

File No. N-17
Presidio and
Brewster County, S.

"O2" Ranch
Surveyors School Land Report
Field Notes

Filed Sept. 2nd, 1939

BASCOM GILES, Com'r

Utley

File Clerk

Correct on Map for _____ Acres

(See Rolled sketches
Nos 62 & 63)

Counter 15651

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REPORT OF A SURVEY
OF THE O2 RANCH
BREWSTER AND PRESIDIO COUNTIES

July 19, 1939

Mr. Bascom Giles, Commissioner
General Land Office
Austin, Texas

Dear Sir:-

I respectfully submit to you the following report on the resurvey of the O-2 Ranch in Brewster and Presidio Counties, Texas.

The entrance to the Ranch is about 30 miles south of Alpine, Texas, on the Terlingua road. It is owned and operated by the Aetna Life Insurance Company through local control from E. B. Chandler and Company of San Antonio, Texas. There are some 251,000 acres of land in this ranch composed of about 400 sections covering a variety of kinds and conditions of ranch lands from mountainous and rough and rugged lands to flat plains of grassy pastures.

The Ranch was formally owned by W. W. Turney, a lawyer and rancher of exceptional ability, who through the years operated it and built it up to its now enormous size. Through reverses of one kind and another and old age and failing health Mr. Turney sold the entire ranch to the Aetna Life Insurance Company in 1937.

After taking over the ranch, the Aetna Life Insurance Company desired to patent from the State of Texas all of the remaining unpatented lands within the boundaries. That is the purpose of the resurvey and this report.

After going through the records of numerous surveys made on and around this ranch by many surveyors of former years and finding none of the surveys connecting with one another nor recognizing the existence of a sufficient number of the original corners and more particularly the existence of an original



I respectfully submit to you my report of the
re-survey of the OS Ranch.

Sincerely,

Aug. 31, 1939

John Stovell
John Stovell,
Licensed Land Surveyor
Alpine, Texas.

Filed for record in County Surveyors records in
Alpine, Brewster Co, Texas in Book C.F.N. - Page 267.

John Stovell
Co. Surveyor
Brewster Co., Texas.

REFERRED TO MAP

SEP 2 - 1939

RECEIVED

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beginning corner, it was decided to ignore all former surveys except the original survey and start from the original beginning corner for the system of surveys through this territory by the original surveyors.

The original surveyor and the surveyor upon whose original work all resurveys in this territory are and should be based was S. A. Thompson. He made the surveys for all of the Texas and St. Louis Railway Company blocks as well as for some of the other railroad blocks. Working in this territory, however, at the same time S. A. Thompson was, were some other surveyors recorded also as original surveyors, but not as well known as was Thompson. One was Archibald Boyle who made the original surveys for the G. H. & H. X. R. R. Co. of blocks A-1 and A-2.

From the records and from copies of Thompson's original notes the Southeast corner of a preemption in the name of Nestar Mendoza and numbered 77 and now known as Penitos was used as the original beginning corner for all this territory as far east as Santiago Peak, a distance of about 36 miles.

A few years ago Mead Wilson who is now the owner of the Penitos Ranch had a resurvey made by W. L. Rider, a Licensed Land Surveyor out of El Paso, Texas, and relocated among other corners and surveys, the corners of the original Nestar Mendoza 77 Preemption Survey.

With the aid of Mr. Wilson and his resurvey maps and records and with my copies of Thompson's original notes, the Southeast corner of the Mendoza 77 Preemption was readily located and as readily identified as being in the original location as used by S. A. Thompson as his beginning corner in 1881.

After determining the Southeast Corner of the Nestar Mendoza a line was run south to the Northeast corner of Section 6, Block 200, T & St. L. Ry. Co. At this corner a large rock mound was found on the lower side hill on the west

side of an arroya running about Southwest, one rock marked "N.W.6-B-200,T & St. L. Ry. Co." San Jacinto Peak was just visible over the horizon from here. Thompson used it as a bearing, the only peak that can be seen from this corner. From Thompson's original notes, I determined this to be in the original location of the original corner.

From this line from the Southeast corner of the Mendoza Preemption to the Rock Mound at the NW 6 Blk 200, T & St L Ry Co., the variation to be used on this survey was established as $12^{\circ}05'$ East. Rather than use the true variation of $11^{\circ}27'$ East on this date of Jan. 15, 1938, as determined from Solar Attachment observation the variation of $12^{\circ}05'$ East was used since the old original lines were to be re-run. Thompson used a variation of $11^{\circ}30'$ East in 1881. The Government records show the true variation in 1881 to be $10^{\circ}51'E$, a difference from Thompson and true variation of 39 minutes. January 15, 1938 true variation of $11^{\circ}27'$ East plus 39' brings the variation to be used to rerun Thompson's work to $12^{\circ}06'$ East. One minute between figured and actual variation of the old lines. $12^{\circ}05'$ East was used throughout the survey and found to check the old corners and lines very closely.

Throughout this survey on all traverse and section lines a 50 vara steel tape was used for measurements and checked by stadia rods used as both backsights and foresights. A K and E transit was the instrument employed. It was checked for adjustments each day.

Now that the original beginning corners have been established and the variation to be used is determined the actual resurvey is started.

Beginning at the large stone mound at the Northwest corner of Section 6, Block 200, T & St. L. Ry. Co., bearing read on San Jacinto Peak as S. 12° E., a traverse was run as follows:

North 2474 varas to Southeast corner nestar Mendoza No. 77, a 4" pip driven in ground marked "SE77", near head of small draw on east side. Bearings "X" on boulder at head of draw S 30°20' West, 35 varas.; Windmill above old Penitos Spring N 32°30' West; Thence North 950 varas to a 4" iron pip at Northeast Corner of Nestar Mendoza No. 77; Thence North 520 varas to a 4" iron pipe at Northwest corner Section 3, Block 325 T. C. Ry. Co., bearings:- Point of Rock on North slope of Mountain N 75°48' East, White Knowl, due North; Thence N. 73°51' East,- 5002.4 varas to the USGSBM-4147; Thence S. 36°03' East, 3545.1 varas to the USGSBM-4280; Thence S. 76°20' East, 2483.7 varas to the USGSBM 4424; Thence S. 75°49' East, 5772 varas to USGSBM 4185; Thence S. 61°03' East, 920 varas to an iron pipe and a stone marked "H" at the Northeast corner of Section 4, Block 206, T & St. L. Ry. Co.

Course and distance computed from this traverse from Northwest corner Section 6, Block 200 to Northeast corner Section 4, Block 206 is N 89°55' East, 15700.2 varas.

This "H" corner, so designated by Thompson, original surveyor, is a very important corner. It marks the north line of the T & St. L. Ry. Co. blocks. It has very definite original bearings from which the corner can be very readily identified. Thompson in his original survey began at the Southeast Corner of the Nestar Mendoza Preemption 77 ran South 2465 varas to the Northwest Corner of Section 6, Block 200, T & St. L. Ry. Co. Thence East for eight miles, locating corners at each mile, bringing him to this "H" Corner or the Northeast corner Section 4, Block 206, Thence he ran S. 45° East.

After bringing my traverse to this "H" Corner and computing the course and distance as above from Northwest corner Section 6, Block 200, I ran a line on this course westward to the "G" corner as designated by Thompson at the Northeast

corner Section 5, Block 206. This "G" corner is readily identified from its original bearings and I find it on the ground, marked "G", but 2300.1 varas west from the "H" corner. This is an excess in distance of 400 varas. Noting this I ran this line back to the "H" corner and checked my original measurements of 2300.1 varas. This line goes over a small ridge and along the side of a rather rough draw and the only way I can account for this excess distance in the original survey is that when going along this rough draw the count was juggled somehow.

