clearly with reference to its bearing on the lines of the vacancy.

The object of the survey I made in Dec 1922 for Mr. Marco and Mr. Gonzales, was to locate on the ground the lines and corners of surveys 337 &c as based on Eivets calls for connecting points on Por. 61, and to determine any conflicts that might be found with adjacent surveys.

Our survey showed that Eivets survey could be retraced on the ground from fairly well identified points, and we also located the original N.E. cor Por. 68, in the west line of Por. 69.

Running our connecting line S 8° 45' E at 1443 varas we reached an iron pipe set by Mr. Monroe at the distance called for on a staked line run by him from the river and set for the N.E. cor Por 69.

Mr. Monroe showed me this line marked by iron pipes, and we readily found and identified his pipe in the road for N.E. 69. It was driven down even with the surface of the ground and could not have been moved by the traffic on the road, and was further marked by his line cut through the brush N 8° 45' W.

I understood from him that this line was run from a permanent rocky bank on the river from a point identified by him as the original corner, and I accepted this survey as sufficient for my purpose in determining any conflict between sur 337 H.E. & W.T. and Porcion 70. This conflict was mainly a question of easting, and Monroes line tallied with our measurement from orig. N.E. 68 within two varas. The northing was of minor importance, the iron peg being 1233- 1161 = 68 varas north of our run.

These facts were the basis for my reconstruction of Por. 69 & 70 relative to sur 337.

There was some confusion in the field notes for the width of Por 69, it called for 1443 varas, but Eivets field notes for 337 called for 1192 plus 253 = 1445 which caused the error of two varas in easting in my first plat which error I found on working over the field notes for the vacancy. This accounts for the of 1206 for 1208 noted on page 2 line 6 of your letter.

The next marked point found on or near the line of the Porciones was the large rock claimed as the N.E. cor Por 72, and referred to in the second paragraph on page 1 of your letter.

As noted in my report Mr. Monroe told me that he had connected with this rock from the river and found it correct within 8 or 10 varas. He did not show me the rock nor identify its present location on the ground.

I did not understand Mr. Monroe to say that he had run the line to the rock and identified it, but thought he meant that at some time he had run a connecting line that showed that the rock was somewhere near the line.

Mr. Monroe very kindly took me out to the work and started us off and gave me a great deal of valuable information about the location of land marks, but he was very busy and could not stay with us and was not with us when we reached this rock, and I must have misunderstood what he said about it as shown by your letter.

Rx

counter 36942

When we reached this rock I asked Mr. Margo and Mr. Gonzales if they knew who had set this rock or how long it had been there. Neither of them could give me a definite answer, both seemed to regard it as uncertain, and one of them said "we call it the movable rock" implying, I supposed that they knew it had been moved.

This rock is not called for in the original field notes or in Eivets field notes for 337, but must have been placed by some one other than the original surveyor of the Porcion or Mr. Eivet, and from what evidence I had it had not always occupied its present position.

It was not called for in any field notes I had and would not fit Mr. Monroes N.E. 69 in either northing or easting, and would not fit orig N.E. 68 by 92 varas in easting. Mr. Gonzales had built a fence from it to mark the north line of sur 72 but could give me no data as to its origin, age or permanence. I could not break course and distance for so indefinite a mark.

I could have gone to the river and tried to locate the river corners and from them the position of the rock, but this would have meant perhaps an extensive survey for a point which was not material to my object, which was the location of the lines of 337, and either course and distance from my two fixed points on the porcion lines, or the big rock, showed no possibility of conflict with 337.

The next marked points on the porciones were the two rocks marked for N.W. and N.E. corners of 74.

These rocks were described in my report. They in no way fit the calls in the original field notes of the porcion, but the N.E. rock and mesquite do fit the bearings and description given by Eivet at a point which he calls "the well defined N.E. cor of Por 74".

The 3 hacks on the mesquite do not show the age of the old post at N.W. 343, but the mesquite is a living tree and the post was dead wood. The hacks look about like the hacks on the old forked mes line tree on ebl 339.

The trunk of the tree has not grown much since marking and the limb that hides the lower hack could have grown out on a healthy tree in a few years, but I saw no well grown large mesquites in that country, and the greater number of old, half dead, full grown trees were not over 6" to 8" in dia.

The position of this N.E. cor 74, as noted in my former report, will not check with anything else, with N.E. 68, Monroes N.E. 69, Eivets corners on 61, the "big rock" near N.E. 72, or the old post at N.E. 340. Eivet calls for them but they will not fit his other work, and the rest of his work checks fairly well. These corners of 74 are not satisfactory. I believe they are the points called for by Eivet, but they are so far out of place as to show a serious error in the survey that placed them where they are. They are not the original corners of the porcion, and may have been placed by some one prior to Eivet and he may have accepted them as the "well defined" corner.

