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W. C. Mendenhall, Director

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SPIRIT LEVELING IN TEXAS

PART 5. SOUTH-CENTRAL TEXAS

1896-1938

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SPIRIT LEVELING IN TEXAS

PART 5. SOUTH-CENTRAL TEXAS, 1896-1938

J. G. STAACK, Chief Topographic Engineer

INTRODUCTION

Scope of report.—This bulletin, which for convenience is to be published in seven parts, contains the results of all spirit leveling done by the Geological Survey in Texas, including those heretofore published.¹ Each of the parts deals with one of seven sections into which the State has been divided for this purpose and which have been designated northeastern, southeastern, north-central, south-central, west-central, and western Texas, and the Panhandle. In each part descriptions of the points for which figures of elevation have been determined are listed according to the quadrangles in which the points occur. Results of spirit leveling other than that done by the Geological Survey have not been included.

Classification of leveling.—Spirit leveling is classified according to the degree of refinement in the instruments and methods used and according to the closure errors.

First-order leveling² consists of leveling done with the most improved instruments, all sections being leveled twice, in opposite directions, under varying conditions. Closures are not allowed to exceed the amount in feet represented by the formula

$$0.017\sqrt{\text{length of section in miles.}}$$

All corrections for rod error, temperature, and unbalanced sights are applied, as well as the orthometric corrections for convergence toward the poles of level surfaces of different elevations.

¹ For the results of spirit leveling in Texas previously published see Triangulation and spirit leveling—Southern Texas: U. S. Geol. Survey 18th Ann. Rept., pt. 1, pp. 364-391, 1897; Triangulation and spirit leveling—Southern Texas: U. S. Geol. Survey 19th Ann. Rept., pt. 1, pp. 327-353, 1898; Triangulation and spirit leveling—Southern Texas: U. S. Geol. Survey 20th Ann. Rept., pt. 1, pp. 423-457, 1899; Triangulation, primary traverse, and spirit leveling—Southern Texas: U. S. Geol. Survey 21st Ann. Rept., pt. 1, pp. 483-495, 1900; Spirit leveling in Texas, 1896 to 1910, U. S. Geol. Survey Bull. 468, 133 pp., 1911; Spirit leveling in Texas, 1896 to 1915: U. S. Geol. Survey Bull. 637, 254 pp., 1916.

² See Avers, H. G., Manual of first-order leveling: U. S. Coast and Geodetic Survey Special Pub. 140, 1929.

Second-order leveling, according to regulations of the Geological Survey, comprises lines leveled twice with reliable instruments, though not necessarily of the most improved type. Closures are not allowed to exceed $0.035\sqrt{\text{length of section in miles}}$.

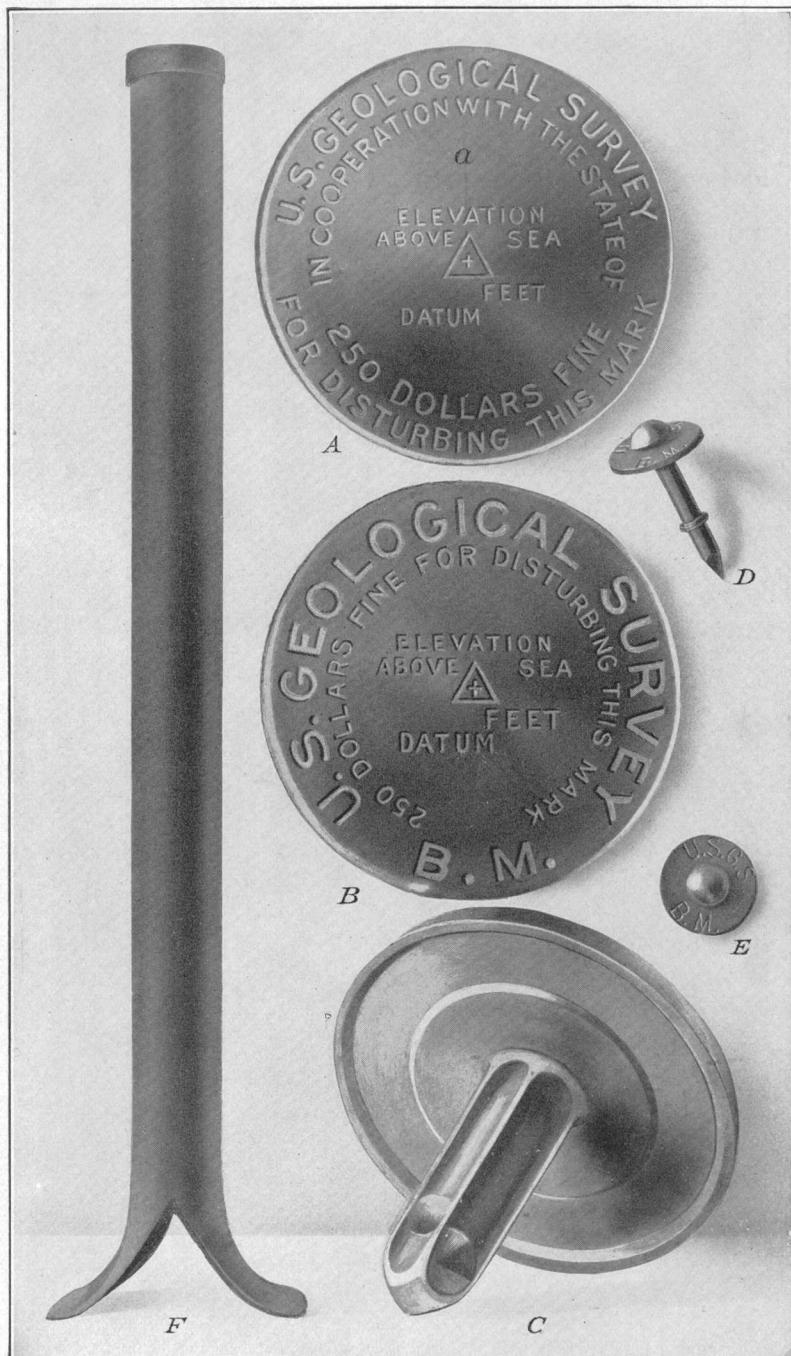
Third-order leveling is made up of lines that are run, either with first-order equipment or with an engineer's wye level and rods of the New York type, in single-line circuits that are required to close within the limits, in feet, of $0.05\sqrt{\text{length of circuit in miles}}$. This is equivalent to $0.071\sqrt{\text{length of section}}$ if the line is leveled twice.

All leveling done by the Geological Survey in Texas is of third-order accuracy except as otherwise stated.

Adjustments.—The adjustment of a net of leveling begins with the first-order lines. Most of these lines in both the United States and Canada have already been combined in a general net, and the orthometric differences derived from the observed values by correction for the convergence of level planes toward the north have been adjusted by least squares to remove accidental closure errors. The latest adjustment of this kind was made in 1929 by the United States Coast and Geodetic Survey and is known as the "1929 general adjustment of first-order leveling." This adjustment included the first-order lines in Texas, and the elevations thus derived are the fundamental references for elevations determined by second- and third-order nets. The third-order leveling of the Geological Survey in Texas has been adjusted by determining weighted mean elevations for new junction points and prorating the errors of each link. The weights are taken as the reciprocals of lengths of links. The third-order net in south-central Texas has thus been brought into agreement with the best information available for the results of the fundamental first-order leveling, on some of which final adjustment has not been made. Therefore, these published figures of elevation are tentative.

Bench marks.—The bench marks used by the Geological Survey (pl. 1) are of two general classes—principal and supplementary. Principal bench marks are placed at more or less regular intervals along a level line, at sites offering them protection from disturbance and affording favorable conditions for their future recovery. They are usually bronze or aluminum tablets, iron posts, or copper bolts. Supplementary or auxiliary bench marks are less formal in design and are placed between the principal bench marks. Some of the supplementary bench marks in common use are marks cut with a chisel on rock or masonry, spikes, and copper nails fitted with washers.

The tablets are circular in shape, measure $3\frac{1}{8}$ inches in diameter, and taper from a thickness of three-eighths of an inch at the center to about a quarter of an inch near the rounded edge. During a short period in the earlier years of the Survey's leveling the tablets set were made of aluminum. The softness of this metal, however, made



STANDARD GEOLOGICAL SURVEY BENCH MARKS.

A and *B*, Standard tablets, principal bench marks, used where masonry or rock is available to hold them. *A* is used in cooperating States; the State name is inserted at *a*. *C*, Under side of *A* and *B*, showing shank used to hold tablet in place. *D* and *E*, Two views of copper nail and copper washer, a supplementary bench mark, used for points lying between those marked by standard tablets. *F*, Standard iron post fitted with bronze cap similar in design to the standard tablet, formerly used where no rock or masonry was available; superseded by concrete post with tablet set in top.

them susceptible to damage, so that aluminum as a material for tablets was soon discarded. The earliest tablets were made of bronze and it is the material now specified for standard tablets. Each tablet is cast with a 3-inch shank extending from the center of its reverse side, by means of which it is cemented in place, and each bears an inscription on its face. The inscriptions on the tablets already placed differ in many details, because of changes in design at various times. The face of every tablet, however, is cast with the words "U. S. Geological Survey," a cross at the center, which indicates the fiducial point for position or elevation, and the words "Elevation above sea." On some tablets the inscription indicates that they were set in connection with a project in which a State or other organization cooperated; on some, the inscription includes a triangle, which signifies a located point, enclosing a small cross at the center. Tablets bearing a triangle enclosing a cross may be used not only as bench marks but also as triangulation- or traverse-station marks. The inscription on most of the tablets already set includes the warning "250 dollars fine for disturbing this mark," but the latest design omits this phrase and adds the sentence "For information write the Director, Washington, D. C."

If the tablet is set to mark a transit-traverse station, the traverse-man stamps upon it with steel dies letters indicating this use of it, such as "Prim Trav Sta," "P T S," or "T T," as well as his own identifying letter or letters, the serial number of the station, and the year. If the tablet is set as a bench mark, the levelman stamps it with his identifying letter or letters, the serial number of the bench mark, and the year. He may at the same time stamp upon it the figures of elevation to the nearest foot, or these figures may be added later. A tablet may be used both as a traverse-station mark and as a bench mark. The engineer who establishes the mark stamps it as noted above and records the stamping with the description to facilitate identification. Engineers who use the mark in subsequent surveys do not alter the original stamping nor add their own stampings with the exception of figures of elevation.

The figures of elevation that appear on a tablet are usually those determined by field computation only. It is sometimes found, therefore, that they do not represent the latest information. This has happened either because they refer to some independent datum temporarily adopted before first-order trunk lines made standard datum available, or because a later adjustment made in the office has rendered necessary an appreciable change in the figures as determined in the field. It is assumed that engineers and others who require accurate figures of elevation for the marks will use those printed in the bulletin instead of accepting the stamped figures. If the appropriate bulletin is not conveniently accessible, a request for the desired information

may be addressed to the Director of the Geological Survey, United States Department of the Interior, Washington, D. C.

The tablet, of whatever style, is cemented into a hole drilled in solid rock or in the wall of a public building, bridge abutment, or other masonry structure. Where masonry or rock is not available the tablet is set in the top of a reinforced concrete post, which may be either precast or mixed and molded at the selected site. The posts are about 8 inches square or 8 inches in diameter at the top and larger at the base. They are generally set so as to project about 6 inches above ground and are made sufficiently long to reach below the frost line.

Antedating the concrete posts which are now constructed to hold the tablets, in places where masonry or rock is not available, are wrought-iron posts, to the tops of which are riveted bronze caps similar in design to the tablets. These iron posts measure 4 feet in length and 3½ inches in outer diameter and are set about 3 feet in the ground. The bottom of the post spreads out to a width of about 10 inches in order to give it a firm footing in the earth. No iron posts have been set in recent years. They have proved impracticable, as they are easily disturbed and are eventually destroyed by rust at the ground level.

The third form of principal bench mark, set only in the early leveling, is a copper bolt, designed to be wedged into a drill hole in rock or masonry and perhaps further secured with lead or cement. This bolt measures 4 inches in length and 1 inch in diameter and has a slot at the bottom end into which fits a brass wedge. The wedge serves to expand the lower part of the bolt, so that after the bolt has been driven nearly its full length into the hole, it cannot easily be removed. The exposed end of the bolt bears an appropriate inscription, stamped upon it with steel dies. The inscription is made up of the letters "U S G S," the letters indicating the datum used, the figures of elevation, and the abbreviated word "Ft."

Supplementary bench marks are of many kinds. One kind consists of a copper nail 1½ inches long supplied with a copper washer seven-eighths of an inch in diameter. The nail is driven into the root of a tree or cemented into rock. The designation "U S G S B M" is stamped on each washer, and on some washers the abbreviation of the name of the cooperating State is added. Another kind of supplementary bench mark is a chiseled square, used on the horizontal surface of a rock or masonry structure, or a chiseled cross, used on a vertical surface. Nails, track spikes, and small capped iron pipes also serve as supplementary bench marks, and easily described and recognized points, such as doorsills and tops of hydrants, are occasionally used.

Preservation and restoration of bench marks.—Any person who finds that a principal bench mark has been damaged, disturbed, or destroyed

or that it should be reset or redescribed on account of highway or other improvements will render a public service by communicating the facts to the Director, Geological Survey, United States Department of the Interior, Washington, D. C., before taking any action affecting the location or elevation of the mark. A proper form, accompanied by a return-addressed, franked envelope, will be sent for use in reporting the action taken and in recording the revised description of the mark, if any, and the notes made in obtaining the revised elevation.

Datum.—All elevations determined by the Geological Survey and those determined by the Coast and Geodetic Survey for inland mapping are referred to mean sea level, which is the level that the sea would assume if the influence of winds, tides, and currents were eliminated. This level is not the elevation determined from the mean of the highest and lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. *Mean sea level is the average height of the water, all stages of the tide being considered.* It is determined from observations made by means of tidal gages placed at stations where local conditions, such as those due to long, narrow bays, rivers, and like features, will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At stations on the open coast the half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea levels determined from observations made in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.³

Location of the area.—South-central Texas, as the term is used in this bulletin and as the subject of part 5 of the bulletin, is that section of the State lying south of latitude 30° and between longitudes 97° and 100°. (See fig. 9.)

Index map.—The accompanying index map of south-central Texas (fig. 10) shows the relative position of the quadrangle areas in which leveling has been done. They are of two sizes—15-minute and 30-minute quadrangles. Each 15-minute quadrangle measures 15 minutes in latitude by 15 minutes in longitude. Each 30-minute quadrangle measures 30 minutes in latitude by 30 minutes in longitude and is equal in area to four 15-minute quadrangles.

Maps of quadrangles in south-central Texas for which surveys have been completed may be purchased at 10 cents each retail or 6 cents wholesale, in lots of 50 or more. Prepayment is required and may be made by money order, payable to the Director of the Geological Survey, or in cash—the exact amount, at sender's risk. Postage

³ See Jones, E. L., Hypsometry—Use of mean sea level as the datum for elevations: U. S. Coast and Geodetic Survey Special Pub. 41, 1917; Manual of tide observations: U. S. Coast and Geodetic Survey Special Pub. 196, 1935.

stamps should not be sent. These maps are of nearly uniform size regardless of the size of the areas they represent, because they are drawn on different scales. For some of the 15-minute quadrangles that appear on the index map there are as yet no corresponding maps,

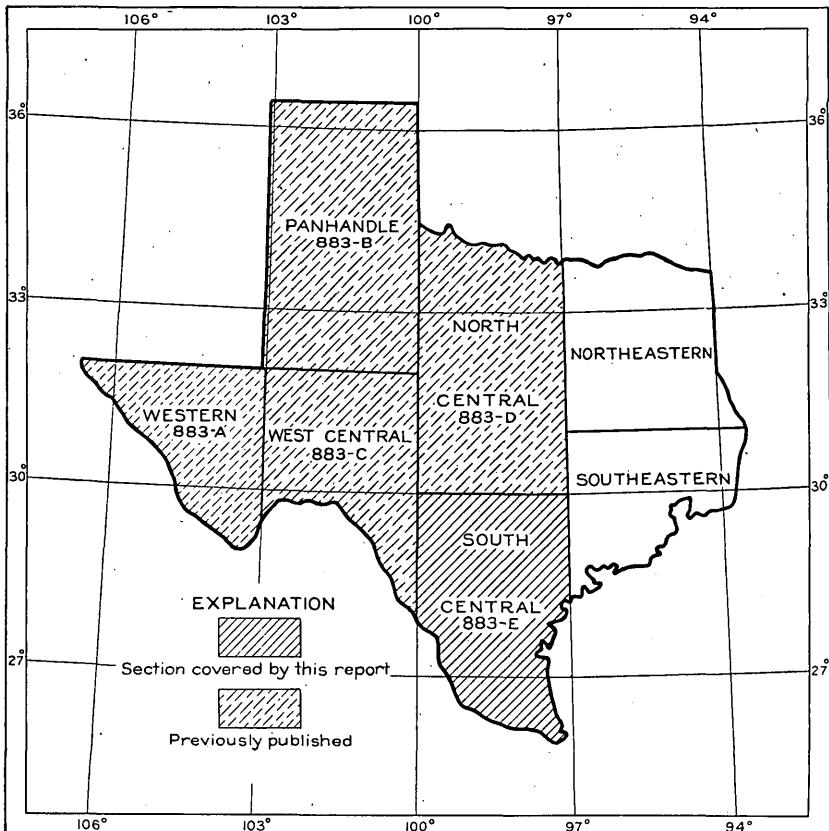


FIGURE 9.—Outline map of Texas showing the names and relative position of the seven sections covered by the parts of Bulletin 883 on spirit leveling in the State.

but these areas are included in 30-minute quadrangles, for some of which maps may be purchased.

Cooperation.—The State of Texas, through the University of Texas Mineral Survey in 1902 and 1903 and the State Reclamation Service in 1909, 1910, and 1923-27, contributed financially to the work of mapping and leveling this section of the State.

Personnel.—The leveling of the Geological Survey in south-central Texas was done under the supervision of the several chief geographers or chief topographic engineers who were in administrative charge of the topographic branch during the years when the lines were run. The name of the levelman who ran a particular line and the date when it was run immediately follow the designation of the route of that line

and form part of the heading that precedes the descriptions of benchmarks. The adjustment of the third-order level net and the revision,

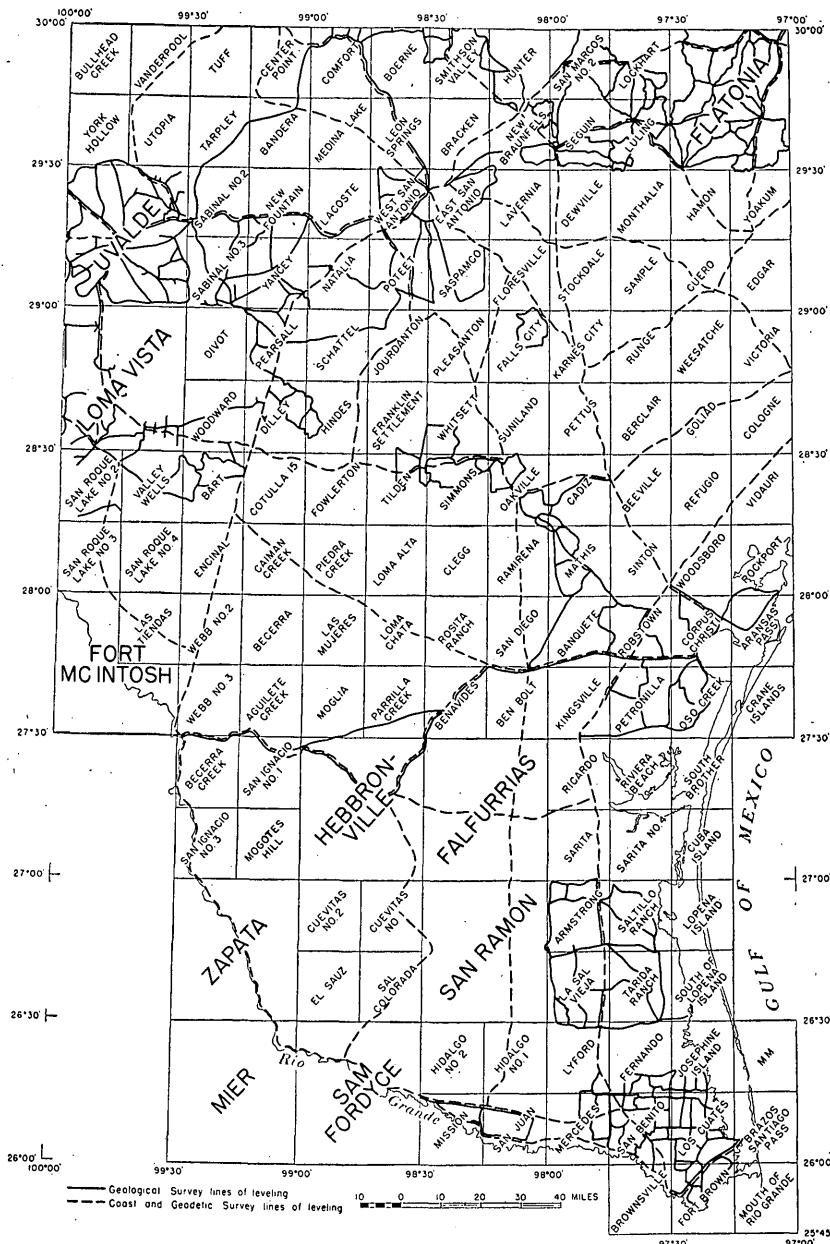


FIGURE 10.—Index map of south-central Texas, showing the quadrangles into which this section of the State has been divided and the routes of leveling.

correlation, and compilation of the descriptions and elevations of bench marks, as well as the assembling of the lists, were done by R. G.

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Clinite, associate geodetic engineer, under the supervision of R. M. Wilson, chief of the section of computing, under the general direction of J. G. Staack, chief topographic engineer. E. W. Tibbott assisted in making the adjustment of the third-order leveling.

DESCRIPTIONS OF BENCH MARKS

AGUILLETE CREEK QUADRANGLE

[Latitude $27^{\circ}30' - 27^{\circ}45'$; longitude $99^{\circ}00' - 99^{\circ}15'$]

WEBB COUNTY

From Webb No. 3 quadrangle east and southeast along Texas Mexican Railway into San Ignacio No. 1 quadrangle (by S. L. Parker in 1919; reeveled by J. H. Wilke in 1923)

Pescadito, 3.5 mi. E. of, 6.0 mi. NW. of Reiser, opposite milepost 22, in line with telegraph poles; iron post stamped "1919 526" (recovered by U. S. C. & G. S. in 1933)-----	Feet
	526. 324
Reiser, 3.0 mi. NW. of, opposite milepost 25, on S. side of track, in line with telegraph poles; iron post stamped "1919 544" (recovered by U. S. C. & G. S. in 1933)-----	544. 120

ARANSAS PASS QUADRANGLE

[Latitude $27^{\circ}45' - 28^{\circ}00'$; longitude $97^{\circ}00' - 97^{\circ}15'$]

ARANSAS AND SAN PATRICIO COUNTIES

From Corpus Christi quadrangle southeast and northeast along San Antonio & Aransas Pass Railroad to Aransas Pass, thence northeast along road into Rockport quadrangle (by E. E. Harris in 1923)

Gregory, 3.3 mi. SE. of, 2.4 mi. NW. of Ingleside, on NE. side of track, 10 ft. E. of milepost 257, in line with telephone poles, in concrete post; standard tablet stamped "Prim Trav Sta No 54 Y 1923 Texas H 12"-----	20. 267
Reference mark, 127.8 ft. N. 25° E. of tablet, 5 ft. W. of first telephone pole E. of sta., 6 in. underground; top of cap on iron pipe-----	19. 74
Ingleside, 1.3 mi. NW. of, on NE. side of track, midway between fence line and line of telephone poles, at milepost 258; top of cap on iron pipe-----	19. 60
Ingleside, 0.6 mi. NW. of, 1,300 ft. NW. of milepost 259, on SE. side of track, 40 ft. W. of center line of rd. to cattle loading sta., in NE. corner of T-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	13. 43
Ingleside, in front of sta.; top of rail-----	15. 3
Ingleside, 15 ft. NE. of NE. corner of sta., 34 ft. W. of intersection of rd. and main track, in angle of sta. platform, in concrete post; standard tablet stamped "Prim Trav Sta No 53 Y 1923 Texas H 13"-----	14. 582
Reference mark, 52.1 ft. S. 75° E. of tablet, 15 in. E. of crossing sign-post, 15 ft. S. of track, 6 in. underground; top of cap on iron pipe-----	13. 26
Ingleside, 0.6 mi. SE. of, at milepost 260, on NE. side of track, midway between fence line and line of telephone poles; top of cap on iron pipe-----	15. 17
Ingleside, 1.6 mi. SE. of, 3.6 mi. SW. of Aransas Pass, on SE. side of track, opposite milepost 261, 6 ft. N. of telephone pole; top of cap on iron pipe-----	24. 07

¹ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

	Feet
Aransas Pass, 2.8 mi. SW. of, 1,250 ft. S. of milepost 262, on SE. side of track, in NE. angle of rd. crossing, in L-angle in R. R. right-of-way fence, 1 ft. from each fence; top of cap on iron pipe-----	24.49
Aransas Pass, 1.9 mi. SW. of, 0.4 mi. S. of milepost 263, 85 ft. SW. of rd. crossing, on E. side of R. R. right-of-way fence, on W. side of rd., in fence corner, 6 ft. from corner post, in concrete post; standard tablet stamped "Prim Trav Sta No 52 Y 1923 Texas H 14"-----	6.090
Reference mark, 122.5 ft. N.60°E. of tablet, 43 ft. S. of center line of track, 7 ft. N. of corner fence post, 15 in. W. of fence line, 6 in. underground; top of cap on iron pipe-----	3.68
Aransas Pass, 0.8 mi. S. of, at target switch, 80 ft. S. of crossing of dim rd., on NW. side of track, in line with and 3 ft. N. of telephone poles; top of cap on iron pipe-----	4.42
Aransas Pass, in front of sta.; top of rail-----	6.0
Aransas Pass, just NE. of sta., on SE. side of track, SW. of rd. crossing, at NW. corner of city water tank, in top of large concrete block foundation; standard tablet stamped "H 15 Texas 1923"-----	5.385
Reference mark, 32.7 ft. S.30°W. of tablet, at city water tank, on top of SW. concrete block; chiseled square-----	5.32
Aransas Pass, about 900 ft. NE. of post office, 1,000 ft. NW. of track, in SW. corner of crossroads, on top of concrete culvert; chiseled square-----	8.78
Aransas Pass, 0.8 mi. NE. of, on SE. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	8.99
Aransas Pass, 1.3 mi. NE. of, 315 ft. SW. of milepost 266, at crossing of second-class rd., on NW. side of track, on SE. side of main rd., on SW. side of second-class rd., 1.7 ft. from corner fence post, in concrete post; standard tablet stamped "Prim Trav Sta No 51 Y 1923 Texas H 16"-----	5.410
Reference mark, 293 ft. S.80°W. of tablet, on SE. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	5.32
Aransas Pass, 2.1 mi. NE. of, 1,000 ft. SW. of milepost 267, on E. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	6.25
Aransas Pass, 2.7 mi. NE. of, 0.4 mi. NE. of milepost 267, on SE. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	5.58
Aransas Pass, 3.0 mi. NE. of, 0.3 mi. SW. of milepost 268, 900 ft. NE. of rd. crossing, in center of top of parapet of concrete culvert; chiseled square-----	4.96
Aransas Pass, 3.6 mi. NE. of, 0.3 mi. NE. of milepost 268, on SE. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	4.81
Aransas Pass, 3.9 mi. NE. of, 0.4 mi. SW. of milepost 269, on SE. side of rd., in N. end of top of parapet of concrete culvert; chiseled square-----	5.80
Aransas Pass, 4.3 mi. NE. of, 0.3 mi. SW. of Estes School, 0.2 mi. SW. of first curve N. of Aransas Pass, at milepost 269, 9.5 ft. N. of and in line with telegraph poles, on NW. side of track, in concrete post; standard tablet stamped "Prim Trav Sta No 50 Y 1923 Texas H 17"-----	4.985
Reference mark, 162.3 ft. N.35°E. of tablet, 15 in. W. of telephone pole; 6 in. underground; top of cap on iron pipe-----	4.32
Aransas Pass, 4.8 mi. NE. of, 0.5 mi. NE. of milepost 269, 150 ft. S. of rd. crossing, on SE. side of rd., on N. end of top of parapet of concrete culvert; chiseled square-----	7.76
Aransas Pass, 5.5 mi. NE. of, 450 ft. N. of milepost 270, 250 ft. S. of rd. crossing, on E. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	7.23

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	Feet
Aransas Pass, 6.0 mi. NE. of, 0.4 mi. SW. of milepost 271, on E. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	7. 20
Aransas Pass, 6.4 mi. NE. of, 150 ft. N. of milepost 271, 1,000 ft. SE. of cross rd., on SE. side of rd., on S. end of parapet of concrete culvert; chiseled square-----	6. 38
Aransas Pass, 7.0 mi. NE. of, 0.3 mi. SW. of milepost 272, 300 ft. NW. of oil well derrick, on NW. side of track, half way between fence line and line of telephone poles, in concrete post; standard tablet stamped "Prim Trav Sta No 49 Y 1923 Texas H 18"-----	3. 799
Reference mark, 280 ft. N.25°E. of tablet, on SE. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	4. 85
Aransas Pass, 7.8 mi. NE. of, 2.1 mi. SW. of Rockport, 0.5 mi. SE. of milepost 273, on SE. side of rd., 800 ft. S. of gate across rd., in center of top of parapet of concrete culvert; chiseled square-----	5. 44
From Rockport quadrangle at Rincon ranch south and southwest 2.1 miles into Corpus Christi quadrangle (by E. E. Harris in 1923)	
Rincon ranch, 270 ft. N. of headquarters, in NW. corner of T-angle in fence line, 15 ft. E. of gate; top of cap on iron pipe-----	17. 85
Rincon ranch, 0.3 mi. S. of headquarters, 14 ft. N. and 37 ft. W. from rd. fork, at SE. corner of cultivated field, inside fence, 3 ft. W. of corner post, in concrete post; standard tablet stamped "Prim Trav Sta No 42 Y 1923 Texas H 26"-----	19. 257
Reference mark, 22.2 ft. S.75°W. of tablet, 1 ft. N. of first fence post W. of corner post, 6 in. underground; top of cap on iron pipe-----	18. 69
Rincon ranch, 1.2 mi. S. of, 1.0 mi. SE., thence 4.9 mi. NE. from Gregory, 1.0 mi. N. of gate at Taft ranch farm No. 30, 15 ft. W. of rd.; top of cap on iron pipe-----	19. 76
ARMSTRONG QUADRANGLE	
[Latitude 26°45'-27°00'; longitude 97°45'-98°00']	
BROOKS, HIDALGO, AND KENEDY COUNTIES	
From La Sal Vieja quadrangle northeast along Andres ranch-Norias road to Norias station on St. Louis, Brownsville & Mexico Railway, thence northwest 0.5 mile (by H. P. Kilby in 1920)	
Vinson triangulation sta., 6.9 mi. SW. of Norias sta., about 160 ft. E. of large white house, 160 ft. N. of section house, about 150 ft. N. of wagon rd. W. from Norias, near center of rounded bare knoll between salt lakes, in concrete cylinder; U. S. C. & G. S. standard disk-----	51. 196
Norias, 3.3 mi. SW. of sta. at, 40 ft. N. of rd.; iron post stamped "Prim Trav Sta No 30 31"-----	30. 999
Norias, on W. side of track, in front of ranch house, 3 ft. E. of N. fence corner; iron post stamped "Prim Trav Sta No 16 20"-----	19. 940
U. S. C. & G. S. standard disk stamped "Z 47 1917"-----	18. 173
From La Sal Vieja quadrangle at point 10 miles north of Stillman triangulation station north across country 1.9 miles (by H. P. Kilby in 1920; single spur line)	
Stillman triangulation sta., 11.9 mi. N. of, about 0.3 mi. S. of rd. and telephone line, on lone sand dune, in root of lone mesquite tree; copper nail and washer-----	42. 95

Northwest along roads to Norias station (by J. L. Lenovitz in 1920)

Norias, 1.3 mi. SE. of, on W. side of rd., in mesquite tree; copper nail and washer-----	Feet 16. 17
Norias, 0.7 mi. SE. of, on E. side of rd., in mesquite tree; copper nail and washer-----	16. 21
From Norias northwest along St. Louis, Brownsville & Mexico Railway to Armstrong (by Basil Tuttle in 1920)	
Norias, 3.6 mi. NW. of, 350 ft. S. of milepost 71, on W. side of track, in line with telegraph poles; iron post stamped "25.1"-----	25. 271
Norias, 6.9 mi. NW. of, 3.0 mi. SE. of Armstrong, at milepost 74; iron post stamped "32.8"-----	33. 026
U. S. C. & G. S. standard disk stamped "X 47 1917"-----	25. 774
From Armstrong southeast across country about 3.5 miles into Saltillo Ranch quadrangle (by Basil Tuttle in 1920)	
Armstrong, 3.4 mi. SE. of, 1.6 mi. S. of corner of E.-W. and N.-S. fence lines, at U. S. C. & G. S. triangulation sta. Armstrong, in concrete post; standard tablet stamped "1920 Texas 33"-----	33. 454
From Armstrong generally west along road about 12.5 miles, thence north 5.3 miles along Brooks-Kenedy county line, thence southeast across country to Lorita ranch and northeast along road into Sarita quadrangle at point about 2.7 miles southwest of Turcotte (by Basil Tuttle in 1920-21; section northeast of Lorita ranch reeveled by A. K. Andrews in 1921)	
Armstrong, 2.4 mi. W. of, near E.-W. fence line; iron post-----	25. 181
Armstrong, 4.6 mi. W. of, 2.2 mi. E. of Ball ranch house, 300 ft. SW. of salt lake, 100 ft. W. of watering trough, in E.-W. fence line; iron post stamped "Prim Trav Sta No 40 W 29"-----	30. 382
Ball ranch house, 0.8 mi. W. of, 15 ft. S. of rd., at N.-S. fence line, 15 ft. S. of gate; iron post stamped "Prim Trav Sta No 41 W Texas 32"-----	31. 911
Ball ranch house, 5.6 mi. W. of, 1.2 mi. N. of warehouse at lake, on county line, at T-fence E.; iron post stamped "Prim Trav Sta No 42 W 1920 46.6"-----	46. 696
Ball ranch, 5.6 mi. W., thence 4.4 mi. N. from, 5.5 mi. NW. of Lorita ranch house, 100 ft. W. of torn-down N.-S. fence, on county line, 1 ft. N. of boundary post 19; iron post stamped "Prim Trav Sta No 54 W 1920 Texas 58"-----	57. 944
Lorita ranch house, 2.7 mi. NW. of, 1.2 mi. NW. of cross fences, in 6-in. mesquite tree; copper nail and washer-----	47. 49
Lorita ranch house, 1.5 mi. W. of, about 9.2 mi. SW. of Turcotte, 10 ft. N. of corner of cross fences; iron post stamped "Prim Trav Sta No 55 W 1920 40.2"-----	38. 852
Turcotte, 5.7 mi. SW. of, 2.0 mi. NE. of Lorita ranch house, 15 ft. N. of rd., 60 ft. NW. of mesquite tree; iron post stamped "Prim Trav Sta No 56 W 1920"-----	40. 004
Along road southwest of Turcotte (by Basil Tuttle in 1920-21; reeveled by A. K. Andrews in 1921)	
[A jog from Sarita quadrangle]	
Turcotte, 1.1 mi. SW. of, 50 ft. N. of rd., 250 ft. S. of small lake, 300 ft. W. of small clump of mesquite brush, in base of 2-in. mesquite bush; copper nail and washer-----	33. 16

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From Sarita quadrangle south along St. Louis, Brownsville & Mexico Railway to Armstrong (by Basil Tuttle in 1920-21; reeveled by A. K. Andrews in 1921)	
Armstrong, 2.7 mi. N. of, on E. side of track, 8 ft. S. of fence corner, 2 ft. W. of N.-S. fence line; iron post stamped "Prim Trav Sta No 44 W 1920 Texas 30"	Feet 30. 048
From San Ramon quadrangle northeast and north near Brooks-Kenedy county line to point 5.6 miles west of Ball ranch (by Basil Tuttle in 1921)	
Andres ranch, 4.5 mi. N. of, 55 ft. S. of windmill, about 20 ft. NE. of water trough, at 2-in. iron pipe extending 4 in. above ground; top of pipe	47. 42
Andres ranch, 5.6 mi. N. of, 1.1 mi. NE. of windmill, 300 ft. NW. of two small lakes, in base of 2-in. mesquite bush; copper nail and washer	51. 42
Andres ranch, 7.3 mi. N. of, 2.4 mi. N. of windmill, 10 ft. E. of corner of E.-W. and N.-S. fences; iron post stamped "Prim Trav Sta No 38 W 1919 52"	51. 918
Andres ranch, 11.2 mi. N. of, 2.8 mi. SW. of lake at warehouse, 0.8 mi. SW. of county milepost 26, 2,500 ft. SW. of gate in county fence line, 300 ft. N. of small lake; iron post stamped "Prim Trav Sta No 39 W 1919 Texas 50.3"	50. 386

BANDERA QUADRANGLE

[Latitude $29^{\circ}30'$ - $29^{\circ}45'$; longitude $99^{\circ}00'$ - $99^{\circ}15'$]

BANDERA AND MEDINA COUNTIES

From Tarpley quadrangle northeast along Bandera-Utopia road to Bandera, thence north along Bandera-Kerrville road into Center Point quadrangle (by J. A. Hinman in 1896; double-rodded line)	
Bandera, 6.0 mi. SW. of, 100 ft. E. of milepost 6, 500 ft. E. of gate, 25 ft. N. of rd.; iron post stamped "1449 SA"	1, 442. 051
Bandera, at SW. corner of Bandera County courthouse, in stone wall, set vertically; standard tablet stamped "1265 SA" (recovered by U. S. C. & G. S. in 1935)	1, 258. 219

BANQUETE QUADRANGLE

[Latitude $27^{\circ}45'$ - $28^{\circ}00'$; longitude $97^{\circ}45'$ - $98^{\circ}00'$]

JIM WELLS, NUECES, AND SAN PATRICIO COUNTIES

From San Diego quadrangle northeast and southeast along Texas Mexican Railway into Robstown quadrangle (by S. L. Parker in 1920; reeveled by E. E. Harris in 1928)	
Alice, 6.0 mi. NE. of, 1.8 mi. SW. of Bentonville, 400 ft. W. of rd. crossing, 2 ft. S. of milepost 125, on N. side of rd. and track; top of cap on iron pipe (established in 1923; recovered by U. S. C. & G. S. in 1932)	154. 750
Bentonville, 190 ft. SE. of sta., at SW. corner of T-rd. S., 5 ft. W. of fence corner, 1 ft. N. of fence line; iron post stamped "1920 150" (recovered by U. S. C. & G. S. in 1932)	147. 267
Reference mark, 101 ft. S. $75^{\circ}W.$ of iron post, 1 ft. N. of fence line, 6 in. underground; top of cap on iron pipe	146. 45
Bentonville, 2.6 mi. NE. of, 0.4 mi. SW. of Agua Dulce, at crossing of public rd., on S. side of track, 4 ft. W. of SW. fence corner; iron post stamped "1920 130"	127. 918
Reference mark, 85.7 ft. S. $70^{\circ}W.$ of post, 1 ft. N. of fence line, 6 in. underground; top of cap on iron pipe (established in 1923)	126. 76