Beginning then at the "G" corner the line was continued on westward onto the top of a high mesa. At 1914.3 varas a large rock mound was found with one rock marked "F" the original mark by Thompson. This corner has original bearing and can be identified and seems to be well located for original location of Northeast Corner Section 1, Block 200.

Before continuing S. 45 East on the Thompson original survey line toward the East, I will establish the lines of Block 314, G. C. & S. F. Ry. Co and Block 325, T. C. Ry. Co. Thompson after running his base lines on east to Blocks 213 and 218, T & St. L. Ry. Co., in March, April and May, of 1881, returned to the above described "H" corner in August, 1881. Beginning then at the "H" corner he ran a line North. At one mile he placed a large rock and recorded several bearings to prominent points of the surrounding mountains. All of which may be located and definitely established the corner which is the Northeast corner of Section 2, Block 314, G. C. & S. F. Ry. Co. I measured it 1915 varas North from the "H" corner. Continuing on North another mile, or 1915 varas by my measurements, no rock mound was found but this corner at the Northeast corner of Section 9, Block 314 was easily re-established from bearings recorded in Thompson's original notes. This corner determines the North line of Block 314 and the South line of Block 325, T. C. Ry. Co. Thompson continued his line on West from here a

short way then turned north but for what reason his notes do not disclose. Using this definite corner at the Northeast Corner of Section 9, Block 314, as being in the South line of Section 18, Block 325, T. C. Ry. Co., I built in on the map from the recorded original field notes the Sections in Block 325 to the North, West and East.

Then beginning at the previously described "F" corner at the Northeast corner of Section 1, Block 200, the same being the South west corner of Section 1, Block 314, and the Southeast Corner of Section 12, Block 325, T. C. Ry. Co., a line was run North 1915 varas establishing the Northwest corner of Section 1, Block 314 on the East line of Section 12, Block 325, thence S. 83°23' W - 391 varas to the Northeast Corner of Section 11, Block 325, Thence S. 89°55' West, 1117.6 varas to West Corner of Section 12 and the Southeast corner of Section 10, Block 325, T. C. Ry. Co.

Coming back to the "H" corner on the original survey of Thompson's and continuing his original line.

Beginning at the "H" corner thence S. 45° East, 2711 varas passing a large stone mound about 5 varas to the right of the line. This stone mound, with one rock marked "I1" as originally marked by Thompson, was identified as being in the original location by it's original bearings. It marks the Northeast corner of Section 8, Block 206. Thence continue S. 45° East 5452 varas passing a small stone pile about 7 varas east of the line. No marks at this corner. However the original bearings fit closely enough to mark this as an original location. Thompson called this corner "J-2" at the Northeast corner Section 12, Block 206. Thence continue S. 45° East, 8184 varas passing a rock mound marked "K-3" about 4 varas to the right of the line. This stone mound marks the Northeast corner Section 20, Block 206 and from the original bearing appears to be in the original location. Thence continue S 45° East, ^{10912.0}~~10912.0~~ varas to a point 15.5 varas N 45° East from a Large Rock Mound, one rock marked

"L". The bearings for this "L" corner as recorded by Thompson check closely. This marks the Northeast corner Section 21, Block 206.

Before continuing with this Thompson original survey to the east, I believe it would be better to return to the Northwest corner of Section 6, Block 200, and follow out another of Thompson's Original lines to the South of the Nestar Mendoza 77 beginning corner.

Thompson ran this line during the summer of 1881. He begins at the large rock mound 2474 varas (his measurement 2465) south of the S. E. Corner of the Nestar Mendoza Preemption 77 at the Northwest corner Section 6, Block 200. Thence S 0° 05' East (note: My courses and distances are used between Thompson's original corners as found on the ground) 1920 varas to a rock mound in a valley. Mound made up of 5 large rocks, one marked "A-1". This is the Northwest corner Section 7, Block 200, T & St L. Ry. Co.

Continue S. 0° 05' East, 1940 varas to a large rock mound on top of a hill, one rock marked "A 2", at Northwest corner, Section 18, Block 200. Continue S 0°05' East, 1930 varas to a large stone mound at top of hill, one rock marked "A 3" at Northwest corner Section 19, Block 200. Continue S 0°05' East, 1937 varas to a rock mound one rock marked "A 4" for the Northwest Corner Section 30, Block 200. Original bearings: Rd. Pt. on East end Chinati Mts N 79° W; Sh. Pt. Mt. N 87°45' W; new bearing: USGSBM 3965 on white hill S 20°E, 150 varas.

Continue S 0°05' East, 1919 varas to a stone mound in a small valley one stone marked "A 5" for Northwest corner Section 31, Block 200. Original bearing: High Pt. S 55°30' W, new bearing: San Jacinto S. 18° 50' East. Continue S 0°05' East 1927 varas to a stone mound on the South side of a draw on north side of a hill, one rock marked "A 6" for the Northwest corner of Section 6, Block 201. New bearings: San Jacinto S. 21°30' East; No. Pt of Mt. S 60° 37' West.

Continue S 0°05' East, 1929 varas to a stone mound of 4 rocks, one marked "A 7" for the Northwest corner of Section 7, Block 201. New bearings: San Jacinto S. 24°40' East; No Pt. of Rd. hill S 44° 38' East. Continue S. 0°05' East, 1925 varas to a st. md. in the Valley, one stone marked "A 8" for the northwest corner of Section 18, Block 201. New bearings: San Jacinto S 28°55' East; Rd. Hill S 56°45' East. Continue S 0°05' East, 1905 varas to a stone mound on top of ridge, one stone marked "A 9" for the Northwest Corner Section 19, Block 201. Original bearings: No. Pt. Chinati Mts. N. 70° W.; Hg. Pt. of Mt. N 82° 15' W.

Continue S 0°05' E, 1915 varas to pt in middle of a wash for the Northwest corner of Section 30, Block 201. Continue S 0°05' East, 1915 varas to a stone mound, one rock marked "A 11" for the Northwest corner of Section 31, Block 201, original bearings: San Jacinta S 56° East.; Sh. Pt. in Chinati Mts. N. 73°West.

Continue S. 0°05' East, 1912 varas to a stone mound one stone marked "A 12" for the Northwest corner Section 6, Block 202, San Jacinto S. 75° East. Continue S 0°05' East, 1939 varas to a stone mound on south side of a small hill on old fence line, one stone marked "A 13". Original bearings: Rd. Hill N.41°30' East; Hg. Pt. Alamo Mt. N.82°30' West. Continue S.0°05' East, 1919 varas to a stone mound in the valley one stone marked "A14" for the Northwest corner of Section 18, Block 202. Original bearings: San Jacinto N 65°W, New bearings: Rd Mt. N 34°E; Hg. Pt. S. 38°10' East, Hg. Pt. Alamo Mt. N. 77 West.

From this corner "A 14" the traverse was started toward the Southeast in order to check in other Thompson Original corners in Block 209 and to establish the south line of Block 209.