However they are too far away from the calls of the lines of the Porciones to warrant basing any other lines on them, except the Eivet survey of 343.

I should have gone east to the Chapote (?) corner on east line of 78 which I was told was a well known original land mark, but the calls for the north lines of the Porciones from 74 to 78 contradict each other, so that run back would have settled nothing but westing.

The above facts were reported and the strip between the "E. W. T. surveys and the north line of the Porciones based on the facts was reported, and it was suggested that if this strip were a vacancy and more information necessary to determine the lines of the porciones, that Mr. Monroe was on the ground and could make the survey, but as the matter was referred back to me I presumed that my construction of the porciones on the few facts I had noted was approved, and I made out the field notes for the applicants on that basis.

The new evidence with regard to the large rock at N.E. 72 changes the situation and consequently the construction at that point and the north lines of 72 & 73 and in order to save time I have made out field notes to cover the vacancy under this construction, and will ask you to kindly have

Rx

counter 36943

them examined and any necessary changes or corrections noted and return them to me and I will make official copies and send to Rio Grande City for record and have them forwarded to you from that point.

Respectfully

R. H. Dod

Licensed Land Surveyor

1787

J. S. MONROE

LAND AGENT, ENGINEER, SURVEYOR
AND NOTARY PUBLIC
COMPLETE ABSTRACTS AND FAMILY HISTORY
OF STARR COUNTY LANDS

RIO GRANDE CITY, TEXAS Feb. 3rd, 1923.

Hon. J.T. Robison, Com. G.L.O.,
Austin, Texas.

RECEIVED

FEB 6 1923

Referred to Map

Dear Sir:-

Yours of the 30th. ult. received.

I surveyed the west line of Porcion No.70, Mier, and I established the north east corner of Porcion No.69 and set an iron post as described by Capt. Dods Survey, of which you refer to in your letter. I also surveyed the south east line of Porcion No.60 from its East corner to the north line of Porcion No.69 and the difference I had when I ~~reached~~ reached the north line of Porcion No.69 was 10 varas, when Capt. Dod found the difference to be 100 varas, which he found to be a vacant between the south line of Survey No.337 and the north line of Porcion No 60.

I also surveyed the east line of Porcion No.72 and found the rock set for the north east corner of said Porcion to be correct as per the distance called for in the field notes from the river, with the exception also of about 10 varas, the old line being well defined by witness trees and fences all along the line, and also the land marks as called for in the field notes of Porcion No.72.

The owners of the adjoining surveys on the north of these porciones have purchased these sections as adjoining their property in the porciones and they have so recognized same.

If the Commissioner decides there is a vacancy between the porciones and the surveys I think it just and right that it should be divided and sold to the owners who are in possession and who have recognized same to be the owners of same. The vacancy south of Survey No.339

R³
Rx

counter 36945

J. S. MONROE

LAND AGENT, ENGINEER, SURVEYOR
AND NOTARY PUBLIC

COMPLETE ABSTRACTS AND FAMILY HISTORY
OF STARR COUNTY LANDS

RIO GRANDE CITY, TEXAS

should be sold to Higinio Gonzales, who ~~owns~~ owns survey No. 339 and the balance to be sold to Mr. R.E. Margo, who owns Surveys Nos. 337 and 340.

Capt Dod found everything on the ^{ground} as I surveyed it but I wanted some other surveyor to decide this matter as to the conflict between Surveys Nos. 340 and 343, which Capt. Dod found I was correct in my survey.

If I can serve you further, command me.

Yours truly,

J. S. Monroe

R5

No 25
Starr Co. Sketches

Report by R.S. Dod
amending his report
filed Jan. 2nd, 1923,

J. T. Ralison
Comm

Filed June 4, 1923
Carl F. Blucher

See St. Files 23 & 24 for sk & State.
" " " 22 - by Johnny Monroe

counter 36947

Starr Co St. File #25

OF STARR COUNTY LANDS
COMPLETE ABSTRACTS AND FAMILY HISTORY
AND NOTARY PUBLIC
LAND AGENT, ENGINEER, SURVEYOR
J. S. MONROE

RIO GRANDE CITY, TEXAS

Carl Dod found everything on the ground as I surveyed it but I wanted
the balance to be sold to Mr. R. E. Harbo, who owns surveys Nos. 23A and
should be sold to Higinio Gonzalez, who owns own survey No. 23B and

Carl Dod found everything on the ground as I surveyed it but I wanted

Blucher