	Feet
Agua Dulce, 0.2 mi. NE. of, 2 ft. W. of milepost 130, on N. side of track and rd.; top of cap on iron pipe (established in 1923)-----	122. 95
Agua Dulce, 3.2 mi. NE. of, 4.0 mi. SW. of Banquete, 70 ft. S. of milepost 133, on S. side of track, in line with row of telephone poles; iron post stamped "1920 102" (recovered by U. S. C. & G. S. in 1932)-----	99. 271
Reference mark, 128.8 ft. S.75°W. of iron post, in line with telephone poles, 6 in. underground; top of cap on iron pipe (established in 1923)-----	98. 43
Banquete, 1.0 mi. W. of, 15 ft. N. of milepost 136, between track and rd., on R. R. right-of-way; iron post stamped "1920 94" (recovered by U. S. C. & G. S. in 1932)-----	90. 984
Reference mark, 94 ft. S.70°W. of iron post, 1 ft. N. of fence line, 6 in. underground; top of cap on iron pipe (established in 1923)-----	89. 65
Banquete, 400 ft. W. of sta., in NE. angle of crossroads, on N. side of track, on S. end of E. parapet of concrete culvert under N.-S. rd.; chiseled square (established in 1923)-----	86. 54
Banquete, 450 ft. E. of sta., on S. side of rd. and track, in rear of Blue Wagon cotton gin, on NW. corner of concrete wall of water tank; chiseled square (established in 1923)-----	84. 16
Banquete, 1.2 mi. SE. of, 0.9 mi. NW. of Rabb, 750 ft. E. of milepost 138, on N. side of rd. and track, at new concrete bridge, on top of NE. wing wall; chiseled square (established in 1923)-----	76. 11
Rabb, 585 ft. E. of crossing at, 110 ft. E. of milepost 139, on S. side of track, 6 ft. N. and 4 ft. W. from fence corner; iron post stamped "1920 83"-----	79. 712
Reference mark, 80 ft. N.75°W. of iron post, 1 ft. N. of fence line, 6 in. underground; top of cap on iron pipe (established in 1923)-----	78. 71
From Mathis quadrangle southwest along San Antonio & Aransas Pass Railroad ⁵ into San Diego quadrangle (section northeast of Alfred leveled by S. R. Archer in 1923; remainder leveled by E. E. Harris in same year)	
Casa Blanca, 0.4 mi. SW. of, in SE. angle at junction of T-rd. E., 40 ft. E. of track, in line with cattle guard 23A, 2 ft. N. of fence corner, in concrete post; standard tablet stamped "A 15 Texas 1923" and "PT Sta No 59 K 1925" (recovered and reset by U. S. C. & G. S. in 1935)-----	189. 406
Reference mark, 66 ft. S.25°W. of tablet, on E. side of rd., directly in line with milepost 243, 6 in. W. of fence line, 6 in. underground; top of cap on iron pipe-----	189. 46
Casa Blanca, 1.4 mi. SW. of, 2.2 mi. NE. of Orange Grove, directly in front of milepost 244, on W. side of rd., on E. side of track, at fence line; top of cap on iron pipe-----	194. 16
Orange Grove, 1.2 mi. NE. of, 75 ft. S. of highway bridge over drain, 300 ft. SW. of milepost 243, on W. side of rd., 4 ft. E. of fence line, in root 4 in. underground on NE. side of small mesquite tree with only one fork left standing; copper nail and washer-----	162. 37
Orange Grove, 0.2 mi. NE. of sta., 125 ft. E. of crossing, on N. side of rd. E., in front of engine room of cotton gin, at foot of SW. support of steel water tank, on top of SW. corner of concrete base; chiseled square-----	191. 04
Orange Grove, in front of sta.; top of rail-----	195. 0

⁵ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

574. SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

Orange Grove, 215 ft. E. of sta., at NE. corner of street intersection, in fence corner, in concrete post; standard tablet stamped "A 17 Texas 1923" (recovered by U. S. C. & G. S. in 1935)-----	Feet
	191. 788
Orange Grove, on N. side of sta., 20 ft. W. of street crossing, at N. end of tile drain under street, on top of collar; chiseled square-----	194. 83
Orange Grove, 0.7 mi. SW. of, at SW. corner of rd. crossing, inside R. R. right-of-way corner; top of cap on iron pipe-----	197. 93
Orange Grove, 1.6 mi. SW. of, at SW. corner of concrete highway bridge over drain, on top of S. end of concrete wing wall; chiseled square-----	180. 97
Orange Grove, 2.8 mi. SW. of, 3.2 mi. NE. of Alfred, 200 ft. S. of main concrete highway bridge over Agua Dulce Creek, 7 ft. S. of NW. corner of concrete highway bridge, in line with milepost 249, at W. guard wall, at foot on N. side of third pipe post of railing from N. end of wing wall; chiseled square-----	167. 28
Alfred, 2.8 mi. NE. of, 0.2 mi. SW. of Reynolds loading pens, in SW. angle of junction of T-rd. W., inside R. R. right-of-way fence corner, in concrete post; standard tablet stamped "A 18 Texas 1923" (recovered by U. S. C. & G. S. in 1935)-----	164. 826
Reference mark, 104.1 ft. S. 20°W. of tablet, on W. side of rd., on E. side of track, 5 in. W. of point directly under fence line, 6 in. underground; top of cap on iron pipe-----	163. 64
Alfred, 2.2 mi. NE. of, 0.2 mi. SW. of ranch rd. E., directly in front of milepost 250, on W. side of rd., on E. side of track, at fence line; top of cap on iron pipe-----	181. 41
Alfred, 1.2 mi. NE. of, on W. side of rd., directly in front of milepost 251, on E. side of track, 50 ft. S. of gate, at fence line; top of cap on iron pipe-----	178. 57
Alfred, 0.4 mi. NE. of, at SW. corner of highway bridge over creek, on top of N. end of wing wall; chiseled square-----	157. 81
Alfred, in front of sta., top of rail-----	165. 2
Alfred, 820 ft. E. of sta., on N. side of rd. E., at SW. corner of schoolhouse grounds, in fence corner, in concrete post; standard tablet stamped "A 19 Texas 1923" (recovered by U. S. C. & G. S. in 1935)-----	160. 131
Reference mark, 220 ft. E. of tablet, on N. side of rd., in line with W. side of schoolhouse, 2 ft. S. of fence on S. side of schoolyard, in root on NE. side of 5-in. mesquite tree; copper nail and washer-----	158. 16
Alfred, 0.7 mi. SW. of, 100 ft. N. of milepost 253, in NE. angle of junction of T-rd. E., in L-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	161. 95
Alfred, 1.7 mi. SW. of, 300 ft. N. of milepost 254, on E. side of rd., on S. end of E. concrete wall of highway bridge; chiseled square-----	156. 67
From Robstown quadrangle west, southwest, and southeast along roads by way of San Patricio and Bluntzer and back into Robstown quadrangle (by J. H. Wilke in 1923)	
Hubert, 3.0 mi. SW., thence 2.0 mi. NW. from, 1.0 mi. E. of San Patricio, 825 ft. E. of rd. S. to house, on S. side of rd., just outside fence; top of cap on 1½-in. iron pipe-----	34. 03
San Patricio, 570 ft. N. of end of bridge, on W. side of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 7 Y 1923 Texas W 6"-----	42. 505
Reference mark, 59.5 ft. N. of tablet, 6 in. underground; top of cap on 1-in. iron pipe-----	41. 58
Bluntzer, on E. side of rd., in front of house, 2 ft. S. of knockaway tree; top of cap on 1½-in. iron pipe-----	36. 72

	Feet
Bluntzer, 0.9 mi. SW. of, 51 ft. NE. of NE. corner of Bluntzer Church, at fence and telegraph pole; top of cap on 1½-in. iron pipe-----	30. 61
Bluntzer, 1.0 mi. SW. of, at NW. corner of new bridge, 8 in. above floor; top of bolt-----	31. 58
Bluntzer, 1.9 mi. SW. of, 105 ft. N. of SW. corner of longest of series of new bridges, 8 in. above floor; top of bolt-----	32. 03
Bluntzer, 1.9 mi. SW. of, at junction of private rd. W. to house, 3 ft. S. of tall gatepost; top of cap on 1½-in. iron pipe-----	35.17
Bluntzer, 2.7 mi. SW. of, 340 ft. S. of Bluntzer School, 40 ft. N. and 24 ft. W. from junction of T-rd. E., near fence, in concrete post; standard tablet stamped "Prim Trav Sta No 8 Y 1923 Texas W 75"-----	75. 649
Reference mark, 50 ft. N. of tablet, at fence; top of cap on 1-in. iron pipe-----	74. 92
Bluntzer, 2.7 mi. SW., thence 0.9 mi. SE. from, 160 ft. E. of fence corner at double gate, at angle in fence; top of cap on 1½-in. iron pipe-----	72. 48
Bluntzer, 2.7 mi. SW., thence 1.3 mi. SE. from, 1,300 ft. W. of cross-roads, 425 ft. E. of bridge, on S. side of rd., 5 ft. NW. of leaning mesquite tree; top of cap on 1½-in. iron pipe-----	32. 13
From Robstown quadrangle at point about 1 mile northeast of Rabb southwest along road to Rabb, thence southeast along Texas Mexican Railway and back into Robstown quadrangle (by J. H. Wilke in 1923)	
Rabb, 63 ft. SE. of switch stand, on W. side of rd. S., in concrete post; standard tablet stamped "Prim Trav Sta No 12 Y 1923 Texas W 11 81"-----	81. 471
Reference mark, 103.3 ft. NE. of tablet, 2 ft. E. of milepost 140, in SE. angle of junction of rd. S., on N. side of track, 6 in. underground; top of cap on iron pipe-----	80. 66
Reference mark, 75.8 ft. N. 75°W. of tablet, 1 ft. N. of fence line, 6 in. underground; top of cap on iron pipe-----	80. 71

BART QUADRANGLE

[Latitude 28°15'-28°30'; longitude 99°15'-99°30']

DIMMIT AND LA SALLE COUNTIES

From Cotulla quadrangle at point 1.6 miles northwest of Cotulla northwest along Carrizo Springs road to point 13.1 miles northwest of Cotulla, thence along road generally south to Big Wells road, thence west to point 6.5 miles southeast of Valley Wells (by A. P. Meade in 1924) *

Cotulla, 2.4 mi. NW. of sta. at, in SW. corner of junction of rd. S., in forked fence post; copper nail and washer (recovered in 1930)-----	444. 39
Cotulla, 3.4 mi. NW. of, 50 ft. W. of summit of grade, 30 ft. S. of rd., at E. side of drain, 4 ft. N. of T-fence S., in concrete post; standard tablet stamped "M 136 1924"-----	441. 053
Reference mark, 150 ft. W. of tablet, 10 ft. S. of fence line, in crotch of mesquite tree, 3 ft. above ground; copper nail and washer-----	436. 93
Cotulla, 5.1 mi. NW. of, E. of summit of grade and farm crossroads, on N. side of rd., 1 ft. from fence, in sandstone ledge; standard tablet stamped "Prim Trav Sta No 19 S 1924 M 137"-----	441. 017
Reference mark, 12 ft. S. of tablet, 10 ft. S. of fence, on N. side of rd., W. of deep wash in drain, on rock ledge; chiseled square-----	440. 41

* An error of one foot is apparent in this line. The elevations are unadjusted.

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	Feet
Cotulla, 8.1 mi. NW. of, 0.8 mi. E. of turn in rd. to SW., on N. side of rd., 2 ft. above ground, in W. side of 18-in. mesquite tree with six large clumps of mistletoe in top; copper nail and washer-----	483. 27
Cotulla, 9.3 mi. NW. of, 50 ft. W. of gate and fence across rd., 10 ft. S. of junction of rd. W., in mesquite tree, 7 in. above ground; copper nail and washer-----	434. 56
Cotulla, 9.9 mi. NW. of, 0.3 mi. W. of Espio Creek, 35 ft. S. of center line of rd., in SW. angle of T-fence S., in concrete post; standard tablet stamped "Prim Trav Sta No 20 1924 M 138"-----	429. 122
Reference mark, 20 ft. E. of tablet, in S. side of forked mesquite tree, 5 in. above ground; copper nail and washer-----	427. 53
Cotulla, 11.2 mi. NW. of, 600 ft. W. of fence across main rd., 10 ft. SW. of main rd., in mesquite tree, 8 in. above ground; copper nail and washer-----	489. 84
Cotulla, 11.4 mi. NW. of, at Dimmit-La Salle county line, 10 ft. S. of center line of rd., 100 ft. W. of mesquite tree, flush with rd., in embedded rock ledge; standard tablet stamped "Prim Trav Sta No 21 S 1924 M 139"-----	516. 412
Reference mark, 15 ft. NW. of tablet, 100 ft. NW. of summit of highest grade in rd., on NW. edge of rock ledge at rd. level; chiseled square-----	515. 68
Cotulla, 12.8 mi. NW. of, 1.4 mi. NW. of Dimmit-La Salle county line, 200 ft. NW. of E.-W. fence, on S. side of rd., on round rock, 4 in. above ground; chiseled square-----	503. 51
Valley Wells, 8.1 mi. SE. of post office at, 10.2 mi. along Big Wells rd. W. of Cotulla, 0.5 mi. S. of Sutton ranch, in SW. corner of crossroads, 20 ft. S. of center line of Big Wells rd., 10 ft. W. of N.-S. rd., 10 ft. W. of gate, 3 ft. S. of N. fence, in concrete post; standard tablet stamped "Prim Trav Sta No 22 S 1924 M 120"-----	466. 776
From point 6.5 miles southeast of Valley Wells northwest along Big Wells road into Valley Wells quadrangle (by A. P. Meade in 1924)	
Valley Wells, 6.5 mi. SE. of, 10 ft. W. of turn to NW. in rd., 15 ft. N. of E.-W. fence, 4 ft. W. of N.-S. fence, in mesquite tree, 1 ft. above ground; copper nail and washer-----	454. 223
Valley Wells, 4.9 mi. SE. of, N. of right-angle turn in rd. to SW., near opening in fence and path E., 3 ft. W. of fence, 15 ft. S. of NE. corner post, in concrete post, 5 in. above ground; standard tablet stamped "Prim Trav Sta No 23 S 1924 M 141 (recovered in 1930)"-----	474. 792
Valley Wells, 1.0 mi. NE., thence 1.1 mi. SE. from, in S. corner of crossroads, E. of big green farmhouse on Potter ranch, 2 ft. from S. corner fence post, under sign "Cotulla 18 mi., Big Wells 10 mi." in concrete post; standard tablet stamped "Prim Trav Sta No 24 S 1924 M 142"-----	471. 074
From Cotulla quadrangle southwest along Kings Highway to point 2.1 miles southwest of Cochina ranch (by E. E. Harris in 1924)	
Cotulla, 1.9 mi. SW. of, on N. side of rd., at bottom of grade, on W. end of NW. wing wall of concrete culvert; chiseled square-----	396. 53
Cotulla, 2.5 mi. SW. of, 300 ft. W. of cross lane, 170 ft. E. of small bridge, 50 ft. W. of summit of grade, on N. side of rd., 18 in. S. of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 25 S 1924 H 118"-----	417. 344
Cotulla, 3.4 mi. SW. of, 60 ft. N. of rd., on E. side of rd. N. through gate, in root on W. side of 6-in. mesquite tree; copper nail and washer-----	407. 56

	Feet
Cotulla, 5.9 mi. SW. of, 3.0 mi. E. of Cochina ranch headquarters, on W. side of turn in rd., in root on N. side of 10-in. mesquite tree; copper nail-----	421. 90
Cochina ranch headquarters, 2.3 mi. E. of, 6.6 mi. SW. of Cotulla, in NE. corner of crossroads, 10 ft. N. and 6 ft. E. from right angle in fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 26 S 1924 H 119"-----	432. 566
Reference mark, 105.2 ft. S. 70°W. of tablet, in root on N. side of 15-in. mesquite tree; copper nail and washer-----	434. 03
Cochina ranch headquarters, 1.1 mi. E. of, at summit of grade, on S. side of rd., at W. edge of cultivated field to E., 15 ft. W. of gate in fence line crossing rd., in root on S. side of 15-in. mesquite tree; copper nail and washer-----	510. 07
Cochina ranch headquarters, 300 ft. NW. of, on S. side of rd., 5 ft. N. of fence line, 40 ft. E. of fence line crossing rd., at cattle guard, in root on N. side of 10-in. mesquite tree; copper nail and washer-----	547. 11
Cochina ranch headquarters, 1.1 mi. W. of, 60 ft. N. of cattle guard, on S. side of rd., in fence line crossing rd., in root on S. side of prominent mesquite tree; copper nail and washer-----	481. 64
Cochina ranch headquarters, 2.1 mi. SW. of, 60 ft. S. of turn in rd., 250 ft. SW. of windmill, 3 ft. E. of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 27 S 1924 H 120"-----	461. 463
Reference mark, 77 ft. N. 70°E. of tablet, in root on N. side of 12-in. mesquite tree; copper nail and washer-----	461. 14
From Valley Wells quadrangle east along Asherton & Gulf Railway to Light, thence alternately north and east along Kings Highway to point 0.1 miles southwest of Cochina ranch (by T. G. Smith in 1924)	
Light, 0.7 mi. W. of sta. at, 150 ft. S. of track, 6 ft. S. of Kings Highway, in root on N. side of 8-in. twisted mesquite tree; copper nail-----	576. 18
Light, 100 ft. N. and 280 ft. W. from sta., 300 ft. E. of loading chute, in concrete post; standard tablet stamped "Prim Trav Sta No 30 S 1924"-----	541. 035
Reference mark, 40 ft. W. of tablet, in root on S. side of twin mesquite tree; copper nail-----	541. 48
Light, 1.1 mi. N. of, 8 ft. W. of rd., in E. side of 3-in. twin mesquite tree; copper nail-----	578. 14
Light, 2.1 mi. N. of, 2.0 mi. S. of San Roque ranch house, 20 ft. W. of rd., in group of three trees, in E. side of mesquite tree; copper nail-----	602. 12
San Roque ranch house, 1.0 mi. S. of, 35 ft. W. of cattle guard, 40 ft. W. of telephone line, in concrete post; standard tablet stamped "Prim Trav Sta No 29 S 1924"-----	540. 957
San Roque ranch house, 0.2 mi. S. of, 3 ft. W. of rd., in root on N. side of small mesquite tree; copper nail-----	486. 67
San Roque ranch house, 0.8 mi. E. of, 3 ft. N. of rd., in group of four trees, in S. side of 4-in. mesquite tree; copper nail-----	527. 60
San Roque ranch house, 2.3 mi. E. of, 0.3 mi. SW. of windmill, 130 ft. S. of reservoir, 8 ft. N. of cattle guard, in concrete post; standard tablet stamped "Prim Trav Sta No 28 S 1924"-----	475. 113
Reference mark, 25 ft. SW. of tablet, in mesquite tree; copper nail-----	474. 65
San Roque ranch house, 3.2 mi. E. of, 200 ft. E. of cattle guard, 20 ft. W. of rd., in crotch of forked mesquite tree; copper nail-----	453. 37
San Roque ranch house, 4.1 mi. E. of, 2.9 mi. SW. of Cochina ranch headquarters, 3 ft. N. of rd., in crotch of four mesquite trees; copper nail-----	448. 23

From point 0.2 mile south of San Roque ranch north along fence line and across Nueces River to point 6.5 miles southeast of Valley Wells (by T. G. Smith in 1924)

	Feet
San Roque ranch house, 0.4 mi. N. of, at sharp angle in fence to E., in S. side of forked mesquite tree; copper nail-----	466. 52
San Roque ranch house, 1.3 mi. N. of, on fence line to river, 10 ft. E. of fence, in NE. side of bent 14-in. mesquite tree; copper nail-----	447. 08
San Roque ranch house, 2.5 mi. N. of, at end of fence line to river, 20 ft. W. of fence, on river bank, in root of 8-in. mesquite tree; copper nail-----	426. 08
San Roque ranch house, 2.8 mi. N. of, on S. side of Nueces River, at crossing, in willow tree; copper nail-----	422. 43
Nueces River; surface of water May 17, 1924-----	415. 1
San Roque ranch house, 3.6 mi. N. of, 450 ft. N. of river, 50 ft. W. of fence line, in S. side of 10-in. mesquite tree; copper nail and washer-----	429. 78
From point 2.4 miles northwest of Cotulla northwest along road into Woodward quadrangle at point about 2.3 miles southeast of Woodward (by E. E. Harris in 1930)	
Cotulla, 3.7 mi. NW. of, 5.3 mi. SE. of Woodward, on E. side of rd., in draw, in root on W. side of 8-in. mesquite tree; copper nail and washer-----	450. 29
Woodward, 4.2 mi. SE. of, on W. side of turn in rd. to NW., in root on N. side of 12-in. mesquite tree; copper nail and washer-----	443. 07
Woodward, 3.2 mi. SE. of, 275 ft. N. of cattle guard, on E. side of rd., on S. end of head wall of small bridge; chiseled square-----	426. 76
Woodward, 2.4 mi. SE. of, 60 ft. S. of junction of ranch rd. W., on W. side of rd., near fence corner, in root on W. side of leaning mesquite tree; copper nail and washer-----	452. 33

BECERRA CREEK QUADRANGLE⁷

[Latitude 27°15'-27°30'; longitude 99°15'-99°30']

WEBB AND ZAPATA COUNTIES

From Webb No. 3 quadrangle southeast and northeast along Texas Mexican Railway and back into Webb No. 3 quadrangle (by S. L. Parker in 1919; re-leveled by J. H. Wilke in 1923)

Laredo, 4.9 mi. SE. of, 245 ft. W. of trestle, at lane crossing, 20 ft. W. of lane, on N. side of track, 1 ft. S. of R. R. property line; iron post stamped "1919 406" (recovered by U. S. C. & G. S. in 1933)-----	406. 443
Trestle 6-C, 100 ft. SE. of; highest point of small flat rock (established in 1923)-----	443. 05
Laredo, 7.7 mi. SE. of, at W. end of cut, on S. side of track, 2 ft. above track, on sandstone ledge; chiseled mark (established in 1923)-----	458. 62
Laredo, 8.4 mi. SE. of, about 0.5 mi. N. of Fort McIntosh rifle range, 265 ft. W. of Bullseye switch stand, 50 ft. S. of main track, 18 ft. S. of rd.; iron post stamped "1919 468" (recovered by U. S. C. & G. S. in 1933)-----	468. 319
Laredo, 11.3 mi. SE. of, 7.2 mi. SW. of Pescadito sta., 0.3 mi. E. of mile-post 11, on S. side of track, at curve, on top of slight elevation, in line with telegraph poles; iron post stamped "1919 581" (recovered by U. S. C. & G. S. in 1933)-----	581. 065

⁷ Small areas in the northwest and southwest parts of this quadrangle, south of the Rio Grande, lie in Mexico.

Pescadito, 3.5 mi. SW. of, 70 ft. SE. of milepost 15, in line with telegraph poles; iron post stamped "1919 573" (recovered by U. S. C. & G. S. in 1933)-----

Feet
572. 984

BEN BOLT QUADRANGLE

[Latitude 27°30'-27°45'; longitude 98°00'-98°15']

DUVAL, KLEBERG, AND JIM WELLS COUNTIES

Along Texas Mexican Railway at Alice (by S. L. Parker in 1920; reeveled by E. E. Harris in 1923)

[A jog from San Diego quadrangle]

Alice, at sta., at point where Texas Mexican Ry. crosses San Antonio & Aransas Pass R. R.;⁸ top of N. rail-----
Alice, at Jim Wells County courthouse, in SE. corner of lawn; iron post stamped "1920 204" (recovered by U. S. C. & G. S. in 1932 and 1935)-----

207. 3
201. 729

From San Diego quadrangle south along San Antonio & Aransas Pass Railroad in Alice (by E. E. Harris in 1923)

Alice, at S. entrance to courthouse, in E. end of second stone step up from ground; standard tablet stamped "H 51 Texas 1923" (recovered by U. S. C. & G. S. in 1932 and 1935)-----
Reference mark, 155.4 ft. N.35°W. of tablet, at E. entrance of courthouse on S. end of first stone step up from ground; chiseled square (recovered by U. S. C. & G. S. in 1932)-----

203. 533
203. 011

BENAVIDES QUADRANGLE

[Latitude 27°30'-27°45'; longitude 98°15'-98°30']

DUVAL COUNTY

From Parrilla Creek quadrangle northeast along roads to Duval switch on Texas Mexican Railway, thence northeast along railroad into San Diego quadrangle⁹ (by S. L. Parker in 1920; reeveled along railroad by E. E. Harris in 1923)

Benavides, 2.4 mi. NW. of, 5 ft. S. of gate crossing public rd., 1 ft. W. of N.-S. wire fence; iron post stamped "1920 430"-----
Benavides, 1.8 mi. N. of, 1.1 mi. W. of Piedras Pintas, at T-rd. E., 45 ft. S. of gate crossing E.-W. rd., 6 ft. W. of N.-S. fence line, at E. end of top of sandstone 5 ft. in diameter; chiseled square-----
Benavides, 1.6 mi. NE. of, at Piedras Pintas, 0.4 mi. W. of Duval switch, at SW. corner of lot of W. A. Tinney, at corner of wooden fence, projecting 3 ft. above ground; top of section of rail set vertically-----

428. 756
388. 56
372. 79

Benavides, 2.0 mi. NE. of, at Duval switch, 70 ft. NE. of center of rd. crossing, in line with telegraph poles; iron post stamped "1920 380" (recovered by U. S. C. & G. S. in 1932)-----

378. 510

Reference mark, 144.6 ft. S.80°W. of iron post, 1 ft. E. of fence line, 5 ft. N. of gatepost, 6 in. underground; top of cap on iron pipe (established in 1923)-----

377. 91

Benavides, 3.8 mi. NE. of, 3 ft. E. of milepost 96, on N. side of track; top of cap on iron pipe (established in 1923)-----

423. 42

⁸ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

⁹ This line cuts the southwest corner of Rosita Ranch quadrangle, but no permanent marks were set in that portion of the line.

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	Feet
Benavides, 4.8 mi. NE. of, on N. side of track, 3 ft. N. of milepost 97; top of cap on iron pipe (established in 1923)-----	447. 79
Benavides, 5.8 mi. NE. of, at milepost 98, 45 ft. S. of track, between track and public rd., in line with telegraph poles; iron post stamped "1920 431" (recovered by U. S. C. & G. S. in 1932)-----	429. 372
Reference mark, 178.7 ft. W. of iron post, 5 ft. E. of and in line with telephone poles, 6 in. underground; top of cap on iron pipe (established in 1923)-----	429. 48
Benavides, 8.8 mi. NE. of, 8.3 mi. SW. of San Diego, at milepost 101, 45 ft. S. of track, between track and public rd., in line with telegraph poles; iron post stamped "1920 368" (recovered by U. S. C. & G. S. in 1932)-----	366. 600
Reference mark, 71.7 ft. S. 15°W. of iron post, in line with telephone poles, 6 in. underground; top of cap on iron pipe (established in 1923)-----	365. 94
San Diego, 4.2 mi. SW. of, 0.3 mi. E. of milepost 105, 45 ft. S. of rd. crossing, in line with telegraph poles; iron post stamped "1920 353" (recovered by U. S. C. & G. S. in 1932)-----	351. 965
Reference mark, 179.3 ft. S. of iron post, 4.5 ft. N. of and in line with telephone poles, 6 in. underground; top of cap on iron pipe (established in 1923)-----	352. 16
From point 2 miles northeast of Benavides west and south along roads by way of Piedras Pintas to Benavides, thence southwest along Texas Mexican Rail-way into Parilla Creek quadrangle (by E. E. Harris in 1923)	
Benavides, 1.5 mi. NE. of, 150 ft. N. of prominent angle in rd., on E. side of rd., 3 ft. N. of lane E. through gate; top of cap on iron pipe-----	378. 90
Benavides, in front of sta.; top of rail of main-line track-----	376. 6
Benavides, just E. of sta., in SE. angle of crossroads, at concrete store and dwelling of Andres Farias, in N. end of W. wall, 3 ft. above ground, set vertically; standard tablet stamped "H 31 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	380. 019
Reference mark, 70.2 ft. S. of tablet, on SW. corner of concrete walk to building; chiseled square-----	376. 90
Benavides, 0.9 mi. SW. of, on NW. side of rd. and track, 1 ft. S. of right-of-way fence, 5 ft. E. of gate; top of cap on iron pipe-----	387. 03
Benavides, 1.6 mi. SW. of, on NW. side of rd., on SE. side of track, on end of SW. wing wall of small bridge; chiseled square-----	386. 77
Benavides, 2.6 mi. SW. of, 100 ft. E. of rd. crossing, on NW. side of rd., at angle, 50 ft. SE. of track, 1 ft E. of fence line, in concrete post; standard tablet stamped "H 32 Texas 1923" ¹⁰ (recovered by U. S. C. & G. S. in 1933)-----	414. 028
Reference mark, 27 ft. N. 30°W. of tablet, 1 ft. N. of second fence post from track, 6 in. underground; top of cap on iron pipe-----	411. 92
Benavides, 3.3 mi. SW. of, 1.1 mi. NE. of Sweden, opposite milepost 88, on NW. side of rd., on SE. side of track, 5 ft. W. of and in line with telephone poles; top of cap on iron pipe-----	428. 67
Sweden, 250 ft. NE. of sta., 125 ft. SW. of milepost 87, on NW. side of track, 3 ft. E. of gate, 1 ft. S. of right-of-way fence; top of cap on iron pipe-----	449. 92
Sweden, in front of sta. sign; top of nearest rail-----	452. 0
Sweden, 0.9 mi. SW. of, on NW. side of rd., 200 ft. E. of milepost 86, on W. end of N. parapet of concrete causeway; chiseled square-----	410. 99

¹⁰ In 1939 this bench mark was reported destroyed.

	Feet
Sweden, 1.9 mi. SW. of, opposite milepost 85, on SE. side of rd., just N. of junction of lane, in L-angle in fence line, in concrete post; standard tablet stamped "H 33 Texas 1923" (recovered by U. S. C. & G. S. in 1933)	435. 816
Reference mark, 49.5 ft. W. of tablet, in L-angle in fence line, 1 ft. from each fence, 6 in. underground; top of cap on iron pipe	434. 94
Sweden, 2.9 mi. SW. of, 7.2 mi. NE. of Realitos, on SE. side of rd. and track, opposite trestle 84-A, on E. end of S. parapet of concrete causeway; chiseled square	415. 22
Realitos, 6.2 mi. NE. of, on NW. side of rd., on SE. side of track, 100 ft. E. of milepost 83, 5 ft. W. of and in line with telephone poles; top of cap on iron pipe	434. 94

BOERNE QUADRANGLE

[Latitude 29°45'-30°00'; longitude 98°30'-98°45']

COMAL AND KENDALL COUNTIES

From Comfort quadrangle southeast along San Antonio & Aransas Pass Railroad¹¹ into Leon Springs quadrangle (by J. A. Hinman in 1898; double-rodded line)

Boerne, 10 ft. N. of first telegraph pole S. of passenger sta., on W. side track; iron post stamped "1412 SA" (recovered by U. S. C. & G. S. in 1931)	1, 404. 502
Boerne, 2.3 mi. SE. of, at bridge over Cibolo Creek, in top of rock coping at W. end of N. pier; copper bolt stamped "1358"	1, 349. 626
From Comfort quadrangle along roads southeast and east to point 0.2 mile north of Sisterdale, thence north into Fredericksburg No. 4 quadrangle (by M. S. Bright in 1900)	
Sisterdale, 2.0 mi. W. of, on S. side of rd., near wire fence, 1 ft. N. of big gate; iron post stamped "1447 SA"	1, 440. 672
From Fredericksburg No. 4 quadrangle southwest along Albert-Kendalia road to Blanco-Comfort road, thence generally west to point 0.2 mile north of Sisterdale (by M. S. Bright in 1900)	
John Kneupp ranch, 1.75 mi. W. of, 4.7 mi. E. of Davis ranch, on S. side of rd., near wire fence, in mound of stone; iron post stamped "1451 SA" (recovered in 1924 and restamped "R 23 Texas 1924 1443")	1, 444. 330
Davis ranch, about 8.5 mi. E. of Sisterdale, 10 ft. W. of gate, at entrance to pasture, on N. side of rd.; iron post stamped "1411 SA"	1, 404. 407
Sisterdale, 4.3 mi. E. of, on N. side of rd., 2 ft. W. of big gate at entrance to pasture of George Werner; iron post stamped "1389 SA"	1, 382. 304
Sisterdale, about 0.5 mi. S. of, at foot of hill, 400 ft. E. of branch, on N. side of rd., near rail fence; iron post stamped "1279 SA"	1, 272. 330
From Smithson Valley quadrangle at point 1.6 miles east of Kendalia along roads west to Kendalia, thence north and west 2.5 miles to point 1.75 miles west of ranch of John Kneupp (by C. E. Reick in 1924)	

Kendalia, 1.0 mi. E. of, on N. side of rd., in root of 20-in. oak tree; copper nail	1, 382. 19
Kendalia, 40 ft. SE. of junction of Bergheim and Blanco rds., in concrete post; standard tablet stamped "Prim Trav Sta No. 26 J 1924 Texas R 22"	1, 385. 210
Reference mark, 650 ft. NW. of tablet, on S. side of rd., in root of 20-in. oak tree; copper nail	1, 365. 74

¹¹ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

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Kendalia, 1.5 mi. NW. of, about 800 ft. N. of Fischer ranch house, 10 ft. W. of gate, in root of 15-in. oak tree; copper nail	Feet 1, 452. 14
From Kendalia along roads south 6.7 miles to point near Guadalupe River, thence east into Smithson Valley quadrangle at point 6.3 miles west of Spring Branch (by C. E. Reick in 1924)	
Kendalia, 1.3 mi. S. of, on W. side of rd., opposite lane E. through gate, in root of 15-in. oak tree; copper nail	1, 333. 24
Kendalia, 2.5 mi. S. of, on E. side of rd., 10 ft. SE. of gate across county rd., in root of 10-in. cedar tree; copper nail	1, 268. 37
Kendalia, 3.6 mi. S. of, 0.6 mi. N. of Curry Creek, on E. side of rd., at gate, on boulder; chiseled square	1, 189. 05
Curry Creek, surface of water Dec. 9, 1924	1, 153. 9
Kendalia, 4.5 mi. S. of, 0.3 mi. S. of Curry Creek, on W. side of rd., near large oak tree, on boulder; chiseled square	1, 195. 76
Kendalia, 5.4 mi. S. of, in angle of rd. fork, in concrete post; standard tablet stamped "R 29 1246.268" (U. S. C. E. B. M.)	1, 247. 565
Reference mark, 560 ft. S. of tablet, on E. side of rd.; top of iron pipe	1, 252. 98
Kendalia, 6.4 mi. S. of, about 1 mi. N. of Guadalupe River, on E. side of rd., in root of 10-in. oak tree; copper nail	1, 218. 49
Kendalia, 6.7 mi. S., thence 0.8 mi. E. from, on NW. side of ranch rd., in root of 10-in. oak tree; copper nail	1, 148. 08
Kendalia, 6.7 mi. S., thence 1.9 mi. E. from, 6.5 mi. W. of Spring Branch, 10 ft. S. of rd. junction, at gate; iron post stamped "R 30 Texas 1924"	1, 176. 887
Reference mark, 50 ft. NW. of tablet, on stone base of gatepost; chiseled square	1, 175. 58

BRACKEN QUADRANGLE

[Latitude 29°30'–29°45'; longitude 98°15'–98°30']

BEXAR, COMAL, AND GUADALUPE COUNTIES

From East San Antonio quadrangle northeast along Galveston, Harrisburg & San Antonio Railroad ¹² into New Braunfels quadrangle (by J. A. Hinman in 1898–97; leveled twice)	
Converse, in front of sta.; center of track	712. 9
Converse, 3.4 mi. NE. of, at bridge over Cibolo Creek, at SW. end of W. brick pier, in stone coping; copper bolt stamped "725"	717. 622
From New Braunfels quadrangle southwest along International-Great Northern Railroad into East San Antonio quadrangle (by J. A. Hinman in 1897)	
Corbyn, 3.2 mi. SW. of, 2.7 mi. NE. of Davenport, at private rd. crossing, near second telegraph pole W. of mileboard 240, in SE. corner of right-of-way fence; iron post stamped "769"	764. 138
Davenport, in front of sta.; center of track	797. 8
Davenport, 0.5 mi. W. of, at bridge over Cibolo Creek, in SE. end of N. stone pier; copper bolt stamped "789" ¹³	783. 910
Bracken, 5.5 mi. SW. of, about 1.5 mi. NE. of Wetmore, 25 ft. E. of rd. crossing, 40 ft. N. of center line of track, 1,000 ft. N. of church; standard iron post stamped "849"	844. 300
Wetmore, in front of mail hook; center of track	816. 7
Wetmore, 4.1 mi. SW. of, 2.0 mi. NE. of Adams Siding, 40 ft. E. of center line of wagon rd., 40 ft. S. of center line of track, 2 ft. from fence; iron post stamped "786"	780. 469

¹² Now part of the Texas & New Orleans Division of the Southern Pacific Co.

¹³ In 1936 this bench mark was reported destroyed.

BRAZOS SANTIAGO PASS QUADRANGLE

[Latitude 26°00'-26°15'; longitude 97°00'-97°15']

CAMERON COUNTY

From Los Cuates quadrangle northeast along Rio Grande Railway¹⁴ to Port Isabel (by R. C. Seitz in 1913; leveled twice)

Port Isabel, 2.3 mi. SW. of Rio Grande Ry. sta., 310 ft. E. of W. end of trestle across lagoon, outside piling line, in S. end of stringer; copper nail	Feet 6. 97
Port Isabel, 120 ft. W. of W. end of sta., 50 ft. N. of track; iron post stamped "S 1913 9" (recovered by U. S. C. & G. S. in 1918 and designated "H 49")	8. 927
U. S. C. & G. S. copper bolt designated "No. 1"	27. 680

From Port Isabel generally west along State Highway 100 into Los Cuates quadrangle (by J. B. Leachman in 1929)

Port Isabel, 1.4 mi. W. of sta., about 0.2 mi. NE. of R. R. track, 15 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 42" (Cameron County B. M.)	6. 678
Port Isabel, 1.9 mi. W. of, 500 ft. W. of junction of T-rd. N., 15 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 41" (Cameron County B. M.)	7. 835
Port Isabel, 2.6 mi. W. of, 300 ft. E. of signpost "Point Isabel 2.5 mi.," 15 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 40" (Cameron County B. M.)	8. 026
Port Isabel, 3.0 mi. W. of, 250 ft. E. of junction of rd. S., 15 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 39" (Cameron County B. M.)	8. 735
Port Isabel, 3.1 mi. W. of, about 500 ft. N. of R. R. track, about 400 ft. S. of shore line, 40 ft. S. and 25 ft. W. from junction of T-rd. S., in concrete post; standard tablet stamped "JBL 4 1929"	7. 306

BROWNSVILLE QUADRANGLE¹⁵

[Latitude 25°45'-26°00'; longitude 97°30'-97°45']

CAMERON COUNTY

From San Benito quadrangle generally South along Barreda Gardens Center road to Carmen ranch (by J. B. Leachman in 1929)

Barreda, 1.8 mi. SE., thence 4.6 mi. S. from, about 300 ft. E. of Mexican hut, at N. edge of Resaca de la Palma, on E. side of rd. at bend W., in root of 18-in. tree; copper nail and washer	36. 79
Barreda, 1.8 mi. SE., thence 4.9 mi. S. from, 0.2 mi. E., thence 2.5 mi. N. from Carmen ranch, 150 ft. W. of irrigation ditch, 120 ft. W. of Mexican house, at sharp turn in rd., 20 ft. E. of rd. S., 400 ft. N. of junction of rd. W., in concrete post; standard tablet stamped "JBL 3 1929"	36. 702
Reference mark, 60 ft. W. of tablet, 40 ft. W. of rd., in root of 16-in. tree; copper nail and washer	36. 28
Carmen ranch, 0.2 mi. E., thence 2.0 mi. N. from, 150 ft. W. of irrigation canal, 120 ft. S. of T-rd. W., in base of 4-in. mesquite tree; rail spike	37. 10
Carmen ranch, 0.2 mi. E., thence 1.4 mi. N. from, 150 ft. W. of irrigation ditch, 560 ft. N. of junction of T-rd. W., 10 ft. E. of rd., in base of mesquite tree; rail spike	38. 11

¹⁴ This railroad grade is now abandoned.¹⁵ The greater part of this area lies in Mexico.