Beginning at "A 14" corner thence S. 62°40' East, 6564 varas to the U.S.G.S.B.M.-3660. Thence S. 78°18' East, 5855 varas to a pt on a white flat top hill. San Jacinto N. 43°38' West. Thence S 22°30' East, 6039 varas to the U.S.G.S.B.M. 4026. Thompson records an original corner at the Northwest corner of Section 5, Block 209 about one mile north of this B.M., but none could be found within reasonable limits of the bearing he gives for this corner. Thence S. 26°00' East, 5683 varas to the U.S.G.S.B.M., 4136. From this B. M. to the Stone Mound at the N. W. Corner Section 21, Block 209, N. 28°16' West, 1426 varas. This is an original corner by Thompson and checked by R. S. Dod a few year ago. Original bearings: Yellow Bluff S. 15°15' East., East end of Mt., S 34°45' East., both checked closely. Also from this B.M.-4136 a line was run to the original stone mound at the Northwest corner of Section 27, Block 209, S. 62°06' East, 1396. Original bearings at this corner: Bluff S. 11°15' West., East end of Hill S 26°30' East, checked closely. A line was run south, 1930 varas from here to the original St. Md at the Northwest corner of Section 34, Block 209. Original bearings: Bluff S. 31°45' West, 500 varas and Rd. Hill S. 25° West check closely. Returning to the U.S.G.S.B.M.-4136 and continuing traverse S. 20°45' East, 6298 varas to the USGS BM.-4207. Thence N. 36°12' East - 1753 varas to the original Stone mound at the Southeast corner of Section 34, Block 209. Original Bearings: Cedar, S. 74°30' East - 57 varas and Rd. Hill. S 84°45' West check closely.

This Southeast corner of Section 34, Block 209, T. & St. L. Ry. Co is the most southernly corner set by Thompson in his surveys for this system of T. & St. L. Ry. Co. blocks and of course will govern the south lines of all the connecting blocks in this system to the east. The map attached to this report will show the course and distances worked out for each section north to the line governed by the location of the "A 14" corner.

OK BACK

This survey made down along the "A" corners on the Est line of Blocks 200, 201, 202 and the traverse to tie the original corners in Block 209 is very important to the proper location of all the T. & St. L. Ry. Co. blocks in this system to the east as will be shown later in this report.

The reason for putting this original line of Thompson's in the report at this point is to have and show authority for the distances maintained in the Section lines North and South.

Returning now to the "L" corner as previously described in the relocation of the Thompson original line toward the east from the Mendoza corner.

This "L" corner has been the starting corner for numerous surveys for locating the sections in the T. & St. L. Ry. Co. blocks to the south. As to the true correctness of these surveys I question because I have been unable to uncover any evidence of continuous or connecting surveys along the original lines as I have made and described above in this report. And unless all of the facts are known and correlated with the original surveys any locations of corners in this system of T. & St. L. Ry. Co. blocks is bound to be in error. Some of these erroneous surveys will be taken up later in this report.

Beginning now at the "L" corner at the Southeast corner of Section 4, Block 315, G. C. & S. F. Ry. Co. First, making a tie to the U.S.G.S.B.M. 3936 as N 36°26' East, 1950 varas. Thence from the "L" corner N. 0°05' West, 1937 varas set st. md. at N. E. Corner Section 4, Block 315. Thence N. 0°05' West, 1930 varas set st. md at Northeast corner Section 3, Block 315. Thence N. 0°05' West, 1940 varas to a st. md. at the Northeast corner Section 2, Block 315. From this Northeast corner Section 2, Block 315, South 345 varas and west 260 varas is located a recorded original corner by Thompson when he created the Block 364 in 1885. It is called the Southwest

corner Section 9, J. M. Clay and has identifiable bearings and is on the ground. From where and how this corner was located the records do not disclose but it is evidently in error and would cause a conflict with Block 315. Block 315, however, will hold over Block 364 so therefore I have not shown the conflict on the map.

From Northeast Corner Section 2, Block 315, I ran S 89°55' West, 1920 varas to a stone mound for the Southwest corner Section 1, Block 315, and the Southeast corner of Section 1, Block 206. Thence N. 0°05' West, 1920 varas to a stone mound at the Northeast corner of Section 1, Block 206, T. & St. L. Ry. Co. Thence N. 0°05' West, 2018 varas, the recorded field note distance for the Northwest line of the J. M. Clay Section 9, Block 364, along the east lines of Sections 5 and 6, Block 314, G.C.& S.F.Ry. Co., to a stone mound in the east line of Section 6, Block 314, for the Northwest corner of the M. M. Clay Section 9, Block 364, and the Southwest corner of a vacancy in the name of Wickson. Thence N. 0°05' West, 198.3 varas to a stone mound at the Northwest corner of the Wickson Vacancy and the Southwest Corner of Section 38, Block 325, T. C. Ry. Co. This corner establishes the South line of Block 325 and the North line of Block A 1, G. H. & H. R. Ry. Co., to be constructed later in this report.

Returning to the "L" corner thence S. 89°55' West, 1920 varas to a stone mound, a Thompson Original Corner marked "K 4" at the Northwest Corner Section 21, Block 206. Original bearings: Edge of Mesa - S. 41°30' West, Sharp Ek. S. 7°15' East. Both check closely.

Before continuing the original Thompson line to the East, I believe it better to finish with my locations of the Sections on the East side of Blocks 206 and 207, T & St. L. Ry. Co., the G. C. & S. F. Ry. Co. Block 316 and the lower sections of Block 364.

Beginning again at the "L" corner, original bearing being Sharp Pk S. 44° West, and new bearing of Turney Pk. S. 23° 15' East, thence N. 89°55' East, 1925.5 varas to a scattered St. pil which I rebuilt into a large st. mound, re-establishing as I believe, the old original "M" corner at the N. E. Corner of Section 34, Block 206, and the Northwest corner Section 1, Block 316, original bearing, San Jacinto, S. 49° West, new bearings San Jacinto S. 50°20' West, Turney Pk. S. 1° 55' West.

In this vicinity the needle is of no value at all. The ridges here are composed of a lava rock containing so much iron that the needle is pulled far off of it's true course, therefore the difference in bearing courses can be accounted for. My bearings are read by transit angles in every case and not from needle readings. The needle is only used for a rough check.

Continuing from this "M" corner in traverse to a recorded Thompson original corner at the Northwest corner of Section 3, Block 364, set by Thompson in November 1885, four and one half years after setting the "M" corner at Northeast corner Section 34, Block 206, T & ST. L. Ry. Co. The original calls for this corner are, a rk md built on the West bank of an arroya from whence a large rock about 8 ft. square marked "X" bears S. 35° West, 35 varas.; a Peak brs. S. 54½ East.; Point of Bluff brs. S. 43°W. This rock mound was found on the west bank of the arroya and checked closely with the above bearings. This corner although it is a corner for a section in Block 364 sets the limits east for the East line of Block 316. It's actual distances along the line of Block 316 are in variance with the field note recorded distances but the east line of Block 316 can move no further east than this corner. By calculation from the traverse run between the "M" corner and this corner the courses and distances from the "M" corner, made to conform to the Section lines would be N. 89°55' East, 1914

varas to the Northeast corner Section 1, Block 316, Thence S. $0^{\circ}05'$ East, 2673 varas to the Northwest corner Section 3, Block 364.

In the construction of the Sections in Blocks 316 and 206 and 212 in this area the courses and distances, North and South, are governed by the course and distances along the West lines of Blocks 200, 201, 202 an original line to the South by Thompson previously described. The East and West course and distances are governed by Thompson's original line to the East and by the Thompson corner described in the above paragraph. Another corner described in the Survey of the A-1 Block by another surveyor governs the length of the Sections 1 and 3 in Block 364. This survey of A-1 will be taken up later, altho it was being done at the same time Thompson was making his survey of the T & St L Ry Co blocks.

Continuing with Thompson's original line to the East from the "M" corner. Thompson ran $N 45^{\circ} E$. across a mile section then turned east. He recorded bearings at each mile going east for seven miles and these points were closely located by me in tracing his line. At the seventh mile he records he finds a rock mound and a mesquite stake $N 28^{\circ} 30' W - 270$ varas which he evidently supposes to be a Section corner as he begins his line $S 45^{\circ} E$ from it. He also records bearings here and the point can be readily located.

However, this line of Thompson's in my opinion, across the A 1 and A2 blocks is of little value and of small importance. He was not locating these two blocks and seems to have been wandering aimlessly about. He did finally take off $S 45^{\circ} E$. and ran diagonally across seven sections at the end of which line he established a corner called "B 10" corner. "B 10" corner is on the ground now and I believe in its original location since it had good bearings and could be reestablished at any time. This corner in his field notes for Block 213, T & St L Ry Co is

designated to be the South West corner Section 2, Block 213.

By the above described traverse Thompson could figure he had gone east fifteen miles and south seven miles thus could locate a corner for his T & St L Ry Co blocks. A more detailed discussion of this corner will be taken up later in this report when I can bring my traverse to it.

At the same time Thompson was making his surveys across these lands, locating and subdividing the territory allotted to the Texas and St. Louis Railway Company, another surveyor, an original locator, by the name of Archibald Boyle was making similiar surveys for other railroad companies. In this vicinity he was locating for the G. H. & H. R. R. Co. and established the original corners for the A-1 and A-2 blocks.

Boyle begins his survey of the A-1 block at the extreme Southwest corner. No notes or evidence shows that he run a traverse to this point, but since Thompson had run his line across the north of the block he must have made an estimate or a rough traverse to his starting point from Thompsons' line. He ties his starting point of Block A-1 to the Southeast corner of the preemption Survey No. 77 in the name of Nestar Mendoza by course and distance as S. $51^{\circ}51'$ E-33995 varas. Also by bearings to Spanish daggers. These Spanish daggers are not a very long lived plant so it is a shame he should have used them when he could have used any number of magnificent peaks and points in the surrounding mountains.

However I investigated the exact spot and the vicinity in which his tie to the Nestar Mendoza Preemption No. 77 would put him and found it to be a salt grass flat for a mile around with no evidence of any Spanish daggers ever being there.

SW 1
About a mile and a quarter east of this spot I find a large rock mound with a Spanish dagger in evidence at the right course S. 51°30' West, but the distance a little long. Mr. Jim Wilson who lives about 3/4 of a miles Southeast from this corner tells me it has been the recognized corner for the Southeast corner of A-1 block ever since he has been in the territory about 50 years. The dagger in evidence now he says dies down then comes up again maybe shifting its position one way or the other from where it sent out it's last stem. Roots of the dagger can be found in the ground for several varas around. The dagger the corner was built around is not in evidence in the present Rd. Md. However, this rock mound was accepted for the present as being the original starting corner for Block A-1 until we could prove other corners, tie them in to my traverse lines and project a line to this corner.

Returning now to the "M" corner at the N. W. Corner Section 1, Block 316, we ran in traverse to a rock mound in the flat north of the West point of a hill, this being the supposed original corner by Boyle at the Southwest corner Section 49, and Northwest corner Section 48, Block A-1. The reason for running to this corner was that it recorded bearings other than daggers such as at all other corners on the south and west side of this block. The bearings here call for Hackberry trees. There are a number of Hackberry trees here and none showed any marks but the two that fit the bearings closest had been washed badly by the change in the channel of the creek and had fallen over and were full of brush and debris. However believing this corner to be in or very near the original location, we turned our traverse toward the south and ran a line to the heretofore described Southwest corner of Block A-1. Calculating the course between these two above described corners I find a line between them would run S 0°24' East on the 12°05' variation I was using and

for a distance of 11526 varas or six miles plus the usual excess found in most all old surveys.

Deciding this to be the original old west line and these to be two of the original corners, I made new bearings for this Southwest Corner of Block A-1. Straddlebug Mt. - S. $70^{\circ}12'$ East; Turney Pk. - N. $28^{\circ}35'$ West; Santiago Pk - N $82^{\circ}47'$ East; San Jacinto - S. $76^{\circ}47'$ West. Thence I ran with this calculated course N. $0^{\circ}24'$ West at 1913 varas found a small stone mound which would be the Northwest corner Sec. 1, Block A-1. Here I looked and dug for the Spanish dagger bearings and found one of them, establishing this as an old original corner. New bearings: Straddlebug Mt. S 52° East; Perpendicular Rk at end of Mt. N. $30^{\circ}40'$ East. Thence on N. $0^{\circ}24'$ West, 1913 varas to another stone mound at the Northwest corner of Section 16, Block A-1. Evidence of the old dagger bearings were found here making this an original corner. New bearings:- Straddlebug Mt. S. 40° East, Perpendicular Rock at end of Mt. N. 71° East. Thence on N. $0^{\circ}24'$ West, at 352 varas a rock mound at the Northeast corner of Section 1, Block 364, establishing the north line of Section 1, Block 364, continue on 1925 varas to a stone mound at the Northwest corner Section 17 and the Southwest corner Section 32, Block A-1. The original bearings could not be found for this corner. New bearings made: Turney Pk. N. $72^{\circ}25'$ West; San Jacinto Peak - S. $64^{\circ}30'$ West; U.S.G.S.B.M.- 3783, on south porch of Ranch House - N $18^{\circ}16'$ East, 834 varas. Thence on N. $0^{\circ}24'$ West, 1925 varas to a st. md. at the Northeast corner Section 32. Old bearings could not be found. New bearings: Turney Peak - S. $78^{\circ}55'$ West; Santiago Pk - S. $85^{\circ}45'$ East; South end of McKinney Mt. - S. 54° West.

Thence on N. $0^{\circ}24'$ West at 789 varas set a stone mound and marked one rock "N.E.3B364", the location of this corner is the result of calculations made from the traverses run from the "M" corner to the Northwest Corner of Sec. 3, Block 364, which is S. $89^{\circ}55'$ West, 1690 varas, and to the Southwest corner of Block A-1, continue on 1925 varas in all to a small stone mound, one stone marked "SW48". Old bearings not found. New bearings: Turney Pk. S 54° West; Santiago Pk. - S. $81^{\circ}50'$ East. Thence on N. $0^{\circ}24'$ West - 1925 varas to a stone mound on the north bank of a wash, north of the west point of a hill, one rock mkd "NW 48". Original bearings Hackberry S 83° West 68 varas; Hackberry S. $78^{\circ}45'$ West, 70 varas. This last hackberry is in evidence though badly damaged by floods the other may be one of those uprooted and washed from its original position. New bearings made for this corner since I believe it to be very close to the original location are: Turney Pk S $38^{\circ}45'$ West; Conical Pt. N $18^{\circ}45'$ East; South end of Mesa N $82^{\circ}35'$ West; Top rock of 4 large rocks on slope S $1^{\circ}15'$ West- 90 varas. Thence on N. $0^{\circ}24'$ West at 1420 varas cross old U.S.Road at 1905 varas a stone mound at the east foot of a high hill, one rock mkd. "N.W.49". No old bearings. New bearings: Santiago Pk S. $77^{\circ}25'$ East; Conical Pt. N. $53^{\circ}15'$ East. This corner, I believe, is one of the original corners set by Boyle and is the one farthest North as far as I can determine. From this corner Boyle evidently turned toward the east. However, he does make a tie in the field notes of Section 85, two miles west, to the old U.S. Road where it crosses the west line of Sec. 85. This old U.S.Road was the main traveled road in this territory at the time of these surveys and no doubt influenced Thompson in his traverse to the east and was a factor turning Boyle toward the east also in making his location survey. The Old Road can

be followed out now thought it is not passable because of the many deep washes crossing it.