Carmen ranch, 0.2 mi. E., thence 0.2 mi. N. from, 20 ft. S. and 300 ft. E. from intersection of State Highway 48, 250 ft. E. of store, on top of concrete head wall of irrigation canal; chiseled square-----	Feet
	44. 02
Carmen ranch, 26 ft. from corner of church; International Boundary Commission reference monument 40-----	43. 180
From point on St. Louis, Brownsville & Mexico Railway about 2 miles south of Olmito alternately southeast and east along railroad and roads into Fort Brown quadrangle at point 0.8 mile west of Tejon (by S. H. Holm in 1929)	
U. S. C. & G. S. standard disk stamped "V 48 1918 26.28"-----	26. 394
Brownsville, 6.7 mi. along State Highway 96 NW. of, 2.2 mi. SE. of Olmito, 0.5 mi. S. of store and service sta., 25 ft. S. and 12 ft. W. from junction of private T-rd. W., in top of concrete head wall of culvert in drainage ditch; small metal disk stamped "H 14 31.95" (Cameron County B. M.)-----	32. 060
Brownsville, 6.2 mi. NW. of, 1.2 mi. W. of Tejon, 250 ft. N. and 12 ft. W. from junction of T-rd. E., in top of concrete head wall of culvert; small metal disk stamped "H 12 33.71" (Cameron County B. M.)-----	33. 818

CADIZ QUADRANGLE

[Latitude 28°15'-28°30'; longitude 97°45'-98°00']

BEE AND LIVE OAK COUNTIES

From Mathis quadrangle northwest along San Antonio, Uvalde & Gulf Railroad into Oakville quadrangle (by F. L. Shalibo in 1923)	
Dinero, 2.4 mi. NW. of, 4.8 mi. SE. of Mikeska, on W. side of track, 12 ft. N. of second-class rd., in fence line, in concrete post; standard tablet stamped "S 28 1923"-----	112. 723
Reference mark, 15 ft. N. of tablet, in fence line, in root of tree; copper nail-----	114. 59
From Oakville quadrangle at point 4.5 miles northeast of Mikeska generally northeast along road to Beeville (by F. L. Shalibo in 1924)	
Lapara, 3.4 mi. along Beeville-Mikeska rd. SW. of, 30 ft. N. of Mexican camp, 30 ft. S. of junction of T-rd. SE., on E. side of rd., in fence line, in root of mesquite tree; copper nail-----	188. 93
Lapara, 2.4 mi. SW. of, about 500 ft. SE. of Goodwin School, in SE. angle of junction of second-class T-rd. E., 1 ft. inside fence corner, in concrete post; standard tablet stamped "S 51 1924"-----	238. 936
Lapara, 1.5 mi. SW. of, 60 ft. N. of junction of T-rd. NW., on E. side of rd., 8 ft. N. of gate, in fence line, in root of small tree; copper nail-----	241. 66
Lapara, at SW. corner of store, in concrete post; standard tablet stamped "S 52 1924"-----	239. 555
Reference mark, 20 ft. N. of tablet, at NW. corner of store, in top of foundation post; copper nail-----	240. 29
Lapara, 0.5 mi. NE. of, 100 ft. E. of three corners, on S. side of rd., in fence line, in root of small tree; copper nail-----	218. 54
Lapara, 1.6 mi. NE. of, 10 ft. S. of rd. to farmhouse, on E. side of rd., in fence line, in root of small tree; copper nail-----	237. 77
Lapara, 2.8 mi. NE. of, at summit of first high hill, on S. side of rd., in fence line, in concrete post; standard tablet stamped "S 53 1924"-----	331. 058
Lapara, 3.9 mi. NE. of, 30 ft. W. of woods rd. N., 50 ft. W. of stream, 8 ft. N. of fence line, in base of mesquite tree; copper nail-----	326. 63

	Feet
Lapara, 5.1 mi. NE. of, 80 ft. NE. of fence corner, 60 ft. SW. of gate, in hollow, on E. side of rd., in fence line, in root of mesquite tree; copper nail	343. 43
Lapara, 5.5 mi. NE. of, 8.9 mi. W. of Beeville, 50 ft. N. of right-angle turn in rd., on W. side of fence line, in concrete post; standard tablet stamped "S 54 1924"	330. 978
Reference mark, 4 ft. W. of tablet, in root of mesquite tree; copper nail	330. 84
Beeville, 8.0 mi. W. of, 60 ft. E. of second-class T-rd. N., on S. side of rd., in fence line, in root of small mesquite tree; copper nail	306. 45
Beeville, 7.0 mi. W. of, 0.2 mi. E. of junction of second-class rd. N., 15 ft. S. of rd., 10 ft. S. of fence line, in root of large oak tree; copper nail	339. 15
Beeville, 6.1 mi. W. of, in SW. angle of intersection of Cadiz and Lapara rds., 3 ft. W. of corner fence post, in concrete post; standard tablet stamped "S 55 1924" (recovered by U. S. C. & G. S. in 1933)	304. 563
Beeville, 3.2 mi. W. of, in SE. corner of three corners, 3 ft. S. of corner fence post, in concrete post; standard tablet stamped "S 56 1924" (recovered by U. S. C. & G. S. in 1933)	243. 832
Reference mark, 20 ft. E. of tablet, in fence line, in root of tree; copper nail	243. 74
Beeville, 1.6 mi. W. of, in NW. angle of crossroads, on S. side of rd. to farmhouse, near mailbox post, in root of small tree; copper nail	224. 73
U. S. C. & G. S. standard disk stamped "P 45 1917 217. 49"	217. 621

From Oakville quadrangle southeast along Mathis-Oakville road into Mathis quadrangle (by H. F. Jones in 1925)

Mikeska, 1.4 mi. NE., thence 2.6 mi. SE. from, 3.0 mi. NE., thence 6.3 mi. NW. from Dinero, on SW. side of rd., about 40 ft. S. of crossing of dim rd., in root of mesquite tree; copper nail and washer	135. 20
Dinero, 3.0 mi. NE., thence 5.3 mi. NW. from, on N. side of rd., in root on W. side of 30-in. live-oak tree; copper nail and washer	142. 70
Dinero, 3.0 mi. NE., thence 4.2 mi. NW. from, 0.2 mi. SE. of rd. crossing, on Lapara Creek, 60 ft. S. of T-rd. W. to ranch house, in concrete post; standard tablet stamped "Prim Trav Sta No 99 K 1924" and "J 27 1925"	142. 050
Reference mark, 40 ft. S. of rd. junction, in N. side of large live-oak tree; copper nail and washer	141. 59
Dinero, 3.0 mi. NE., thence 3.2 mi. NW. from, on SW. side of rd., in root on N. side of mesquite tree; copper nail and washer	132. 21
Dinero, 3.0 mi. NE., thence 2.1 mi. NW. from, on NE. side of rd., in root on S. side of 30-in. live-oak tree; copper nail and washer	141. 16
Dinero, 3.0 mi. NE., thence 1.0 mi. NW. from, on S. side of rd., 50 ft. W. of junction of dim rd. S., in concrete post; standard tablet stamped "J 28 1925"	134. 039
Reference mark, 100 ft. W. of rd. junction, in root of mesquite tree; copper nail and washer	134. 81

At Cadiz (elevation by U. S. C. & G. S.)

Cadiz, in NE. angle of crossroads, 70 ft. E. of store and post office, 100 ft. SW. of Cadiz Baptist Church, in concrete post; standard tablet stamped "Prim Trav Sta No 84 K 1924"	350. 485
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CENTER POINT QUADRANGLE

[Latitude 29°45'-30°00'; longitude 98°00'-99°15']

BANDERA AND KERR COUNTIES

From Bandera quadrangle generally north along Bandera-Kerrville road to Bandera-Center Point road, thence northeast and north to Center Point, thence east along San Antonio & Aransas Pass Railroad¹⁸ into Comfort quadrangle (by J. A. Hinman in 1898; double-rodded line)

	Feet
Bandera, 5.5 mi. NW. of, 12.5 mi. SW. of Center Point, at junction of Bandera-Kerrville and Bandera-Center Point rds.; iron post stamped "1407 SA"-----	1, 399. 985
Center Point, 6.0 mi. S. of, at summit of Elm Pass, 25 ft. W. of milepost 6, at fence corner; iron post stamped "1744 SA"-----	1, 737. 387
Center Point, on Main Street, at NE. corner of stone Masonic Building ¹⁷ owned by Mrs. J. H. Hossack, in E. face; standard tablet stamped "1531 SA" (recovered by U. S. C. & G. S. in 1934)-----	1, 523. 701

COMFORT QUADRANGLE

[Latitude 29°45'-30°00'; longitude 98°45'-99°00']

BANDERA, KENDALL, AND KERR COUNTIES

From Center Point quadrangle east and southeast along San Antonio and Aransas Pass Railroad¹⁸ into Boerne quadrangle (by J. A. Hinman in 1898; double-rodded line)

Center Point, 7.2 mi. E. of, 2.0 mi. SW. of Comfort, between mileboards 291 and 292, in SW. corner of intersection of Comfort-Kerrville rd.; iron post stamped "1437 SA"-----	1, 429. 598
U. S. C. & G. S. standard disk stamped "C 220 1934" ¹⁹ -----	1, 431. 099
Comfort, opposite side of track from NW. corner of R. R. sta., near crossing of Fredericksburg rd.; iron post stamped "1437 SA" (recovered in 1898) ²⁰ -----	1, 429. 939
Comfort, about 4.5 mi. E. of, 2.4 mi. NW. of Waring, at bridge over Guadalupe River, in top of coping at S. end of E. pier; copper bolt stamped "1374" ²¹ -----	1, 366. 785
Waring, 1.5 mi. SE. of, 1.7 mi. N. of Welfare, 50 ft. SW. of intersection of Boerne-Fredericksburg rd.; iron post stamped "1377 SA" (recovered in 1936)-----	1, 369. 531
Welfare, 2.3 mi. S. of, 1.2 mi. N. of Spanish Pass, about 5.5 mi. NW. of Boerne, 75 ft. W. of track, at W. end of first arch culvert N. of milepost 276, in cap over keystone of arch; copper bolt stamped "1535" (recovered by U. S. C. & G. S. in 1931)-----	1, 527. 494

From Fredericksburg No. 3 quadrangle south along Fredericksburg-Comfort road to Comfort (by Thomas Winsor in 1898)

Comfort, 3.5 mi. N. of, 600 ft. W. of stone farmhouse, on W. side of rd., 10 ft. N. of farm gate; iron post stamped "1530 SA"-----	1, 524. 382
Comfort, 1.4 mi. N. of, in NW. corner of junction of rd. NW., N. of guidepost "To Cypress Creek"; iron post stamped "1521 SA"-----	1, 515. 427

¹⁷ Described by U. S. Coast & Geodetic Survey in 1934 as "Burney Building."

¹⁸ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

¹⁹ The tie between this mark and the bench mark stamped "1437 SA" was made in 1936.

²⁰ In 1929 it was reported that this post had been bent.

²¹ In 1936 this mark was reported destroyed.

From Fredericksburg No. 3 quadrangle at point about 4 miles north of Waring southeast along Fredericksburg-Sisterdale road into Boerne quadrangle (by M. S. Bright in 1900)

Waring, 3.5 mi. NW. of, at junction of Fredericksburg-San Antonio and Fredericksburg-Sisterdale rds., 40 ft. E. of San Antonio rd., 4 ft. W. of Sisterdale rd., 1 ft. E. of N. gatepost; iron post stamped "1563 SA" (recovered in 1936)-----	Feet 1, 556. 547
From point on Texas & New Orleans Railroad 1.5 miles southeast of Waring northwest along railroad to Waring, thence generally north along Waring-Fredericksburg road to point 3.5 miles north of Waring (by D. R. Cabaniss in 1938; leveled twice)	
U. S. C. & G. S. standard disk stamped "F 82 1931"-----	1, 400. 991
Waring, 0.5 mi. N. of, at low-water bridge over Guadalupe River, in N. end of W. guardrail; standard tablet stamped "C 1 1936"-----	1, 289. 105
Reference mark, 75 ft. N. and 45 ft. E. from tablet, in root of large cypress tree; copper nail and washer-----	1, 288. 35
Waring, 1.4 mi. N. of, on E. side of rd., in fence line, 345 ft. N. of fence E., in root of large live-oak tree; copper nail and washer-----	1, 370. 74
Waring, 2.3 mi. N. of, 1.2 mi. S. of Clifts Sta., at entrance to Pleasure Hill, at gate, in S. stone wall; copper nail and washer-----	1, 477. 16

CORPUS CHRISTI QUADRANGLE

[Latitude 27°45'-28°00'; longitude 97°15'-97°30']

NUECES AND SAN PATRICIO COUNTIES

From Corpus Christi northeast along San Antonio & Aransas Pass Railroad ² to Gregory, thence northwest into Woodsboro quadrangle (by C. R. Fisher in 1922)

U. S. C. & G. S. standard disk stamped "X 46 1917 12.20"-----	12. 316
Corpus Christi, 3.0 mi. NE. of, 4.7 mi. SW. of Portland, 200 ft. S. of S. end of causeway at NE. corner of cafe, on W. side of U. S. Highway 181, in concrete post; standard tablet stamped "F 1 Texas 1922 3" (recovered by U. S. C. & G. S. in 1935)-----	3. 314
Portland, 50 ft. NW. of track, 50 ft. NE. of Portland State Bank building, on N. side of rd., 100 ft. S. of garage and service.sta., at NE. corner of fence, in concrete post; standard tablet stamped "F 2 Texas 1922 34" (recovered by U. S. C. & G. S. in 1935)-----	34. 203
Portland, 1.8 mi. NE. of, 2.1 mi. SW. of Gregory, on NW. side of highway, on N. end of concrete wall of culvert; chiseled square-----	36. 32
Gregory, 100 ft. N. of track, at NE. corner of street intersection where Corpus Christi highway makes right-angle junction with Sinton-Aransas Pass highway, on property of Fulton Coleman Land Co., in concrete post; standard tablet stamped "F 3 Texas 1922 33" (recovered by U. S. C. & G. S. in 1935)-----	32. 792
Gregory, 2.2 mi. NW. of, on E. end of N. side of concrete culvert; chiseled square-----	36. 78
Gregory, 2.8 mi. NW. of, in center of top of N. wall of concrete culvert; chiseled square-----	36. 69
Gregory, 3.6 mi. NW. of, 3.8 mi. SE. of Taft, at SE. end of Midway switch, 10 ft. N. of milepost 250, in concrete post; standard tablet stamped "F 4 Texas 1922 36"-----	36. 582
Taft, 2.7 mi. SE. of, 350 ft. N. of milepost 249, at junction of T-rd. NE., in center of top of N. wall of concrete culvert; chiseled square-----	41. 93

² Now part of the Texas & New Orleans Division of the Southern Pacific Co.

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	Feet
Taft, 1.5 mi. SE. of, at junction of T-rd. NE., in center of top of N. wall of concrete culvert; chiseled square.	44. 35
Taft, 45 ft. W. of NW. corner of R. R. sta., in concrete post; standard tablet stamped "F 5 Texas 1922 51" (recovered by U. S. C. & G. S. in 1935)	51. 594
Taft, in front of sta.; top of rail	54. 1
Taft, 1.0 mi. NW. of, on top of E. end of N. wall of concrete culvert; chiseled square	53. 80
Taft, 1.3 mi. NW. of, on top of E. end of N. wall of concrete culvert; chiseled square	55. 41
Taft, 2.9 mi. NW. of, on top of E. end of N. wall of concrete culvert; chiseled square	55. 65
From Portland along roads northwest 2 miles, thence alternately west and north by way of West Portland School and Sodville School into Woodsboro quadrangle (by C. R. Fisher in 1922)	
Portland triangulation sta. (U. S. C. & G. S.), about 1 mi. NW. of Portland, in cultivated field of Robert Arnold of Portland, 100 paces E. and NE. from edge of bluff above Nueces Bay, 711 meters W. of fence on W. side of Kaleta-Portland wagon rd., 49.83 meters SE. of SW. corner of small blue house with red roof, owned by Mr. Arnold and occupied by Mexican tenant; two sta. marks, one underground and one surface, each a terra cotta sewer pipe filled with concrete, with nail in center. Surface mark	39. 531
Portland, 2.0 mi. NW., thence 1.2 mi. W. from, 3.0 mi. E. of West Portland School, in NE. angle of junction of rd. N., 150 ft. E. of house, at fence corner, in concrete post; standard tablet stamped "F 7 Texas 1922 41" (reported covered with road material)	40. 812
West Portland School, 2.5 mi. S. of West Portland gin, in SW. corner of schoolyard fence, in concrete post; standard tablet stamped "F 8 Texas 1922 50"	50. 313
West Portland School, 1.0 mi. W., thence 3.4 mi. N. from, 2.3 mi. SW., thence 1.1 mi. S. from Taft, 4.0 mi. E. of Sodville School, in SE. angle of crossroads, 3 ft. W. of large fence post, in concrete post; standard tablet stamped "F 9 Texas 1922 60"	60. 292
Sodville School, 3.0 mi. E. of, 3.8 mi. SW. of Taft, in SW. angle of intersection of NE.-SW. rd., 1 ft. N. of corner of white picket fence; top of iron pipe	60. 02
Sodville School, 2.0 mi. E. of, in SW. angle of crossroads, 800 ft. NW. of gin, near fence corner; top of iron pipe	59. 96
Sodville School, 1.0 mi. E. of, 2.0 mi. S. of Sodville, in NW. angle of crossroads, in concrete post; standard tablet stamped "F 10 Texas 1922 60"	60. 195
Sodville School, 500 ft. SW. of, 1 ft. SW. of SW. post of windmill; top of iron pipe	61. 43
Sodville School, 1.0 mi. N. of, in SE. angle of crossroads, 1 ft. NW. of telephone pole; top of iron pipe	58. 87
Sodville School, 2.0 mi. N. of, 1.0 mi. W. of Sodville, in NE. angle of rd. crossing, 3 ft. NE. of telephone pole, in concrete post; standard tablet stamped "F 11 Texas 1922 58"	58. 086
From Corpus Christi southwest along road 2.9 miles into Oso Creek quadrangle (by C. R. Fisher in 1922)	
U. S. C. & G. S. standard disk stamped "W 46 1917 38.96"	39. 078

	Feet
Corpus Christi, 1.2 mi. S. of Texas Mexican Ry. sta., at foot of Staples Street, 100 ft. W. of rd. fork, on top of N. wall of concrete culvert; chiseled square-----	36. 60
Corpus Christi, 2.5 mi. SW. of, at junction of T-rd. SE., 1 ft. from S. fence corner; top of iron pipe-----	35. 23
From Oso Creek quadrangle northwest and north along road to Corpus Christi (by C. R. Fisher in 1922)	
Corpus Christi, 2.6 mi. SE. of Texas Mexican Ry. sta., at junction of rd. SW., 2 ft. N. of NW. fence corner; top of iron pipe-----	31. 79
Corpus Christi, 1.8 mi. S. of, 0.5 mi. S. of foot of Staples Street, on top of E. wall of concrete culvert; chiseled square-----	35. 59
From Gregory southeast along San Antonio & Aransas Pass Railroad into Aransas Pass quadrangle (by E. E. Harris in 1923)	
Gregory, at NE. corner of intersection of Corpus Christi and Sinton-Aransas Pass highways, on top of city water plug; top of large iron bolt-----	35. 24
Gregory, 0.9 mi. SE. of, in E. angle of crossroads, 5 ft. S. of corner fence post, 1 ft. W. of fence line; top of cap on iron pipe-----	27. 40
Gregory, 1.9 mi. SE. of, on NE. side of track, 10 ft. W. of private lane, 1 ft. N. of R. R. right-of-way fence; top of cap on iron pipe-----	24. 96
Gregory, 2.4 mi. SE. of, 250 ft. E. of milepost 256, in NW. angle of rd. crossing, in L-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	23. 11
From Aransas Pass quadrangle at point 2 miles south of Rincon ranch southwest along road 4.2 miles to point 1 mile southeast of Gregory (by E. E. Harris in 1923)	
Gregory, 1.0 mi. SE., thence 3.8 mi. NE. from, at Taft ranch farm No. 30, on W. side of rd., in SE. corner of T-angle in fence line at gate in rd., 1 ft. from each fence; top of cap on iron pipe-----	23. 96
Gregory, 1.0 mi. SE., thence 2.9 mi. NE. from, on E. side of rd., on S. side of lane E. through gate, 4 ft. S. of gate, 1 ft. W. of fence line; top of cap on iron pipe-----	23. 17
Gregory, 1.0 mi. SE., thence 2.1 mi. NE. from, on E. side of rd., 23 ft. N. of junction of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 41 Y 1923 Texas H 27"	25. 515
Reference mark, 46.6 ft. S. of tablet, 1 ft. W. of fence line, 6 in. underground; top of cap on iron pipe-----	24. 81
Gregory, 1.0 mi. SE., thence 0.9 mi. NE. from, in NE. angle of junction of rd. E. to Aransas Pass, in L-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	25. 72

COTULLA QUADRANGLE

[Latitude 28°15'-28°30'; longitude 99°00'-99°15']

LA SALLE COUNTY

From Cotulla northwest 1.6 miles along Carrizo Springs road into Bart quadrangle (by A. P. Meade in 1924)

U. S. C. & G. S. standard disk stamped "C 38 1917"-----	424. 979
Cotulla, 0.7 mi. NW. of sta., 100 ft. E. of junction of rd. E., on N. side of rd., in root of mesquite tree, at ground level; copper nail and washer-----	445. 80
Cotulla, 1.3 mi. NW. of, 100 ft. W. of junction of T-rd. S., on S. side of rd., in mesquite tree, 2 ft. above ground; copper nail and washer-----	446. 22

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From Cotulla southwest along Kings Highway into Bart quadrangle (by E. E. Harris in 1924)

Cotulla, 0.8 mi. SW. of, 100 ft. from Y-rd. fork, 40 ft. from each rd., 150 ft. N. of highway bridge over Nueces River, in root on N. side of forked mesquite tree; copper nail and washer----- Feet
388. 73

DILLEY QUADRANGLE

[Latitude 28°30'-28°45'; longitude 99°00'-99°15']

FRIO AND LA SALLE COUNTIES

From point 2.7 miles north of Dilley along roads, across country, and along fence lines generally southeast into Hines quadrangle at point about 2.3 miles southeast of Burns ranch (by J. A. Shumate in 1928)

U. S. C. & G. S. B. M. designated "R 37 1917"-----	497. 499
Henry ranch house, 2.0 mi. NW. of, 3.2 mi. NE. of Dilley, 35 ft. S. of junction of T-rd. SW., inside pasture fences, 5 ft. SE. of corner post, in concrete post; standard tablet stamped "T T Sta No 11 Y 1927"-----	489. 503
Reference mark, 170 ft. SE. of tablet, 1 ft. S. of fence, in bench in fork of mesquite tree; copper nail and washer-----	490. 47
Henry ranch house, 0.8 mi. NW. of, 10 ft. SE. of N. gatepost, at right-angle turn in fenced rd. from SE. to NE., in bench on 10-in. mesquite tree; copper nail and washer-----	474. 49
Henry ranch house, 0.9 mi. in air line NE. of, 1.2 mi. SW. of steel bridge over Frio River, in E. angle of junction of rd. NE., in brace of corner fence post; copper nail and washer-----	481. 25
Henry ranch house, 0.8 mi. in air line SE. of, 2.5 mi. NW. of Burns artesian well, at gate in fence line between Burns ranch and Henry ranch, 5 ft. SW. of junction post of T-fence NW., in concrete post; standard tablet stamped "T T Sta No 10 Y 1927"-----	470. 864
Reference mark, 40 ft. SE. of tablet, in bench on N. side of 6-in. mesquite tree; copper nail and washer-----	471. 20
Burns artesian well, 0.7 mi. NW. of, 10 ft. SW. of rd., in fork of double mesquite tree; copper nail and washer-----	433. 48
Burns artesian well, about 700 ft. S. of, 80 ft. S. of gate on rd. to Burns ranch house, in bench on mesquite tree; copper nail and washer-----	434. 12
Burns artesian well, 0.9 mi. SW. of, 1.7 mi. NE. of Burns White windmill, 65 ft. W. of junction of rd. S., in acute angle between rds., in concrete post; standard tablet stamped "T T Sta No 9 Y 1927"-----	433. 988
Reference mark, 5 ft. NE. of tablet, in bench on E. side of 6-in. mesquite tree; copper nail and washer-----	433. 87
Burns White windmill, 1.0 mi. NE. of, 3 ft. W. of rd., in root of 10-in. mesquite tree; copper nail and washer-----	445. 80
Burns White windmill, 180 ft. E. of, on E. side of circular concrete watering tank, on top of outer rim; chiseled square-----	466. 84
Burns White windmill, 0.4 mi. along cleared lane SE. of, 15 ft. N. of lane, in bench on 12-in. mesquite tree; copper nail and washer-----	453. 70
Burns White windmill, 2.3 mi. SE. of, 1.0 mi. N., thence 1.9 mi. NW. from Burns ranch house, 0.5 mi. N. of first windmill along rd. from Burns ranch to Dilley (Whitehill or "Hill" windmill), at intersection of W. trap fence and NW.-SE. cleared lane, 3 ft. E. of fence, in concrete post; standard tablet stamped "T T Sta No 8 Y 1927"-----	458. 830
Reference mark, 5 ft. W. of tablet, in bench on S. side of 6-in. mesquite tree; copper nail and washer-----	458. 54

	Feet
Burns ranch house, 1.0 mi. N. of, 15 ft. E. of gate in NW.-SE. fence, in bench on W. side of leaning mesquite tree; copper nail and washer	490. 49
Burns ranch house, 1.0 mi. N., thence 2.6 mi. along cleared lane SE. of (1.8 mi. in air line SE. of), at junction of Burns E. fence line running NE.-SW. and Goslin-Hasdorff fence line SW., on Burns side of fence, 3.4 ft. N. of junction post, in concrete post; standard tablet stamped "T T Sta No 16 Y 1927"-----	416. 248
Reference mark, 30 ft. E. of tablet, in bench on S. side of mesquite tree; copper nail and washer-----	415. 74
From point 1.2 miles southwest of steel bridge over Frio River along roads northeast to point 0.5 mile north of Richey ranch, thence northwest into Pearsall quadrangle at point 2.3 miles southeast of Derby (by J. A. Shumate in 1928)	
Frio River, at steel bridge over; surface of water Jan. 5, 1928-----	409. 4
Richey ranch house, 2.5 mi. SW. of, 0.4 mi. NE. of bridge over Frio River, on NW. side of Dilley-Richey ranch rd., 11 ft. SW. of SW. gatepost, in concrete post; standard tablet stamped "T T Sta No 12 Y 1927"-----	449. 563
Reference mark, 165 ft. N. 70°E. of tablet, in root on NW. side of 10-in. mesquite tree; copper nail and washer-----	450. 08
Richey ranch house, 0.5 mi. in air line NW. of, 7.3 mi. SE. of Derby, 45 ft. N. of gate at junction of NW.-SE. rd., in bench on E. side of 12-in. mesquite tree; copper nail and washer-----	520. 98
Derby, 6.6 mi. SE. of, 1.2 mi. in air line NW. of Richey ranch house, 4 ft. S. of rd.; axle driven into ground-----	486. 29
Derby, 6.0 mi. SE. of, 1.4 mi. SE. of ranch house of Culpepper Bros., 715 ft. W. of windmill on ranch of Julia Harris, on N. side of rd., along trap fence 50 ft. E. of bend in rd. around corner of fence, in concrete post; standard tablet stamped "T T Sta No 2 Y 1927"-----	501. 910
Reference mark, 96 ft. S. 70°W. of tablet, in root on N. side of leaning mesquite tree; copper nail and washer-----	501. 45
Derby, 4.6 mi. SE. of, 1.2 mi. NE. of ranch house of Sam Roberts, 250 ft. N. of Culpepper ranch house, in fork of double mesquite tree; copper nail and washer-----	510. 91
Derby, 3.4 mi. SE. of, about 800 ft. N. of ranch house of Sam Roberts, at turn from SW. to NW. in main rd. and junction of private rd. S. to Roberts ranch, 12 ft. NW. of fence corner, on S. side of rd. NW., in line with rd. NE., in concrete post; standard tablet stamped "T T Sta No 1 Y 1927"-----	499. 201
Reference mark, 30 ft. S. of tablet, in bench on N. side of triple mesquite tree; copper nail and washer-----	499. 78
From point 0.5 mile north of Richey ranch southeast across country and along fence lines into Hines quadrangle (by J. A. Shumate in 1928)	
Richey ranch house, 0.7 mi. E. of; Ford axle driven into ground-----	526. 98
Richey ranch house, 1.3 mi. E. of, 0.2 mi. NE. of old ranch house, near corner common to NW. corner of Shiner river pasture and NE. corner of Richey pasture, 366 ft. SE. of corner of T-fence NE., 5 ft. NW. of corner post of T-fence SW., in Richey pasture, in concrete post; standard tablet stamped "T T Sta No 3 Y 1927"-----	495. 566
Reference mark, 20 ft. NE. of tablet, in fork of triple mesquite tree; copper nail and washer-----	495. 38

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	Feet
Richey pasture, 0.8 mi. SE. of NE. corner of, 30 ft. S. of gate at rd. crossing, in bench on N. side of 6-in. mesquite tree; copper nail and washer-----	486. 99
Richey pasture, 1.4 mi. SE. of NE. corner of, about 0.5 mi. SE. of NE. corner of Shiner Mule Creek pasture, 2.6 mi. NW. of NW. corner of Schoerp & Shettel ranch, 3 ft. NE. of fence; Ford axle driven into ground-----	499. 70
From point 1 mile north of Burns ranch house along road north and northeast into Hindes quadrangle at point 1.3 miles southwest of Burns Ruiz Creek windmill (by J. A. Shumate in 1928)	
Burns ranch house, 1.5 mi. N. of, 0.5 mi. N. of gate in NW.-SE. fence line, 100 ft. E. of rd., on point of ridge overlooking Frio River Valley, in concrete post; standard tablet stamped "T T Sta No 7 Y 1927"-----	466. 496
Burns ranch house, 2.0 mi. N. of, 20 ft. S. of rd., in root of mesquite tree; copper nail and washer-----	453. 16
Burns ranch house, 2.6 mi. N. of, on S. side of bend in rd., in root of mesquite tree; copper nail and washer-----	417. 07
Frio River, about 0.25 mi. below Burns crossing, at bend; surface of water Jan. 12, 1928-----	369. 2
Burns ranch house, 3.4 mi. N. of, 2.6 mi. SW. of Burns Ruiz Creek windmill, 200 ft. S. of Frio River, 30 ft. S. of rd., in root on SE. side of 10-in. elm tree; copper nail and washer-----	385. 94
Burns Ruiz Creek windmill, 1.6 mi. SW. of, on N. side of rd., at slight S-curve, in line with rd. tangents, in concrete post; standard tablet stamped "T T Sta No 6 Y 1927"-----	429. 742
Reference mark, 170 ft. NE. of tablet, 4 ft. S. of rd., in fork of mesquite tree; copper nail and washer-----	430. 90
From Woodward quadrangle east along State Highway 85 to Dilley (by E. E. Harris in 1929)	
Dilley, 4.3 mi. W. of, on S. side of highway, 80 ft. E. of ranch rd. S., on head wall of concrete culvert; chiseled square-----	567. 40
Dilley, 3.5 mi. W. of, 27 ft. E. of intersection of dim rd., 34.5 ft. N. of center line of highway, 2 ft. S. of fence line, in concrete post; standard tablet stamped "H 15 1929"-----	564. 662
Reference mark, 1,268 ft. E. of tablet, on S. head wall of concrete culvert; chiseled square-----	554. 79
Dilley, 2.5 mi. W. of, in SW. corner of crossroads, in center of top of head wall of concrete culvert; chiseled square-----	566. 11
Dilley, 2.0 mi. W. of, on S. side of highway, on head wall of concrete culvert; chiseled square-----	579. 17
Dilley, about 0.8 mi. W. of, 380 ft. W. of junction of rd. N., on S. side of highway, in center of head wall of concrete culvert; chiseled square-----	556. 34
U. S. C. & G. S. standard disk stamped "T 37 1917"-----	559. 868
From point 2.5 miles west of Dilley along roads north 2.3 miles (by E. E. Harris in 1930; single spur line)	
Dilley, 2.5 mi. W., thence 1.3 mi. N. from, in NE. corner of crossroads, in crotch of mesquite tree; copper nail and washer-----	542. 61
Dilley, 2.5 mi. W., thence 2.3 mi. N. from, on N. side of rd., 80 ft. SE. of crossroads, in root on S. side of mesquite tree; copper nail and washer-----	532. 93

From point 2.7 miles north of Dilley northwest along road about 2.6 miles (by E. E. Harris in 1930; single spur line)

	Feet
Dilley, 2.7 mi. N., thence 1.1 mi. NW. from, 120 ft. S. of rd., in fence line, in root on S. side of mesquite tree; copper nail and washer-----	512. 41
From point on International-Great Northern Railroad 3.2 miles south of Dilley along roads southeast 2.5 miles, thence southwest about 2 miles (by E. E. Harris in 1930; single spur line)	
U. S. C. & G. S. B. M. designated "V 37 1917"-----	524. 700
Dilley, 3.2 mi. SW., thence 0.8 mi. SE. from, on S. side of rd., 80 ft. W. of cattle guard, in root on N. side of leaning mesquite tree; copper nail and washer-----	505. 04
Dilley, 3.2 mi. SW., thence 1.5 mi. SE. from, at summit of grade, on S. side of rd., in root on N. side of large mesquite tree; copper nail and washer-----	525. 18
Dilley, 3.2 mi. SW., thence 2.5 mi. SE. from, in SE. corner of cross-roads, in root on N. side of mesquite tree; copper nail and washer-----	487. 88
Dilley, 6.8 mi. by route S. of, on W. side of rd., 120 ft. N. of gate, in root on N. side of forked mesquite tree; copper nail and washer-----	473. 86
Dilley, 7.6 mi. by route S. of, on E. side of rd., 200 ft. NE. of T-rd. E. at angle in rd., in crotch of mesquite tree; copper nail and washer-----	470. 65
From Pearsall quadrangle south along International-Great Northern Railroad to Otley, thence west 1.7 miles (by E. E. Harris in 1930; single spur line)	
Otley, in NE. corner of ranch rd. crossing, on W. side of track, on head wall of concrete culvert; chiseled square-----	488. 20
From point 3.2 miles south thence 2.5 miles southeast from Dilley, along roads northeast 0.9 mile, thence northwest 0.5 mile (by E. E. Harris in 1930; single spur line)	
Dilley, 5.7 mi. S., thence 0.9 mi. NE. from; in SE. corner of intersection of dim rd., in root on N. side of small mesquite tree; copper nail and washer-----	508. 00
Dilley, 5.7 mi. S., thence 1.4 mi. by route N. from, on S. side of rd., in line with private rd. N., in fence corner; top of Ford axle, 5 in. above ground-----	527. 32

DIVOT QUADRANGLE

[Latitude 28°45'-29°00'; longitude 99°15'-99°30']

FRIO AND ZAVALA COUNTIES

From Pearsall quadrangle at point 11.4 miles northwest of Pearsall along roads northwest 2.5 miles, thence northeast into Sabinal No. 3 quadrangle (by R. G. Clinite in 1925)

Pearsall, 11.7 mi. NW. of, 4.5 mi. SE. of Friotown, at turn in rd., on SW. side, 280 ft. SE. of southeasternmost of three concrete culverts, 4 ft. SW. of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 48 Texas 1925 C 28"-----	591. 093
Reference mark, 290 ft. NW. of tablet, on E. wing wall of concrete culvert; chiseled square-----	592. 10
Pearsall, 12.9 mi. NW. of, 180 ft. NW. of windmill and tank, 20 ft. SW. of rd., in root of forked mesquite tree; copper nail-----	596. 53
Pearsall, 13.9 mi. NW. of, 2.2 mi. SE. of Friotown, 25 ft. NE. of center line of rd., 70 ft. SE. of fence corner, in base of leaning mesquite tree; copper nail-----	631. 49

EAST SAN ANTONIO QUADRANGLE

[Latitude 29°15'-29°30'; longitude 98°15'-98°30']

BEXAR AND WILSON COUNTIES

From City Hall in San Antonio along streets by way of courthouse and post office to Galveston, Harrisburg & San Antonio Railroad ²³ station, thence west along railroad into West San Antonio quadrangle (by J. A. Hinman in 1896)

San Antonio, at E. entrance to City Hall, on N. side of steps, in large stone; standard tablet stamped "661.1" (recovered in 1925)-----	Feet 653. 714
San Antonio, on E. side of Bexar County courthouse, in flat granite coping around cellar window just S. of N. entrance; standard tablet stamped "655.7" (recovered in 1925; also recovered by U. S. C. & G. S. in 1933)-----	648. 253
San Antonio, at intersection of Houston Street and Avenue D, in SW. corner of post office building; standard tablet stamped "669 SA" (recovered in 1925)-----	661. 650
From San Antonio northeast along Galveston, Harrisburg & San Antonio Railroad into Bracken quadrangle (by J. A. Hinman in 1896-97; leveled twice)	
San Antonio, about 8.5 mi. NE. of, at sixth telegraph pole E. of mileboard 201, 1.5 ft. from wire fence; iron post stamped "735"-----	728. 158
From Bracken quadrangle southwest along International-Great Northern Railroad into West San Antonio quadrangle (by J. A. Hinman in 1897)	
Adams Siding, in front of signboard; center of track-----	718. 4
San Antonio, 3.0 mi. N. of I. G. N. R. R. sta., 100 ft. N. of "city limits" signboard, near second telegraph pole S. of milepost 258, in corner of right-of-way fence; iron post stamped "747"-----	742. 506
From point on Galveston, Harrisburg & San Antonio Railroad about 5 miles northeast of San Antonio northeast along railroad and Binz Engleman road to Graytown road, thence southeast into Lavernia quadrangle (by M. S. Bright in 1901)	
San Antonio, 5.2 mi. NE. of Southern Pacific R. R. sta. at, near crossing of Binz Engleman rd., on S. side of rd., 60 ft. S. of track; iron post stamped "682 SA" ²⁴ -----	674. 562
San Antonio, 9.2 mi. NE. of, 2.2 mi. E. of Rosillo Creek, at summit of ridge, on N. side of angle in rd., near wire fence; iron post stamped "707 SA"-----	699. 690
San Antonio, 14.2 mi. NE. of, 4.0 mi. SE. of Converse, in SW. angle of intersection of Graytown rd., 30 ft. S. of rd.; iron post stamped "670 SA"-----	662. 765
From Lavernia quadrangle southwest along roads to New Sulphur Springs road, thence northwest to San Antonio (by M. S. Bright in 1901)	
Sayers, 4.0 mi. along rd. SW. of, 11.2 mi. along New Sulphur Springs rd. SE. of post office at San Antonio, 7.9 mi. N. of Elmendorf, at intersection of Arroyo Hondo rd., near SE. fence corner; iron post stamped "593 SA"-----	585. 771
San Antonio, 7.0 mi. SE. of, 700 ft. W. of farmhouse, on S. side of angle in rd., near wire fence; iron post stamped "616 SA"-----	608. 788

²³ Now part of the Texas & New Orleans Division of the Southern Pacific Co.²⁴ In 1936 this bench mark was reported destroyed.

San Antonio, 3.5 mi. E. of, 0.2 mi. E. of E. city limits, on S. side of rd., 6 ft. NE. of store of W. R. Wurzbach; iron post stamped "714 SA" -----

Feet
706. 971

From point on New Sulphur Springs road 11.2 miles southeast of San Antonio along roads southeast 3.7 miles, thence generally west by way of Hellemans into West San Antonio quadrangle (by M. S. Bright in 1901)

Elmendorf, 4.2 mi. N. of, at junction of Arroyo Hondo and Upson rds., at corner of wire fence; iron post stamped "507 SA" ²⁵ -----

498. 715

Elmendorf, 4.2 mi. N., thence 3.0 mi. NW. from, 8.0 mi. along rd. E. of Hellemans, on N. side of rd., near wire fence, 11 ft. E. of gate; iron post stamped "571 SA" -----

563. 887

Hellemans, 4.0 mi. SE. of, 0.5 mi. S. of junction of Rosillo and Salado Creeks, at intersection of W. W. White and Goliad-San Antonio rds., on SW. side of rd., near wire fence, 3 ft. SE. of telephone pole; iron post stamped "570 SA" -----

562. 958

Hellemans (Bergs Sta.), 600 ft. E. of San Antonio & Aransas Pass R. R. sta., at NW. corner of intersection of San Juan and Presa Streets; iron post stamped "560 SA" -----

553. 197

U. S. C. & G. S. standard disk stamped "W 43" ²⁶ -----

533. 523

From point 4 miles southeast of Hellemans southeast along roads and San Antonio & Aransas Pass Railroad into Saspamco quadrangle at point 0.6 mile southeast of Elmendorf (by M. S. Bright in 1901)

Hellemans, 8.0 mi. SE. of, 2.2 mi. NW. of Elmendorf, on SW. side of rd., 4 ft. N. of gate; iron post stamped "529 SA" -----

521. 940

U. S. C. & G. S. standard disk stamped "A 44 1917" ²⁷ -----

532. 456

From West San Antonio quadrangle at point 1.3 miles northwest of Earle along road southeast to Earle, thence southwest into Saspamco quadrangle (by M. S. Bright in 1901)

Earle, 0.8 mi. N. of post office, on E. side of rd., 600 ft. N. of two gates, near wire fence; iron post stamped "522 SA" -----

515. 151

From Missouri-Kansas-Texas Railroad station in San Antonio to City Hall (by R. G. Clinite in 1925; leveled twice)

U. S. C. & G. S. standard disk stamped "R 43 1917" -----

642. 505

From Southern Pacific Railroad station in San Antonio to post office (by R. G. Clinite in 1925; leveled twice)

U. S. C. & G. S. standard disk stamped "P 43 1917" -----

664. 953

FALFURRIAS NO. 2 QUADRANGLE

[Latitude 27°15'-27°30'; longitude 98°15'-98°30']

BROOKS AND DUVAL COUNTIES

From Parrilla Creek quadrangle ²⁸ southeast and southwest along Texas Mexican Railway into Hebbronville No. 1 quadrangle (by E. E. Harris in 1923)

Realitos, 3.2 mi. NE. of, on N. side of rd., 100 ft. E. of milepost 80, on S. side of track, 6 ft. W. of and in line with telephone poles; top of cap on iron pipe -----

447. 40

²⁵ In 1927 this bench mark was moved 34 feet northwest of this position and reset 1.078 feet lower than its original elevation. The figures given represent the new elevation.

²⁶ The tie between this mark and the bench mark stamped "560 SA" was made in 1936.

²⁷ The tie between this mark and the bench mark stamped "529 SA" was made in 1936.

²⁸ This line cuts the southwest corner of Benavides quadrangle but no bench marks were set in that portion of the line.

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Realitos, 2.2 mi. NE. of, opposite milepost 79, on N. side of rd., on S. side of track, 8 ft. W. of and in line with telephone poles, in concrete post; standard tablet stamped "H 35 Texas 1923" (recovered by U. S. C. & G. S. in 1933)----- Feet
420. 757
Reference mark, 167.2 ft. S. 50° W. of tablet, 6 ft. E. of and in line with telephone poles, 6 in. underground; top of cap on iron pipe----- 420. 12

FALLS CITY QUADRANGLE

[Latitude 28°45'-29°00'; longitude 98°00'-98°15']

ATASCOSA, KARNES, LIVE OAK, AND WILSON COUNTIES

From point 0.6 mile southeast of Falls City northwest along San Antonio & Aransas Pass Railroad²⁸ into Floresville quadrangle (by H. P. Jones in 1925)

U. S. C. & G. S. standard disk stamped "Q 44 1917"----- 291. 952
Falls City, 300 ft. E. of R. R. sta., 60 ft. S. of track, 40 ft. N. of San Antonio-Corpus Christi Highway; iron post stamped "Prim Trav Sta No 15 LS 1925 J 9"----- 320. 115
From Floresville quadrangle at point 1.2 miles north and 4.8 miles west from Falls City along roads generally west 3 miles, thence alternately southeast and southwest to point 0.8 mile southeast of Deweesville, thence northeast and north to point on San Antonio & Aransas Pass Railroad 0.6 mile southeast of Falls City (by H. P. Jones in 1925)

Falls City, 1.0 mi. N. and 5.0 mi. W. from R. R. sta. at, about 300 ft. S. of farmhouse of Albert Zunker, in root on N. side of 12-in. mesquite tree; copper nail and washer----- 320. 07
Falls City, 0.7 mi. N. and 6.0 mi. W. from, 20 ft. N. and 60 ft. E. from junction of NW.-SE. rd., in root on N. side of 6-in. mesquite tree; copper nail and washer----- 328. 87
Falls City, 0.8 mi. N. and 7.0 mi. W. from, about 4 mi. SW. of Poth, about 0.5 mi. NW. of Three Oaks Church, 23 ft. N. and 23 ft. W. from intersection of Poth-Oakville-Falls City rd., 15 ft. SW. of gate, set in concrete; iron post stamped "Prim Trav Sta No 18 LS 1925 J 12"----- 376. 255
Reference mark, 40 ft. SE. of rd. junction, on E. side of rd., in root on E. side of 6-in. mesquite tree; copper nail and washer----- 374. 84
Three Oaks Church, about 0.5 mi. SE. of, 6.5 mi. in air line W. of Falls City, on Poth-Oakville-Falls City Road, 12 ft. S. and 45 ft. E. from junction of T-rd. NE., in root on S. side of mesquite tree; copper nail and washer----- 347. 33
Three Oaks Church, about 2 mi. SE. of, 1.2 mi. S. and 6.0 mi. W. from Falls City, on W. side of Poth-Oakville-Falls City rd., in root of 6-in. mesquite tree; copper nail and washer----- 354. 80
Three Oaks Church, 2.5 mi. SE. of, 1.6 mi. S. and 5.5 mi. W. from Falls City, 2.4 mi. NW., thence 3.4 mi. NE. from Deweesville, 28 ft. S. of NE. end of triangle at junction of rd. to Dewee ranch, 18 ft. NE. of corner fence post; iron post stamped "Prim Trav Sta No 19 LS 1925 J 13"----- 329. 351
Deweesville, 2.4 mi. NW., thence 2.5 mi. NE. from, on S. side of rd. to Dewee ranch, at right-angle turn, 20 ft. SE. of corner fence post, in root of mesquite tree; copper nail and washer----- 343. 98
Deweesville, 2.4 mi. NW., thence 1.5 mi. NE. from, on S. side of rd., inside fence line, in root on N. side of 6-in. mesquite tree; copper nail and washer----- 387. 58

²⁸ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

	Feet
Deweessville, 2.4 mi. NW. of, 3.5 mi. S. and 8.0 mi. W. from Falls City, on NW. corner of Dewee ranch, about 2 mi. N. of house of Charlie Dewee, 18 ft. W. of junction of NW.-SE. rd., in line with rd. NE., 3 ft. E. of wire fence; iron post stamped "Prim Trav Sta No 20 LS 1925 J 14"-----	398. 308
Reference mark, 30 ft. N. and 30 ft. W. from rd. junction, in root on N. side of mesquite tree; copper nail and washer-----	396. 96
Deweessville, 1.4 mi. NW. of, on W. side of rd., in root on E. side of 14-in. live-oak tree; copper nail and washer-----	435. 82
Deweessville, 0.8 mi. NW. of, about 1,000 ft. W. of house of Charlie Dewee, on W. side of rd., in root on E. side of 15-in. live-oak tree; copper nail and washer-----	433. 32
Deweessville, on S. part of Dewee ranch, about 18 mi. W. of Karnes City, across rd. from and directly in front of store and service sta., on N. side of rd., 150 ft. SW. of SW. corner of cotton gin, in concrete post; standard tablet stamped "Prim Trav Sta No 21 LS 1925 J 15"-----	449. 026
Reference mark, on NE. corner of concrete foundation of service sta.; chiseled square-----	450. 72
Deweessville, about 0.8 mi. SE. of, 45 ft. SE. of junction of rd. SE., in root of 6-in. mesquite tree; copper nail and washer-----	448. 94
Deweessville, 0.6 mi. SE., thence 1.1 mi. NE. from, on S. side of rd., inside fence line; in root of 7-in. mesquite tree; copper nail and washer-----	403. 60
Deweessville, 0.6 mi. SE., thence 2.3 mi. NE. from, about 1,000 ft. W. of junction of T-rd. SE., on N. side of rd., in fence corner, in concrete post; standard tablet stamped "J 16 1925"-----	396. 083
Reference mark, on S. side of rd., in root on N. side of mesquite tree; copper nail and washer-----	395. 36
Deweessville, 0.6 mi. SE., thence 3.7 mi. NE. from, 2.3 mi. W. of Laake School, 40 ft. NW. of rd. junction, in root of mesquite tree; copper nail and washer-----	365. 58
Laake School, 0.9 mi. W., thence 0.2 mi. S. from, on E. side of rd., at right-angle turn, in mesquite tree; copper nail and washer-----	351. 18
Laake School, 185 ft. SW. of SW. corner of, 3.6 mi. S. and 1.3 mi. W. in air line from Falls City, about 5.5 mi. SW. of Hobson, in fence corner, in concrete post; standard tablet stamped "J 17 1925"-----	409. 794
Reference mark, 15 ft. SW. of SW. corner of schoolhouse, in root of mesquite tree; copper nail and washer-----	411. 25
Laake School, 0.7 mi. N., thence 0.4 mi. E. from, 3.3 mi. by rd. S., thence 1.3 mi. W. from Falls City, on N. side of rd., in root of mesquite tree, inside fence line; copper nail and washer-----	378. 69
Falls City, 3.3 mi. S., thence 0.8 mi. W. from, on S. side of rd., in root on N. side of 20-in. live-oak tree; copper nail and washer-----	388. 28
Falls City, 3.3 mi. S. of, about 3.5 mi. SW. of Hobson, 50 ft. NW. of crossroads, in fence corner, in concrete post; standard tablet stamped "J 18 1925"-----	340. 689
Reference mark, 60 ft. NE. of crossroads, in root of 6-in. mesquite tree; copper nail and washer-----	340. 46
Falls City, 2.3 mi. S. of, 2.5 mi. W. of Hobson, 60 ft. SW. of crossroads, in root on N. side of double live-oak tree; copper nail and washer-----	386. 32
Falls City, 1.3 mi. S. of, on E. side of rd., in root of 6-in. mesquite tree; copper nail and washer-----	317. 05

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FERNANDO QUADRANGLE

[Latitude 26°15'-26°30'; longitude 97°30'-97°45']

CAMERON AND WILLACY COUNTIES

From Lyford quadrangle at point east of Raymondville east along road to Raymond triangulation station (by J. L. Lenovitz in 1919; leveled by T. F. Murphy in same year)

Raymond triangulation sta., 2.8 mi. E. of Raymondville, 0.75 mi. E. of crossroads, 0.25 mi. E. of small lake at side of rd., at NW. corner of Raymond farm, 82 ft. N. of center line of wagon road, in top of concrete cylinder; U. S. C. & G. S. standard disk-----

From Raymond triangulation station along road east to Sauz ranch, thence northwest into Tarida Ranch quadrangle (by J. L. Lenovitz in 1919)

Raymondville, 6.0 mi. E. of, 0.2 mi. W. of Wilkins ranch, in NW. corner of junction of T-rd. N.; iron post stamped "Prim Trav Sta No 1 1919 23"-----

Raymondville, 9.1 mi. E. of, 4.6 mi. W. of Sauz ranch house, in NE. corner of junction of old T-rd. N.; iron post stamped "Prim Trav Sta No 2 1919 21" ³⁰-----

Sauz ranch house, 1.4 mi. W. of, on N. side of curve to E. in rd., in line with straight stretch; iron post stamped "Prim Trav Sta No 3 1919 19" ³¹-----

From Sauz ranch northeast along road 4 miles into South of Lopena Island quadrangle (by J. L. Lenovitz in 1920; spur line leveled twice)³²

Sauz ranch house, 2.0 mi. NE. of, on S. side of rd. at curve, in line with rd. W.; iron post stamped "Prim Trav Sta No 4 1919" and "L 13 1920"-----

Sauz ranch house, 2.6 mi. NE. of, on S. side of rd., in mesquite tree; copper nail and washer-----

Sauz ranch house, 3.3 mi. NE. of, on S. side of rd., in mesquite tree; copper nail and washer-----

Sauz ranch house, 3.9 mi. NE. of, on S. side of rd., in mesquite tree; copper nail and washer-----

From point 0.5 mile northwest of Combes southeast along road 0.4 mile into San Benito quadrangle (by J. B. Leachman in 1928)

U. S. C. & G. S. standard disk stamped "L 48 1918 42.18"-----

From San Benito quadrangle at point about 2.8 miles east of Combes along roads alternately north and east by way of Briggs Coleman School and Hardin ranch to point on Cameron-Willacy county line 3.8 miles southeast of La Chatonas ranch (by J. B. Leachman in 1928)

Briggs Coleman School, 0.4 mi. S., thence 0.8 mi. W. from, 3.8 miles in air line E. of Combes, 110 ft. N. and 25 ft. W. from junction of rd.

N., in root of 18-in. mesquite tree; copper nail and washer-----

Briggs Coleman School, 0.3 mi. N. of, 2.2 mi. W., thence 1.8 mi. S. from store at Hardin ranch, 35 ft. N. and 30 ft. W. from crossroads, in concrete post; standard tablet stamped "JBL 2 1928"-----

Reference mark, 5 ft. N. and 60 ft. E. from tablet, 40 ft. N. and 30 ft. E. from crossroads, on top of concrete lock of irrigation ditch; chiseled square-----

³⁰ In 1929 this bench mark was reported damaged by paving construction and a new elevation was determined. The figures given represent the new elevation.

³¹ In 1937 this bench mark was reported tilted 45 degrees west.

³² This line cuts the southeast corner of Tarida Ranch quadrangle, but no marks were set in that portion of the line.

Feet	
29. 812	
23. 535	
21. 160	
19. 360	

Feet	
12. 884	
14. 97	
13. 31	
14. 82	

Feet	
42. 306	
32. 12	
32. 311	
34. 20	

	Feet
Hardin ranch, 2.2 mi. W., thence 1.0 mi. S. from store at, 30 ft. W. of rd., in root of 12-in. mesquite tree; copper nail and washer-----	34. 46
Hardin ranch, 1.5 mi. W. of store at, 20 ft. S. of rd., in root of 18-in. mesquite tree; copper nail and washer-----	31. 56
Hardin ranch, 0.7 mi. W. of store at, 10 ft. S. of rd., opposite field rd. N., in root of 18-in. mesquite tree; copper nail and washer-----	30. 03
Hardin ranch, 0.3 mi. W. of store at, 100 ft. N. and 230 ft. E. from schoolhouse, 15 ft. S. of rd., in concrete post; standard tablet stamped "JBL 3 1928"-----	31. 403
Reference mark, 3 ft. S. and 3 ft. W. from tablet, 18 ft. S. of rd., in root of 12-in. mesquite tree; copper nail and washer-----	31. 06
Hardin ranch, 500 ft. N. of store, 50 ft. E. of rd., 30 ft. S. of Mexican hut, in root of 12-in. mesquite tree; copper nail and washer-----	26. 64
Hardin ranch, 1.0 mi. NE. of, 3.8 mi. SE., thence 1.1 mi. S. from La Chatonas ranch, 20 ft. E. of rd., at right-angle bend N., 10 ft. E. of fence, in root of mesquite tree; copper nail and washer-----	24. 83
La Chatonas ranch, 3.8 mi. SE. of, 20 ft. N. of junction of Cameron-Willacy county-line rd., in concrete post; standard tablet stamped "JBL 4 1928"-----	26. 904
Reference mark, 200 ft. E. of tablet, 20 ft. N. and 200 ft. E. from rd. junction, in root of 12-in. mesquite tree; copper nail and washer-----	26. 04
From point on Cameron-Willacy county line 3.8 miles southeast of La Chatonas ranch southeast along county-line road 2.3 miles, thence south 1 mile (by J. B. Leachman in 1928; leveled twice)	
La Chatonas ranch, 4.1 mi. SE. of, 30 ft. N. of county-line rd., at edge of small graveyard, in root of small mesquite tree; copper nail and washer-----	24. 89
La Chatonas ranch, 5.0 mi. SE. of, 0.25 mi. E. of junction of rd. S., 55 ft. S. of rd., 10 ft. E. of small Mexican house, in root of small mesquite tree; copper nail and washer-----	23. 99
La Chatonas ranch, 5.5 mi. SE. of, 20 ft. S. of rd., on N.-S. fence line, in root of small mesquite tree; copper nail and washer-----	20. 17
La Chatonas ranch, 6.1 mi. SE. of, on Cameron-Willacy county line, 40 ft. N. and 20 ft. W. from junction of rd. SW., on N. side of fence, in concrete post; standard tablet stamped "JBL 5 1928"-----	22. 076
Reference mark, 30 ft. W. of rd., 20 ft. N. of fence, in root of 12-in. mesquite tree; copper nail and washer-----	21. 62
La Chatonas ranch, 6.1 mi. SE., thence 1.0 mi. S. from, 5.0 mi. SW. of Paso Real, about 1.2 mi. S. of Cameron-Willacy county line, 900 ft. S. of junction of rd. SW., at edge of rd., in root of 18-in. mesquite tree; copper nail and washer-----	21. 18
From point 5 miles southwest of Paso Real along roads northeast to Paso Real, thence generally south and west to Fernando East road, thence west across Arroyo Colorado, thence north about 1 mile to point 5 miles southwest of Paso Real (by J. B. Leachman in 1928)	
Paso Real, 4.4 mi. SW. of, about 0.7 mi. S. of Cameron-Willacy county line, 100 ft. N. of junction of rd. SW., 20 ft. W. of rd., in root of 18-in. mesquite tree; copper nail and washer-----	19. 23
Paso Real, 3.7 mi. SW. of, on Cameron-Willacy county line, 10 ft. E. of rd., 2 ft. N. of fence, in root of 18-in. mesquite tree; copper nail and washer-----	20. 10
Paso Real, 2.8 mi. SW. of, about 0.9 mi. N. of Cameron-Willacy county line, 35 ft. W. of rd., 50 ft. SE. of Mexican house, in concrete post; standard tablet stamped "JBL 6 1928"-----	18. 403

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	Feet
Reference mark, 15 ft. S. of tablet, 60 ft. SE. of house, 20 ft. W. of rd., in root of 18-in. mesquite tree; copper nail and washer-----	18. 27
Paso Real, 0.9 mi. SW. of, 20 ft. N. of rd., in root of 24-in. mesquite tree; copper nail and washer-----	14. 64
Paso Real, 0.5 mi. SW. of, 70 ft. E. of N.-S. fence line, 30 ft. S. of rd., in root of 18-in. mesquite tree; copper nail and washer-----	13. 32
Paso Real, 55 ft. W. of store, 40 ft. NE. of large two-story house, 20 ft. W. of rd., 2 ft. E. of fence, in concrete post; standard tablet stamped "JBL 7 1928"-----	15. 322
Reference mark, 12 ft. N. and 2 ft. E. from tablet, in root of 20-in. mesquite tree; copper nail and washer-----	14. 62
Paso Real, 1.0 mi. SE. of, 250 ft. S. of junction of T-rd. W., 200 ft. S. of levee, 50 ft. S. of house, 60 ft. W. of rd., in root of 24-in. mesquite tree; copper nail and washer-----	15. 22
Paso Real, about 1.2 mi. SE. of, 2,000 ft. E. of house, 75 ft. NE. of angle in telephone line, at E. end of canal, on N. concrete wall of lock; "X" (Texas Reclamation Dept. T. B. M. 11A)-----	19. 215
Paso Real, about 2.25 mi. SE. of, 300 ft. S. of brown house, 10 ft. E. of center line of N.-S. rd., on S. end of N. concrete wall of canal; "X" (Texas Reclamation Dept. T. B. M. 12A)-----	19. 371
Paso Real, about 3 mi. SE. of, about 0.25 mi. E. of Mexican hut, 0.75 mi. SE. of bend in Arroyo Colorado, 55 ft. NE. of center of crossroads, 33 ft. N. of corner post, 2 ft. E. of fence, in tile filled with concrete; bronze tablet (Texas Reclamation Dept. B. M. 3A)-----	17. 323
Paso Real, about 3 mi. S. of, about 0.8 mi. N. of San Benito & Rio Grande Valley R. R., about 0.8 mi. E. of bend in Arroyo Colorado, 80 ft. N. and 250 ft. E. from crossroads, in root of 30-in. mesquite tree; copper nail and washer-----	17. 55
Paso Real, about 3.5 mi. S. of, 1.5 mi. E., thence 0.5 mi. N. from Fernando, 250 ft. N. of house, 10 ft. E. of center line of rd., on S. side of canal, on E. side of concrete wall of sluice gate; "X" (Texas Reclamation Dept. T. B. M. 13A)-----	22. 668
Fernando, 1.5 mi. E. of, 2.4 mi. E., thence 3.0 mi. N. from Rio Hondo, about 600 ft. S. of San Benito & Rio Grande Valley Ry., 35 ft. N. and 15 ft. E. from crossroads, 15 ft. S. and 40 ft. W. from house, in concrete post; standard tablet stamped "JBL 18 1928"-----	17. 748
Reference mark, 50 ft. SE. of tablet, 16 ft. S. and 27 ft. E. from crossroads, in concrete base of water valve for irrigation ditch; chiseled square-----	19. 05
Fernando, 0.6 mi. E. from, 3.0 mi. N., thence 1.3 mi. E. from Rio Hondo, about 1,200 ft. W. of white house, 400 ft. SW. of red house, 175 ft. SE. of another house, 5 ft. N. of center line of rd., on W. end of concrete wall of N.-S. canal; "X" (Texas Reclamation Dept. T. B. M. 15A)-----	26. 279
Fernando, 0.4 mi. W. of, 3.0 mi. N., thence 0.3 mi. E. from Rio Hondo, 40 ft. N. and 35 ft. E. from crossing of private rd. and branch line of San Benito & Rio Grande Valley Ry., 15 ft. E. of small irrigation ditch, on top of concrete valve box for canal; chiseled square-----	22. 14
Rio Hondo, 3.0 mi. N. of, 1.0 mi. E. of Arroyo Colorado, 300 ft. W. of R. R. track at beginning of curve E., 100 ft. W. of crossroads, 30 ft. N. of rd., on top of concrete lock on E. side of canal; chiseled square-----	23. 73
Rio Hondo, 3.0 mi. N., thence 0.5 mi. W. from, 0.5 mi. E. of Arroyo Colorado, 30 ft. N. and 100 ft. W. from junction of T-rd. S., on concrete slab above weir in irrigation canal; chiseled square-----	25. 76

	Feet
Rio Hondo, 3.0 mi. N., thence 1.0 mi. W. from, 75 ft. S. of house at El Rio ranch, 200 ft. E. of Arroyo Colorado, 250 ft. W. of rd., on concrete base of water tower; chiseled square-----	24. 12
Rio Hondo, 3.0 mi. N., thence 1.2 mi. W. from, 6.2 mi. SW. of Paso Real, 200 ft. W. of Arroyo Colorado, 250 ft. N. and 15 ft. W. from junction of T-rd. W., in concrete post; standard tablet stamped "JBL 17 1928" ³³ -----	19. 209
Reference mark, 7 ft. S. and 6 ft. W. from tablet, in root of 20-in. mesquite tree; copper nail and washer-----	18. 83
Paso Real, 5.5 mi. SW. of, about 1.7 mi. S. of Cameron-Willacy county line, 0.3 mi. S. of T-rd. W., 30 ft. W. of rd., in root of 18-in. mesquite tree; copper nail and washer-----	21. 34
From San Benito quadrangle at point 5.2 miles east and 1.9 miles north from Rio Hondo north along Olmito North road 0.8 mile, thence along roads west 0.8 mile, northwest 0.6 mile, and west 0.9 mile to crossroads 1.5 miles east of Fernando (by S. H. Holm in 1928; leveled twice)	
Rio Hondo, 5.2 mi. E., thence 2.7 mi. N. from, 3.6 mi. E., thence 0.5 mi. S. from Fernando, 35 ft. S. and 40 ft. E. from crossroads, in notch in root of 8-in. mesquite tree; copper nail and washer-----	20. 13
Fernando, 1.0 mi. E., thence 0.6 mi. SE. from, 20 ft. N. and 30 ft. E. from crossroads, 8 ft. N. of corner fence post, in trunk of mesquite tree, 2 ft. above ground; copper nail and washer-----	20. 14
Fernando, 1.0 mi. E. of, 250 ft. S. of school at Anaquitas ranch, 36 ft. E. of gasoline pump, in root on SW. side of 28-in. mesquite tree; copper nail and washer-----	15. 10
Fernando, 0.8 mi. E. of, 10 ft. S. and 200 ft. E. from crossroads, on top of concrete head wall of drainage ditch; chiseled square-----	18. 51
From road junction on Cameron-Willacy county line 3.8 miles southeast of La Chatonas ranch northwest along county-line road to ranch, thence generally south along Briggs road into San Benito quadrangle at point about 2.4 miles east of Combes (by J. B. Leachman in 1928)	
La Chatonas ranch, 3.0 mi. SE. of, 30 ft. N. of rd., in root of 12-in. mesquite tree; copper nail and washer-----	26. 13
La Chatonas ranch, 2.3 mi. SE. of, about 0.8 mi. S. of red windmill and corral, at S. end of right-of-way N. through timber, 2 ft. N. of lane, in tile pipe filled with concrete; bronze tablet (Texas Reclamation Dept. B. M. 6)-----	28. 843
La Chatonas ranch, 1.7 mi. SE. of, about 3 mi. SW. of Patreros, about 0.5 mi. E. of gate in fence N., in fence on N. side of lane, in base of 7-in. mesquite tree; 40-penny nail (Texas Reclamation Dept. T. B. M. 13)-----	31. 105
La Chatonas ranch, 1.0 mi. SE. of, 0.7 mi. W. of junction of T-rd. S., 20 ft. N. of rd., opposite gate in S. fence line, in root of 6-in. mesquite tree; copper nail and washer-----	29. 20
La Chatonas ranch, about 600 ft. SW. of windmill, 100 ft. SW. of shack, 200 ft. N. of county line, in NE. corner of cow lot, in base of 36-in. mesquite tree; 40-penny nail (Texas Reclamation Dept. T. B. M. 16; recovered in 1929)-----	31. 378
La Chatonas ranch, 0.7 mi. S. of, 350 ft. SW. of Mexican house, 60 ft. E. of windmill, in SW. angle of crossroads, 35 ft. S. of rd., 4 ft. E. of fence line, in concrete post; standard tablet stamped "JBL 8 1928"-----	26. 789

³³ In 1937 this bench mark was replaced by a new tablet set 18 feet west of this position and 0.189 feet lower than the original elevation. The figures given represent the new elevation.

	Feet
Reference mark, 30 ft. E. of tablet, 35 ft. S. of rd., in root of 12-in. mesquite tree; copper nail and washer-----	26. 32
La Chatonas ranch, 1.4 mi. S. of, at bend to S. in rd., 600 ft. SE. of windmill, 50 ft. SE. of rd., in root of 16-in. mesquite tree; copper nail and washer-----	24. 58
La Chatonas ranch, 2.3 mi. S. of, 0.3 mi. N. of crossroads, 25 ft. E. of rd., in root of 12-in. mesquite tree; copper nail and washer-----	32. 30
La Chatonas ranch, 3.1 mi. S. of, 1.0 mi. W. of El Garza ranch, 20 ft. W. of rd., opposite gate in E. fence line, in root of 12-in. mesquite tree; copper nail and washer-----	35. 10
La Chatonas ranch, 3.8 mi. S. of, 20 ft. N. and 20 ft. E. from crossroads, in concrete post; standard tablet stamped "JBL 9 1928"-----	33. 607
La Chatonas ranch, 4.6 mi. S. of, 20 ft. S. and 50 ft. W. from junction of T-rd. S., in root of 7-in. mesquite tree; copper nail and washer-----	31. 51
La Chatonas ranch, 5.0 mi. S. of, 0.3 mi. N., thence 1.7 mi. W. from Briggs Coleman School, 100 ft. S. and 20 ft. W. from junction of T-rd. E., in root of 10-in. mesquite tree; copper nail and washer-----	33. 16
From Lyford quadrangle at point 0.5 mile south and 2.6 miles southeast from Sebastian southeast along Cameron-Willacy county-line road to La Chatonas ranch (by S. H. Holm in 1929)	
Sebastian, 0.5 mi. S., thence 3.3 mi. SE. from, 24 ft. N. and 60 ft. E. from junction of T-rd. S., 3 ft. N. of fence line, in 6-in. mesquite tree; rail spike-----	37. 10
Sebastian, 0.5 mi. S., thence 5.4 mi. SE. from, 1.7 mi. NW. of La Chatonas ranch, 400 ft. N. of La Puerta ranch house, 33 ft. N. of rd., 3 ft. S. and 2 ft. E. from corner post of T-fence E., 15 ft. N. of corner post of fences N. and W., in line with fence S. across rd., in concrete post; standard tablet stamped "H 25 1929"-----	34. 174
La Chatonas ranch, 0.8 mi. NW. of, 50 ft. S. and 130 ft. W. from crossing of W. dike of floodway, in 18-in. mesquite tree; rail spike-----	32. 06
From Josephine Island quadrangle at point south of Arroyo Colorado generally southwest, south, and west across country and along roads to point about 1.2 miles southeast of Paso Real (by S. H. Holm in 1929)	
Paso Real, about 1.3 mi. NE. of, 25 ft. W. of angle in levee, in crotch of 6-in. mesquite tree, in top of hewn square; copper nail-----	14. 73
Paso Real, about 1.6 mi. E. of, 12 ft. E. of bank of Arroyo Colorado, N. of sharp bend, 40 ft. W. of floodway levee, in base of 12-in. leaning mesquite tree; rail spike-----	16. 90
Paso Real, about 1.5 mi. E. and 0.6 mi. S. from, 50 ft. N. and 21 ft. E. from fence crossing floodway levee, 50 ft. SE. of Arroyo Colorado, in base of 14-in. scrub mesquite tree; rail spike-----	16. 75
Paso Real, about 1.5 mi. E. and 0.8 mi. S. from, 100 ft. E. of Moncho ranch house, 50 ft. S. and 36 ft. E. from corner fence post and SE. corner of corral, 20 ft. W. of rd., in base of 18-in. mesquite tree; rail spike-----	14. 07
From point 5.2 miles east and 2.7 miles north from Rio Hondo northeast along road 0.6 mile into Josephine Island quadrangle (by S. H. Holm in 1929)	
Rio Hondo, 5.2 mi. E., thence 3.2 mi. N. from, 1.2 mi. E. of Anaquitas ranch, 600 ft. S. of crossing of San Benito & Rio Grande Valley Ry. at Fermina, 33 ft. S. and 37 ft. W. from crossroads, 2 ft. E. of fence line, in concrete post; standard tablet stamped "TT Sta No 1 L 1929"-----	18. 792

	Feet
Reference mark, 112 ft. E. of tablet, 33 ft. S. and 75 ft. E. from center of crossroads, in base of 18-in. mesquite tree; rail spike-----	19. 67
From crossroads 3 miles north of Rio Hondo south along San Benito & Rio Grande Valley Railway into San Benito quadrangle (by J. B. Leachman in 1929)	
Rio Hondo, 2.3 mi. N. of, about 350 ft. S. of rd. crossing, 150 ft. E. of square-topped house, 10 ft. E. of center line of track, on S. end of concrete wall of E.-W. canal; "X" (Texas Reclamation Dept. T. B. M. 17A)-----	28. 600
Rio Hondo, 1.5 mi. N. of, 200 ft. N. of house, 50 ft. S. of rd. crossing, 10 ft. W. of center line of track, at curve, on N. end of concrete wall of E.-W. canal; "X" (Texas Reclamation Dept. T. B. M. 18A)-----	29. 044

FLATONIA NO. 1 QUADRANGLE

[Latitude 29°45'-30°00'; longitude 97°00'-97°15']

BASTROP AND FAYETTE COUNTIES

From Flatonia No. 4 quadrangle northeast along San Antonio & Aransas Pass Railroad ³⁴ to West Point, thence northwest along Missouri-Kansas-Texas Railroad into Bastrop No. 4 quadrangle (by J. A. Hinman in 1896)	
Muldoon, about 4.5 mi. SW. of, 10 ft. N. of mileboard 153; iron post stamped "362"-----	356. 723
Muldoon, at store of A. B. Kerr & Sons, in SW. corner of front wall; standard tablet stamped "351"-----	345. 436
Muldoon, about 3.5 mi. NE. of, about 6.5 mi. S. of West Point, 30 ft. N. of trestle 128, 35 ft. W. of W. rail, in solid rock; standard tablet stamped "316"-----	310. 423
West Point, 4.0 mi. SE. of Primm, 40 ft. N. and 90 ft. W. from intersection of Missouri-Kansas-Texas R. R., in corner of right-of-way fence; iron post stamped "292 SA" and "Prim Trav Sta No 3 Texas 1909" (recovered by U. S. C. & G. S. in 1906 and 1935)-----	286. 712
Primm, back of second telegraph pole E. of milepost 974, near right-of-way fence; iron post stamped "316 SA" and "Prim Trav Sta No 2 Texas 1909" (recovered by U. S. C. & G. S. in 1906)-----	310. 757
From Flatonia No. 2 quadrangle northeast along Missouri-Kansas-Texas Railroad into Bastrop No. 4 quadrangle (by J. A. Hinman in 1897)	
Smithville, 4.6 mi. SW. of, 5.5 mi. NE. of Rosanky, 65 ft. NE. of crossing of M. K. T. R. R., near second telegraph pole E. of milepost 974, in fence corner; iron post stamped "460 SA" (recovered by U. S. C. & G. S. in 1904)-----	452. 673
Smithville, 2.4 mi. SW. of, about 0.25 mi. E. of mileboard 972, 25 ft. NW. of rd. crossing; iron post stamped "433 SA" (recovered by U. S. C. & G. S. in 1904)-----	425. 531
From Flatonia No. 2 quadrangle at point 8.2 miles northeast of Jeddo along roads alternately east and north to point on Missouri-Kansas-Texas Railroad 4.6 miles southwest of Smithville (by J. A. Hinman in 1897)	
Jeddo, 8.6 mi. NE. of, 4.0 mi. NW. of Cistern, at intersection of settlement rd. and Austin-Port Lavaca rd., opposite mileboard; iron post stamped "474 SA"-----	466. 328
Jeddo, 13.0 mi. NE. of, 8.4 mi. SW. of Smithville, about 800 ft. W. of Bohemian Catholic Church, 40 ft. S. of lane intersection, 5 ft. S. of 14-in. leaning post-oak tree; iron post stamped "472 SA"-----	464. 008

³⁴ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

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From Bastrop No. 4 quadrangle at point 0.8 mile south of Smithville generally south along Smithville-Flatonia road into Flatonia No. 4 quadrangle at point 4.5 miles north of Flatonia (by J. A. Hinman in 1897)	Feet
Smithville, 3.0 mi. S. of, about 6.5 mi. NW. of Stellar, 400 ft. SE. of intersection of Cistern-Smithville public rd., 10 ft. W. of Flatonia rd.; iron post stamped "393 SA"-----	385. 272
Stellar, 3.4 mi. N. of post office at, at angle in wire fence, 35 ft. E. of rd., 12 ft. W. of post-oak tree used as fence post; iron post stamped "428 SA"-----	420. 164
Stellar, 2.5 mi. S. of, 6.3 mi. NE. of Cistern, at junction of La Grange-Lockhart public rd. 200 ft. N. of iron bridge over Buckner Creek; iron post stamped "349 SA"-----	341. 247
Stellar, 6.6 mi. S. of, 8.4 mi. N. of Flatonia, 1,200 ft. N. of Dogwood Creek, 125 ft. N. of branch, 15 ft. E. of rd.; iron post stamped "357 SA"-----	349. 388
Flatonia, 5.0 mi. N. of, 5.5 mi. SW. of Muldoon, at junction of Muldoon-Flatonia rd., 1,000 ft. N. of Pin Oak Creek; iron post stamped "377 SA"-----	369. 518
From Flatonia No. 4 quadrangle at point 2.3 miles southeast of Colony along roads northwest to Cistern, thence generally northeast and east to Primm (by J. A. Hinman in 1897)	
Colony, 0.5 mi. S. of post office, 4.6 mi. SE. of Cistern, at junction of Flatonia-Cistern rd. and public rd. connecting with Flatonia-Waelder public rd., about 400 ft. N. of two-story frame house of John Malone; iron post stamped "435 SA"-----	427. 302
Cistern, at intersection of La Grange-Lockhart rd., opposite post office, in fence corner; iron post stamped "481 SA"-----	473. 157
Cistern, 4.2 mi. N. of, on summit of divide between Live Oak and Buckner Creeks, on W. side of lane, 2 ft. E. of wire fence; iron post stamped "481 SA"-----	473. 235
Cistern, 9.0 mi. NE. of, at junction of Cistern-Smithville and settlement rds.; iron post stamped "416 SA"-----	408. 333
From Flatonia No. 2 quadrangle at point about 2 miles west of Cistern along roads east and northeast to point on Smithville-Flatonia road 6.3 miles northeast of Cistern (by J. A. Hinman in 1897)	
Cistern, 3.8 mi. NE. of, at crossroads, 30 ft. N. of gate at entrance to E. side of Cockrell pasture, 50 ft. S. of mouth of lane; iron post stamped "422 SA"-----	413. 976
From point on Missouri-Kansas-Texas Railroad 1 mile southeast of Primm southeast to Smithville-West Point road, thence south and southeast to Smithville-Muldoon road, thence south to La Grange-Lockhart road, thence southwest to point on Smithville-Flatonia road 6.3 miles northeast of Cistern (by J. A. Hinman in 1897)	
Primm, 2.0 mi. SE. of, at junction of Smithville-West Point rd. and rd. to Muldoon; iron post stamped "322 SA"-----	314. 006
Primm, 6.0 mi. S. of, about 3.5 mi. E. of Stellar, 11.8 mi. NE. of Cistern, 25 ft. SW. of intersection of La Grange-Lockhart rd., in fence corner; iron post stamped "404 SA"-----	396. 071
From Cistern along roads south to point 0.8 mile east of Elm Grove Church, thence west into Flatonia No. 2 quadrangle (by J. A. Hinman in 1897; leveled twice)	
Cistern, 5.2 mi. SW. of, 150 ft. S. of Elm Grove Church, 50 ft. E. of schoolhouse, 25 ft. NE. of intersection of third-class rd.; iron post stamped "372 SA"-----	364. 465

SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS 605

FLATONIA NO. 2 QUADRANGLE

[Latitude $29^{\circ}45' - 30^{\circ}00'$; longitude $97^{\circ}15' - 97^{\circ}30'$]

BASTROP, CALDWELL, FAYETTE, AND GONZALES COUNTIES

From Flatonia No. 3 quadrangle at point 4.5 miles southwest of Jeddo northeast along roads into Flatonia No. 1 quadrangle at point 8.2 miles northeast of Jeddo (by J. A. Hinman in 1897)

Jeddo, 2.5 mi. S. of, about 7 mi. NW. of Waelder, about 0.5 mi. S. of common corner of Bastrop, Caldwell, Fayette, and Gonzales Counties, at junction of Waelder-Bastrop rd.; iron post stamped "484 SA" -----

Jeddo, at intersection of settlement rd. and La Grange-Lockhart rd., about 400 ft. S. of post office; iron post stamped "455 SA" -----

Jeddo, 2.6 mi. NE. of, 175 ft. S. of residence of I. B. Holland, 6 ft. W. of rd.; iron post stamped "460 SA" -----

From Jeddo east along road into Flatonia No. 1 quadrangle to point about 2 miles west of Cistern (by J. A. Hinman in 1897)

Jeddo, 3.2 mi. E. of, at junction of settlement rd. S., 35 ft. S. of wire fence; iron post stamped "454 SA" -----

From Jeddo along roads northwest 1.3 miles, thence north and northeast to Rosanky, thence northeast along Missouri-Kansas-Texas Railroad into Flatonia No. 1 quadrangle (by J. A. Hinman in 1897)

Jeddo, 1.3 mi. NW. of, 4.1 mi. E. of Delhi, 25 ft. N. of intersection of Waelder-Bastrop and La Grange-Lockhart rds.; iron post stamped "536 SA" -----

Jeddo, 1.3 mi. NW., thence 3.6 mi. N. from, 5.4 mi. SW. of Rosanky, 1.0 mi. N. of Peach Creek, 45 ft. SW. of junction of rd. W.; iron post stamped "516 SA" -----

Rosanky, 1.5 mi. SW. of, 20 ft. NE. of intersection of Austin-Port Lavaca rd.; iron post stamped "468 SA" -----

Rosanky, 50 ft. S. of crossing of Rosanky-Jeddo rd. and Missouri-Kansas-Texas R. R., 360 ft. W. of sta.; iron post stamped "512 SA" (recovered by U. S. C. & G. S. in 1904) -----

From road junction 1.3 miles northwest of Jeddo west along La Grange-Lockhart road to Delhi, thence northwest along Waelder-Austin road to Redrock, thence east along Missouri-Kansas-Texas Railroad to intersection of Austin-Port Lavaca road, thence southeast to point 1.5 miles southwest of Rosanky (by J. A. Hinman in 1897)

Delhi, 400 ft. W. of post office, 40 ft. NE. of intersection of Waelder-Austin rd.; iron post stamped "535 SA" -----

Delhi, 6.8 mi. NW. of, 4.5 mi. S. of Redrock, about 2 mi. W. of Hoy Spring, at junction of settlement rd. E., just SE. of house; iron post stamped "565 SA" -----

Redrock, 1,200 ft. SE. of Missouri-Kansas-Texas R. R. passenger sta., 125 ft. S. of track, at intersection of Waelder-Redrock and Redrock-Rosanky rds.; iron post stamped "491 SA" (recovered in 1898; also recovered by U. S. C. & G. S. in 1904) -----

Redrock, 6.0 mi. E. of, 4.0 mi. along R. R. W. of Rosanky, 1,100 ft. E. of section house, about halfway between mileboards 983 and 984, 45 ft. SW. of crossing of settlement rd.; iron post stamped "451 SA" (recovered by U. S. C. & G. S. in 1904) -----

Feet
476. 203
447. 184
452. 403

446. 356
528. 302
508. 403
460. 350
504. 490

527. 163
557. 037
482. 912
442. 886

606 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

From Flatonia No. 1 quadrangle at point 5.8 miles northeast of Waelder along Cistern-Waelder road west 1.1 miles near south border of quadrangle, thence south into Flatonia No. 3 quadrangle (by J. A. Hinman in 1897; leveled twice)

Waelder, 4.7 mi. NE. of, at junction of settlement rd. N. and rd. NW. to Jeddo, 20 ft. S. of two 30-in. live-oak trees standing in center of rd., in SE. corner of wire fence; iron post stamped "444 SA" ³⁶-----

From Delhi southwest along Delhi-Harwood road into Flatonia No. 3 quadrangle (by J. A. Hinman in 1897)

Delhi, 4.7 mi. SW. of, at junction of Delhi-Thomsonville settlement rd.; iron post stamped "500 SA"-----

Delhi, 8.6 mi. SW. of, 8.0 mi. NE. of Harwood, 100 ft. W. of junction of public rd. to Lockhart and settlement rd. to Luling; iron post stamped "515 SA" ³⁶-----

Feet
436. 638

492. 129
507. 223

FLATONIA NO. 3 QUADRANGLE

[Latitude 29°30'-29°45'; longitude 97°15'-97°30']

CALDWELL, FAYETTE, AND GONZALES COUNTIES

From Luling quadrangle east along Galveston, Harrisburg & San Antonio Railroad ³⁷ into Flatonia No. 4 quadrangle (by J. A. Hinman in 1898)

Harwood, 4.2 mi. E. of, 8.7 mi. W. of Waelder, at bridge over Sandy Fork of Peach Creek, at N. end of W. brick pier, under batten post, in NW. corner of rock; copper bolt stamped "370"-----

355. 111

Waelder, 4.2 mi. W. of, at iron girder bridge 251 over dry branch (Bee Branch), at N. end of W. concrete pier, in stone pedestal; standard tablet stamped "374"-----

358. 433

Waelder, about 100 ft. E. of sta., at W. end of small park, 30 ft. N. of track; iron post stamped "386"-----

370. 723

From point on Galveston, Harrisburg & San Antonio Railroad 4.2 miles east of Harwood along roads northeast by way of Thomsonville into Flatonia No. 2 quadrangle at point 4.5 miles southwest of Jeddo (by J. A. Hinman in 1897)

Thomsonville, at intersection of Gonzales-Lockhart and Harwood-Waelder rds.; iron post stamped "432 SA"-----

424. 182

Thomsonville, about 4 mi. NE. of, 6.2 mi. SW. of Jeddo, near cross-roads, about 300 ft. S. of residence of Henry Gunn; iron post stamped "455 SA"-----

447. 236

From Waelder generally north along road into Flatonia No. 2 quadrangle at point 4.6 miles south of Jeddo (by J. A. Hinman in 1897)

Waelder, 3.9 mi. NW. of, 6.0 mi. S. of Jeddo, at junction of rd. NW., 700 ft. N. of two-story house, 10 ft. N. of gate; iron post stamped "475 SA"-----

466. 726

From Flatonia No. 1 quadrangle ³⁸ at point 5.8 miles northeast of Waelder along Cistern-Waelder road west 1.1 miles near north border of quadrangle, thence southwest to Waelder (by J. A. Hinman in 1897; leveled twice)

Waelder, 4.7 mi. NE. of, at junction of settlement rd. N. and rd. NW. to Jeddo, 20 ft. S. of two 30-in. live-oak trees standing in center of rd., in SE. corner of wire fence; iron post stamped "444 SA" ³⁹-----

436. 638

³⁶ This bench mark is listed also under Flatonia No. 3 quadrangle.