From the Northwest corner of Section 49, I turned toward the east running a trial line on a due east course. At the end of the first mile I passed to the right of a small scattered stone pile with no marks; continueing on another mile I also passed to the right of 4 or 5 large rocks, scattered; continueing on another mile to the top of a projecting white hill I passed three separate stone mounds, none of them marked. The field notes for the South east corner Section 62, call for a large stone mound on the east side of a hill. Having left a large flag at the North west corner Sec. 49, which I could see from this hill, I selected the oldest looking mound just off of the top on the east side of the hill and placed a large flag in it so I could see it from the east. Of course as I go along I measure the distance offsets to my line in order to determine the course of the line I am to run on the return across these stone mounds. Continueing ~~then~~ on East^{at} the fourth mile I pass also to the right of a few scattered stones in badly washed ground. At this point the field notes of Section 52 for the Northeast corner call for it to be 40 varas north of the Old U. S. Road. I measured north from the Old U.S. Road which I could trace here and reiled the rocks leaving a large flag in them. Continueing on East another mile to another scattered few rocks. Here I measured south 60 varas from the Old U. S. Road reiled the rocks and left a flag. Continueing East one half mile I looked for a large Stone mound called for by the field notes to mark the mouth of a spring canyon but a large concrete tank had been built

close to this place so no doubt the monument had been destroyed. Continueing on East another one half mile to the vicinity of the Northwest corner of Section 55, I found a post with one large rock by it without marks and in a badly washed and overflow section so that the old U.S. Road could not be located. This is Thompson's turning point to the Southeast to the "B 10" corner so I made every effort to relocate this corner. Thompson in the record of his traverse toward the east made note of several bearings one of which was to a perpendicular bluff N. $34\frac{1}{2}^{\circ}$ East about 400 varas. The point at which I could check the bearing course on the bluff with the other bearings given I was over 900 varas from the cliff, however I was about at the right course and distance from the above described post and large rock as Thompson's says he was from a rock mound and mesquite stake at this point in his traverse. Thompson assumed this rock mound and mesquite stake as the proper location of the Northwest corner of Section 55 and started his line S. 45° East to the "B 10" corner from it.

Whether Boyle had located this rock mound and mesquite stake for the Northwest corner of Sec. 55, Block A-1 before Thompson ran his traverse east I have been unable to determine. I assume he had otherwise, there would be no reason for it being there since Thompson did not put it there and Boyle was the only other surveyor of record who could have established the point.

In view of the facts, I think, as disclosed by the investigations around this post and large rock their present location is very close to the original location of the original stone mound and mesquite stake as designated by Thompson and as the original Northwest corner of Section 55, Block A-1 set by the original surveyor Boyle in February 1881.

I left a large flag here and continued on east two miles as I could find nothing at the one mile point. North and a little east of the two mile point I find a small stone mound and a cedar stake set deeply in the ground by it. One stone marked "NE 56". The original designation for this corner is for a cedar stake and a mound, no marks, but with bearings to a cat claw bush. There are numbers of cat claw bushes in this vicinity and possibly I could have, by digging, discovered the roots of the one used for the bearing. Thompson at some time while he was in this territory made a run into Block 13, some twelve miles north, starting at this Northeast corner Section 56, Block A-1. What the run was for, it is hard to tell as A-1 Block has no connection whatever with Block 13. In his traverse notes however he records some bearings on bluffs and peaks from his starting point and for one mile north. In fitting these bearings the points will fall between 400 and 500 varas to the west of the rock mound and cedar stake I found for the Northeast corner of Section 56. I then of course ran Thompson's traverse line out for several points and could check it closely with slight changes in course and distance which have to be made in all of Thompson's work.

These differences then between the locations of this Northeast corner of Section 56, it being so much, and since Thompson should have known just where the corner was located, made it necessary for a considerable amount more of investigation to determine just where the original Surveyor Boyle had located this corner. The only marks left by Boyle actually traceable were his calls for the crossing of the Old U.S. Road and the approximate location of the spring shown in his

map accompanying the field notes for Section 72. The old U. S. Road in this vicinity is not so readily traceable as it is a few miles west because the present day roads in their several changes have to a large extent obliterated the Old U. S. Road. However, with close work and many measurements, the old location referred to by Boyle was decided upon and found to tie closely with the rock mounds now found on the ground at Northeast Corner of Section 56 and ^{also at the} Northeast corner of Section 57.

Having fixed the stone mound and cedar stake found marked "NE 56" as the proper location for this corner the notes of the traverse run east and the ties made to stones and stone mounds, the Old U. S. Road, and natural objects along the eight mile run east from Northwest ^{west} Corner Section 48 were calculated for course and distances. The courses between each mile so nearly corresponded to the course for the entire distance of eight miles between Northwest Corner Section 48 and the Northeast corner Section 56 that the later course was adopted for the line. The course of the line across the block was therefore figured to be N. 89°31' East, not quite at right angles to the course taken on the west line of original corners. The individual distances between stone mounds and markers for the section corners along this original line varied to no great extent and since but one or two of them could be placed upon the exact original spot the full distance across the eight miles was proportioned equally, 1937 varas to the section mile.

I returned over the line then and placed each section corner in it's relative position and found all of them to fall in what could have been, from the meager description given, for them, the original position.

With the reestablishment of these corners my survey has been brought across Block A-1 to the Northeast corner of

Section 56 at the West center point in the west line of Sec. 4, Block A-2, determining now the courses and distances to be used through out the entire Block of A-1.

Beginning at the Northeast corner of Section 56, the new bearings for which are: Whirlwind Pk. N 35°15' West; East end of Mesa , N. 18°30' East; Santiago Peak. S 67°40' East; thence N. 0°24' West, 1927 varas to a stone mound and a cedar stake, one stone marked "NE 57", new bearings: Santiago Pk. S. 64°20' East; Straddlebug Pk. S. 32°10' West; Whirlwind Pk. N 69°35' West; East end of Mesa N. 24°30' East. Thence on No. 0°24' West, at 770 varas cross Old U. S. Road 962.5 varas to a stone mound marked "NW 1-A-2". This "NW 1-A-2" corner will be the beginning point to continue my survey to the east and south but at present will finish with the A-1 block to the north and west. Thence N. 0°24' West, 962.5 varas from "NW-1-A-2" corner to a stone mound at the N.E. Corner Section 72. New Bearings: Santiago Pk. S. 60°35' East; Whirlwind Pk. S. 55°10' West. Thence N. 0°24' West, 1925 varas to a large stone mound on the side of a draw and north of an abrupt depression. One rock marked "N.E. 72-A-1". This is the Northeast corner of Block A-1, the north line of which extends S. 89°31' West for five sections miles of 1937 varas each, thence N. 0°24' West one section mile of 1925 varas, Thence S. 89°31' West, six section miles of 1937 varas each to the Northwest corner of Section, 94, Block A-1.

Returning to the rock mound at the Northwest of Section 1, Block A-2, I then ran in traverse N. 65°20' East, 2256 varas to USGSBM 4013. Thence N. 23°54' East, 3315 varas to a stone mound at the Northeast corner of Section 5, Block 318 and the Northwest corner of Section 10,

J. V. Massey, Block C. This rock mound for this corner was proved to be located correctly by my line run N. $0^{\circ}14'$ West four miles to a st. md. at the Northeast corner Section 39 in Block A, AB&M, an original corner by Ammerman for Southeast corner Section 79, Block 13. Also for further proof I ran West one mile to the S. E. Corner Section 80, Block 13, which has a well marked rock bearing on the ground.

Thence by proving the rock mound at Northwest corner Section 10, Block C, to be correctly located and by using the course determined from the line running north, the West line of Block C, can be established also the east line of Block 318. New bearings made for this corner being: Whirlwind Pk. S. $50^{\circ}41'$ West; Santiago Pk. S. $50^{\circ}13'$ East; North Silo in group of four, N. $82^{\circ}43'$ East.

Before the east and west line for Block 318 could be established and before the sections in Block 329 to the West involved in this survey, could be located distances along the West line of Block C and the course and distances along the South line of Block C had to be determined.

To continue

A traverse was run in the following courses and distances along the West and South lines of Block C and across to an original corner at the northwest foot of Santiago Peak set by J. Hoban in June 1881, an original surveyor, for the Northeast corner of Section 599, T. C. Ry. Co. This corner really has no connections with Block C, except through Blocks 332 and 333, but it is the only corner that can be turned to to establish limits, lines and connections for all of the surveys as far north as Block 13. Many surveyors, since the original surveyor, have made surveys throughout this territory and have set many corners but as far as I can discern none have done sufficient work, either in the field

or in the office, to rightfully and intelligently set any section corners. My traverse for this connection follows. Beginning at the Northwest corner of Section 10, Block C; thence S. $0^{\circ}14'$ East, 10569 varas; Thence N. $89^{\circ}42'$ East, 3833 varas; Thence S. $50^{\circ}22'$ East, 1422 varas; Thence N. $89^{\circ}40'$ East 6083 varas; thence S. $70^{\circ}57'$ East, 5815 varas to Santiago Spring; Thence N. $45^{\circ}30'$ East, 189 varas to the Northeast corner of Section 599, T. C. Ry. Co.

Through many calculations, plottings, etc., the results as shown on the attached map evolved. Now by the use of these results I will develop the blocks 318 and 329.

Block 318 is another original survey by S. A. Thompson in November 1881. He certainly made a mess of this survey. Of course it was not done on the ground. To begin with his starting point the Northeast corner Section 1 at the Southwest corner of Section 13, Block B, is on the south edge of a mesa about 1000 feet higher than one mile south. Then the South half of Section 1 and all of Section 2, conflict with Block A-1 and his tie to the Northwest corner of Section 1, Block A-2 can not possibly be, because the original surveyor of A-2 made a record showing this corner east of a spring and Thompson's plotted A-2 corner tie puts him west of the spring on the rim of a high mesa, an entirely separate mesa from the one he is supposed to have started from. Block 318 will take the same construction as Block C in the course and distance of the Section lines. Beginning my construction from the Northwest ^{East?} corner of Section 5, ~~as~~ ^{also} the Northwest corner Section 10, Block C, and building to the West. The North line of Block 318 extends westward three miles of 1900.8 varas each, on a N. $89^{\circ}36'$ West course. Building S. $0^{\circ}14'$ East two miles of 1915 varas each, taking same course and distance.

as along the West line of Block C. A strip of vacant land is left between Block 318 and Block A-2 of 83.6 acres. Sections 6, 7, 8, 9, 10, 11, 12, Block 318 are eliminated by their conflict with Block A-2 the older block. The rest of Block 318 is constructed conforming to the Block C lines in course and distances.

Block 329 was constructed in the following manner: Running in traverse from the Northeast ~~corner~~^{corner} of Section 5, Block 318 to the USGSEBM-5071, N. $67^{\circ}24'$ West, 7175 varas, thence N. $82^{\circ}07'$ West, 1757.3 varas to the Northeast corner of Section 400, Block 329. This is an original marked corner with bearings and was found on the ground. Thence N. $89^{\circ}36'$ West, along the north lines of Sections 400, 399 and 1409, 4700 varas to a stone mound, an original corner, in the north line of Sec. 1409, at the ~~East Northeast~~^{North} corner of Section 14. Thence continue along north line of Section 1409, 1000 varas to its Northwest corner and a corner of Section 14, an original corner. Thence S. $0^{\circ}05'$ East, 1430 varas to the Southeast corner Section 14. Thence N. $89^{\circ}36'$ West, 890 varas to a stone mound set for the Southwest corner of Section 14, in the East line Section 34, Block 325. Thence S. $0^{\circ}05'$ East, 869 varas to a st. md. set in the north line of Section 89, Block A-1. Thence S. $89^{\circ}31'$ West, 93 varas to the Northwest corner Section 89, Block A-1. From this survey and a former survey for Sec. 16 this block 329 was constructed.

The construction of Block A-2 begins at the Northwest corner of Section 1. The Northwest corner of Section 1 is established by beginning at the Northeast corner of Section 57 Block A-1, thence North along the East line of Section 72, Block A-1, one half section mile, thence the west corners of Sections of A-2 adjoining the Block A-1 will be at the

middle point of the east section lines of the Sections of Block A-1 adjoining Block A-2. East and west lines of A-2 will be perpendicular to the West lines of A-2 which is also the east line of A-1. Using this construction Block A-2 was built in the following manner. Beginning at the previously established Northwest corner of Section 1, thence N. 65°20' East, 2256 varas to the U.S.G.S.B.M. 4013, thence S. 55°58' East, 1640 varas to a stone mound set in the west line of Section 24, Block C, 114.6 varas, S. 0°14' East from its Northwest corner; thence S. 0°14' East, 5630.4 varas along the West line of Block C to the Southwest corner of Section 38, Block C., thence S. 89°36' East, 408.6 varas along the South line of Section 38, Block C, to a point at exactly two miles east from the West line of Block A-2, thence S. 0°24' East along a line parallel and two miles from the West line of Block A-2 5895.2 varas to the Northeast corner Section 14 this block. Block A-2 conflicts with Block 318 along this line but Block 318 being the younger survey, it must yield to Block A-2, as shown on the attached map. The balance of Block A-2 can be readily constructed from this point.

Returning to the Southwest corner of Block A-1 in order to develop Block A-3, and to carry on the lines of the Texas & St. Louis Ry. Company blocks.

Beginning at the Southwest corner Section 1, Block A-1 a line was run across the south line of Block A-1. Using the course and distances established earlier in the resurvey on the cross block line seven miles north. As with all other corners having bearings in the original survey of this block the south line also had nothing but dagers for bearings.

In the run across this line nothing was found that could be identified as an original corner.

Beginning again at the Southwest corner Section 1 Block A-1, a traverse line was run to the South line of Block 210, T & St. L. Ry. Co., to the Northwest corner Section 34 Block 204, in the following courses: S. 82°05' East, 1142.3 varas to the USGSEM, 3686; S. 1°23' West, 1248 varas to the USGS Triangulation station named Wilson's Ranch. Turning bearings from this Wilson Triangulation Station to other Triangulation Stations as follows, I found from the government records I varied by about ten minutes too much variation off of true north. The bearings turned are: Turney Pk. (Govt.) N. 30°23' West; Buck Hill (Govt.) S. 79°19' East; Santiago Pk. N. 80°07' East; Potatoe Hill, N. 24°17' East; Henegg S. 21°50' East; Straddlebug, S. 86° East.

Continuing with the traverse- S. 10°^{see} 4469; S. 4° 29' East-2318; S. 28°10' East, 5157; S. 32°35' East. - 1178; S. 53°12' West - 3136; S. 25°26' West - 2387; S. 28°18' West 5254; S. 13°32' West - 3771; S. 0°12' East - 1369 varas to a stone mound marked "NW34". Bearings: Yellow Bluff S. 31° 45' West (original bearing) End of Mesa N. 16°55' West; Santiago Pk, N. 50°25' East. This corner evidently had been set by an original surveyor as it has a recorded bearing which checks fairly close, though how he came and from where he came to set this corner the records do not tell. However it must be recognized as it is reestablishable and influences the south lines of the T. & St. L. Ry. Co. blocks. It is four section miles of 1950.6 varas each. S. 89°54' East from the only other original corner this far south. The map attached will show the results by sections of the calculations.

Returning again to the Southwest corner of Block A-1.