³⁷ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

³⁸ This line runs along the north border of Flatonia No. 4 quadrangle but no permanent marks were set in that portion of the line.

³⁹ This bench mark is listed also under Flatonia No. 2 quadrangle.

From Flatonia No. 4 quadrangle at point 2.2 miles west of Nickel southwest along road to San Antonio & Aransas Pass Railroad, thence west to Gonzales, thence north and northwest along Gonzales Branch of Southern Pacific Railroad into Luling quadrangle (by J. A. Hinman in 1897)	Feet
Nickel, 3.4 mi. W. of, at summit of hill E. of Peach Creek, 400 ft. SW. of residence of Jeff Hull, 20 ft. S. of rd., 3 ft. N. of wire fence; iron post stamped "359 SA" -----	351. 138
Nickel, 5.5 mi. W. of, 10.1 mi. NE. of Gonzales, at junction of rd. N. to Possumtrot, 100 ft. NW. of bridge over Peach Creek; iron post stamped "269 SA" -----	261. 049
Gonzales, 7.0 mi. NE. of, 0.7 mi. W. of Denton Creek, in angle of junction of settlement rd.; iron post stamped "313 SA" -----	305. 034
Gonzales, 2.7 mi. E. of, 50 ft. NW. of crossing of Lockhart Branch of San Antonio & Aransas Pass Ry. and Moulton-Gonzales rd.; iron post stamped "336 SA" -----	327. 855
Gonzales, 75 ft. W. of passenger sta., 50 ft. SW. of crossing of North Avenue, 50 ft. S. of main track; iron post stamped "306 SA" (recovered in 1906) -----	297. 698
Gonzales, 3.3 mi. N. of, 3.0 mi. S. of Kokernot, 1.5 mi. S. of section house 206, halfway between mileboards 8 and 9, 25 ft. E. of track, 6 ft. W. of SW. corner of iron fence around Jewish cemetery; iron post stamped "393 SA" -----	384. 813
Kokernot, about 6 mi. SE. of Harwood, midway between eighth and ninth telegraph poles N. of milepost 6, 12 ft. S. of N. switch stand, 15 ft. E. of main track; iron post stamped "406 SA" -----	397. 790
Harwood, about .2 mi. S. of, near mileboard 2, 150 ft. NE. of crossing of settlement rd., 50 ft. E. of head block at wood spur, in fence corner; iron post stamped "441 SA" -----	432. 841
From point on Galveston, Harrisburg & San Antonio Railroad 5 miles west of Waelder southwest along Bastrop-Gonzales road to Gonzales, thence north east along road by way of Possumtrot to Waelder (by J. A. Hinman in 1897)	
Waelder, 5.0 mi. W., thence 1.5 mi. S. from, 2.0 mi. S. of Thomsonville, 20 ft. W. of gate at junction of private rd. E., 20 ft. E. of center line of public rd., 100 ft. NE. of residence of B. A. Eversole, 6 ft. S. of fence corner; iron post stamped "359.5 SA" -----	351. 689
Thomsonville, 3.3 mi. S. of, 12.2 mi. NE. of S. A. & A. P. R. R. sta. at Gonzales, about 6 mi. W. of Waelder, at intersection of Harwood-Waelder rd.; iron post stamped "358 SA" -----	350. 183
Gonzales, 8.0 mi. NE. of, about 0.6 mi. S. of branch, at summit of ridge, 2 ft. E. of W. line of wire fence in lane; iron post stamped "421 SA" -----	413. 200
Gonzales, 6.0 mi. N. of, at junction of Gonzales-Sandy Fork rd.; iron post stamped "419 SA" -----	411. 154
Gonzales, 2.8 mi. N. of, at summit of ridge, 400 ft. S. of branch, on E. side of rd., 10 ft. N. of gate, 1.5 ft. W. of wire fence; iron post stamped "359 SA" -----	351. 163
Gonzales, 0.5 mi. S. of S. A. & A. P. R. R. sta., at Gonzales County courthouse, 5 ft. E. of NW. entrance, in rock over basement window; standard tablet stamped "299 SA" (recovered by U. S. C. & G. S. in 1935) -----	290. 967
Gonzales, 3.0 mi. NE. of, about 0.4 mi. NE. of Kerr Creek, at intersection of private rd., in SE. corner of wire fence; iron post stamped "338 SA" -----	330. 066

608 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Gonzales, 8.0 mi. NE. of, 4.2 mi. SW. of Possumtrot, 0.6 mi. NE. of Denton Creek, at rd. junction, 125 ft. NW. of mouth of lane; iron post stamped "341 SA"-----	332. 983
Possumtrot, at rd. junction, 6.8 mi. SW. of Waelder, 150 ft. SW. of abandoned store, 250 ft. SE. of cotton gin; iron post stamped "330 SA"-----	322. 022
Waelder, 2.9 mi. S. of, 1.0 mi. NE. of Pecan Creek, at intersection of settlement rd., on W. side of main rd.; iron post stamped "373 SA"-----	365. 126
From point on Gonzales-Waelder road about 1 mile northeast of Possumtrot northeast along road about 5 miles into Flatonia No. 4 quadrangle at point about 1 mile southwest of Winfield's gin (by J. A. Hinman in 1897)	
Possumtrot, 1.8 mi. NE. of, 400 ft. E. of foot of ridge, 50 ft. W. of W. bank of Sandy Fork, on N. side of rd., 2 ft. S. of fence; iron post stamped "297 SA"-----	289. 264
Possumtrot, 4.6 mi. NE. of, 2.2 mi. SW. of Winfield's gin, 150 ft. W. of branch, 25 ft. N. of rd., 2 ft. S. of wire fence; iron post stamped "348 SA"-----	340. 348
From Flatonia No. 2 quadrangle generally southwest along Delhi-Harwood road into Luling quadrangle at point near Harwood (by J. A. Hinman in 1897)	
Delhi, 8.6 mi. SW. of, 8.0 mi. NE. of Harwood, 100 ft. W. of junction of public rd. to Lockhart and settlement rd. to Luling; iron post stamped "515 SA" ⁴⁰ -----	507. 223
Harwood, 4.1 mi. NE. of, 25 ft. NW. of junction of Thomsonville-Lockhart public rd.; iron post stamped "460 SA"-----	452. 187
From Luling quadrangle southeast along San Antonio & Aransas Pass Railroad to Gonzales (by F. A. Nussle in 1906)	
Slayder, 5.2 mi. SE. of, 2.3 mi. NW. of Gonzales, at SE. corner of crossing of private rd.; iron post stamped "292"-----	292. 211

FLATONIA NO. 4 QUADRANGLE

[Latitude 29°30'-29°45'; longitude 97°00'-97°15']

FAYETTE, GONZALES, AND LAVACA COUNTIES

From Flatonia No. 3 quadrangle east along Galveston, Harrisburg & San Antonio Railroad ⁴¹ to Flatonia, thence north along San Antonio & Aransas Pass Railroad ⁴¹ into Flatonia No. 1 quadrangle (by J. A. Hinman in 1898; double-rodded line)

Pierson, at E. end of siding, about 4.5 mi. W. of Flatonia, S. of head block, 1.5 ft. from wire fence (fence may have been moved back); iron post stamped "337 SA"-----	322. 139
Flatonia, 2.5 mi. W. of, at crossing of Possumtrot-Flatonia rd. and G. H. & S. A. R. R., 0.5 mi. W. of mileboard 123, at cattle guard 296, in SE. corner of right-of-way fence; iron post stamped "392 SA" ⁴² -----	384. 418
Flatonia, in SW. angle of crossing of San Antonio & Aransas Pass R. R.; iron post stamped "473" (recovered in 1897)-----	457. 860

⁴⁰ This bench mark is listed also under Flatonia No. 2 quadrangle.

⁴¹ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

⁴² This bench mark was set in 1897.

FLATONIA NO. 4 QUADRANGLE

609

From Flatonia No. 1 quadrangle at point 4.5 miles north of Flatonia south along Smithville-Flatonia road and San Antonio & Arenas Pass Railroad to point 4.8 miles north of Flatonia, thence northwest along road and back into Flatonia No. 1 quadrangle at point 2.3 miles southeast of Colony (by J. A. Hinman in 1897)	Feet	
Flatonia, 4.5 mi. NW. of, 2.9 mi. SE. of Colony, 40 ft. N. of junction of ranch rd., 200 ft. W. of residence of Martin McAnally, on W. side of rd., 3 ft. W. of wire fence; iron post stamped "425 SA"-----	417. 187	
From Flatonia northwest along Slacks Well road into Flatonia No. 1 quadrangle (by J. A. Hinman in 1897)		
Flatonia, 3.3 mi. NW. of, 80 ft. W. of wooden bridge over Five Mile Creek, 15 ft. S. of rd.; iron post stamped "351 SA"-----	343. 277	
Flatonia, 6.6 mi. NW. of, 3.5 mi. SE. of Elm Grove Church, at junction of settlement rd., 150 ft. S. of mouth of lane; iron post stamped "360 SA"-----	352. 275	
From Flatonia southwest along San Antonio & Aransas Pass Railroad to Moulton, thence west along Moulton-Gonzales road into Flatonia No. 3 quadrangle at point 2.2 miles west of Nickel (by J. A. Hinman in 1897)		
Flatonia, 4.5 mi. S. of, 3.7 mi. N. of Moulton, at crossing of Flatonia-Gonzales rd., 2 telegraph poles S. of mileboard 143, 700 ft. E. of Lavaca River, in NW. corner of right-of-way fence; iron post stamped "448 SA"-----	440. 455	
Moulton, 900 ft. N. of passenger sta., at crossing of Flatonia-Moulton rd., in NW. corner of right-of-way fence; iron post stamped "391 SA"-----	383. 438	
Moulton, 3.6 mi. W. of, 2.5 mi. E. of Nickel, at junction of Flatonia-Gonzales rd. (by way of Old Moulton), about 0.25 mi. N. of White cotton gin; iron post stamped "475 SA"-----	467. 327	
Nickel, 600 ft. S. of post office, at junction of rd. SW. to Dilworth; iron post stamped "446 SA"-----	438. 173	
From road junction 3.6 miles west of Moulton northeast along road by way of Old Moulton to point on San Antonio & Aransas Pass Railroad 3.7 miles north of Moulton (by J. A. Hinman in 1897)		
Old Moulton, near intersection of Waelder-Moulton rd., on E. side of public square; iron post stamped "436 SA"-----	428. 277	
From Flatonia No. 3 quadrangle at point about 1 mile southwest of Winfield's gin southeast and northeast along Possumtrot-Flatonia road to point on Galveston, Harrisburg & San Antonio Railroad 2.5 miles west of Flatonia (by J. A. Hinman in 1897)		
Winfield's gin, 100 ft. SE. of, near junction of Moulton-Waelder rd., 75 ft. W. of Moulton rd.; iron post stamped "330 SA"-----	322. 288	
Winfield's gin, 1.8 mi. SE. of, 4.9 mi. NW. of Old Moulton, 0.75 mi. SE. of Peach Creek, at junction of Flatonia-Possumtrot rd.; iron post stamped "299 SA"-----	291. 166	
Winfield's gin, 3.2 mi. by rd. E. of, 7.4 mi. SW. of Flatonia, 25 ft. N. of gate of settlement rd. W. to Moulton-Waelder rd., 2 ft. E. of wire fence; iron post stamped "330 SA"-----	322. 404	
From Nickel along roads southwest about 4 miles, thence southeast and east to point 2.8 miles east of Henhaus, thence generally northwest and north to Engle, thence west along Galveston, Harrisburg & San Antonio Railroad to Flatonia (by J. A. Hinman in 1897)		
Nickel, 4.9 mi. S. of, 4.0 mi. E. of Dilworth, at Bailey triangulation sta., on highest point of bluffs overlooking Peach Creek Valley; iron post stamped "595 SA"-----	586. 942	

610 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Bailey triangulation sta., 3.5 mi. E. of, 2.9 mi. W. of Henkhaus, at junction of settlement rd. E., on E. side of rd., 15 ft. S. of gate entrance to pasture, about 300 ft. E. of residence of Bill Dixon; iron post stamped "516 SA"-----	508. 328
Henkhaus, 800 ft. N. of two-story store, 6.6 mi. W. of post office at Witting, 100 ft. E. of San Antonio & Aransas Pass R. R., about 0.5 mi. S. of mileboard 135, at junction of rd. E. to Witting, on E. side of Moulton-Shiner rd., 12 ft. S. of fence corner; iron post stamped "403 SA"-----	395. 380
Witting, 0.5 mi. NW. of post office, at junction of Hallettsville-Moulton and Witting-Flatonia rds., near signboard marked "Hallettsville 11 mi., Breslau 5 mi., Moulton 7 mi., Flatonia 15 mi.;" iron post stamped "396 SA"-----	388. 371
Witting, 4.7 mi. NE. of, 3.9 mi. SW. of Moravia, at junction of rd. E. to Moravia; iron post stamped "363 SA"-----	355. 411

[Line jogs into Schulenburg quadrangle]

Moravia, 4.5 mi. NW. of, 4.0 mi. S. of Engle, near Fayette-Lavaca county line, at intersection of Hallettsville-Flatonia rd.; iron post stamped "411 SA"-----	403. 428
Engle, 200 ft. NW. of G. H. & S. A. R. R. sta., 20 ft. NW. of rd. crossing, 15 ft. N. of center line of main track; iron post stamped "374 SA"-----	366. 472

FLORESVILLE QUADRANGLE

[Latitude 29°00'-29°15'; longitude 98°00'-98°15']

KARNES AND WILSON COUNTY

From Falls City quadrangle northwest along San Antonio & Aransas Pass Railroad $\frac{4}{5}$ 1 mile, thence alternately southwest and northwest along roads and back into Falls City quadrangle at point 1.2 miles north and 4.8 miles west of Falls City (by H. P. Jones in 1925)

Falls City, 2.9 mi. NW. of R. R. sta. at, 50 ft. S. and 100 ft. W. from R. R. trestle, 30 ft. N. of San Antonio-Corpus Christi highway, in line with T-rd. SW., inside R. R. right-of-way fence; iron post stamped "Prim Trav Sta No 16 LS 1925 J 10"-----	310. 979
Falls City, 2.9 mi. NW., thence 1.0 mi. SW. from, 1.0 mi. SE. of Ehlers School; on S. side of rd., 500 ft. E. of rd. S., in root on N. side of 6-in. mesquite tree; copper nail and washer-----	409. 42
Ehlers School, 115 ft. NE. of, in yard, in root on N. side of 7-in. mesquite tree; copper nail and washer-----	410. 70
Ehlers School, 0.75 mi. NW. of, 2.5 mi. N. and 3.5 mi. W. from Falls City, on S. side of old Floresville rd., 2.1 mi. NE. of farmhouse of Albert Zunker, 21 ft. S. and 15 ft. E. from junction of T-rd. SW., 3 ft. S. and 3 ft. E. from corner fence post, set in concrete; iron post stamped "Prim Trav Sta No 17 LS 1925 J 11"-----	409. 652
Reference mark, in SE. angle of rd. junction, in root of 6-in. mesquite tree; copper nail and washer-----	408. 13
Falls City, 1.8 mi. N. and 4.3 mi. W. from, 1.2 mi. NE. of Zunker farmhouse, on S. side of rd., in root on N. side of 6-in. mesquite tree; copper nail and washer-----	398. 34

^a Now part of the Texas & New Orleans Division of the Southern Pacific Co.

FORT BROWN QUADRANGLE “

[Latitude 25°45'–26°00'; longitude 97°15'–97°30']

CAMERON COUNTY

From Brownsville northeast along old grade of Rio Grande Railway ⁴³ into Los Cuates quadrangle (by R. C. Seitz in 1918; leveled twice)

Brownsville, in NW. corner of yard of post office; International Boundary Commission reference monument 43 (reported destroyed)	Feet
Brownsville, in NW. angle of intersection of Eleventh and Madison Streets, opposite SW. corner of Cameron County courthouse yard, on property line; iron post stamped “S 1913 34” (recovered by U. S. C. & G. S. in 1918 and designated “A 49”, later reported destroyed)	36. 060
Brownsville, opposite Rio Grande Ry. sta.; top of S. rail	33. 428
Brownsville, 3.0 mi. NE. of sta., about 200 ft. E. of milepost 3-19, 9 telegraph poles E. of crossing of Brownsville-Port Isabel rd., N. of cattle guard, in line with row of poles, on N. right-of-way line; iron post stamped “S 1913 23” (recovered by U. S. C. & G. S. in 1918 and designated “C 49”)	32. 7
Brownsville, 6.0 mi. NE. of, opposite milepost 6-16, on N. right-of-way line; iron post stamped “S 1913 17” ⁴⁶ (recovered by U. S. C. & G. S. in 1918 and designated “D 49”)	22. 979
Brownsville, 9.0 mi. NE. of, 25 ft. W. of milepost 9-13, 50 ft. S. of track; iron post stamped “S 1913 7” (recovered by U. S. C. & G. S. in 1918 and designated “E 49”)	16. 946
From Brownsville quadrangle at point 0.8 mile west of Tejon generally east, southeast, and northeast along roads to point 5.7 miles north and 2 miles east from Brownsville, thence south to Port Isabel & Rio Grande Valley Railway, thence northeast 0.2 mile (by S. H. Holm in 1929)	6. 726
Tejon, about 250 ft. S. of Southern Pacific R. R. sta., at center of R. R. crossing; top of E. rail	29. 1
Tejon, 0.2 mi. E. of, about 5.5 mi. along Paredes Line rd. N. of Brownsville, 6.3 mi. S. of Los Fresnos, 24 ft. N. and 40 ft. W. from crossroads, in SE. corner of yard of house, in concrete post; standard tablet stamped “H 7 1929”	28. 555
Reference mark, 18 ft. N. and 36 ft. W. from tablet, in root of 8-in. mesquite tree; copper nail and washer	28. 15
Brownsville, 5.5 mi. N., thence 0.5 mi. SE. from, about 0.3 mi. E. of sugar mill, 40 ft. E. of rd., in notch in root of 15-in. mesquite tree; copper nail and washer	27. 06
Brownsville, 5.1 mi. N. and 1.4 mi. E. from, 0.2 mi. S. of junction of T-rd. E., 220 ft. E. of irrigation flume over Resaca del Rancho Viejo, on E. guardrail of concrete bridge over canal; chiseled square	29. 24
Brownsville, 5.3 mi. N. and 1.4 mi. E. from, at junction of T-rd. E., on head wall of irrigation ditch; chiseled square	28. 16
Brownsville, 5.3 mi. N. and 1.7 mi. E. from, 20 ft. N. and 28 ft. W. from crossroads, on top of concrete sluice gate of irrigation ditch; chiseled square	28. 00
Brownsville, 5.7 mi. N. and 1.7 mi. E. from, 25 ft. S. and 24 ft. E. from junction of T-rd. S., 24 ft. N. and 10 ft. W. from house, in concrete post; standard tablet stamped “H 8 1929”	18. 144

⁴³ A large part of this area, south of the Rio Grande, lies in Mexico.

⁴⁴ This railroad has been superseded by the Port Isabel & Rio Grande Valley Railway. The route of the new railroad leaves the old grade at a point 1.5 miles southwest of San Martin Lake.

⁴⁶ In 1927 this post was reported badly battered but apparently solid.

612 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Reference mark, 11 ft. N. and 4 ft. W. from tablet, on top of 15-in. concrete tile culvert; chiseled square-----	16. 99
Brownsville, 5.7 mi. N. and 2.0 mi. E. from, at junction of T-rd. S., on S. end of concrete culvert; chiseled square-----	16. 20
Brownsville, 5.7 mi. N. and 2.0 mi. E. from, 12 ft. S. and 130 ft. E. from junction of rd. SE. along N. side of Rancho Viejo, on top of concrete wall of sluice gate; chiseled square-----	29. 09
Brownsville, about 5 mi. along Port Isabel rd. NE. of, 0.6 mi. S. and 0.1 mi. E. from crossing of Resaca del Rancho Viejo, 0.2 mi. NE. of junction of Port Isabel rd. and rd. N., in top of W. concrete head wall of culvert; small metal disk (Cameron County B. M.)-----	24. 890
Brownsville, 3.7 mi. N. and 2.0 mi. E. from, 57 ft. N. and 30 ft. W. from junction of T-rd. E., 118 ft. N. and 30 ft. W. from wooden bridge over drainage canal, 2 ft. E. of fence line, in concrete post; standard tablet stamped "H 9 1929"-----	16. 607
Brownsville, 3.2 mi. N. and 2.0 mi. E. from, 60 ft. S. and 24 ft. W. from crossroads, on top of concrete head wall of culvert; chiseled square-----	16. 39
Brownsville, 2.7 mi. N. and 2.0 mi. E. from, 27 ft. S. and 15 ft. W. from crossroads, on top of brick head wall of culvert; chiseled square-----	20. 09
Brownsville, 1.9 mi. N. and 2.0 mi. E. from, 27 ft. S. and 24 ft. E. from crossing of Port Isabel & Rio Grande Valley Ry., on top of concrete head wall in irrigation ditch; chiseled square with bolt in center-----	29. 88
From road junction 5.5 miles north of Brownsville north 1.4 miles along Paredes Line road into Los Cuates quadrangle (by S. H. Holm in 1929)	
Brownsville, 6.2 mi. N. of, 32 ft. N. and 45 ft. E. from crossroads, 32 ft. N. and 15 ft. E. from gate, in knot at base of 8-in. mesquite tree; copper nail and washer-----	27. 00
Brownsville, 6.7 mi. N. of, 5.3 mi. S. of Los Fresnos, 30 ft. W. of rd. 3 ft. N. of E.-W. fence line on edge of timber, in concrete post; small metal disk (Cameron County B. M.)-----	21. 150
North of Loma Alta Lake (by S. H. Holm in 1929)	
[A jog from Los Cuates quadrangle]	
Brownsville, about 7.5 mi. along Port Isabel rd. NE. of, 0.3 mi. N.E. of wooden bridge, N. of NW. end of Loma Alta Lake, 24 ft. S. and 15 ft. E. from wooden culvert, in concrete post; standard tablet stamped "H 11 1929"-----	10. 568
Reference mark, 6 ft. E. of tablet, in root on W. side of 12-in. mesquite tree; copper nail and washer-----	10. 96
From Los Cuates quadrangle at point 0.3 mile west of Port Isabel & Rio Grande Valley Railway generally southeast and south along roads and Oklahoma Avenue to point 0.9 mile east and 0.2 mile north from South Point, thence alternately west and south by way of South Point and Brulay plantation to Rabb plantation (by S. H. Holm in 1929)	
Brownsville, 8.6 mi. along old grade of Rio Grande Ry. NE. of, 8 ft. S. and 15 ft. E. from fence crossing, in notch at base of 4-in. mesquite tree; copper nail and washer-----	8. 30
Brownsville, 9.0 mi. NE., thence 0.3 mi. SE. from, 0.2 mi. SW. of San Martin Lake, 100 ft. NW. of Rancho Viejo floodway, in fence line, in concrete post; small metal disk (Cameron County B. M.)-----	7. 975

	Feet
Brownsville, 9.0 mi. NE., thence 0.4 mi. SE. from, 2.5 mi. E. along Boca Chica highway, thence 5.0 mi. N. along dim rd. from El Jardin School, 400 ft. SE. of floodway, 200 ft. N. and 200 ft. W. from bridge over canal, in SW. angle of junction of canals, 12 ft. S. of lone tree, in concrete post; small metal disk (Cameron County B. M.)-----	8. 025
El Jardin School, 2.5 mi. E., thence 4.2 mi. N. from, 300 ft. W. of timber line, about opposite SW. corner of timber, in top of dump of drainage canal; top of auto axle-----	16. 06
El Jardin School, 2.5 mi. E., thence 3.1 mi. N. from, 130 ft. E. of angle in drainage canal, 30 ft. W. of dim rd., in concrete post; standard tablet stamped "H 13 1929"-----	6. 037
El Jardin School, 2.5 mi. E., thence 2.1 mi. N. from, 120 ft. E. of angle in canal, 40 ft. W. of rd.; top of auto axle-----	7. 39
El Jardin School, 2.5 mi. E., thence 1.2 mi. N. from, 170 ft. E. of canal, 80 ft. E. of rd.; top of auto axle-----	8. 70
El Jardin School, 2.5 mi. E., thence 0.3 mi. N. from, 60 ft. E. of canal, 32 ft. N. of corner fence post, 12 ft. W. of rd.; top of auto axle-----	12. 55
El Jardin School, 2.5 mi. E. of, about 7.7 mi. along Boca Chica highway E. of Brownsville, 30 ft. N. of cattle guard gate, 65 ft. N. and 100 ft. W. from wooden bridge over canal, in concrete post; standard tablet stamped "H 14 1929"-----	12. 653
Reference mark, 38 ft. S. of tablet, on concrete base of cattle guard gate; chiseled square-----	14. 05
El Jardin School, 2.2 mi. E., thence 0.4 mi. S. from, 70 ft. S. and 9 ft. E. from junction of rd. SW., 9 ft. E. of center of bridge over drainage canal, in guardrail; copper nail and washer-----	19. 85
El Jardin School, 2.2 mi. E., thence 2.0 mi. S. from, 120 ft. N. and 30 ft. W. from junction of rd. W., on top of concrete head wall of culvert; chiseled square-----	13. 87
El Jardin School, 2.2 mi. E., thence 2.6 mi. S. from, 0.9 mi. E., thence 1.2 mi. N. from South Point, 60 ft. S. and 26 ft. E. from crossroads, on top of concrete head wall of culvert; chiseled square-----	15. 60
South Point, 0.9 mi. E., thence 0.7 mi. N. from, 25 ft. N. and 15 ft. W. from crossroads, in root of 6-in. mesquite tree; copper nail and washer-----	20. 06
South Point, 0.9 mi. E., thence 0.2 mi. N. from, 22 ft. S. and 18 ft. E. from crossroads, 11 ft. W. of power-line pole, in line of poles, in concrete post; standard tablet stamped "H 15 1929"-----	20. 999
Reference mark, 5 ft. W. of tablet; top of auto axle-----	21. 00
South Point, 0.4 mi. E. and 0.2 mi. N. from, 18 ft. S. and 18 ft. W. from center of crossing of drainage ditch, on top of concrete head wall of culvert; chiseled square-----	15. 78
South Point, 0.2 mi. E., thence 0.2 mi. N. from, 10 ft. S. and 16 ft. E. from junction of rd. S., on top of S. end of 12-in. concrete tile culvert; chiseled square-----	17. 02
South Point, 0.5 mi. S., thence 1.0 mi. W. from, 0.7 mi. N., thence 1.0 mi. SE. from Rabb plantation, 700 ft. W. of old sugar mill on Brulay plantation, 7 ft. S. of rd., on top of brick head wall of sluice gate; chiseled square-----	28. 81
Rabb plantation, 0.5 mi. N. of, 800 ft. W. of sharp bend in Rio Grande, 200 ft. S. of irrigation canal, 6 ft. S. of footpath through woods, in 6-in. mesquite tree; rail spike-----	27. 74
Rabb plantation, 100 ft. E. of NE. corner of house of Frank Rabb; International Boundary Commission reference monument 47-----	29. 134

614 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

From point on Boca Chica highway 2.5 miles east of El Jardin School west 2.5 miles along highway, thence south and west along roads at boundary of Brownsville airport, thence southwest, southeast, east, and south by way of Nogales School and Piper plantation to Rabb plantation (by S. H. Holm in 1929)

	Feet
El Jardin School, 1.7 mi. E. of, 27 ft. S. and 21 ft. W. from crossroads, on top of 30-in. concrete sluice gate; chiseled square-----	23. 08
El Jardin School, 1.4 mi. E. of, in S. head wall of culvert; small metal disk stamped "J 18 23.53" (Cameron County B. M.)-----	23. 546
El Jardin School, 1.1 mi. E. of, 20 ft. N. and 50 ft. W. from junction of T-rd. N., in top of concrete head wall in irrigation ditch; small metal disk stamped "J 16 23.19" (Cameron County B. M.)-----	23. 206
El Jardin School, 0.6 mi. E. of, 34 ft. N. and 55 ft. W. from crossroads, at SW. corner of store and service sta., in concrete post; bronze tablet stamped "H Patton 22.383" (U. S. C. E. B. M.; later reported destroyed)-----	23. 719
El Jardin School, 0.4 mi. E. of, in N. head wall of irrigation ditch; small metal disk stamped "J 14 26.53" (Cameron County B. M.)-----	26. 541
El Jardin School, 0.2 mi. E. of, at junction of T-rd. N., in N. concrete head wall of culvert; small metal disk stamped "J 13 22.78" (Cameron County B. M.)-----	22. 794
El Jardin Consolidated School, 13 ft. N. and 470 ft. E. from crossroads, in N. concrete head wall of culvert; small metal disk stamped "J 11 1903" (Cameron County B. M.)-----	19. 026
El Jardin School, 1.0 mi. S. of, at SE. corner of Brownsville airport, 10 ft. S. and 16 ft. W. from crossroads, on top of 12-in. concrete pipe culvert; chiseled square-----	15. 15
El Jardin School, 1.0 mi. S., thence 1.0 mi. W. from, 1.8 mi. NE. of Nogales School, at SW. corner of airport, 55 ft. S. and 50 ft. E. from crossroads, 25 ft. E. of corner fence post, in concrete post; standard tablet stamped "H 16 1929"-----	19. 150
Reference mark, 60 ft. N. and 125 ft. W. from tablet, on head wall of culvert in drainage ditch; chiseled square-----	15. 61
Nogales School, 1.5 mi. NE. of, 20 ft. N. and 40 ft. W. from junction of rd. NW., on top of concrete head wall of culvert in large drainage canal; chiseled square-----	17. 73
Nogales School, 0.7 mi. NE. of, 3.4 mi. along Southmost rd. E. of Brownsville, 38 ft. N. of crossroads, on top of N. concrete head wall of culvert; chiseled square-----	30. 38
Nogales School, 16 ft. N. of NW. corner of porch, in schoolyard, in knot at base of 8-in. mesquite tree; copper nail and washer-----	28. 87
Nogales School, 1.0 mi. SE. of, 1.1 mi. NW. of Piper plantation, 0.3 mi. N. of old Indiana Pumping Plant, 145 ft. S. and 50 ft. E. from crossing of St. Louis, Brownsville & Mexico Ry., in line of telegraph poles, in concrete post; standard tablet stamped "H 17 1929"-----	30. 871
Piper plantation, 1.0 mi. N., thence 1.0 mi. W. from Rabb plantation, W. of junction of T-rd. N., in N. head wall of irrigation ditch; small metal disk (Cameron County B. M.)-----	31. 971
Rabb plantation, 1.0 mi. N., thence 0.4 mi. W. from, just E. of Palm Grove School, 12 ft. N. and 42 ft. E. from intersection of Dakota Avenue, in top of concrete head wall in irrigation ditch; small metal disk (Cameron County B. M.)-----	29. 728
Rabb plantation, 0.5 mi. N. of, 15 ft. S. and 100 ft. E. from rd. junction, in front of Mexican hut, in base of 20-in. mesquite tree; rail spike-----	28. 09

From Los Cuates quadrangle at east end of San Martin Lake generally southwest along roads to old Tulosa ranch (by S. H. Holm in 1929)

	Feet
Boca Chica, 9.4 mi. SW. along Boca Chica highway, thence 3.2 mi. NE. from, about 800 ft. NW. of junction of rd. N., 200 ft. W. of main rd., 15 ft. SW. of unimproved rd., in base of mesquite tree; rail spike-----	8. 11
Boca Chica, 9.4 mi. SW., thence 2.6 mi. NE. from, 82 ft. W. of rd., in base of lone mesquite tree; rail spike-----	6. 35
Boca Chica, 9.4 mi. SW., thence 2.1 mi. NE. from, 90 ft. S. of rd., at angle, on N. edge of fringe of timber, in concrete post; standard tablet stamped "H 21 1929"-----	6. 156
Reference mark, 50 ft. W. of tablet, in notch at base of 4-in. mesquite tree; copper nail and washer-----	6. 18
Boca Chica, 9.4 mi. SW., thence 1.3 mi. NE. from, 118 ft. N. of rd., at bend, in base of lone mesquite tree; rail spike-----	7. 85
Boca Chica, 9.4 mi. SW., thence 0.4 mi. NE. from, 33 ft. W. of rd., in twin mesquite tree; rail spike-----	11. 36
Boca Chica, 9.3 mi. SW. of, about 14.5 mi. along Boca Chica highway NE. of Brownsville, 2.3 mi. NE. of Tulosa ranch house, 80 ft. N. and 600 ft. E. from junction of Boca Chica highway and rd. NE., 290 ft. W. of crossing of graded rd., in concrete post; small metal disk (Cameron County B. M.)-----	9. 299
Tulosa ranch house, 1.8 mi. NE. of, on NW. bank of Rio Grande at sharp bend, 26 ft. S. of junction of rd. NE., in base of mesquite tree; rail spike-----	10. 18
Tulosa ranch house, 0.9 mi. NE. of, about 1 mi. by rd. NW. of Palmito ranch, 1,000 ft. E. of timber line, between two parallel rds., in base of small mesquite tree; rail spike-----	10. 16
Tulosa ranch house, 0.4 mi. NE. of, 18 ft. S. and 21 ft. W. from crossroads, in base of leaning mesquite tree; rail spike-----	9. 36
Tulosa ranch house, 49 ft. SE. of; International Boundary Commission reference monument 52-----	29. 429
From El Jardin School alternately west and north along Boca Chica highway, Central Avenue, and other roads to point 1.9 miles north and 2 miles east from Brownsville at crossing of Port Isabel & Rio Grande Valley Railway (by S. H. Holm in 1929)	
El Jardin School, 0.4 mi. W. of, on N. side of Brownsville airport, 33 ft. N. and 33 ft. W. from junction of Dakota Avenue, in concrete head wall of culvert; small metal disk stamped "J 10 22.33" (Cameron County B. M.)-----	22. 341
El Jardin School, 1.0 mi. W. of, at NW. corner of airport, 60 ft. W. of crossroads, 20 ft. N. of rd., in concrete head wall in drainage ditch; small metal disk stamped "J 7 17.03" (Cameron County B. M.)-----	17. 058
El Jardin School, 1.9 mi. W. of, 3.3 mi. NE. of Brownsville, 210 ft. E. of intersection of Central Avenue, 33 ft. N. of rd., on top of concrete head wall in irrigation ditch; chiseled square-----	26. 58
Brownsville, 2.8 mi. along Fourteenth Street NE. of, 64 ft. W. of junction of Fourteenth Street, about 500 ft. NE. of junction of rd. N., 15 ft. N. of rd., in top of concrete head wall in irrigation canal; small metal disk (Cameron County B. M.)-----	30. 483

616 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

From point 9 miles along old Rio Grande Railway northeast of Brownsville northeast 0.9 mile along abandoned grade into Los Cuates quadrangle (by S. H. Holm in 1929)

Brownsville, 9.5 mi. NE. of, 100 ft. W. of angle in drainage canal, in center of crossing of dim trail, in top stub of piling; copper nail and washer-----

Feet
5. 83

FRANKLIN SETTLEMENT QUADRANGLE

[Latitude 28°30'-28°45'; longitude 98°30'-98°45']

ATASCOSA AND McMULLEN COUNTIES

From Whitsett quadrangle at point near Burmeister ranch house generally southwest along roads into Tilden quadrangle at point 3 miles northeast of Tilden (by H. P. Jones in 1925)

Burmeister ranch house, in front yard of, 18 ft. E. of stone chimney at N. end of house, 5 ft. W. of gate, 1.5 ft. S. of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 38 K 1925 J 53"-----	285. 468
Reference mark, on N. side of ranch house, 15 ft. NE. of chimney, in root of cedar tree; copper nail and washer-----	284. 86
Burmeister ranch house, 0.9 mi. S. of, on W. side of Tilden rd., in root of small mesquite tree; copper nail and washer-----	275. 93
Burmeister ranch house, 1.9 mi. SW. of, on W. side of rd., in root of 10-in. mesquite tree; copper nail and washer-----	270. 87
Burmeister ranch house, 3.6 mi. SW. of, 8.5 mi. NE. of Tilden, 400 ft. S. of crossing of San Miguel Creek, 1,000 ft. N. of tenant house, 20 ft. NW. of rd. at wire gate, 1.5 ft. NE. of intersection of NW.-SE. wire fence and second-class rd., in concrete post; standard tablet stamped "Prim Trav Sta No 39 K 1925 J 54"-----	262. 897
Reference mark, 30 ft. W. of wire gate, in root of mesquite tree; copper nail and washer-----	262. 12
Tilden, 7.3 mi. NE. of, on E. side of rd., in root of mesquite tree; copper nail and washer-----	278. 72
Tilden, 6.3 mi. NE. of, 0.9 mi. NE. of junction of rd. to Christine, on W. side of rd., in root of mesquite tree; copper nail and washer-----	314. 51
Tilden, 5.5 mi. NE. of, 20 ft. N. and 35 ft. W. from junction of Christine rd., 5 ft. W. of wire fence along W. side of main rd., in concrete post; standard tablet stamped "Prim Trav Sta No 40 K 1925 J 55"-----	289. 641
Tilden, 4.5 mi. NE. of, on E. side of Christine-Tilden rd., in root of double mesquite tree; copper nail and washer-----	314. 61
Tilden, 3.5 mi. NE. of, on W. side of rd., in root of mesquite tree; copper nail and washer-----	300. 60
From Tilden quadrangle at point 3.8 miles northwest of Tilden northwest along Pearsall-Tilden road about 3 miles, thence south and back into Tilden quadrangle (by H. P. Jones in 1925)	
Tilden, 4.1 mi. NW. of, 1.5 mi. E. of Henry ranch, 650 ft. W. of crossing of prong of Leoncita Creek, near summit of hill, 90 ft. N. of corner of wire fence at 100-ft. jog E., 30 ft. S. of center of rd. at plank gate, 2 ft. W. of N.-S. wire fence, in concrete post; standard tablet stamped "Prim Trav Sta No 43 K 1925 J 58"-----	308. 491
Tilden, 5.2 mi. NW. of, 0.5 mi. E. of cattle pens on Henry ranch, on S. side of rd., in root of double mesquite tree; copper nail and washer-----	322. 32
Tilden, 5.6 mi. NW. of, at Henry ranch cattle pens, in SE. angle of crossroads, in root of mesquite tree; copper nail and washer-----	324. 71

Tilden, 6.8 mi. NW. of, 1.2 mi. W. of Henry ranch cattle pens, 35 ft. NE. of center of wire gate across rd., in NE.-SW. fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 44 K 1925 J 59"-----

Feet
313. 620

HEBBRONVILLE NO. 1 QUADRANGLE

[Latitude 27°15'-27°30'; longitude 98°30'-98°45']

BROOKS, DUVAL, AND JIM HOGG COUNTIES

From Falfurrias No. 2 quadrangle southwest along Texas Mexican Railway to Hebbronville, thence northwest into Hebbronville No. 2 quadrangle (by E. E. Harris in 1923)

Realitos, 1.2 mi. NE. of, opposite milepost 78, on NW. side of rd., on SE. side of track, 150 ft. E. of rd. fork, 6 ft. S. of and in line with telephone poles; top of cap on iron pipe----- 432. 84