From the many traverses and lines run and numerous calculations made up to this point in the resurvey and among

the courses, lines and corners established and reestablished, the course of the east and west lines of the Texas and St. Louis Ry. Co. blocks is the most important. The course to be used for these lines of N. 89°55' East was established early in the survey, reported in the first pages of this report and maintained throughout the entire work both in the filed and on the map.

From this work the course and distance of S. 25° 04' East-421.7 varas was established for the correct location of the Northeast corner Section 9, Block 212, from the Southwest Corner of Section 1, Block A-1. Beginning at the Northeast Corner Section 9, Block 212, running N. 89°55' East on the established course for eight miles of 1915 varas each to a point in the West line of Section 25, Block A-2, 460.5 varas N. 0°24' West from the Southwest corner of Section 25, Block A-2, and 490.0 varas S. 0°24' East from the Southeast corner of Block A-1. Establishing by this survey and these calculations the G. H. & S. A. Ry. Co. Block A-3. Not in the exact size as Thompson, the original surveyor, figured it to be but it shows that it actually exists on the ground, in actual survey, to make the fill in between Block A-1 and Blocks 212-213 and 317. The correct field notes for the A-3 block are shown on the map and corrected field notes for Section 2 of this block have been made and recorded. From the Southeast corner of Block A-1 and the Northeast corner of Block A-3 in the West line of Section 25, Block A-2, the South line and Southwest corner of Block A-2 can be constructed. The Southwest corner of A-2 can be only two miles and one half south of Southeast corner of Block A-1. The south line of Block A-2 will then extend eastward at right angles to the west line of A-2 or in course N. 89°36' East for exactly six miles.

From the South line of Block A-3 and the north

line of Block 213, the other section lines running east and west in Block 213 may be constructed. The distances between these sections lines north and south are controlled by the distances measured and established between the original corners found and reported in the first few pages of this report. Therefore since the course is established as N. 89°55' East for these lines and the distances determined between them, there can be no doubt as to their actual

location. From the above facts the North line of Block 213 is established. Then between the south line of Block A-2 and the North line of Block 213, the T. C. Ry. Co. Block 342 may be constructed. All of which is shown by the attached map. Block 342 had been previously located a few year ago in order to determine the Dewees section by the surveyor beginning at the "B10" corner, noted previously in this report, and extending southward exactly three miles for the South line of Block 342. This is an erroneous construction as I will show in the following pages, but the surveyor did not have the true facts nor all of them therefore the assumptions were wrong.

For convenience and for a better understanding of of the details of the descriptions of the "B 10" and "C 10" corners which I am now ~~giving~~^{going} to explain, I will carry ~~by~~^{my} survey traverse from the Northwest corner of Section 10, Block C.

Beginning at Northwest corner of Section 10, Block C, thence S. 0°14' East - 10569 varas; thence S. 0°14' East 1960 varas; thence S. 60°10' East 548 varas; thence S. 0°42' East - 6764 varas; thence S. 83°13' East - 5826 varas to the "B10" corner. This "B 10" corner was established by Thompson in his original survey for T. & St. L. Ry. Co. blocks as the Southwest corner of Section 2, Block 213. He left two

permanent bearings on Santiago Pk. and San Jacinto Pk which can be checked establishing the present location of the "B 10" corner, as on the ground, as being in the original location. Thompson then ran his line eastward establishing more corners and designated them as "C 10", "D 10", "E 10", "F 10", "G 10", "H 10", and "H 11". These corners can all be found on the ground today in the positions as shown on the attached map and as determined by me in my survey.

The beginning corner for the construction of Block 213, as determined by the recorded field notes, is at the Southwest corner of Section 1, Block 213, or at the "C 10" corner, N. $89^{\circ}36'$ East, 1915 varas from the "B 10" corner. By the survey, the many calculations and the mapping it is clearly seen that the A-2 block will conflict with Thompson's construction of Block 213. Since Block A-2 has prior rights block 213 will give way so that only small portions of Sections 2, 3, 6, 8, and 7 of Block 213 will remain as shown by the map. For the balance of the construction of Block 213 it should be built from the "C 10" corner south and west in course and distance. When attempting this however a number of things are run into which must be considered and which will influence the building materially. Excess distances cause some difficulties but in this case it has been equally distributed east and west. The north and south distances are taken care of from the west except for the first nine sections in Block 213. They can not be influenced by the distances determined in the west for all other blocks and all of this block. These first nine sections must take course and distance from the beginning corner "C 10". In doing this however an excess distance north and south of 586 varas is found to exist from the North line of Section 9, to the north line of Section 10. I incorporated this excess distance into Section 9, and of course when I did

this it increased the size of the sections east through Block 219. For this construction the following explanation is given. When Thompson located these "B 10", "C 10" etc corners he ran his line S. 45° East from the Northeast corner of Section 55 in Block A-1 figuring all the time Block A-1 had been located according to the tie recorded by the original surveyor of Block A-1 and that Block A-1 connected directly with the North line of the T. & St. L. Ry. Co. blocks immediately south of it. This assumption he afterwards found to be incorrect and inserted the A-3 block, but never did correct his "B 10" - "C 10" etc., corners. This caused his beginning corners for Block 213 to be north of where he intended them to be. Up to the time of this survey, I can find no record of any surveyor doing sufficient work in and across these blocks from the beginning corner at Nestar Mendoza Preemption No. 77 to these B10 and C 10 corners to actually determine their actual location and relative location to the rest of the surveys from which they were located. By a simple calculation the approximate distance that the "C 10" corner is north of where it was intended to be can be found. Starting with the Southwest corner of Block A-1 the distance eastward to the "C10" corner is 27083 varas. The course of South line of A-1 is N. 89°31' East. At Southwest Corner Block A-1, the North line of Block 212 is 382 varas south. The course of the North line of Block 212 is N. 89°55' East. These two lines are diverging by an angle of 24 minutes. If started from the same point at the end of 27083 varas they will be 189 varas apart. They started, however, 382 varas apart so $382 - 189$ equal 571 varas, the approximate distance "C 10" is north of where it should be. This method is for the proof of the assertion and not to be used as the exact distance as other facts and figures such as excess, change in course of South line of Block A 2 and etc are to be con-

sidered in the final results. But the fact remains "C 10" is north by my survey and calculations 586 varas. There is but one thing to do about it and that is to increase the size of the tier of Sections from Section 8, Block 213 to Section 1, Block 219 inclusive.

Many lines have been run by many surveyors from these "B 10" and "C 10" etc comers and many corners set but none have ever known this excess distance in this tier of sections existed so therefore all their work has gone for naught south of this line of sections. In connection with this, the east line of Blocks 218, 219 and part of 220 were run and marked. A tie across Block 332 and into the T. & St. L. Ry. Co. blocks to the east had been on the program but it was never made. A tie was made to a st. md. marked "NW 41-B 332" on the east line of Section 25, Block 219. From plattings on the U.S.G.S. Topography sheets connecting known points and corners in these two series of T. & St. L. Ry. Co. Blocks shows the fill in block 332 to be in excess east and west rather than to conflict with the blocks on the West as shown on the county maps. However the excess will not be regular as there is a difference of 1° in the assumption of the North lines making more excess at the south end of the block 332 than at the north.

Block 333, G. C. & S. F. Ry. Co. north of these "B 10" , "C 10" etc corners was worked in from calculations and plottings from the traverse lines run on the north, West and South of it and from a former survey made for W. H. Kokernot on the North. There have been many lines run through this territory with many comers set but as far as I can see they are all worthless as the full facts were not known by the surveyors doing the work at that time.

Beginning at the "C 10" corner at the Southwest corner of Section 1, Block 213 a traverse was run west to the Terlingua road thence along the Road toward the South crossing the T & St. L. Ry. Co. blocks and into Block G-4 in order to make ties and calculations to determine the south lines of the T & St. L. Ry. Co. Blocks. Several surveys have been made over this same territory for various purposes and since I have found most of them to be very unreliable and as I wished to determine the south line of the O2 Ranch, I made this run for that purpose alone. However it does disclose the errors and erroneous assumptions of other surveyors working through here and shows that they did not know all of the facts.

Before going into my survey I will discuss some surveys made by the other surveyors in locating some of these lands. One survey began at the "B 10" corner and run in traverse to what was supposed to be the southwest corner of Section 2, Block 342, T. C. Ry. Co. The east and west distance was figured very closely but the south line of Block 342 was figured to be at exactly three miles south of this "B 10" corner. By using field notes this would be the case but field notes will not apply wholly here. Other facts as disclosed in this report must also be considered. But of course this surveyor did not know them, therefore, he could not use them and consequently made an incorrect survey and record. Surveys were also made on further to the south continuing this same reasoning and assumptions. Corners put in, fences built from these corners and now that all of the facts are known all of them in error. Other lines were run up from the G-4 corners and from an original corner at the Aqua Fria Spring at the Southwest Corner of Section 1, Block 15 to set corners in the T. & St. L. Ry. Co. blocks. Corners can not be set from these blocks, as the base and starting points because they have no con-

nections whatever with the T. & St. L. Ry. Co. blocks.

The ranchers in this territory have miles of fences along these lines because the surveyor did not know the facts and in some cases I wonder whether the facts would have been used if known in order that some friend could acquire a piece of supposed unsurveyed or vacant land. It is a shame these things could have happened, but it has happened and along this particular line, so that it puts the surveyor of today in a very ticklish position especially when a Rancher has ten or twenty miles of fence along these lines on the other fellows land.

Now for the description of my survey with deductions and conclusions drawn from it. Beginning at the "C 10" corner, thence S. $89^{\circ}36'$ West, 1915 varas to the "B 10" corner, thence N. $83^{\circ}13'$ West- 5826 varas to a point at the Terlingua Road. Thence Southerly along the road in the following traverse: S. $0^{\circ}21'$ East - 2377 varas; S. $24^{\circ}02'$ West 1692 varas; S. $27^{\circ}30'$ East - 3121 varas, S. $20^{\circ}50'$ East - 2350 varas; S. $20^{\circ}52'$ West - 4036 varas; S. $25^{\circ}27'$ West - 3905 varas to a point at the south fence line of the 02 Ranch. A st. md marked "NW 6" is S. 89° West - 240 varas on the fence line. This would be a marker for the Northwest corner of Section 6, Block 216. It is about 300 varas long to mark exactly eight miles South of the "C 10" and lacks about 50 varas of being far enough west to mark the line it is supposed to be on. There are markers such as these all along the South fence of this ranch. There is no record in my office of how they got there or who put them there. There is another thing I want to register a complaint on. It may

not belong in this report, but I want to go on record as to protesting on a situation that we surveyors who are trying to carry on the business in a legitimate way have to contend with in most every survey made. There are numbers of surveyors, county surveyors, licensed surveyors, civil engineers, and even surveyors helpers making a countless number of surveys in the State daily, setting corners, running property lines, locating fence lines and generally establishing the divisions of the land, but only one in a hundred of these surveys has a public record made of it so that future surveyors may know what was done, who did it and for what purpose. The situation comes to me almost daily. A rancher or a farmer wants a fence line or a well located or a division made of his property and tells me so and so located such and such a corner a few years ago and I am sure it is alright. I go to the record, find no such survey recorded and report I can't accept the corner without investigation. The amount of work involved would take more time and cost more money than the party wishes to spend. I'm not employed, but another surveyor who may be even from another county does do the job but also makes no record of it, because of his conscience or the attitude of nothing will come of it. It is a bad situation causing an endless number of lawsuits, trouble and even murders. It should be stopped by law or regulations and require all surveys of whatever nature, private or public, to be recorded in the public records of the County in which the survey is done. A heavy penalty should be provided in order to enforce strict adherence to the law.

Returning to my traverse point at the South fence of the 02 Ranch, to place the Northwest Corner Section 6, Block 216, correctly, conforming to all that has gone before in this report, the St. Md. placed. S. $48^{\circ}34'$ West 543 varas will mark the proper location for this corner. It is about

350 varas south of the fence line. This fence line is 18 miles long so it can readily be seen the expense involved in moving it or continue to lose the benefit of several hundred acres of land.

Continueing my traverse on southward to Block G-4. From the point at the 02 Ranch south fence S. $11^{\circ}09'$ East 5864 varas a point on another fence line. This fence is also too far north, however almost exactly 3 miles south of the 02 fence. Continueing S. $20^{\circ}19'$ East 6015 varas to U.S.G.S.B.M.-3345 on another fence line which is a little short of three miles outh of the last fence, but still thought by land owner to be on the Section line. Continue S. $12^{\circ}38'$ East 11930 varas to U.S.G.S.B.M. 3313, about 200 varas south of an east and west cross fence supposed to be on the north line of a strip of land purchased originally by a party by the name of I. A. De Wees as unsurveyed vacant land and known in the records as Block T.J. Section 4, surveyed November 23, 1915. The location of my Southeast corner of Section 10, Block 217 will be S. $61^{\circ}48'$ East 661 varas from the U.S.G.S.B.M. 3313. By this location the well and house as shown on the map will be in Section 10 as the original locator had intended it to be, but which was acquired by the vacant land hunter when the surveyor widened the strip to the north. The strip as surveyed in November, 1915 is just another case of the surveyor not considering all of the facts, either knowingly or unknowingly. It is actually a very narrow strip as shown by my map.

Continueing my traverse from U.S.G.S.B.M. - 3313 S. $57^{\circ}59'$ West - 4319 varas to the St. Md. set by R. S. Dod for Northwest corner of Section 238, Block G-4 in his re-survey of Block G.4 in October 1909. Useing this tie alone and placing the sections of Block G-11 to conform with my survey of the T & St. L. Ry. Co. blocks to the north a narrow strip does appear to exist between the two blocks. There is

so much excess in the T. & St. L. Ry. Co. blocks to the north and unless a surveyor is acquainted with a full knowledge of all of the facts, and of how this excess is to be taken care of, it is only natural to suppose it does not belong there. The only other place it can be put is in a strip between two different systems of surveys therefore, the widening of the strip just reported. Again I doubt whether this strip is in the shape as I have shown it on my map or in the shape of its widening field notes report it to be.

In the running of my traverse further into Block G-4, and using ties and bearings to more corners in the field notes of Block G-4, then plotting the whole on the U.S.G.S. Topography sheets there seems to be a swing of the section lines of about 3° to the west. This will change the shape of the strip and cause conflicts and overlapping. This of course cannot affect the T. & St. L. Ry. Co. blocks to the north therefore I am not including any details in this report or survey.

I have covered considerable ground in this survey and report and have been allowed to take sufficient time to do everything in my knowledge and opinion that should be done to make a correct and complete survey.

I wish to express herewith my greatest of appreciation for the kindness, tolerance and patience accorded me by the E. B. Chandler & Company of San Antonio for the Aetna Life Insurance Company in allowing me to pursue my own course in this survey. It has been one of the pleasures of my life of surveying. I have tried to return the favor in giving all of the best I had. I hope it will partly compensate.

I respectfully submit to you my report of the
re-survey of the O2 Ranch.

Aug. 31, 1939

Sincerely,

John Stovell

John Stovell,
Licensed Land Surveyor
Alpine, Texas.

Filed for record in County Surveyors records in
Alpine, Brewster Co., Texas in Book C.F.N. - Page 267.

John Stovell
Co. Surveyor
Brewster Co., Texas.

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