Realitos, 0.2 mi. NE. of, 100 ft. W. of milepost 77, on NW. side of rd., on SE. side of track, 5 ft. W. of and in line with telephone poles; top of cap on iron pipe----- 441. 60

Realitos, in front of sta.; top of nearest rail of main-line track----- 444. 6

Realitos, 0.7 mi. SW. of, 50 ft. S and 40 ft. W. from rd. crossing, 7 ft. W. of and in line with telephone poles, in concrete post; standard tablet stamped "H 36 Texas 1923" (recovered by U. S. C. & G. S. in 1933)----- 450. 698

Reference mark, 61 ft. S.15°W. of tablet, in crotch of mesquite tree; copper nail and washer----- 451. 13

Realitos, 1.8 mi. SW. of, on NW. side of rd., opposite mi'epost 75, 6 ft. W. of and in line with telephone poles; top of cap on iron pipe----- 461. 68

Realitos, 2.8 mi. SW. of, on NW. side of rd., 35 ft. W. of crossing of second-class rd., opposite milepost 74, 7 ft. W. of and in line with telephone poles; top of cap on iron pipe----- 475. 52

Realitos, 3.6 mi. SW. of, 0.8 mi. NE. of Dubose, 0.2 mi. NE. of milepost 73, in SE. angle of junction of T-rd. E., in right angle in fence line, 2 ft. from each fence, in concrete post; standard tablet stamped "H 37 Texas 1923" (recovered by U. S. C. & G. S. in 1933)----- 495. 343

Reference mark, 24.5 ft. S.45°E. of tablet, in root on N. side of 6-in. mesquite tree; copper nail and washer----- 495. 75

Dubose, in front of sta.; top of nearest rail of main-line track----- 475. 2

Dubose, 0.4 mi. SW. of, 630 ft. N. of rd. crossing, on NW. side of rd., on SE. side of track, opposite milepost 72, 6 ft. S. of and in line with telephone poles; top of cap on iron pipe----- 474. 23

Dubose, 1.4 mi. SW. of, 1.5 mi. NE. of Crestonio, on NW. side of rd., on SE. side of track, opposite milepost 71, 5.5 ft. S. of and in line with telephone poles; top of cap on iron pipe----- 474. 79

Crestonio, 0.5 mi. NE. of, on NW. side of rd., on SE. side of track, opposite milepost 70, 5 ft. S. of and in line with telephone poles, in concrete post; standard tablet stamped "H 38 Texas 1923" (recovered by U. S. G. & C. S. in 1933)----- 483. 300

Reference mark, 92 ft. S.20°E. of tablet, in crotch of spreading mesquite tree; copper nail and washer----- 483. 37

Crestonio, in front of sta.; top of nearest rail of main-line track----- 491. 8

Crestonio, 0.4 mi. SW. of, 70 ft. NE. of crossing of second-class rd., on SE. side of track and main rd., 100 ft. N. of milepost 69, opposite target switch, 5 ft. S. of and in line with telephone poles; top of cap on iron pipe----- 497. 24

	Feet
Crestonio, 1.5 mi. SW. of, 360 ft. SW. of rd. crossing, between rd. and track, opposite milepost 68, 6 ft. S. of and in line with telephone poles; top of cap on iron pipe-----	512. 84
Duval-Jim Hogg county line; top of E. rail-----	516. 7
Crestonio, 2.5 mi. SW. of 4.8 mi. NE. of Hebbronville, 0.5 mi. SW. of Duval-Jim Hogg county line, 250 ft. S. of milepost 67, on SE. side of rd. and track, in angle in fence line, 2 ft. from each fence, in concrete post; standard tablet stamped "H 39 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	504. 668
Reference mark, 60 ft. S. of tablet, 1 ft. E. of fence line, 6 in. underground; top of cap on iron pipe-----	503. 79
Hebbronville, 3.8 mi. NE. of, on SE. side of track, opposite milepost 66, 4.5 ft. S. of telephone pole; top of cap on iron pipe-----	498. 56
Hebbronville, 2.6 mi. NE. of, 0.3 mi. SW. of milepost 64, 100 ft. N. and 20 ft. E. from crossing of second-class rd., at gate across rd., in right angle in fence line, 1 ft. from each fence, in concrete post; standard tablet stamped "H 40 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	513. 096
Reference mark, 54.5 ft. N.65°E. of tablet, 1 ft. S. of fence line, 6 in. underground; top of cap on iron pipe-----	512. 06
Hebbronville, 1.8 mi. NE. of, 80 ft. SE. of track, opposite milepost 64, in root on N. side of 6-in. mesquite tree; copper nail and washer-----	515. 91
Hebbronville, 0.8 mi. E. of, on SE. side of track, 0.2 mi. NE. of rd. crossing, 5 ft. W. of and in line with telephone pole; top of cap on iron pipe-----	519. 58
Hebbronville, in front of sta.; top of nearest rail of main-line track-----	544. 3
Hebbronville, 160 ft. SW. of sta., on S. side of rd., in NW. corner of lot owned by John Edds, 12 ft. E. of lot fence, 3 ft. S. of sidewalk, in concrete post, flush with ground; standard tablet stamped "H 41 Texas 1923" (recovered by U. S. C. & G. S. in 1993)-----	546. 311
Reference mark, 173 ft. S.80°W. of tablet, on NW. corner of concrete walk; chiseled square ^a (recovered by U. S. C. & G. S. in 1933)-----	545. 898
Hebbronville, at Jim Hogg County courthouse, in SW. corner of yard, in concrete post; standard tablet stamped "H 42 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	553. 545
Reference mark, 160 ft. N.45°E. of tablet, at front entrance to courthouse, on W. end of first stone step; chiseled square (recovered by U. S. C. & G. S. in 1933)-----	555. 780
Hebbronville, 1.2 mi. W. of, 70 ft. S. of track, opposite milepost 61, 480 ft. E. of rd. crossing, in crotch of mesquite tree; copper nail and washer-----	562. 50
Hebbronville, 2.2 mi. NW. of, on SW. side of track, 40 ft. S. of rd., 80 ft. E. of milepost 60, in root on W. side of 4-in. mesquite tree; copper nail and washer-----	582. 50
Hebbronville, 3.2 mi. NW. of, on SW. side of track and rd., opposite milepost 59, 1 ft. S. of fence line, in concrete post; standard tablet stamped "H 43 Texas 1923"-----	603. 909
Reference mark, 43 ft. S.75°W. of tablet, 1 ft. S. of fence line, 6 in. underground; top of cap on iron pipe-----	603. 39
Hebbronville, 4.2 mi. NW. of, on SW. side of track and rd., 200 ft. SE. of milepost 58, 40 ft. S. and 40 ft. W. from T-angle in fence line, in root on S. side of mesquite tree; copper nail and washer-----	626. 30

^a In 1938 it was reported that this mark had apparently settled and its elevation was doubtful.

Hebbronville, 5.2 mi. NW. of, 350 ft. NW. of rd. crossing, 80 ft. SW. of track, opposite milepost 57, in crotch of mesquite tree; copper nail and washer-----	Feet 641. 80
Hebbronville, 6.2 mi. NW. of, on SW. side of track, opposite milepost 56, 5 ft. N. of and in line with telephone poles, in concrete post; standard tablet stamped "H 44 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	667. 046
Reference mark, 62.3 ft. S. 80°W. of tablet, in root on S. side of 4-in. mesquite tree; copper nail and washer-----	666. 86

HEBRONVILLE NO. 2 QUADRANGLE

[Latitude 27°15'-27°30'; longitude 98°45'-99°00']

DUVAL, JIM HOGG, WEBB, AND ZAPATA COUNTIES

From San Ignacio No. 1 quadrangle generally northeast along roads by way of Oilton and Santa Cruz ranch into Moglia quadrangle (by S. L. Parker in 1919; leveled to Oilton by J. H. Wilke in 1923)

Oilton, 2.4 mi. W. of, at SW. corner of concrete bridge over drain, on top of abutment; sunken chiseled square (established in 1923)-----	701. 68
Oilton, 1.5 mi. W. of, 40 ft. NW. of junction of T-rd. S. to Mirando City, 3 ft. W. of large Texaco signboard; top of cap on 1½-in. iron pipe (established in 1923)-----	744. 85
Oilton, 1.5 mi. W. of, at T-rd. S. to Mirando City, on NW. corner of concrete culvert; chiseled square (established in 1923)-----	747. 36
Oilton, 1.1 mi. W. of, on NW. corner of abutment of concrete culvert; chiseled square (established in 1923)-----	778. 36
Oilton, 0.8 mi. W. of, on NW. corner of concrete culvert; chiseled square (established in 1923)-----	819. 28
Oilton, 0.4 mi. W. of, on NW. corner of concrete culvert; chiseled square (established in 1923)-----	863. 43
Oilton (formerly Torrecillas), 300 ft. N. of Texas Mexican Ry. sta., 60 ft. E. of schoolhouse, at old crossroads, 3.5 ft. W. of NW. corner of fence, 1 ft. S. of fence line; iron post stamped "1919 867" (recovered also by E. E. Harris in 1923)-----	866. 235
Oilton, 3.2 mi. NE. of, 1.2 mi. NE. of Santa Cruz ranch, along rd. to Los Encinos ranch, in open pasture thinly covered with mesquite, 20 ft. N. of rd., 2 in. above ground, in base on N. side of 8-in. mesquite tree forking 1 ft. above ground; rail spike without head-----	856. 50
Oilton, 4.0 m. NE. of, along rd. to Los Encinos ranch, 60 ft. E. of gate crossing rd., 30 ft. NE. of rd. fork; iron post stamped "1919 863"-----	862. 479
Oilton, 5.2 mi. NE. of, at Nuevo de los Quintes ranch, 210 ft. NE. of large concrete water tank in rd. fork, 50 ft. SW. of rd. fork, 1 ft. above ground, in 12-in. mesquite tree; rail spike without head-----	847. 16
Oilton, 6.3 mi. along Benavides rd. NE. of, at N.-S. fence line and gate across rd., 5 ft. S. of gate; iron post stamped "1919 857"-----	856. 883
From Hebbronville No. 1 quadrangle northwest along Texas Mexican Railway to Oilton (by E. E. Harris in 1923)	
Hebbronville, 7.2 mi. NW. of, 200 ft. NW. of milepost 55, 100 ft. SW. of track, in crotch of small mesquite tree; copper nail and washer-----	701. 56
Hebbronville, 8.2 mi. NW. of, 80 ft. SW. of track, 100 ft. S. of milepost 54, in crotch of small mesquite tree; copper nail and washer-----	730. 66

620 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Hebbronville, 9.2 mi. NW. of, 4.6 mi. SE. of Bruni, 100 ft. NW. of rd. crossing, 850 ft. SE. of milepost 53, midway between track and rd., 5 ft. W. of and in line with telephone poles, in concrete post; standard tablet stamped "H 45 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	726. 514
Reference mark, 167.5 ft. N.25°W. of tablet, 6 ft. E. of and in line with telephone poles, 6 in. underground; top of cap on iron pipe-----	725. 44
Bruni, 3.5 mi. SE. of, 200 ft. SE. of milepost 52, midway between rd. and track, in crotch of mesquite tree; copper nail and washer-----	740. 92
Bruni, 2.4 mi. SE. of, 80 ft. SE. of milepost 51, on SW. side of track, 5 ft. W. of and in line with telephone poles; top of cap on iron pipe-----	735. 45
Bruni, 1.6 mi. SE. of, 0.2 mi. SE. of milepost 50, midway between track and rd., 1 ft. W. of fence crossing, in concrete post; standard tablet stamped "H 46 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	754. 664
Reference mark, 132.5 ft. N.60°W. of tablet, 4.5 ft. E. of telephone pole, 6 in. underground; top of cap on iron pipe-----	754. 70
Bruni, 0.4 mi. SE. of, on N. side of rd. and track, 4 ft. N. of milepost 49; top of cap on iron pipe-----	778. 69
Bruni, in front of sta.; top of rail of main-line track-----	777. 4
Bruni, 0.7 mi. NW. of, 70 ft. S. and 25 ft. E. from rd. crossing, 530 ft. W. of milepost 48, 5 ft. W. of and in line with telephone pole, in concrete post; standard tablet stamped "H 47 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	789. 552
Reference mark, 167.3 ft. W. of tablet, 5 ft. E. of and in line with telephone pole, 6 in. underground; top of cap on iron pipe-----	788. 49
Bruni, 1.5 mi. NW. of, 660 ft. SE. of milepost 47, 60 ft. S. and 50 ft. W. from rd. crossing, 3 ft. E. of and in line with telegraph poles; top of cap on iron pipe-----	795. 83
Bruni, 2.6 mi. NW. of, on SW. side of track, opposite milepost 46, 5 ft. W. of and in line with telegraph poles; top of cap on iron pipe-----	801. 02
Bruni, 3.4 mi. NW. of, 5.8 mi. SE. of Oilton, 1,330 ft. SE. of milepost 45, on SW. side of track, 1 ft. W. of angle in fence line crossing track, in concrete post; standard tablet stamped "H 48 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	812. 328
Reference mark, 119 ft. W. of tablet, 5 ft. E. of and in line with telegraph poles, 6 in. underground; top of cap on iron pipe-----	811. 78
Oilton, 4.7 mi. SE. of, on S. side of track, 400 ft. E. of milepost 44, in angle in fence line crossing track, 1 ft. from each fence; top of cap on iron pipe-----	822. 11
Oilton, 3.6 mi. SE. of, on N. side of track, 260 ft. E. of milepost 43, in SE. corner of T-angle in fence line crossing track, 1 ft. from each fence; top of cap on iron pipe-----	837. 66
Oilton, 2.6 mi. SE. of, about 0.2 mi. NE. of Laurel cotton gin, 350 ft. N. of track, on N. side of rd., just E. of dwelling, in NE. corner of T-angle in fence line, 1 ft. from each fence, in concrete post; standard tablet stamped "H 49 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	833. 450
Reference mark, 73.8 ft. W. of tablet, 1 ft. N. of fence line, 6 in. underground; top of cap on iron pipe-----	832. 66
Oilton, 1.6 mi. SE. of, on NE. side of track, 100 ft. SE. of milepost 41, in root on S. side of 6-in. mesquite tree; copper nail and washer-----	844. 67
Oilton, 0.6 mi. SE. of, on SW. side of track, 100 ft. SE. of milepost 40, 2 ft. N. of telephone pole; top of cap on iron pipe-----	857. 99

HINDES QUADRANGLE

[Latitude 28°30'-28°45'; longitude 98°45'-99°00']

ATASCOSA, Frio, LA SALLE, AND McMULLEN COUNTIES

From Dilley quadrangle southeast 2.5 miles along fence line to northwest corner of Schoerp & Spettel ranch (by J. A. Shumate in 1928)

	Feet
Schoerp & Spettel ranch, 1.6 mi. NW. of NW. corner of, 1 ft. N. of fence; axle driven into ground-----	496. 95
Schoerp & Spettel ranch, 0.6 mi. NW. of NW. corner of, on W. bank of Ruiz Creek, in cleared lane along fence; axle driven into ground-----	456. 22
Schoerp & Spettel ranch, at NW. corner of, at NE. corner of Shiner river pasture, 540 ft. SE. of T-fence SW., on E. side of rd. from Pearsall-Tilden rd. to Schoerp & Spettel ranch, 8 ft. SE. of SE. gatepost, in concrete post; standard tablet stamped "T T Sta No 4 Y 1927"-----	474. 607
Reference mark, 12 ft. S. of tablet, in bench on mesquite tree; copper nail and washer-----	474. 38
From Dilley quadrangle at point 1.3 miles southwest of Burns Ruiz Creek windmill along road and lane northeast to point 1.7 miles west of Schoerp & Spettel ranch, thence along fence lines northwest and northeast to northwest corner of Schoerp & Spettel ranch (by J. A. Shumate in 1928)	
Burns Ruiz Creek windmill, 0.6 mi. SW. of, on E. side of rd., in root of mesquite tree; copper nail, and washer-----	421. 70
Burns Ruiz Creek windmill, 0.4 mi. along cleared lane NE. of, 1.7 mi. along rd. W., thence 0.7 mi. SW. from Schoerp & Spettel ranch house, at fence crossing; axle driven into ground-----	420. 05
Schoerp & Spettel ranch house, 1.7 mi. by rd. W. of, near Burns-Schoerp & Spettel line fence, at wire gate, 5 ft. SE. of E. gatepost, on Burns side of fence, in concrete post; standard tablet stamped "T T Sta No 5 Y 1927"-----	475. 190
Reference mark, 15 ft. NE. of tablet, in root of mesquite tree; copper nail and washer-----	474. 56
Schoerp & Spettel ranch house, 2.7 mi. NW. of, 1.8 mi. SW. of NW. corner of ranch, 110 ft. E. of junction of cleared lane and Burns N. fence, in bench on S. side of 12-in. mesquite tree; copper nail and washer-----	432. 29
Schoerp & Spettel ranch, 1.3 mi. SW. of NW. corner of, 200 ft. SE. of Ruiz Creek, under large dead mesquite tree; axle driven into ground-----	437. 96
Schoerp & Spettel ranch, 0.5 mi. along fence SW. of NW. corner of; axle driven into ground-----	454. 64
From Dilley quadrangle along fence line southeast to point about 3.3 miles southeast of Burns ranch, thence along roads and fence lines northeast to point 2.4 miles northeast of Irvin ranch crossing of Frio River, thence northwest to point 1.7 miles west of Schoerp & Spettel ranch (by J. A. Shumate in 1928)	
Burns ranch house, about 2.8 mi. SE. of, 15 ft. N. of fence, in root on S. side of mesquite tree; copper nail and washer-----	394. 84
Burns ranch house, about 3.3 mi. SE. of, 3.5 mi. SW. of Irvin ranch crossing of Frio River, on N. side of rd., in fork of mesquite tree; copper nail and washer-----	377. 04

	Feet
Irvin ranch crossing, 2.5 mi. SW. of, 2.5 mi. N. of old Irvin ranch headquarters, about 5 mi. by rd. SE. of Burns ranch house, on E. side of rd. S. through gate, 10 ft. NE. of E. gatepost of gate in Goslin-Irvin fence line, in concrete post; standard tablet stamped "T T Sta No 15 Y 1927"-----	378. 147
Reference mark, 20 ft. S. of tablet, in bench on N. side of 10-in. mesquite tree; copper nail and washer-----	378. 84
Irvin ranch crossing, 1.8 mi. SW. of, 70 ft. SW. of SW.-SE. fence corner, in bench on N. side of 6-in. mesquite tree; copper nail and washer-----	393. 47
Irvin ranch crossing, 1.1 mi. SW. of, 25 ft. NW. of rd., in fork of mesquite tree; copper nail and washer-----	371. 20
Irvin ranch crossing, on N. bank of Frio River, 150 ft. E. of actual crossing, on W. side of rd., 6 ft. N. of W. gatepost of gate in river fence line, in concrete post; standard tablet stamped "T T Sta No 14 Y 1927"-----	359. 641
Reference mark, 12 ft. S.80°W. of tablet, in bench on N. side of 12-in. live-oak tree; copper nail and washer-----	357. 02
Frio River; surface of water Jan. 19, 1928-----	340. 2
Irvin ranch crossing, 0.6 mi. N. of, 15 ft. W. of rd., in fork of mesquite tree; copper nail and washer-----	377. 79
Irvin ranch crossing, 1.3 mi. NE. of, on NW. side of rd., in bench on N. side of 6-in. mesquite tree; copper nail and washer-----	400. 56
Irvin ranch crossing, 2.4 mi. NE. of, on W. side of rd., in root on E. side of 6-in. mesquite tree; copper nail and washer-----	406. 18
Irvin ranch crossing of Frio River, 3.4 mi. by rd. N. of, about 3 mi. SE. of Schoerp & Spettel ranch, at gate in fence line between pastures of E. M. Irvin and Mabel Irvin Wilson, on NE. side of rd., 4 ft. NE. of NE. gatepost, in concrete post; standard tablet stamped "T T Sta No 13 Y 1927"-----	444. 673
Reference mark, 310 ft. SW. of tablet, 5 ft. NW. of rd., in root on SE. side of mesquite tree; copper nail and washer-----	437. 89
Schoerp & Spettel ranch house, about 2.4 mi. SE. of, 20 ft. SW. of junction of rd. to windmill, in root of double mesquite tree; copper nail and washer-----	431. 08
Schoerp & Spettel ranch house, about 1.5 mi. S. of along rd. through ranch of Eugene M. Irvin, 0.8 mi. SE. of NE. corner of Burns ranch, at bend, in root of mesquite tree; copper nail and washer-----	432. 03
Burns ranch, 500 ft. SW. of NE. corner of, 40 ft. SW. of gate in Irvin fence, 10 ft. W. of rd., in root of mesquite tree; copper nail and washer-----	442. 13
Burns ranch, 0.7 mi. NW. of NE. corner of, 0.9 mi. in air line SW. of Schoerp & Spettel ranch house, 200 ft. NE. of right-angle turn from SW. to NW. in fence, 20 ft. SE. of fence, in bench on mesquite tree; copper nail and washer-----	430. 00

HUNTER QUADRANGLE

[Latitude 29°45'-30°00'; longitude 98°00'-98°15']

COMAL AND HAYS COUNTIES

From San Marcos No. 2 quadrangle southwest along International-Great Northern Railroad into New Braunfels quadrangle (by J. A. Hinman in 1897; leveled twice)

Hunter, 0.2 mi. SW. of, near mileboard 219, at bridge over Yorks Creek, in top of W. end of N. rock pier; copper bolt stamped "627" (recovered by U. S. C. & G. S. in 1904)-----

621. 839

From New Braunfels quadrangle at point 0.4 mile north of Gruene north along old Blanco road to road junction 5 miles east of Sattler, thence generally west to point 4.6 miles west of Sattler, thence south along Bear Creek road and back into New Braunfels quadrangle (by C. E. Reick in 1924)

	Feet
Gruene, 1.0 mi. N. of, in NE. angle of crossroads, inside fence, in concrete post; standard tablet stamped "Prim Trav Sta No 6 J 1924 Texas R 1"	728. 841
Reference mark, 260 ft. N. of tablet, on E. side of concrete drain slab; chiseled square	727. 56
Gruene, 1.9 mi. N. of, on W. side of rd., 120 ft. N. of drain E., in root of 30-in. live-oak tree; copper nail	794. 81
Gruene, 2.8 mi. N. of, 30 ft. N. of gate, on W. side of rd., on flat rock; chiseled square	891. 49
Gruene, 3.9 mi. N. of, on E. side of rd., 5 ft. S. of stone monument, on limestone ledge; chiseled square	934. 92
Gruene, 4.9 mi. N. of, 0.4 mi. S. of Isaac Creek bridge, on W. side of rd., in base of 20-in. oak tree; copper nail	987. 39
Gruene, 6.1 mi. N. of, on S. side of rd., near summit, on flat-topped boulder; chiseled square	1, 054. 27
Gruene, 7.4 mi. N. of, 9.0 mi. N. of New Braunfels, 5.0 mi. E. of Sattler, 16 ft. E. of junction of rd. W., in boulder; standard tablet stamped "Prim Trav Sta No 7 J 1924 Texas R 2"	1, 021. 702
Reference mark, 90 ft. W. of tablet, in SW. angle of rd. junction, on boulder; chiseled square	1, 019. 32
Sattler, 3.5 mi. E. of, on S. side of rd., 60 ft. W. of lone cedar tree, on ledge; chiseled square	947. 461
Sattler, 2.5 mi. E. of, 0.6 mi. E. of Guadalupe River bridge, on SW. side of rd., in root of 20-in. pecan tree; copper nail	757. 43
Sattler, 1.9 mi. NE. of, at concrete bridge over Guadalupe River, in N. coping on W. side; standard tablet stamped "Prim Trav Sta No 8 J 1924 Texas R 3"	728. 902
Sattler, 1.7 mi. NE. of, 20 ft. N. of gate, on W. side of rd., on ledge; chiseled square	786. 62
Sattler, 0.5 mi. NE. of, at junction of lane S., on S. side of rd., in root of 8-in. mesquite tree; copper nail	780. 68
Sattler, 0.4 mi. W. of, at right-angle turn, 40 ft. N. of rd., in fence corner, in root of 30-in. oak tree; copper nail	802. 28
Sattler, 1.8 mi. W. of, on N. side of rd., 50 ft. W. of dry creek bed, in limestone ledge; standard tablet stamped "R 4 Texas 1924"	861. 060
Reference mark, 60 ft. W. of tablet, on boulder; chiseled square	863. 76
Sattler, 2.9 mi. W. of, 0.5 mi. W. of ranch house, on S. side of rd., in root of 8-in. oak tree; copper nail	937. 64
Sattler, 4.0 mi. W. of, on N. side of rd., in root of 10-in. cedar tree; copper nail	1, 042. 34
Sattler, 4.6 mi. W. of, 80 ft. E. of junction of Bear Creek rd., in root on N. side of 12-in. ash tree; copper nail	1, 045. 53
Sattler, 4.6 mi. W., thence 1.3 mi. S. from, 1.4 mi. N. of Bear Creek, 60 ft. N. of gate, in limestone ledge; standard tablet stamped "R 5 Texas 1924"	995. 904
Reference mark, 350 ft. E. of tablet, in triangle of rd. junction, on top of stone monument marking property boundary; chiseled square	975. 11
Bear Creek, 0.3 mi. N. of, on W. side of rd., in root of 10-in. cedar tree; copper nail	907. 30

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	Feet
Bear Creek, 1.1 mi. S. of, on W. side of rd., in root of 18-in. ash tree; copper nail	1, 037. 47
Bear Creek, 2.2 mi. S. of, on E. side of rd., near fence, in limestone ledge; standard tablet stamped "R 6 Texas 1924"	1, 077. 408
Reference mark, 240 ft. S. of tablet, in root of 30-in. oak tree; copper nail	1, 070. 74
Bear Creek, 3.2 mi. S. of, 10.8 mi. NW. of New Braunfels, on E. side of rd., at curve W., in base of 10-in. cedar tree; copper nail	1, 045. 34
From Smithson Valley quadrangle at point 2.4 miles northwest of Hancock, southeast along road to point 1.7 miles northeast of Sattler (by C. E. Reick in 1924)	
Hancock, 1.4 mi. N. of, on E. side of rd., 80 ft. S. of drain, in root of 20-in. oak tree; copper nail	937. 69
Hancock, 140 ft. SE. of post office, in root of 10-in. gum tree; copper nail	882. 83
Hancock, 0.9 mi. S. of, 0.25 mi. N. of summit, on E. side of rd., in ledge; standard tablet stamped "R 15 Texas 1924"	918. 751
Reference mark, 40 ft. S. of tablet, on boulder; chiseled square	918. 04
Hancock, 1.9 mi. SE. of, on E. side of rd., at curve, in root of 10-in. oak tree; copper nail	965. 80
Hancock, 3.5 mi. S. of, 9.6 mi. SE. of Fischer Store, on N. side of rd., in line with rd. S. through gate, 200 ft. W. of creek crossing, in concrete post; standard tablet stamped "Prim Trav Sta No 9 J 1924 Texas R 16"	799. 241
Reference mark, 80 ft. W. of tablet, in root of 20-in. hackberry tree; copper nail	799. 38
Hancock, 5.0 mi. SE. of, 1.7 mi. NE., thence 1.0 mi. NW. from Sattler, on E. side of rd., 250 ft. W. of ranch house, in root of 10-in. twin hackberry tree; copper nail	799. 37

Northwest and southwest 0.6 mile along roads in southeast corner of quadrangle
(by L. F. Hazelwood in 1924)

[A jog from New Braunfels quadrangle]

Goodwin, 0.7 mi. N. and 4.9 mi. E. from, 0.2 mi. NW. of Comal-Guadalupe county line, 10 ft. N. and 30 ft. E. from junction of T-rd. NE., 1.5 ft. E. of fence, in concrete post; standard tablet stamped "H 24 1924"	588. 651
Reference mark, 40 ft. E. of tablet, on E. side of 6-in. hackberry tree; copper nail and washer	590. 68
Goodwin, 1.0 mi. N. and 4.7 mi. E. from, 0.5 mi. NW. of Comal-Guadalupe county line, 15 ft. S. and 15 ft. E. from junction of NE-SW. rd. and private rd. W., about 900 ft. SE. of residence, in fence corner, in root on W. side of 8-in. mesquite tree; copper nail and washer	611. 53

JOSEPHINE ISLAND QUADRANGLE

[Latitude 26°15'-26°30'; longitude 97°15'-97°30']

CAMERON AND WILLACY COUNTIES

From Fernando quadrangle north along Olmito North road to point near Arroyo Colorado, thence southwest 0.6 mile across country and along flood-way levees and back into Fernando quadrangle (by S. H. Holm in 1928)

Fermina, 2.1 mi. N. of, 5.2 mi. E., thence 5.5 mi. N. from Rio Hondo, on S. side of Mexican shack, 39 ft. W. of rd., 160 ft. S. of junction of rd. E., 27 ft. S. of junction of rd. W., between two fence lines, 3 ft. S. and 1 ft. E. from corner of T-fence W., in concrete post; standard tablet stamped "H 22 1929"	12. 939
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	Feet
Fermina, 2.8 mi. N. of, 104 ft. N. of junction of rd. SE., 1,000 ft. S. of junction of rd. NE., 47 ft. W. of rd., 5 ft. W. of fence line, in W. side of 8-in. mesquite tree; rail spike-----	13. 64
Fermina, 3.4 mi. N. of, 50 ft. N. and 62 ft. E. from junction of rd. NE., 93 ft. E. of fence line, in base of 5-in. mesquite tree; rail spike-----	12. 32
Fermina, 4.0 mi. N. of, 0.9 mi. S. of floodway, 48 ft. N. and 48 ft. E. from dim trail crossing to E., 34 ft. N. of fence line E., in base of 6-in. mesquite tree; rail spike-----	12. 71
Fermina, 4.4 mi. N. of, about 2 mi. E. and 0.5 mi. N. from Paso Real, 0.4 mi. S. of Arroyo Colorado, 32 ft. S. and 34 ft. W. from junction of rd. W. through gate, 230 ft. S. of levee, 1 ft. E. of fence line, in concrete post; standard tablet stamped "H 23 1929"-----	11. 962
Reference mark, 10 ft. S. and 36 ft. E. from tablet, in mesquite tree; rail spike-----	12. 52
From Los Cuates quadrangle northwest along Buena Vista road 1.1 miles, thence generally west along Fernando East road into Fernando quadrangle (by J. B. Leachman in 1929)	
La Coma ranch, 4.6 mi. N. of, about 0.5 mi. E. of Buena Vista ranch, 210 ft. S. and 35 ft. W. from crossroads, in base of small mesquite tree; rail spike-----	7. 28
La Coma ranch, 5.3 mi. N. of, 0.5 mi. S., thence 7.1 mi. E. from La Leona, 0.7 mi. NE. of Buena Vista ranch, about 0.2 mi. W. of white house, 21 ft. S. and 20 ft. E. from intersection of Fernando East rd., in concrete post; standard tablet stamped "JBL 14 1929"-----	15. 952
Reference mark, 140 ft. SW. of tablet, 150 ft. S. and 40 ft. W. from crossroads, on E. bank of Resaca de los Cuates, in base of 24-in. mesquite tree; rail spike-----	15. 94
La Leona, 0.5 mi. S., thence 6.7 mi. E. from, 40 ft. S. and 55 ft. E. from crossroads, in base of small mesquite tree; rail spike-----	14. 38
La Leona, 0.5 mi. S., thence 5.8 mi. E. from, 20 ft. S. and 240 ft. E. from crossroads, in base of 4-in. mesquite tree; rail spike-----	6. 86
La Leona, 0.5 mi. S., thence 5.4 mi. E. from, 20 ft. S. and 20 ft. E. from crossroads, in base of 5-in. mesquite tree; rail spike-----	7. 34
La Leona, 0.5 mi. S., thence 4.8 mi. E. from, 100 ft. E. of Cayo Atascoso, 600 ft. SE. of bridge, 45 ft. N. and 45 ft. E. from junction of NW.-SE. rd., in concrete post; standard tablet stamped "JBL 15 1929"-----	5. 811
Reference mark, 600 ft. NW. of tablet, at bridge, on S. side of rd., on top of middle of concrete weir; chiseled square-----	6. 00
La Leona, 0.5 mi. S., thence 4.2 mi. E. from, 0.5 mi. SW. of bridge over Cayo Atascoso, 55 ft. S. of rd., 40 ft. E. of culvert; top of auto axle-----	6. 44
La Leona, 0.5 mi. S., thence 3.5 mi. E. from, 52 ft. S. of center line of rd.; top of auto axle-----	7. 99
La Leona, 0.5 mi. S., thence 2.8 mi. E. from, 35 ft. S. of center line of rd., 6 ft. S. of bank of ditch; top of auto axle-----	8. 69
La Leona, 0.5 mi. S., thence 2.3 mi. E. from, about 320 ft. W. of middle of small lake, 42 ft. N. of rd., in concrete post; standard tablet stamped "JBL 16 1929"-----	10. 744
Reference mark, 96 ft. W. of tablet, 35 ft. N. of center line of rd., projecting 1 in. above ground; top of $\frac{1}{2}$ -in. iron pipe-----	11. 40
La Leona, 0.5 mi. S., thence 1.4 mi. E. from, 100 ft. E. of Mexican house, about 170 ft. E. of rd. junction, 10 ft. S. of rd., in base of 24-in. mesquite tree; rail spike-----	13. 81

	Feet
La Leona, 0.5 mi. S., thence 0.8 mi. E. from, at junction of T-rd. NE., 30 ft. S. of rd., in root of 4-in. mesquite tree; copper nail and washer.	13. 82
La Leona, 0.5 mi. S., thence 0.2 mi. E. from, 30 ft. N. of rd., in base of 24-in. mesquite tree; rail spike.	15. 36
La Leona, 0.5 mi. S. of, 3.0 mi. N., thence 7.1 mi. E. from Rio Hondo, 0.3 mi. S., thence 0.7 mi. E. from La Leona ranch, about 0.5 mi. S. of San Benito & Rio Grande Ry. track, 35 ft. N. and 33 ft. W. from intersection of Paredes Line rd., in concrete post; standard tablet stamped "JBL 17 1929".	16. 178
Reference mark, 118 ft. SE. of tablet, 37 ft. S. and 60 ft. E. from crossroads, in base of 14-in. mesquite tree; rail spike.	15. 99
Rio Hondo, 3.0 mi. N., thence 6.5 mi. E. from, at dim trail S., 40 ft. N. of rd., in base of 7-in. mesquite tree; rail spike.	16. 77
Rio Hondo, 3.0 mi. N., thence 6.0 mi. E. from, 35 ft. N. of rd., in base of 18-in. mesquite tree; rail spike.	18. 28
Rio Hondo, 3.0 mi. N., thence 4.9 mi. E. from, about 800 ft. S. of crossing of S. B. & R. G. V. Ry., 120 ft. S. and 40 ft. E. from crossroads, in base of 6-in. mesquite tree; rail spike.	17. 94
<i>From Los Cuates quadrangle north along Paredes Line road to Arroyo Colorado, thence generally northwest along road to junction of Olmito North road (by J. B. Leachman in 1929)</i>	
La Leona, 0.9 mi. S. of, 0.9 mi. S. of San Benito & Rio Grande Valley Ry., 57 ft. S. and 33 ft. E. from crossroads, in base of 16-in. mesquite tree; rail spike.	18. 31
La Leona, 0.6 mi. N. of, 0.6 mi. N. of S. B. & R. G. V. Ry., 32 ft. E. of rd., in base of 12-in. mesquite tree; rail spike.	15. 19
La Leona, 1.3 mi. N. of, 40 ft. W. of rd., 6 ft. W. of fence, in base of 5-in mesquite tree; rail spike.	13. 56
La Leona, 1.8 mi. N. of, on N. side of lake bed, 11 ft. N. of gate across private rd. SW. to Nuevo ranch, 39 ft. W. of rd., 150 ft. E. of Mexican shack, 2 ft. E. of fence line, in concrete post; standard tablet stamped "JBL 30 1929".	14. 954
La Leona, 2.4 mi. N. of, 30 ft. E. of rd., 10 ft. W. of fence, in base of 5-in. mesquite tree; rail spike.	13. 52
La Leona, 3.0 mi. N. of, 0.9 mi. S. of Arroyo Colorado, 30 ft. W. of rd., in base of 5-in. mesquite tree; rail spike.	13. 46
La Leona, 3.5 mi. N. of, 0.4 mi. S. of Arroyo Colorado, 750 ft. S. of levee, 50 ft. W. of rd., in base of 4-in. mesquite tree; rail spike.	11. 97
La Leona, 3.9 mi. N. of, 1.3 mi. SE. of Boca Chica ranch, 45 ft. N. and 41 ft. W. from rd. junction at N. end of Paredes Line rd., on top of S. bank of Arroyo Colorado, 30 ft. S. of water's edge, 32 ft. N. and 2 ft. E. from gate across rd. W. along N. right-of-way for roadway, in concrete post; standard tablet stamped "JBL 31 1929".	9. 215
Reference mark, 50 ft. S. of tablet, 20 ft. S. of gate, in base of mesquite tree; rail spike.	9. 38
Boca Chica ranch, 0.7 mi. SE. of, 0.25 mi. S. of Arroyo Colorado, 15 ft. E. of rd. at bend SW., in base of 10-in. mesquite tree; rail spike.	9. 65
Boca Chica ranch, 145 ft. S. and 30 ft. W. from red house, 400 ft. SW. of Arroyo Colorado, 350 ft. SE. of rd. junction, 20 ft. W. of fence, in base of 12-in. mesquite tree; rail spike.	11. 19
Boca Chica ranch, 1.3 mi. NW. of, 15 ft. N. and 45 ft. W. from flood gate in levee, 60 ft. E. of N.-S. fence line, in base of 12-in. mesquite tree; rail spike.	7. 30

	Feet
Boca Chica ranch, 1.7 mi. NW. of, 2.6 mi. NE. of Paso Real, 80 ft. N. of levee, 30 ft. NE. of rd., in base of 12-in. mesquite tree; rail spike	10. 12
From road junction 5.3 miles north of La Coma ranch alternately northeast and northwest 6.6 miles along road (by J. B. Leachman in 1929)	
La Coma ranch, 5.8 mi. N. of, 150 ft. N. of dim rd. W., at angle NE. in rd., 30 ft. E. of rd., in base of 10-in. mesquite tree; rail spike	13. 16
La Coma ranch, 6.1 mi. N. of, 30 ft. N. and 25 ft. E. from junction of T-rd. E.; in base of 6-in. mesquite tree; copper nail and washer	12. 09
La Coma ranch, 6.8 mi. N. of, 230 ft. W. of junction of rd. NE., 20 ft. S. of rd., in base of 6-in. mesquite tree; rail spike	14. 64
La Coma ranch, 7.0 mi. N. of, 40 ft. S. and 30 ft. E. from junction of rd. SW., projecting 1 in. above ground; top of auto axle	13. 32
La Coma ranch, 7.6 mi. N. of, on hill about 200 ft. W. of shore line of Laguna Madre, 33 ft. N. and 33 ft. E. from junction of T-rd. W., 1 ft. S. of E.-W. fence line, in concrete post; standard tablet stamped "JBL 25 1929"	30. 310
La Coma ranch, 8.2 mi. N. of, about 200 ft. W. of shore line, 30 ft. E. of rd., projecting 1 in. above ground; top of auto axle	20. 06
La Coma ranch, 9.0 mi. N. of, at end of small bay extending W. from Laguna Madre, 30 ft. W. of rd., at angle to S. and NE., 33 ft. S. of wooden box culvert, projecting 1 in. above ground; top of auto axle	5. 86
La Coma ranch, 9.7 mi. N. of, at W. end of earth fill from mainland to Horse Island, about 150 ft. W. of shore line, 27 ft. W. of junction of rd. E., in concrete post; standard tablet stamped "JBL 26 1929"	22. 078
Reference mark, 15 ft. S. of tablet, projecting 1 in. above ground; top of iron pipe	21. 83
La Coma ranch, 10.6 mi. N. of, 25 ft. E. of rd., projecting 1 in. above ground; top of auto axle	8. 76
La Coma ranch, 11.1 mi. NW. of, 100 ft. W. of rd., in root of 10-in. mesquite tree; copper nail and washer	9. 86
La Coma ranch, 11.9 mi. NW. of, 31 ft. N. of rd., at curve NE., on top of small hill, in concrete post; standard tablet stamped "JBL 27 1929"	27. 120
Reference mark, 15 ft. SW. of tablet, 30 ft. N. of rd., flush with ground; top of iron pipe	26. 92
From road junction 1.3 miles southeast of Boca Chica ranch generally northeast about 3 miles along road near Arroyo Colorado, thence southeast and southwest across country and along roads to pipe line crossing Cayo Atascoso, thence east and northeast 2.3 miles to point 11.9 miles northwest of La Coma ranch (by S. H. Holm in 1929)	
Boca Chica ranch, 2.0 mi. by rd. E. of, 0.8 mi. NE. of N. end of Paredes Line rd., 200 ft. S. of water gage, 28 ft. E. of Arroyo Colorado, 500 ft. N. of junction of rd. S., 25 ft. W. of rd., in mesquite tree; rail spike	10. 02
Boca Chica ranch, 2.5 mi. NE. of, about 600 ft. E. of arroyo, 120 ft. E. of junction of rd. S., in 4-in. mesquite tree; rail spike	8. 67
Boca Chica ranch, 3.3 mi. NE. of, at angle to NE. in rd., 150 ft. E. of arroyo, 31 ft. W. of rd., in 6-in. mesquite tree; spike	9. 12
Boca Chica ranch, 4.3 mi. NE. of, 2.0 mi. SW. of Paso Viejo, 1.5 mi. SW. of fork of arroyo to E. and NE., 160 ft. E. of arroyo, 200 ft. N. of rd. fork, 30 ft. E. of rd., 10 ft. W. of small tree, in concrete post; standard tablet stamped "H 24 1929"	8. 658
Reference mark, 1,100 ft. N. of tablet, 400 ft. E. of arroyo, 30 ft. W. of rd., in 4-in. mesquite tree; rail spike	8. 86

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	Feet
Boca Chica ranch, 4.8 mi. NE. of, 60 ft. E. of graded rd., in lone yucca tree; rail spike-----	7. 95
Boca Chica ranch, 6.3 mi. NE. of, 4.2 mi. NW. of point where pipe line crosses Cayo Atascoso, 1.5 mi. NW. of Water triangulation sta., 0.5 mi. S. of Paso Viejo, on top of small hill, 400 ft. SE. of S. fork of arroyo to E., 270 ft. S. of rd. E., 340 ft. E. of rd. S., in concrete post; standard tablet stamped "H 25 1929"-----	14. 430
Reference mark, 900 ft. W. of tablet, 33 ft. N. of rd., 50 ft. S. of arroyo; top of auto axle-----	6. 28
Cayo Atascoso, 3.2 mi. NW. of pipe line crossing, 0.8 mi. E. of arroyo, 14 ft. S. of dim rd., in base of yucca tree; rail spike-----	8. 28
Water triangulation sta., on top of highest hill S. of S. mouth of Arroyo Colorado, about 0.25 mi. N. of large fresh-water pond, in clump of live-oak brush, on stone set over sta.; chiseled square-----	34. 58
Cayo Atascoso, 1.7 mi. NW. of pipe line crossing, 0.8 mi. S. of Water triangulation sta., 300 ft. N. and 400 ft. W. from E. point of peninsula, 160 ft. N. of shore line, on S. slope of ridge, in slanting yucca tree; rail spike-----	16. 38
Cayo Atascoso, 1.1 mi. NW. of pipe line crossing, about 0.5 mi. S. of end of W. wing of V-shaped island, 130 ft. N. and 100 ft. E. from point of land, 50 ft. E. of shore line, in middle tree of group of three yucca trees; rail spike-----	7. 33
Cayo Atascoso, 0.5 mi. NW. of pipe line crossing of, about 1,000 ft. W. of vertex of V-shaped island, on mainland, at angle to NE. and S. in fence, 20 ft. S. of shore line; top of auto axle-----	5. 69
Cayo Atascoso, on W. shore of, 0.3 mi. S. of vertex of V-shaped island, 50 ft. E. of pipe line crossing small neck of land; top of joint in pipe line-----	2. 63
Cayo Atascoso, on E. shore of, 40 ft. N. of pipe line, embedded in sand; top of concrete slab-----	2. 86
Cayo Atascoso, at N. end of main body of peninsula E. of, about 0.5 mi. W. of graded rd., about 0.4 mi. S. of shore line, on W. edge of patch of timber, in base of twin yucca tree; spike-----	9. 80
From point 0.5 mile northwest of pipe line crossing Cayo Atascoso south along fence line to point on Fernando East road 0.5 mile southwest of bridge over Cayo Atascoso (by S. H. Holm in 1929)	
Cayo Atascoso, 0.4 mi. SW. of pipe line crossing, 4.0 mi. N. of bridge, 53 ft. N. of dim E.-W. rd. through gate, 16 ft. N. of abandoned irrigation ditch; top of auto axle-----	6. 08
Cayo Atascoso, 0.4 mi. W. of, 3.1 mi. N. of bridge, 30 ft. N. of large round fence post with triangular blaze on W. side, 1 ft. W. of fence, on N. side of old gate in fence line, in concrete post; standard tablet stamped "H 26 1929"-----	5. 82
Cayo Atascoso, 2.6 mi. N. of bridge over, 10.5 ft. E. of traverse sta.; top of auto axle-----	7. 46
Cayo Atascoso, 1.9 mi. N. of bridge over, 0.5 mi. N. of N. shore of lagoon, 300 ft. N. of traverse sta., 1 ft. W. of fence, on S. edge of patch of long grass; top of auto axle-----	5. 90
Cayo Atascoso, 1.4 mi. N. of bridge over, 100 ft. N. of N. shore of lagoon, 60 ft. S. of top of ridge, 1 ft. W. of N.-S. fence, 2.7 ft. E. of traverse sta.; top of auto axle-----	9. 37

JOURDANTON QUADRANGLE

[Latitude 28°45'-29°00'; longitude 98°30'-98°45']

ATASCOSA COUNTY

From Poteet quadrangle at point near Amphion generally southwest along roads into Schattel quadrangle at point about 1 mile southwest of Crown (by E. E. Harris in 1930)

	Feet
Amphion, 0.8 mi. SW. of, 50 ft. W. of center line of rd., on N. side of ranch rd. W. to abandoned oil derrick, in E.-W. fence line, in root on W. side of 10-in. mesquite tree; copper nail and washer-----	481. 69
Amphion, 1.5 mi. SW. of, on E. side of rd., 160 ft. N. of private rd. E., in crotch of large mesquite tree; copper nail and washer-----	481. 92
Amphion, 2.2 mi. SW. of, 31 ft. SE. of center line of rd., 100 ft. SW. of right-angle turn SW. in rd., at junction of ranch rd. W., 4 ft. SE. of fence line, in concrete post; standard tablet stamped "H 82 1930"-----	536. 459
Amphion, 3.1 mi. SW. of, in SW. corner of junction of T-lane W., in root on E. side of 12-in. mesquite tree; copper nail and washer-----	544. 46
Amphion, 4.1 mi. SW. of, at junction of rd. W., in crotch of mesquite tree; copper nail and washer-----	560. 24
Amphion, 5.0 mi. SW. of, 19 ft. NW. of center line of rd., 35 ft. W. of junction of private rd. SE., 1.5 ft. NW. of fence line, in concrete post; standard tablet stamped "H 83 1930"-----	545. 910
Reference mark, 64 ft. S. of tablet, in crotch of mesquite tree; copper nail and washer-----	546. 49
Amphion, 5.8 mi. SW. of, in SE. corner of junction of ranch rd. E., in fence line, in root on N. side of mesquite tree; copper nail and washer-----	561. 38
Amphion, 6.8 mi. SW. of, in SW. corner of junction of private rd. S., in root on SW. side of mesquite tree; copper nail and washer-----	562. 34
Amphion, 8.0 mi. SW. of, 1.0 mi. SE. of Crown, 32 ft. SW. of highway, 81 ft. W. of junction of NW.-SE. rd., 3 ft. S. of fence line, on rim of old earthen water tank, in concrete post; standard tablet stamped "H 84 1930"-----	552. 223
Reference mark, 301 ft. N.35°W. of tablet, in fence line, in crotch of mesquite tree; copper nail and washer-----	554. 00
Crown, 80 ft. S. and 50 ft. W. from junction of T-rd. SW., about 500 ft. NE. of former schoolhouse, 3 ft. above ground, on N. rim of stone and concrete well; chiseled square-----	540. 57
Crown, 0.9 mi. SW. of, near junction of ranch rd. E., 60 ft. W. of angle in main rd., 30 ft. N. of E.-W. fence line, in crotch of mesquite tree; copper nail and washer-----	508. 55

KINGSVILLE QUADRANGLE

[Latitude 27°30'-27°45'; longitude 97°45'-98°00']

JIM WELLS, KLEBERG, AND NUECES COUNTIES

From Kingsville along roads south 0.7 mile, thence alternately east and north into Petronilla quadrangle (by S. R. Archer in 1928)

U. S. C. & G. S. standard magnetic sta. disk designated "K 47"-----	68. 636
U. S. C. & G. S. standard disk stamped "I 47 1917 71.20"-----	71. 319
U. S. C. & G. S. standard disk stamped "J 47 1917 66.44"-----	66. 558
Kingsville, 0.7 mi. S., thence 0.7 mi. E. from, 0.5 mi. E. of City Hospital, at Five Points, in NW. angle of junction of rd. N., in fence corner; top of cap on iron pipe-----	59. 15
Kingsville, 0.7 mi. S., thence 1.7 mi. E. from, in NW. angle of cross-roads, in fence corner; top of cap on iron pipe-----	55. 35

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	Feet
Kingsville, 0.7 mi. S., thence 2.7 mi. E. from, in SE. angle of junction of T-rd. S., in fence corner, in concrete post; standard tablet stamped "A 1 Texas 1923"-----	49. 626
Reference mark, 62.2 ft. W. of tablet, in SW. angle of rd. junction, 2.9 ft. S. of corner fence post, 5 in. E. of point directly under wire fence, 6 in. underground; top of iron pipe with cap-----	49. 32
Kingsville, 0.7 mi. S., thence 3.7 mi. E. from, at right angle in main rd. S. and ranch rd. N., 30 ft. N. and 30 ft. E. from center of rds., 34 ft. E. of E. post of gate to rd. N., at fence corner; top of iron pipe with cap-----	46. 03
Kingsville, 0.7 mi. S., thence 4.7 mi. E. from, at entrance gate to Los Laureles ranch, 430 ft. E. of bridge over creek, on N. side of rd., on W. side of fence leading to gate, on S. side of main E.-W. fence line, in fence corner, in concrete post; standard tablet stamped "A 2 Texas 1923"-----	28. 057
Reference mark, 100 ft. E. of tablet, on N. side of rd., 4 in. S. of point directly under E.-W. fence line, 6 in. underground; top of iron pipe with cap-----	30. 92
Kingsville, 0.7 mi. S., thence 5.6 mi. E. from, 1.4 mi. W. of Palo Marcado windmill, 85 ft. N. of rd., at E.-W. fence line; top of iron pipe with cap-----	44. 62
Kingsville, 6.0 mi. directly E. of, 10.7 mi. SW. of El Chiltipin ranch house, 68 ft. S.77°15'E. of Palo Marcado windmill, 71.5 ft. S.20°45'W. of abandoned oil well casing, in SE. corner of fence around earth tank, 4 ft. from corner post, in concrete post; standard tablet stamped "Prim Trav Sta No 27 Y 1923 Texas A 3"-----	52. 977
Reference mark, 56.6 ft. N.75°W. of tablet, 11.7 ft. S.65°E. of top of well under windmill, on S. side of earth tank, 6 in. N. of fence line, 5 in. underground; top of iron pipe with cap-----	52. 25
From Bishop generally east along road to Bishop triangulation station (by E. E. Harris in 1923; leveled twice)	
U. S. C. & G. S. standard disk stamped "F 47 1917 65.65"-----	65. 771
U. S. C. & G. S. standard disk stamped "G 47 1917 65.22"-----	65. 331
Bishop triangulation sta., about 1.25 mi. E. and 0.25 mi. S. from Bishop, about 0.25 mi. S. of residence of R. T. Moudy, near main rd., in S. side of small pasture on Moudy property, in top of concrete cylinder block; U. S. C. & G. S. standard triangulation disk stamped "Bishop"-----	57. 682
Reference mark, on W. side of lane, in fence line, 10 ft. N. of line of fence W., in concrete post; U. S. C. & G. S. standard reference disk-----	58. 048
From point on St. Louis, Brownsville & Mexico Railway 2.7 miles southwest of Driscoll northeast along road near track into Petronilla quadrangle (by E. E. Harris in 1923)	
U. S. C. & G. S. standard disk stamped "D 47 1917 62.38"-----	62. 497
Driscoll, 2.4 mi. SW. of, on SE. side of rd., in center of top of E. parapet of concrete culvert; chiseled square-----	63. 84
Driscoll, 1.7 mi. SW. of, in NW. angle of crossroads, just N. of R. R. milepost 130, in center of top of parapet of concrete culvert over ditch; chiseled square-----	61. 98
Driscoll, 0.8 mi. SW. of, at milepost 131, in SE. angle of crossroads, on N. end of top of E. parapet of concrete bridge over ditch; chiseled square-----	62. 01

LACOSTE QUADRANGLE

[Latitude 29°15'-29°30'; longitude 98°45'-99°00']

BEXAR AND MEDINA COUNTIES

From West San Antonio quadrangle southwest and northwest along Galveston, Harrisburg & San Antonio Railroad ⁴⁸ into New Fountain quadrangle (by J. A. Hinman in 1898-97; double-rodded line)

Idlewild, about 1,000 ft. W. of sta., in NW. corner of right-of-way fence, 1,200 ft. W. of water tank, 40 ft. S. of track; iron post stamped "692 SA"

Lacoste, 2.2 mi. W. of, at crossing of Castroville and Devine rd., between mileposts 237 and 238, 50 ft. S. of track, in SW. corner of right-of-way fence; iron post stamped "815 SA"

Noonan, 0.25 mi. E. of, at bridge over Chicon Creek, in top of S. end of E. rock pier; copper bolt stamped "757"

Dunlay, 4.0 mi. SE. of, between mileposts 245 and 246, 40 ft. S. of track, in SE. corner of right-of-way fence; iron post stamped "858 SA" (recovered by U. S. C. & G. S. in 1917 and designated "J 35") ⁴⁹

Dunlay, 30 ft. S. and 60 ft. E. from SW. corner of sta.; iron post stamped "999 SA"

Feet	
685. 045	
808. 068	
749. 710	
851. 530	
991. 758	

EA SAL VIEJA QUADRANGLE

[Latitude 26°30'-26°45'; longitude 97°45'-98°00']

HIDALGO, KENEDY, AND WILLACY COUNTIES

From Lyford quadrangle northeast along St. Louis, Brownsville & Mexico Railway to point 0.2 mile north of Yturria, thence northeast along road 1.7 miles into Tarida Ranch quadrangle (by J. L. Lenovitz in 1919)

U. S. C. & G. S. standard disk stamped "E 48 1917"

Raymondville, 3.0 mi. NE. of, 3.0 mi. SW. of Yturria, at old rd. across track, inside right-of-way fence; iron post stamped "37" ⁵⁰
Yturria, 0.2 mi. N. of, 120 ft. S. of point where telephone line crosses track, at gate; iron post stamped "Prim Trav Sta No 21 1919 40"

From Lyford quadrangle at point 11 miles west and 0.9 mile north from Raymondville along road generally north to point near Jesus Maria ranch (by H. P. Kilby in 1919-20; leveled twice)

Raymondville, 11.0 mi. W., thence 0.9 mi. N. from, 5.3 mi. S. of cross-roads at Jesus Maria ranch, 8 ft. W. of rd., in base of 7-in. mesquite tree; copper nail and washer

Jesus Maria Crossroads, 4.3 mi. S. of, 10 ft. E. of rd., in base of 8-in. mesquite tree; copper nail and washer

Jesus Maria Crossroads, 3.2 mi. S. of, at old washout, 15 ft. E. of rd.; iron post stamped "Prim Trav Sta No 36 1920 44"

Jesus Maria Crossroads, 0.4 mi. S. of, on W. side of rd., in fence line, at gate, in top of 3-in. root of mesquite tree; copper nail and washer

Jesus Maria Crossroads, 0.4 mi. E. of, at junction of T-rd. N. and gate across rds., in fence corner; iron post stamped "Prim Trav Sta No 35 1919 50"

31. 699	
37. 025	
40. 269	
45. 98	
43. 66	
44. 251	
43. 56	
50. 065	

⁴⁸ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

⁴⁹ In 1922 it was reported by the U. S. Coast & Geodetic Survey that this mark had been erroneously stamped "J 33" and that a line had been cut through "858." The U. S. Coast & Geodetic Survey describes this mark as "about midway between the sixth and seventh telegraph poles east of milepost 245."

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From point 0.4 mile east of Jesus Maria Crossroads east along road to point on St. Louis, Brownsville & Mexico Railway 0.5 mile north of Yturria (by H. P. Kilby and T. F. Murphy in 1919-20; section between La Tordilla ranch ⁵⁰ and Yturria leveled twice)

	Feet
Jesus Maria Crossroads, 2.1 mi. E. of, 6 ft. S. of rd., in base of 6-in. forked mesquite tree; copper nail and washer-----	47. 95
Jesus Maria Crossroads, 2.6 mi. E. of, 2.0 mi. W. of La Tordilla ranch houses, 10 ft. S. of rd., opposite 8-in. stump in center of rd.; iron post stamped "1920 48"-----	47. 651
La Tordilla ranch houses, 0.4 mi. W. of, 125 ft. SW. of fence corner, 20 ft. S. of rd., in base of 4-in. forked mesquite tree; copper nail and washer-----	48. 96
La Tordilla ranch, at crossroads, 10 ft. W. of red gate to ranch houses, in fence line; iron post stamped "Prim Trav Sta No 40 1920 46"-----	45. 798
La Tordilla ranch houses, 1.0 mi. E. of, 1.2 mi. W. of La Sal ranch house, 75 ft. W. of gate across rd., in base of 3-in. forked mesquite tree; copper nail and washer-----	48. 67
La Sal ranch house, 1.7 mi. E. of, in fence line; iron post stamped "1920 39"-----	38. 655
U. S. C. & G. S. standard disk stamped "D 48 1917" (not recovered in 1927)-----	38. 937
From Lyford quadrangle at point 4 miles west and 1.4 miles north from Raymondville along roads north and northwest to La Tordilla ranch (by T. F. Murphy in 1920)	
Raymondville, 4.0 mi. W., thence 3.3 mi. N. from, 4.5 mi. SE. of La Tordilla ranch houses, at junction of E.-W. rd., 25 ft. N. of center line of rd.; iron post stamped "Prim Trav Sta No 41 1920 34"-----	34. 396
From Lyford quadrangle at point 8.4 miles west and 1.4 miles north from Raymondville northwest along road on west side of La Sal Vieja to point 0.4 mile south of Jesus Maria Crossroads (by H. P. Kilby in 1920; leveled twice)	
Raymondville, 8.4 mi. W., thence 2.5 mi. N. from; 1.9 mi. SE. of Corbett ranch house, 75 ft. from high water mark at S. edge of Big Salt Lake, 10 ft. E. of rd., 10 ft. W. of fence line; iron post stamped "1920 22"-----	22. 517
Corbett ranch house, about 300 ft. W. of, 15 ft. N. of gate to corral and windmill, in fence line; iron post stamped "1920 55"-----	55. 131
Corbett ranch house, 1.1 mi. NW. of, on N. side of rd., in 9-in. mesquite tree; copper nail and washer-----	48. 72
Corbett ranch house, 2.2 mi. NW. of, 1.3 mi. SE. of Jesus Maria Crossroads, on N. side of rd., in 6-in. mesquite tree; copper nail and washer-----	47. 58
From road junction 0.4 mile east of Jesus Maria Crossroads north and northwest along roads and across country by way of San Jose de los Llanitos ranch to Andres ranch, thence northeast along road into Armstrong quadrangle at point about 8 miles southwest of Norias (by H. P. Kilby in 1920)	
San Jose de los Llanitos ranch, 60 ft. NE. of white cottage, 2 ft. SW. of NE. fence corner; iron post stamped "Prim Trav Sta No 34 1919 49"-----	49. 446
San Jose de los Llanitos ranch house, 5.6 mi. by route NW. of, 3.5 mi. S. of Andres ranch, 0.2 mi. E. of Hidalgo-Kenedy county line, in open prairie; iron post stamped "Prim Trav Sta No 33 1919 48"-----	48. 301

⁵⁰ Designated on the map as La Tordilla ranch, but referred to as Stillman ranch in the leveling records.

	Feet
Andres ranch, 0.3 mi. E. of, in wye of rd. fork; iron post stamped "Prim Trav Sta No 32 1919 47"	46. 954
Andres ranch, 3.7 mi. NE. of, 10.0 mi. SW. of Norias sta. on St. Louis, Brownsville & Mexico Ry., 15 ft. N. of rd.; iron post stamped "Prim Trav Sta No 31 1919 39"	38. 701
From La Tordilla ranch north along road and across country into Armstrong quadrangle at point 4.7 miles northeast and 0.4 mile north from Andres ranch (by H. P. Kilby in 1920)	
Stillman triangulation sta., about 4 mi. N. and 6.5 mi. W. from Yturria R. R. sta., 12.0 mi. NW. of Raymondville, 3.0 mi. N. of La Tordilla ranch houses, 0.5 mi. E. of wagon rd. from Raymondville to La Tordilla ranch, thence N. through King pastures to W. of Vinson, 660 ft. from old well lined with hewn curved mesquite blocks and surrounded by piles of dirt and a wire fence, 45 paces E. of old rd. leading to well, in concrete cylinder; U. S. C. & G. S. standard disk	48. 421
Stillman triangulation sta., 2.2 mi. N. of, on side rd., 20 ft. E. of fence, in forked mesquite tree; copper nail and washer	51 40. 17
Stillman triangulation sta., 2.3 mi. N. of, 8 ft. E. of fence line, in base of 5-in. mesquite tree; copper nail and washer	35. 76
Stillman triangulation sta., 4.0 mi. N. of, 920 ft. S. of windmill, 4 ft. E. of fence, at gate; iron post stamped "Prim Trav Sta No 42 1920 39"	39. 374
Stillman triangulation sta., 8.2 mi. N. of, on boundary between Stillman and King pastures, 3 ft. S. and 3 ft. E. from T-angle in fences; iron post stamped "Prim Trav Sta No 43 1920 38"	38. 376

LAVERNERIA QUADRANGLE

[Latitude 29°15'-29°30'; longitude 98°00'-98°15']

BEXAR, GUADALUPE, AND WILSON COUNTIES

From East San Antonio quadrangle southeast and southwest along Graytown and other roads to St. Hedwig road, thence west and back into East San Antonio quadrangle (by M. S. Bright in 1901)

Martinez, about 5.5 mi. E. of, at rd. junction, on N. side of St. Hedwig rd., near wire fence; iron post stamped "653 SA" ⁵²	645. 646
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LEON SPRINGS QUADRANGLE

[Latitude 29°30'-29°45'; longitude 98°30'-98°45']

BEXAR, COMAL, AND KENDALL COUNTIES

From Boerne quadrangle southeast along San Antonio & Aransas Pass Railroad ⁵³ into West San Antonio quadrangle (by J. A. Hinman in 1898; double-rodded line)

Van Raub, near store used as sta., 4.6 mi. NW. of Aue sta., 120 ft. S. of fourth telegraph pole S. of milepost 263, 8 ft. E. of E. rail, in solid rock; copper bolt stamped "1375"	1, 366. 877
Aue sta., 75 ft. W. of track, in NE. corner of residence of Max Aue; standard tablet stamped "1141 SA"	1, 132. 427
Aue sta., 4.4 mi. SE. of, at trestle 572 over Leon Creek, 15 ft. S. of S. bank sill, 11 ft. E. of E. rail, in solid rock; copper bolt stamped "1036"	1, 027. 599

⁵¹ These figures of elevation are unchecked.⁵² In 1936 this bench mark was searched for but not recovered.⁵³ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

634. SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

LOCKHART QUADRANGLE

[Latitude 29°45'-30°00'; longitude 97°30'-97°45']

BASTROP AND CALDWELL COUNTIES

From San Marcos No. 2 quadrangle east along Missouri-Kansas-Texas Railroad to Lockhart, thence south along San Antonio & Aransas Pass Railroad ⁴ into Luling quadrangle (by J. A. Hinman in 1897)

Clear Fork, 3.4 mi. W. of Lockhart, 400 ft. E. of spur, 25 ft. N. of center line of track, 50 ft. S. of crossing of San Marcos-Lockhart rd.; iron post (recovered by U. S. C. & G. S. in 1904)	Feet 569. 910
Lockhart, 30 ft. S. of M. K. T. R. R. track, 200 ft. W. of S. A. & A. P. R. R. transfer track, 40 ft. W. of rd.; iron post (recovered in 1906; also recovered by U. S. C. & G. S. in 1904)	504. 864
Lockhart, 5.0 mi. S. of, 40 ft. S. of crossing of Hales rd., at cattle guard, 15 ft. W. of track; iron post	487. 916
Lockhart, 9.0 mi. S. of, about 5.5 mi. N. of Luling, at crossing of Lockhart-Luling rd., 25 ft. E. of track, 10 ft. from fence; iron post	403. 860
From Luling quadrangle at point 9 miles northeast of Luling north and northwest along roads to Lockhart (by F. A. Nussle in 1908)	
Luling, 9.4 mi. NE. of, 4.3 mi. SW. of Tilmon, 0.5 mi. W. of gin near Negro house, in NE. corner of crossroads, iron post stamped "388" (recovered in 1924, in right-of-way of rd.) ⁵⁵	387. 694
Tilmon, at store of R. Robertson & Son, in front of gallery, at NW. corner; iron post stamped "388" ⁵⁶	387. 408
Tilmon, 3.0 mi. NW. of, 1.9 mi. E. of Seawillow, 70 ft. E. of bridge over Plum Creek, on N. side of rd.; iron post stamped "390"	389. 830
Seawillow, 0.8 mi. NW. of, 6.4 mi. SE. of Lockhart, on W. side of rd., in front of house, 15 ft. S. of mail box of C. A. Rolsten, 3 ft. N. of gate; iron post stamped "462" (recovered in 1924)	461. 218
Lockhart, 4.1 mi. SE. of, 100 ft. N. of small bridge, 600 ft. S. of mail box of Mrs. J. T. Martindale, 15. ft. E. of rd., in limestone ledge; standard tablet stamped "480" ⁵⁷	479. 509
Lockhart, in front of San Antonio & Aransas Pass R. R. sta.; top of rail	514. 0

From Lockhart southwest along road into San Marcos No. 2 quadrangle at point 2.3 miles northeast of Fentress (by F. A. Nussle in 1908)

Lockhart, 3.7 mi. SW. of 0.25 mi. W. of house of Joe M. Horner, 150 ft. W. of Clear Fork Creek, on S. side of rd.; iron post stamped "489"	489. 164
Lockhart, 5.1 mi. SW. of, at rd. junction, at point where main rd. turns W., 500 ft. E. of mail box of Alex. Mahan; iron post stamped "610" ⁵⁸	610. 718
Lockhart, 9.7 mi. SW. of, 3.7 mi. NE. of Fentress, at junction of rd. SE. to Luling; iron post stamped "539"	539. 612

From San Marcos No. 2 quadrangle southeast along road to Lockhart (by F. A. Nussle in 1908)

Lockhart, 2.8 mi. W. of, 0.25 mi. E. of Blank gin, 80 ft. N. of crossing of Missouri-Kansas-Texas R. R., on N. side of rd.; iron post stamped "507" ⁵⁹	556. 545
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⁴⁴ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

⁴⁵ In 1924 it was reported that this mark was badly rusted. A new bench mark, stamped "H 146 1924," described on p. 635, was set 8.5 feet north of this position.

⁴⁶ In 1924 this mark was reported destroyed. It was replaced by the bench mark stamped "H 140 1924," described on p. 636.

⁴⁷ In 1924 this mark was reported destroyed. It was replaced by the bench mark stamped "H 145 1924," described on p. 637.

From Luling quadrangle at point 0.8 mile north of Union Center School generally north along roads to point 0.8 mile northwest of Seawillow (by E. E. Harris in 1924).

Union Center School, 1.3 mi. N., thence 0.5 mi. E. from, 0.5 mi. E., thence 2.1 mi. S. from school at Brownboro, 0.4 mi. S. of bridge over Clear Fork of Plum Creek, 20 ft. N. and 30 ft. W. from right-angle turn in rd., in concrete post; standard tablet stamped "H 138 1924".

Brownboro, 0.5 mi. E., thence 1.2 mi. S. from, at summit of grade, on E. side of rd., 80 ft. S. of house, in root on W. side of 12-in. post-oak tree; copper nail and washer.

Brownboro, 0.5 mi. E. of, in NW. corner of junction of T-rd. W., in fence line, in root on S. side of 10-in. mesquite tree; copper nail and washer.

Brownboro, 200 ft. N. of schoolhouse, on W. side of angle in rd., in front of house, at gate, in root on E. side of 12-in. live-oak tree; copper nail and washer.

Brownboro, 0.8 mi. N. of, 2.3 mi. SW. of Seawillow, in SW. angle of junction of T-rd. W., in right angle in fence line, 5 ft. from corner post, in concrete post; standard tablet stamped "H 139 1924".

Reference mark, 41.6 ft. N. of tablet, in root on S. side of 36-in. live-oak tree; copper nail and washer.

Seawillow, 1.2 mi. S. of, on E. edge of junction of rd. E., at bridge over small drain, in center of top of NE. concrete wing wall; chiseled square.

Seawillow, 0.5 mi. S. of, on W. side of rd., opposite lane E. through gate, 5 ft. W. of fence line, in root on N. side of 12-in. mesquite tree; copper nail and washer.

Seawillow, 100 ft. S. of store, in SW. corner of rd. junction, in root on N. side of 15-in. live-oak tree; copper nail and washer.

From point 0.4 miles northeast of Luling along roads generally east about 4 miles, thence south into Luling quadrangle at point 8.5 miles north of Harwood (by E. E. Harris in 1924).

Luling, 9.4 mi. along Tilmon rd. NE. of, 0.5 mi. W. of Watts gin, in NE. angle of T-rd. E., in right angle in fence line, 6 ft. from corner post, in concrete post; standard tablet stamped "H 146 1924" ^{ss}.

Watts gin, 0.5 mi. E. of, at junction of N.-S. rd., on W. side of Tilmon-Harwood rd., 60 ft. N. of T-rd. W., in root on E. side of 24-in. post-oak tree; copper nail and washer.

Watts gin, 1.5 mi. E. of, 0.5 mi. SW. of Providence (colored) Church, in SE. corner of junction of T-rd. S., on E. side of lane SE. through gate, in root on N. side of 12-in. post-oak tree; copper nail and washer.

Providence Church, 0.7 mi. SE. of, on N. side of rd., W. of junction of rd. S., 4 ft. N. of fence line, in concrete post; standard tablet stamped "H 147 1924".

Reference mark, 32.3 ft. S. 90° W. of tablet, in root on S. side of 15-in. mesquite tree; copper nail and washer.

Providence Church, about 1.3 mi. E. of, 7.7 mi. N. of Harwood, in SE. corner of junction of T-lane S. through gate, in root on W. side of 8-in. post-oak tree; copper nail and washer.

^{ss} This mark is 8.5 feet north of the bench mark stamped "388" described on p. 634.

Feet
367. 987

395. 24

455. 17

443. 56

476. 506

475. 32

426. 75

456. 66

414. 59

387. 454

421. 29

440. 46

476. 641

476. 19

489. 27

636 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

From point 3 miles northwest of Tilmon along roads southeast to Tilmon, thence east and north to McMahan, thence generally west 7.1 miles, thence southeast to point 0.8 mile northwest of Seawillow (by E. E. Harris in 1924)	Feet
Tilmon, 2.1 mi. NW. of, 120 ft. W. of rd. junction, in rd., in root on N. side of prominent live-oak tree; copper nail and washer-----	400. 16
Tilmon, 1.1 mi. NW. of, 950 ft. N. of colored church, 10 ft. N. and 40 ft. W. from junction of T-lane W. through gate, in root on E. side of 6-in. post-oak tree; copper nail and washer-----	420. 43
Tilmon, in SW. corner of crossroads, 120 ft. E. of store of Zack Taylor, in right angle in fence line, 5 ft. from corner post, in concrete post; standard tablet stamped "H 140 1924" ⁵⁹ -----	392. 726
Reference mark, 116 ft. S.25°E. of tablet, in root on N. side of 24-in. chinaberry tree; copper nail and washer-----	396. 31
Tilmon, 1.0 mi. E. of, 300 ft. SE. of Tilmon School, on N. side of rd., in root on N. side of 18-in. post-oak tree; copper nail and washer-----	428. 26
Tilmon, 1.4 mi. E. of, thence 0.4 mi. N. from, 3.7 mi. S., thence 0.4 mi. W. from McMahan, in SW. angle of rd. junction, in root on N. side of prominent post-oak tree; copper nail and washer-----	422. 35
McMahan, 3.2 mi. S. of, 0.5 mi. N. of Tenney Creek Church, on W. side of rd., opposite junction of rd. E., in root on E. side of 12-in. post-oak tree; copper nail and washer-----	469. 04
McMahan, 2.5 mi. S. of, 50 ft. W. of sharp turn in rd., 100 ft. N. of house, in angle in fence line, 5 ft. from corner post, in concrete post; standard tablet stamped "H 141 1924"-----	464. 669
Reference mark, 76.7 ft. S.15°W. of tablet, in root on N. side of 24-in. elm tree; copper nail and washer-----	465. 24
McMahan, 1.5 mi. S. of, 40 ft. E. of angle in rd. at summit of grade, on N. side of lane E. to house, in root on N. side of 15-in. elm tree; copper nail and washer-----	479. 03
McMahan, 0.8 mi. S. of, at summit of grade, on E. side of rd., 60 ft. W. of house, in root on W. side of 18-in. mesquite tree; copper nail and washer-----	488. 36
McMahan, in NE. corner of crossroads, 60 ft. N. of large elm tree in angle in fence line, 1 ft. W. of fence line, in concrete post; standard tablet stamped "H 142 1924"-----	444. 038
Reference mark, 80.8 ft. W. of tablet, in root on N. side of 10-in. live-oak tree; copper nail and washer-----	443. 94
McMahan, 0.9 mi. W. of, in SW. corner of crossroads, 400 ft. W. of Hardshell Church, in root on E. side of 12-in. mesquite tree; copper nail and washer-----	503. 37
McMahan, 1.8 mi. W. of, on S. side of rd., at SW. corner of bridge over Daniels Creek, in top of concrete abutment; chiseled square-----	436. 46
McMahan, 2.5 mi. W. of, at junction of rd. S., on W. side of turn NW. in rd., in root on E. side of 18-in. post-oak tree; copper nail and washer-----	441. 91
McMahan, 3.2 mi. W. of, in SE. corner of junction of rd. S., in right angle in fence line, 6 ft. from corner post, in concrete post; standard tablet stamped "H 143 1924"-----	446. 028
Reference mark, 13.8 ft. N.90°E. of tablet, in root on S. side of 12-in. post-oak tree; copper nail and washer-----	446. 86
McMahan, 4.0 mi. NW. of, in SW. corner of crossroads, in root on E. side of 24-in. post-oak tree; copper nail and washer-----	417. 13

⁵⁹ This mark replaces the bench mark stamped "388" described on p. 634.

	Feet
McMahan, 4.8 mi. W. of, 250 ft. W. of Clark Chapel, in small triangle formed by junction of rd. S., in root on E. side of 12-in. post-oak tree; copper nail and washer	423. 56
McMahan, 5.5 mi. NW. of, on E. side of rd., 0.8 mi. E. of Plum Creek bridge, in line with rd. W., in root of small mesquite tree; copper nail and washer	442. 72
McMahan, 6.3 mi. NW. of, 50 ft. E. of approach to bridge over Plum Creek, on S. side of rd., 35 ft. W. of lane S. through gate, 5 ft. S. of fence line, in concrete post; standard tablet stamped "H 144 1924"	413. 089
Reference mark, 14.9 ft. E. of tablet, in root on N. side of 8-in. tree; copper nail and washer	413. 23
McMahan, 7.1 mi. NW. of, 4.8 mi. NW. of Seawillow, in SE. corner of junction of T-rd. S., in root of small mesquite tree; copper nail and washer	481. 67
Seawillow, 4.2 mi. NW. of, on N. side of right-angle turn in rd. S. through gate, in root on N. side of 4-in. mesquite tree; copper nail and washer	478. 04
Seawillow, 3.0 mi. NW. of, on E. side of rd., 70 ft. NE. of culvert, 40 ft. E. of fence line, in top of prominent sandstone ledge; standard tablet stamped "H 145 1924" ⁶⁰	479. 785
Seawillow, 1.9 mi. NW. of, on W. side of angle in rd., 90 ft. N. of culvert, in root on W. side of small mesquite tree; copper nail and washer	473. 91

LOMA VISTA NO. 2 QUADRANGLE

[Latitude 28°45'-29°00'; longitude 99°45'-100°00']

ZAVALA COUNTY

From Uvalde No. 3 quadrangle south along Carrizo Springs road to point 16 miles south of Uvalde (by R. H. Gresham in 1896)

From Loma Vista No. 3 quadrangle north and west along roads to Del Monte, thence north along State Highway 83 into Uvalde No. 3 quadrangle (by E. E. Harris in 1930)	
Del Monte, 1.0 mi. S. and 3.4 mi. E. from, in NW. corner of cross-roads, in root on E. side of 12-in. mesquite tree; copper nail and washer	605. 71
Del Monte, 3.4 mi. E. of, 22 ft. S. and 44 ft. W. from center of cross-roads, 3 ft. S. and 23 ft. W. from angle post in fence line, in concrete post; standard tablet stamped "H 32 1930"	597. 656
Reference mark, 92 ft. N.50°E. of tablet, in root on S. side of 12-in. mesquite tree; copper nail and washer	598. 26
Del Monte, 2.2 mi. E. of, 90 ft. S. and 750 ft. W. from center of cross-roads, 350 ft. W. of dwelling, on SE. corner of concrete foundation of well No. ZN 5-24; chiseled square	602. 04
Del Monte, 1.4 mi. E. of, at NE. corner of small steel bridge over Nueces River, in center of top of concrete wing wall; chiseled square	605. 69
Del Monte, 0.8 mi. E. of, at small bridge over Espantosa Creek, on top of N. end of west concrete abutment; chiseled square	593. 80

⁶⁰This mark replaces the bench mark stamped "480" described on page 634.

638 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Del Monte, 64 ft. S. and 45 ft. E. from intersection of State Highway 83, in concrete post; standard tablet stamped "H 33 1930" (recovered by U. S. C. & G. S. in 1934)-----	658. 476
Reference mark, 1,200 ft. N. 10° E. of tablet, in center of E. head wall of concrete culvert; chiseled square-----	654. 49
Del Monte, 1.1 mi. N. of, 150 ft. N. and 90 ft. E. from junction of rd. SE., in root on W. side of small mesquite tree; copper nail and washer-----	666. 94
Del Monte, 1.9 mi. N. of, on E. side of highway, in center of head wall of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	626. 931
Del Monte, 2.7 mi. N. of, on E. side of highway, 0.5 mi. N. of crossroads, 0.6 mi. S. of angle in highway NE., in center of head wall of concrete culvert; chiseled square-----	615. 91
Del Monte, 3.3 mi. N. of, near angle in highway, 44 ft. E. of center line, 4 ft. E. of fence line, in concrete post; standard tablet stamped "H 34 1930" (recovered by U. S. C. & G. S. in 1934)-----	638. 654
Del Monte, 3.8 mi. N. of, on E. side of highway, in center of head wall of concrete culvert; chiseled square-----	654. 63
Del Monte, 4.6 mi. N. of, on E. side of highway, in center of head wall of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	670. 642
Del Monte, 5.3 mi. N. of, on E. side of highway, in center of head wall of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	678. 299
Del Monte, 6.3 mi. N. of, 5.3 mi. S. of Missouri Pacific R. R. sta. at La Pryor, 42 ft. E. of center line of highway, 500 ft. S. of gate in fence line, 3.4 ft. W. of corner post at T-angle in fence line, in concrete post; standard tablet stamped "H 35 1930" (recovered by U. S. C. & G. S. in 1934)-----	697. 741
Reference mark, 315 ft. S. 15° W. of tablet, in root on N. side of 10-in. mesquite tree; copper nail and washer-----	697. 46
La Pryor, 4.3 mi. S. of, 0.5 mi. S. of junction of ranch rd. E. through gate, on E. side of highway, on SW. corner of E. wall of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	685. 245
La Pryor, 3.1 mi. S. of, 0.5 mi. S. of crossroads, on E. side of highway, in center of parapet of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	699. 182
La Pryor, 2.7 mi. S. of, 90 ft. S. and 45 ft. E. from crossroads, 3 ft. W. of fence line, in concrete post; standard tablet stamped "H 36 1930" (recovered by U. S. C. & G. S. in 1934)-----	704. 274
Reference mark, 394 ft. N. 45° W. of tablet, in crotch of mesquite tree; copper nail and washer-----	705. 91
La Pryor, 1.8 mi. S. of, 1,220 ft. S. of crossroads, on E. side of State highway, in center of head wall of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	710. 533
La Pryor, 0.9 mi. S. of, 50 ft. W. of center line of State highway, 250 ft. S. of R. R. section house, in root on E. side of small mesquite tree; copper nail and washer-----	739. 14
La Pryor, 0.6 mi. S. of M. P. R. R. sta. at, in SE. corner of crossroads; top of head wall of culvert-----	740. 83

	Feet
La Pryor, about 1,000 ft. W. of high school, 76 ft. W. of center line of State highway, 48 ft. S. of main rd. of town; 9 ft. S. and 3 ft. E. from fence line, in concrete post; standard tablet stamped "H 37 1930" (recovered by U. S. C. & G. S. in 1934)	745. 379
La Pryor, 1.0 mi. N. of high school at, 80 ft. W. of center line of highway, just S. of turn in rd. to NE., in crotch of small mesquite tree; copper nail and washer	755. 04
La Pryor, 1.5 mi. N. of, in SE. corner of crossroads, at service station, on NW. corner of concrete foundation of gasoline pump; chiseled square	758. 61
La Pryor, 2.5 mi. N. of, 25 ft. S. and 44 ft. E. from center of crossroads, in L-angle in fence line, 4 ft. from each fence, in concrete post; standard tablet stamped "H 38 1930" (recovered by U. S. C. & G. S. in 1934)	765. 103
Reference mark, 109 ft. N. 40°W. of tablet, in crotch of mesquite tree; copper nail and washer	765. 08
La Pryor, 3.6 mi. N. of, 80 ft. S. and 70 ft. W. from center of crossroads, in crotch of mesquite tree; copper nail and washer	773. 19
From La Pryor along roads south 0.5 mile, thence southwest 0.9 mile, thence north to point 1.8 miles north and 1 mile west from La Pryor (by E. E. Harris in 1930; single spur line)	
La Pryor, 0.5 mi. S., thence 0.9 mi. SW. from, in center of junction of T-rd. N., on top of 12-in. casing of abandoned well; 30 in. above ground; chiseled square	718. 64
La Pryor, 1.0 mi. W. thence 1.5 mi. N. from, in NW. corner of crossroads, in fence line, in crotch of small mesquite tree; copper nail and washer	750. 46
From La Pryor west along highway into Cometa No. 1 quadrangle (by E. E. Harris in 1930; spur line)	
La Pryor, 1.0 mi. W. of M. P. R. R. sta. at, 330 ft. E. of crossroads, at small bridge, in center of top of NW. concrete wing wall; chiseled square	714. 68
La Pryor, 2.2 mi. W. of, 50 ft. N. of center of turn to W. in highway, 125 ft. E. of dim cross rd., 15 ft. N. and 15 ft. W. from corner fence post, in root on W. side of 8-in. mesquite tree; copper nail and washer	735. 63
La Pryor, 3.2 mi. W. of, 39 ft. N. of center line of highway, 2 ft. S. of fence line, in concrete post; standard tablet stamped "H 46 1930" --	753. 296
Reference mark, 260 ft. S. 60°E. of tablet, in crotch of mesquite tree; copper nail and washer	751. 43
La Pryor, about 4.2 mi. W. of, 135 ft. E. of crossroads, on S. side of highway, in root on N. side of small mesquite tree; copper nail and washer	770. 37
La Pryor, 4.2 mi. W., thence 0.9 mi. N. from, on E. side of rd., on N. bank of wash, at point where rd. leaves fence line, in root on S. side of 6-in. mesquite tree; copper nail and washer ⁶¹	729. 39
La Pryor, 5.2 mi. W. of, 1,350 ft. E. of small bridge, on S. side of highway, 6 ft. S. of fence line, in root on N. side of small mesquite tree; copper nail and washer	713. 99
La Pryor, 6.3 mi. W. of, 220 ft. W. of small bridge, 42 ft. N. of center line of highway, in concrete post; standard tablet stamped "H 47 1930"	694. 660

⁶¹ On spur line 1 mile north from highway.

640 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Reference mark, 226 ft. E. of tablet, on SE. wing wall of small bridge; chiseled square	692. 07
La Pryor, 7.0 mi. W. of, 800 ft. W. of junction of ranch rd. N. through gate, on S. side of highway, on SW. wing wall of small bridge; chiseled square	690. 88
La Pryor, 7.9 mi. W. of, 25 ft. W. of junction of ranch rd. N. through gate, 100 ft. N. of center line of highway, in root on N. side of mesquite tree; copper nail and washer	728. 28
La Pryor, 8.4 mi. W. of, on N. side of highway, on NW. wing wall of small bridge; chiseled square	703. 71
La Pryor, 9.5 mi. W. of, 460 ft. E. of E. end of bridge over Chapparosa Creek, 21 ft. W. of ranch rd. crossing, 40 ft. N. of center line of highway, 2 ft. S. of fence line, in concrete post; standard tablet stamped "H 48 1930"	684. 143
Reference mark, 740 ft. E. of tablet, on NE. wing wall of small bridge; chiseled square	680. 96

From point 8.5 miles west of La Pryor south about 6.5 miles (by E. E. Harris in 1930; spur line)

La Pryor, 9.5 mi. W., thence 1.0 mi. S. from, 2.3 mi. N. of Mangum ranch, 150 ft. S. of ford of creek, on E. side of rd., in root on S. side of mesquite tree; copper nail and washer	670. 11
Mangum ranch, 1.4 mi. N. of, 270 ft. N. of plank gate in fence line crossing rd., 30 ft. W. of rd., in root on W. side of mesquite tree; copper nail and washer	687. 46
Mangum ranch, 0.3 mi. N. of, 100 ft. S. of plank gate in fence line crossing rd., on E. side of rd., in root on NW. side of 12-in. mesquite tree; copper nail and washer	661. 83
Mangum ranch; at N. gate to corral; on SW. corner of concrete trough; chiseled square	679. 05
Mangum ranch, 1.1 mi. S. of, 80 ft. N. of gate, on E. side of rd., in crotch of prominent mesquite tree; copper nail and washer	662. 18
Mangum ranch, 2.1 mi. S. of, at junction of T-rd. E., on W. side of rd., in crotch of mesquite tree; copper nail and washer	643. 99
Mangum ranch, 3.1 mi. S. of, on W. side of rd., on N. bank of Chapparosa Creek, near ford, in root on NE. side of 15-in. mesquite tree; copper nail and washer	626. 37

LOMA VISTA NO. 3 QUADRANGLE

[Latitude $28^{\circ}30' - 28^{\circ}45'$; longitude $99^{\circ}45' - 100^{\circ}00'$]

DIMMIT AND ZAVALA COUNTIES

From Carrizo Springs northeast along State Highway 85 into Loma Vista No. 4 quadrangle (by E. E. Harris in 1929)

U. S. C. & G. S. brass disk stamped "Z 63"	603. 985
Carrizo Springs, in NE. corner of junction of Carrizo Springs-Dilley rd. and U. S. Highway 83, in center of top of head wall of concrete culvert; chiseled square	580. 82
Carrizo Springs, 0.4 mi. NE. of junction of U. S. Highway 83 and State Highway 85, 285 ft. W. of junction of rd. S., on S. side of highway, on small concrete bridge, 5 ft. from E. end of wall; chiseled square	571. 68
Carrizo Springs, 1.0 mi. NE. of, 85 ft. W. of junction of rd. S. to Asherton, on S. side of highway, in center of top of head wall of concrete culvert; chiseled square	562. 26

	Feet
Carrizo Springs, about 1.6 mi. NE. of, 44 ft. SE. of center line of highway, 26 ft. SW. of center line of dirt rd. SE., in concrete post; standard tablet stamped "H 1 1929" ⁶²	609. 692
Carrizo Springs, 2.2 mi. NE. of, at junction of ranch rd. SE., on N. side of highway, in root on S. side of 12-in. mesquite tree in fence line; copper nail and washer	575. 20
Carrizo Springs, 3.3 mi. NE. of, 45 ft. W. of junction of rd. SE., on S. side of highway, in center of head wall of concrete culvert; chiseled square	550. 62
Carrizo Springs, 4.1 mi. NE. of, 500 ft. E. of store of L. L. Brown, 36 ft. S. of center line of highway, 33 ft. E. of center line of dirt rd. S., 2 ft. S. and 22 ft. E. from angle in fence line, in concrete post; standard tablet stamped "H 3 1929"	540. 075
Reference mark, 1,134 ft. S. 50° W. of tablet, on S. side of highway, in center of top of head wall of concrete culvert; chiseled square	541. 61
Carrizo Springs, 5.8 mi. NE. of, about 300 ft. S. of center line of highway, in large clearing, on W. side of concrete foundation of pump of irrigation well No. DN 8-16; chiseled square	526. 28
Carrizo Springs, 6.9 mi. NE. of, 5.5 mi. SW. of Brundage, 250 ft. W. of W. end of highway bridge over Nueces River, 36 ft. S. of center line of highway, 44 ft. E. of pasture rd., 2 ft. S. of fence line, in concrete post; standard tablet stamped "H 4 1929"	535. 812
Reference mark, 250 ft. N. 70° E. of tablet, on W. end of N. guardrail of bridge; chiseled square	536. 69
From point 3.3 miles northeast of Carrizo Springs southeast along road 2.2 miles (by E. E. Harris in 1929; spur line leveled twice)	
Carrizo Springs, 3.3 mi. NE., thence 0.8 mi. SE. from, on W. side of rd., on N. side of wash, in root on S. side of mesquite tree; copper nail and washer	524. 40
Carrizo Springs, 3.3 mi. NE., thence 1.6 mi. SE. from, 125 ft. SE. of gate in fence line crossing rd., 30 ft. W. of rd., in root on W. side of 10-in. mesquite tree; copper nail and washer	521. 94
Carrizo Springs, 3.3 mi. NE., thence 2.2 mi. SE. from, 26 ft. SW. of rd., 4.5 ft. N. of flume, in concrete post; standard tablet stamped "H 2 1929"	525. 262
From junction of U. S. Highway 83 and State Highway 85 at Carrizo Springs north and northeast along highway to point 1.4 miles southeast of Crystal City (by E. E. Harris in 1929-30)	
Carrizo Springs, 1.2 mi. N. of, at junction of Y-rd. SW., on E. side of angle in highway, on head wall of concrete culvert; chiseled square	565. 94
Carrizo Springs, 2.0 mi. N. of, 65 ft. S. of junction of ranch rd. E., 70 ft. S. of corner of picket fence, on W. side of highway, on head wall of concrete culvert; chiseled square	560. 92
Carrizo Springs, 2.7 mi. N. of, 1.5 mi. S. of Green Gate crossroads, 800 ft. N. of Shady Acres store, 43 ft. E. of turn to N. in highway, 170 ft. N. of junction of Y-rd., 52 ft. W. of dirt rd., in concrete post; standard tablet stamped "H 22 1929"	549. 907
Reference mark, 180 ft. S. of tablet, on head wall of concrete culvert; chiseled square	551. 62

⁶² In 1939 this bench mark was moved 25 feet southeast and 6 feet northeast from this position and reset 0.189 feet lower than its original elevation. The figures given represent the new elevation. The stamping was revised to read "H 1 1929 Reset 1939."

642 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Green Gate crossroads, 0.6 mi. S. of, on E. side of highway, at concrete bridge, on base at SW. corner of parapet; chiseled square-----	545. 48
Green Gate crossroads, about 2 mi. W. of Rancho de la Palma, in SW. corner of crossroads, on head wall of concrete culvert; chiseled square-----	540. 98
Green Gate crossroads, 0.8 mi. N. of, near summit of grade, on E. side of highway, on head wall of concrete culvert; chiseled square-----	574.27
Green Gate crossroads, 1.4 mi. N. of, on highest point of rd. between Carrizo Springs and Crystal City, 38 ft. E. of center line of highway, 25 ft. S. of dim rd. E. through gate, 2 ft. W. of fence line, in concrete post; standard tablet stamped "H 23 1929"-----	601. 766
Reference mark, 1,660 ft. N. 15°W. of tablet, on head wall of concrete culvert; chiseled square-----	591. 15
Green Gate crossroads, 2.7 mi. N. of, on E. side of highway, 4 ft. below rd. level, on head wall of concrete culvert; chiseled square-----	547. 85
Green Gate crossroads, 3.7 mi. N. of, in fork of Y-rd., on head wall of concrete culvert; chiseled square-----	567. 56
Green Gate crossroads, 3.7 mi. N., thence 0.8 mi. NE. from, on E. side of bridge, 400 ft. from S. end, in guardrail; top of bolt head-----	554. 82
Green Gate crossroads, 3.7 mi. N., thence 1.6 mi. NE. from, 100 ft. E. of center line of highway, 15 ft. N. of dim crossroads, 7 ft. below rd. level, in angle in fence line, 10 ft. from each fence, in concrete post; standard tablet stamped "H 24 1929"-----	547. 893
Green Gate crossroads, about 3.7 mi. N., thence 2.4 mi. NE. from, 2.8 mi. SE. of Zavala County courthouse at Crystal City, 40 ft. W. of large curve NW. in highway, on N. side of ranch rd., at point where flume passes under rd., on SE. corner of concrete flood gate; chiseled square-----	553. 74
Crystal City, 1.4 mi. SE. of, 200 ft. N. and 250 ft. E. from junction of Crystal City-Brundage and Crystal City-Carrizo Springs rds., 100 ft. SE. of SE. corner of dwelling, on NE. side of 10-in. mesquite tree, about 1 ft. above rd. level; copper nail and washer-----	559. 71
From point 1.4 miles southeast of Crystal City northwest along highway to Crystal City. (by E. E. Harris in 1930; spur line leveled twice)	
Crystal City, near SE. corner of city, 0.4 mi. S. of courthouse, 41 ft. N. of center line of State highway, 28 ft. W. of Second Avenue, in concrete post; standard tablet stamped "H 25 1930" (recovered by U. S. C. & G. S. in 1934)-----	558. 152
Crystal City, at Zavala County courthouse, in N. face near E. side, 13 ft. above ground level; standard tablet stamped "H 26 1930" (recovered by U. S. C. & G. S. in 1934)-----	570. 616
Reference mark, 120 ft. N. 50°E. of tablet, on curbstone near corner; chiseled square-----	567. 54
From Green Gate crossroads along roads east and northwest to point 1.4 miles southeast of Crystal City (by E. E. Harris in 1930)	
Green Gate crossroads, 1.0 mi. E. of, 1.0 mi. W. of Rancho de la Palma, on N. side of rd., 75 ft. W. of gate on S. side of rd., in crotch of small mesquite tree; copper nail and washer-----	538. 78
Rancho de la Palma, 35 ft. W. of rd. N. to, 25 ft. N. of center line of rd., in SE. corner of large orange orchard, 2 ft. N. of fence line, in concrete post; standard tablet stamped "H 27 1930"-----	543. 321
Reference mark, 1,350 ft. W. of tablet, at small bridge over Espantosa Creek, on NE. concrete wing wall; chiseled square-----	526. 82

	Feet
Rancho de la Palma, 0.8 mi. E. of, on S. side of right-angle turn to N. in rd., 25 ft. W. of ranch rd. S., on head wall of concrete culvert; chiseled square-----	532. 55
Rancho de la Palma, 1.7 mi. E., thence 0.4 mi. N. from; 4.5 mi. S. of C. and M. loading sta., in NW. corner of right-angle turn to N. in rd., on SE. side of large corner fence post, 15 in. above ground; copper nail and washer-----	541. 97
C. and M. loading sta., 3.9 mi. S. of, 19 ft. N. of dim ranch rd. crossing, 22 ft. W. of center line of rd., 2 ft. W. of fence line, in concrete post; standard tablet stamped "H 28 1930"-----	547. 149
Reference mark, 100 ft. N.15°E. of tablet, in root on N. side of 12-in. mesquite tree; copper nail and washer-----	547. 83
C. and M. loading sta., 2.9 mi. S. of, in SW. angle of junction of T-rd. W., in root on NW. side of 15-in. pecan tree; copper nail and washer-----	557. 83
C. and M. loading sta., 1.9 mi. S. of, 70 ft. S. and 30 ft. W. from center of crossroads, in root on S. side of small mesquite tree; copper nail and washer-----	549. 18
C. and M. loading sta., 1.2 mi. S. of, 100 ft. S. of well No. DN 8-24, in root of 12-in. mesquite tree; copper nail and washer-----	550. 02
C. and M. loading sta., 0.9 mi. S. of, 17 ft. SE. of ranch rd. E. through gate, 30 ft. NE. of center line of rd., 2.5 ft. E. of fence line, in concrete post; standard tablet stamped "H 29 1930"-----	550. 286
Reference mark, 300 ft. N.25°W. of tablet, on NE. head wall of concrete culvert; chiseled square-----	550. 26
C. and M. loading sta., just W. of, 2.2 mi. SE. of Crystal City, in SW. corner of crossroads, at SE. corner of highway bridge over Espantosa Creek, in steel pier; top of bolt head-----	560. 22

From C. and M. loading station along roads generally northeast into Loma Vista No. 2 quadrangle (by E. E. Harris in 1930)

C. and M. loading sta., 1.0 mi. N. of, 50 ft. W. of center line of rd., 55 ft. S. of junction of ranch rd. E., in crotch of large mesquite tree; copper nail and washer-----	564. 16
C. & M. loading sta., 2.4 mi. N. of, 1.6 mi. E. of ice plant at Crystal City, 48 ft. NE. and 22 ft. SE. from center of rd. fork, about 300 ft. E. of bridge over Espantosa Creek, 6 ft. W. of telephone pole, in concrete post; standard tablet stamped "H 30 1930"-----	570. 422
Reference mark, 179 ft. S. of tablet, in root on E. side of leaning mesquite tree; copper nail and washer-----	570. 48
Crystal City ice plant, 2.2 mi. E. of, about 600 ft. NE. of bridge over Nueces River, 150 ft. N. of junction of rd. E., on E. side of rd., at underpass of irrigation canal, on S. end of W. wall of concrete flood gate; chiseled square-----	582. 26
Crystal City ice plant, 2.2 mi. E., thence 1.5 mi. N. from, on E. side of rd., at underpass of flume, in center of N. wall of concrete flood gate; chiseled square-----	582. 39
Crystal City ice plant, 2.2 mi. E., thence 2.1 mi. N. from, in SE. corner of junction of T-rd. S., in center of W. wall of concrete flood gate; chiseled square-----	584. 55
Crystal City ice plant, 3.0 mi. E. and 2.1 mi. N. from, 3.6 mi. S. and 3.4 mi. E. from Del Monte, 24 ft. S. and 60 ft. E. from center of junction of T-rd. N., 2 ft. S. of fence line, in concrete post; standard tablet stamped "H 31 1930"-----	582. 149

644 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Reference mark, 150 ft. N. 45° W. of tablet, on NW. side of leaning mesquite tree; copper nail and washer-----	582. 15
Del Monte, 3.0 mi. S. and 3.4 mi. E. from, in SW. corner of junction of T-rd. W., in root on NE. side of small mesquite tree; copper nail and washer-----	584. 58
Del Monte, 2.0 mi. S. and 3.4 mi. E. from, in SE. corner of crossroads, in root on W. side of 12-in. mesquite tree; copper nail and washer-----	592. 82
From Carrizo Springs southwest along Dentonia road into San Roque Lake No. 2 quadrangle (by E. E. Harris in 1930)	
Carrizo Springs, 1.0 mi. S. of Dimmit County courthouse at, 50 ft. SE. of center line of rd., on N. edge of driveway SE. through gate, in root on E. side of 8-in. mesquite tree; copper nail and washer-----	634. 05
Carrizo Springs, 1.9 mi. S. of, on N. side of rd., 60 ft. W. of T-rd. S., in crotch of small mesquite tree; copper nail and washer-----	615. 41
From Carrizo Springs along roads northwest 1.8 miles, thence south and southwest 3.7 miles (by E. E. Harris in 1930; spur line)	
Carrizo Springs, 0.9 mi. NW. of Dimmit County courthouse at, on N. side of rd., 500 ft. NW. of Woman's Club, on head wall of concrete culvert; chiseled square-----	639. 53
Carrizo Springs, 1.8 mi. NW. of, on N. side of highway, 440 ft. SE. of junction of ranch rd. S., on head wall of concrete culvert; chiseled square-----	656. 01
Carrizo Springs, 1.8 mi. NW., thence 0.9 mi. SW. from, 60 ft. SE. of center line of rd., 10 ft. N. of fence line, in root on SW. side of 10-in. mesquite tree; copper nail and washer-----	679. 54
Carrizo Springs, 1.8 mi. NW., thence 2.0 mi. SW. from, on W. side of rd., midway between 2 ranch rds., in root on E. side of 10-in. mesquite tree; copper nail and washer-----	671. 40
Carrizo Springs, 1.8 mi. NW., thence 2.2 mi. SW. from, in SE. corner of junction of rd. S., in root of mesquite tree; copper nail and washer-----	681. 83
Carrizo Springs, 1.8 mi. NW., thence 3.2 mi. SW. from, at summit of grade on N. side of rd., in root of 6-in. mesquite tree; copper nail and washer-----	739. 00
From point 3.7 miles north of Green Gate crossroads along roads northwest and southwest to point 1 mile north and 0.3 mile west from Winter Haven (by E. E. Harris in 1930; spur line)	
Green Gate crossroads, 4.1 mi. N. of, 1.1 mi. NE. of Winter Haven, in NE. corner of crossroads, in root on S. side of lone mesquite tree; copper nail and washer (recovered by U. S. C. & G. S. in 1934)-----	572. 860
Winter Haven, 1.1 mi. NE., thence 1.2 mi. NW. from, in NW. corner of junction of T-rd. W., at E. end of rd. known as "Louisiana Drive," on S. side of mesquite tree, 18 in. above ground; copper nail and washer-----	578. 15
Winter Haven, 1.0 mi. N. and 0.3 mi. W. from, in NE. corner of crossroads, in root on SW. side of 10-in. mesquite tree; copper nail and washer-----	576. 28
From point 2.2 miles east of Crystal City east along road into Loma Vista No. 4 quadrangle (by E. E. Harris in 1930; spur line)	
Crystal City, 2.9 mi. E. of ice plant at, on N. side of rd., in line with T-rd. S., on top of concrete post marked "County Boundary" (not on county line); SE. quadrant of chiseled cross-----	569. 86

From point about 2.5 miles southeast of Cometa along roads north 2 miles, thence east to point 3.9 miles east of Cometa (by E. E. Harris in 1930; spur line)

	Feet
U. S. C. & G. S. standard disk stamped "F 64"-----	616. 603
Cometa, 0.6 mi. E., thence 1.0 mi. S. from, on E. side of S-turn in rd., in root on NW. side of 12-in. mesquite tree; copper nail and washer-----	606. 64
Cometa, 0.6 mi. E. of, in SE. corner of junction of Eagle Pass-Crystal City rd., in root on SE. side of small mesquite tree; copper nail and washer-----	626. 75
Cometa, 1.6 mi. E. of, on N. side of rd., at small bridge, on top near E. end of NW. concrete wing wall; chiseled square-----	586. 11
Cometa, 3.0 mi. E. of, on S. side of rd., on top of W. end of 24-in. pipe, westernmost of two drain pipes; chiseled square-----	577. 22
Cometa, 3.9 mi. E. of, in NW. corner of junction of rd. NW., at angle in rd., in crotch of mesquite tree; copper nail and washer-----	559. 71

From point about 2.5 miles southeast of Cometa south and west into Cometa No. 4 quadrangle (by E. E. Harris in 1930; spur line)

Carrizo Springs, 11.5 mi. along Eagle Pass rd. NW. of, 40 ft. W. of junction of rd. N. to Cometa, 50 ft. S. of highway, in root on S. side of mesquite tree; copper nail and washer-----	654. 71
Carrizo Springs, 12.1 mi. along Eagle Pass rd. NW. of, on N. side of highway, at concrete bridge, on SE. corner at base of parapet; chiseled square-----	649. 90

From point 8 miles north of Carrizo Springs northwest 1 mile (by E. E. Harris in 1930; spur line)

U. S. C. & G. S. standard disk stamped "D 64"-----	621. 547
Carrizo Springs, 9.5 mi. NW. of, 1,000 ft. NW. of junction of old rd. (now abandoned), on N. side of highway, on head wall of concrete culvert; chiseled square-----	633. 73

LOMA VISTA NO. 4 QUADRANGLE

[Latitude 28° 30'-28°45'; longitude 99°30'-99°45']

DIMMIT AND ZAVALA COUNTIES

From Loma Vista No. 3 quadrangle east along State Highway 85 by way of Brundage and Big Wells into Woodward quadrangle (by E. E. Harris in 1929)

Brundage, 4.9 mi. SW. of, in SE. corner of junction of rd. SE. to Bermuda, on S. end of E. head wall of small concrete culvert at rd. fork; chiseled square-----	537. 78
Brundage, 4.0 mi. SW. of, 0.9 mi. NE. of junction of rd. SE. to Bermuda, on S. side of highway, near E. end of S. head wall of small concrete bridge; chiseled square-----	554. 86
Brundage, 3.2 mi. SW. of, at summit of grade, 33 ft. S. of center line of highway, 1.5 ft. N. of fence line, in concrete post; standard tablet stamped "H 5 1929"-----	598. 097
Reference mark, 299 ft. S. 70°W. of tablet, in center of head wall of concrete culvert; chiseled square-----	593. 87
Brundage, 2.3 mi. SW. of, in SW. corner of junction of rd. S., in center of top of head wall of concrete culvert; chiseled square-----	547. 40
Brundage, 2.0 mi. SW. of, at concrete bridge over drain, in center of NE. wing wall; chiseled square-----	514. 70
Brundage, 1.4 mi. SW. of, on N. side of highway, at small concrete bridge; in center of top of NE. wing wall; chiseled square-----	521. 09

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	Feet
Brundage, 0.4 mi. W. of, at curve SW. in highway, 60 ft. N. of center line, on W. side of ranch rd. N., 50 ft. SE. of school, in root on NW. side of 10-in. mesquite tree; copper nail and washer-----	532. 26
Brundage, 37 ft. S. of center line of highway, 61 ft. E. of center line of main N.-S. rd., in concrete post; standard tablet stamped "H 6 1929" (recovered by U. S. C. & G. S. in 1934)-----	533. 539
Reference mark, 71 ft. W. of tablet, in center of top of head wall of concrete culvert; chiseled square-----	534. 89
Brundage, 0.9 mi. E. of, on N. side of highway, on SE. corner of N. wall of concrete bridge; chiseled square-----	494. 38
Brundage, 2.9 mi. E. of, 3.1 mi. W. of Big Wells, 36 ft. N. of center line of highway, 38 ft. E. of center line of N.-S. rd., 2 ft. N. of fence line, in concrete post; standard tablet stamped "H 7 1929" (recovered by U. S. C. & G. S. in 1934)-----	557. 814
Reference mark, 525 ft. W. of tablet, in center of head wall of concrete culvert; chiseled square-----	556. 20
Big Wells, 2.0 mi. W. of, on N. side of highway, at small concrete bridge, in center of banister railing; chiseled square-----	509. 48
Big Wells, 1.0 mi. W. of, in NE. corner of crossroads, at small concrete bridge under highway, on NE. end of NE. wing wall; chiseled square-----	495. 58
Big Wells, in SW. corner of main crossroads, in NE. corner of public square, in L-angle in fence line, 2.5 ft. from each fence, in concrete post; standard tablet stamped "H 8 1929" (recovered by U. S. C. & G. S. in 1934)-----	536. 882
Reference mark, 333 ft. N. 60°W. of tablet, on N. side of highway, on concrete curb; chiseled square-----	535. 63
Big Wells, 1.0 mi. E. of, on S. side of S-turn in highway, at small concrete bridge, in center of SW. wing wall; chiseled square-----	525. 05
Big Wells, 1.9 mi. E. of, on N. side of highway, in center of top of head wall of concrete culvert; chiseled square-----	545. 78
Big Wells, 3.0 mi. E. of, 40 ft. SE. of center line of highway, 29 ft. SW. of junction of rd. SE. to Valley Wells, 6 ft. S. of corner fence post, in concrete post; standard tablet stamped "H 9 1929" (recovered by U. S. C. & G. S. in 1934)-----	543. 831
Reference mark, 443 ft. S. 60°W. of tablet, on NW. wing wall of concrete bridge; chiseled square-----	538. 18
Big Wells, 3.9 mi. NE. of, 100 ft. N. of center line of highway, 40 ft. W. of dim crossroads, in root on N. side of forked mesquite tree; copper nail and washer-----	571. 46

From Brundage southwest along highway into Valley Wells quadrangle (by E. E. Harris in 1929)

Brundage, 1.0 mi. S. of, 50 ft. E. of center line of rd., 50 ft. N. of junction of old Carrizo Springs rd. W., in root on SE. side of 6-in. mesquite tree; copper nail and washer-----	523. 88
Brundage, 2.0 mi. S. of, on S. side of right-angle turn to W. in rd., in line with center line of rd. N., in fence line, in root on E. side of 10-in. mesquite tree; copper nail and washer-----	500. 80
Brundage, 2.0 mi. S., thence 0.6 mi. W. from, at right-angle turn to S. in rd., 80 ft. S. of cattle guard in fence line crossing rd., 26 ft. E. of center line of rd., 2.5 ft. E. of fence line, in concrete post; standard tablet stamped "H 16 1929"-----	495. 248
Reference mark, 388 ft. S. 15°W. of tablet, in root on S. side of 10-in. mesquite tree; copper nail and washer-----	492. 84

	Feet
Brundage, 2.9 mi. S. and 0.6 mi. W. from, 350 ft. N. of junction of ranch rd. W., 100 ft. E. of center line of rd., in crotch of small mesquite tree; copper nail and washer-----	489. 20
Brundage, 3.9 mi. S. and 0.6 mi. W. from, 0.6 mi. E. of Sugar Land, in NW. corner of crossroads, on SE. corner of stone inclosure; chiseled square-----	497. 56
Brundage, 3.9 mi. S. and 0.2 mi. E. from, 35 ft. E. of well No. DN 9-22, in root of mesquite tree; copper nail and washer ⁶³ -----	494. 93
Brundage, 5.1 mi. S. and 0.6 mi. W. from, 6.8 mi. NE. of Asherton, 20 ft. E. of center line of rd., in line with center of right-angle turn to W. in rd., 29 ft. S. of gate, 2.5 ft. W. of fence line, in concrete post; standard tablet stamped "H 17 1929"-----	498. 262
Reference mark, 122 ft. N. of tablet, in root on SW. side of leaning mesquite tree; copper nail and washer-----	497. 66
From Brundage northeast 1.0 miles (by E. E. Harris in 1929; spur line leveled twice)	
Brundage, in front of R. R. sta.; top of near rail-----	525. 9
Brundage, 0.9 mi. N. of, on W. side of turn to NE. in rd., 40 ft. N. of small bridge, on trunk of large leaning mesquite tree, near base; copper nail and washer-----	498. 41
Brundage, 1.4 mi. N. and 0.8 mi. E. from, 100 ft. W. of three Mexican houses, on SE. corner of concrete base of pump of well No. DN 9-10; chiseled square-----	518. 18
From point 2.8 miles east of Brundage north along highway 1 mile (by E. E. Harris in 1929; spur line leveled twice)	
Brundage, 2.8 miles east, thence 1.0 mile N. from, on E. side of rd., at junction of T-rd. W., in crotch of small mesquite tree; copper nail and washer-----	575. 51
From Big Wells north along highway about 5.3 miles (by E. E. Harris in 1929-30; spur line leveled twice to point 1.2 miles north of Big Wells)	
Big Wells, 1.2 mi. N. of, 30 ft. W. of house of T. S. Buchanan, 40 ft. S. of driveway, in root on NE. side of forked chinaberry tree; copper nail and washer-----	536. 99
Big Wells, 2.7 mi. N. of, 39 ft. W. of center line of rd., 27 ft. N. of ranch rd. W. through cattle guard, in concrete post; standard tablet stamped "H 51 1930"-----	526. 203
Reference mark, 290 ft. S. 20° E. of tablet, on NE. concrete wing wall of small bridge; chiseled square-----	525. 51
Big Wells, 3.6 mi. N. of, at summit of grade, 60 ft. S. of cattle guard, on W. side of rd., in root on N. side of mesquite tree; copper nail and washer-----	562. 66
Big Wells, 4.6 mi. N. of, at jog in N.-S. rd., on W. side of rd., in root on NW. side of large mesquite tree; copper nail and washer-----	541. 70
Big Wells, 5.3 mi. N. of, 25 ft. E. of center line of rd., 22 ft. S. of ranch rd. E., along N. side of fence line, in concrete post; standard tablet stamped "H 52 1930"-----	555. 660
Reference mark, 1,200 ft. S. of tablet, on W. side of rd., in root on N. side of mesquite tree; copper nail and washer-----	556. 04

* On spur line.

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From Loma Vista No. 3 quadrangle east along highway to point 5.9 miles east of Crystal City (by E. E. Harris in 1930; spur line)

Crystal City, 4.9 mi. E. of ice plant at, 21 ft. S. and 150 ft. E. from center of crossroads, 2 ft. S. of fence line, in concrete post; standard tablet stamped "H 40 1930"-----	Feet 594. 218
Reference mark, 161 ft. N.80°W. of tablet, on W. end of 24-in. drain pipe; chiseled square-----	592. 92
Crystal City, 5.9 mi. E. of ice plant at, in NE. corner of junction of T-rd. N., in root on SW. side of 8-in. mesquite tree; copper nail and washer-----	605. 76

From point 2.8 miles east of Brundage south along highway about 2.4 miles (by E. E. Harris in 1930; spur line)

Brundage, 2.8 mi. E., thence 1.4 mi. S. from, in NE. corner of irrigated field W. of rd., in mesquite tree; copper nail and washer-----	531. 58
Brundage, 2.8 mi. E., thence 2.4 mi. S. from, 80 ft. N. of cattle guard, 40 ft. E. of rd., in root on SW. side of 10-in. mesquite tree; copper nail and washer-----	493. 34

From point 3 miles east of Big Wells south along road 3.4 miles (by E. E. Harris in 1930; spur line)

Big Wells, 3.0 mi. E., thence 0.8 mi. S. from, 100 ft. N. of drain crossing rd., on E. side of rd., in root on E. side of mesquite tree; copper nail and washer (recovered by U. S. C. & G. S. in 1934)-----	528. 053
Big Wells, 3.0 mi. E., thence 1.5 mi. S. from, in SE. corner of rd. junction, in root on S. side of mesquite tree; copper nail and washer (recovered by U. S. C. & G. S. in 1934)-----	531. 705
Big Wells, 3.0 mi. E., thence 2.5 mi. S. from, at summit of grade, on E. side of rd., in root on SE. side of prominent mesquite tree; copper nail and washer-----	526. 13
Big Wells, 3.0 mi. E., thence 3.4 mi. S. from, on E. side of rd., on SE. concrete wing wall of small wooden bridge; chiseled square-----	490. 26

From Big Wells south along road 3 miles (by E. E. Harris in 1930; spur line)

Big Wells, 1.0 mi. S. of, on W. side of rd., 25 ft. N. of cattle guard, in root on W. side of prominent mesquite tree; copper nail and washer-----	510. 50
Big Wells, 2.0 mi. S. of, 770 ft. S. of power line crossing rd., on W. side of rd., 100 ft. S. of junction of rd. SE., in root on E. side of 10-in. mesquite tree; copper nail and washer-----	529. 16
Big Wells, 3.0 mi. S. of, in SW. corner of crossroads, in root on N. side of 6-in. mesquite tree; copper nail and washer-----	493. 75

LOS CUATES QUADRANGLE

[Latitude 26°00'-26°15'; longitude 97°15'-97°30']

CAMERON COUNTY

From Fort Brown quadrangle northeast along Rio Grande Railway^a into Brazos Santiago Pass quadrangle (by R. C. Seitz in 1918; leveled twice)

Brownsville, 12.1 mi. NE. of, 9.8 mi. SW. of Port Isabel sta., opposite milepost 12-10, on S. right-of-way line; iron post stamped "S 1913 6" (recovered by U. S. C. & G. S. in 1918 and designated "F 49")-----	6. 250
Port Isabel, 7.8 mi. SW. of, opposite milepost 14-8, on S. right-of-way line; iron post stamped "S 1913 11"-----	10. 579

^a This railroad grade has since been abandoned.

Port Isabel, 3.8 mi. SW. of, opposite milepost 18-4, about 40 ft. S. of track; iron post stamped "S 1913 10" (recovered by U. S. C. & G. S. in 1918 and designated "G 49")-----

From San Benito quadrangle at point 4 miles north and 1.8 miles west from Los Fresnos east along San José ranch road 4.6 miles to cross road, thence south 4.2 miles to State Highway 100, thence west and back into San Benito quadrangle (by S. H. Holm in 1929)

Lacoma, 700 ft. S. of Southern Pacific R. R. sta., 4.0 mi. N., thence 1.3 mi. W. from Los Fresnos, 33 ft. S. and 300 ft. W. from R. R. crossing, 33 ft. S. and 15 ft. W. from junction of T-rd. S., in top of head wall of culvert over irrigation canal; small metal disk (Cameron County B. M.)-----

18. 465

Los Fresnos, 4.0 mi. N., thence 0.8 mi. W. from, in NE. head wall of culvert over irrigation ditch; small metal disk (Cameron County B. M.)-----

18. 010

Los Fresnos, 4.0 mi. N., thence 0.3 mi. W. from, 28 ft. N. of rd., on top of concrete head wall of irrigation ditch; chiseled square-----

25. 01

Los Fresnos, 4.0 mi. N. of, 34 ft. N. and 75 ft. E. from crossroads, in top of concrete head wall of irrigation ditch; small metal disk (Cameron County B. M.)-----

18. 171

Los Fresnos, 4.0 mi. N., thence 0.3 mi. E. from, 40 ft. S. and 45 ft. E. from center of wooden bridge over drainage canal, in concrete post; standard tablet stamped "H 1 1929"-----

15. 535

Reference mark, 10 ft. N. and 40 ft. W. from tablet, on head wall of culvert; chiseled square-----

14. 63

Los Fresnos, 4.0 mi. N., thence 1.3 mi. E. from, 250 ft. W. of crossing of dim rd., 32 ft. S. of rd., in root of 8-in. mesquite tree; copper nail and washer-----

19. 87

Los Fresnos, 4.0 mi. N., thence 2.1 mi. E. from, 16 ft. N. and 1,100 ft. E. from crossroads, on top of N. concrete head wall of irrigation ditch; chiseled square-----

28. 98

Los Fresnos, 4.0 mi. N., thence 2.8 mi. E. from, 30 ft. S. and 18 ft. E. from crossroads, 6 ft. E. of corner fence post, in concrete post; standard tablet stamped "H 2 1929"-----

24. 399

Reference mark, 60 ft. N. and 120 ft. E. from tablet, in root of twin mesquite tree; copper nail and washer-----

23. 88

Los Fresnos, 2.9 mi. E., thence 2.8 mi. N. from, 45 ft. N. and 50 ft. W. from junction of private T-rd. W., in notch near base of 6-in. mesquite tree; copper nail and washer-----

23. 72

Los Fresnos, 2.9 mi. E., thence 2.0 mi. N. from, 50 ft. N. and 75 ft. W. from junction of lane E., at corner of brush patch, in notch near base of 6-in. mesquite tree; copper nail and washer-----

19. 72

Los Fresnos, 2.9 mi. E., thence 1.5 mi. N. from, 95 ft. W. of crossroads, 85 ft. N. and 95 ft. W. from center of bridge over irrigation canal, in concrete post; standard tablet stamped "H 3 1929"-----

19. 608

Reference mark, 50 ft. N. of tablet, in root of mesquite tree; copper nail and washer-----

19. 92

Los Fresnos, 2.9 mi. E. of, 36 ft. S. and 33 ft. E. from junction of State Highway 100, in concrete post; standard tablet stamped "H 4 1929"-----

12. 956

Los Fresnos, 2.9 mi. E. of, 14 ft. N. and 193 ft. E. from junction of State Highway 100, in head wall of culvert; small metal disk stamped "P 21 14.56" (Cameron County B. M.)-----

14. 654

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	Feet
Los Fresnos, 2.2 mi. E. of, 15 ft. N. and 80 ft. W. from junction of dim trail N., in top of N. concrete head wall of culvert; small metal disk stamped "P 20 15.87" (Cameron County B. M.)-----	15. 970
Los Fresnos, 1.4 mi. E. of, 42 ft. S. and 60 ft. E. from crossing of dim rd.; in notch near base of 6-in. mesquite tree; copper nail and washer-----	18. 02
Los Fresnos, 1.0 mi. E. of, in N. concrete head wall of culvert; small metal disk stamped "P 19 21.09" (Cameron County B. M.)-----	21. 260
Los Fresnos, 0.7 mi. E. of, 15 ft. N. of rd., in top of head wall of irrigation ditch; small metal disk stamped "P 18 25.90" (Cameron County B. M.)-----	26. 033
Los Fresnos, 0.4 mi. E. of, in N. concrete head wall of culvert; small metal disk stamped "P 17 20.96" (Cameron County B. M.)-----	21. 099
Los Fresnos, 30 ft. N. and 52 ft. W. from intersection of Paredes Line rd., 6 ft. W. of hydrant; in concrete post; standard tablet stamped "H 5 1929"-----	22. 591
Los Fresnos, 30 ft. N. and 92 ft. W. from intersection of Paredes Line rd., in head wall of culvert; small metal disk stamped "P 16 22.72" (Cameron County B. M.)-----	22. 891
Los Fresnos, 0.5 mi. W. of, in N. head wall of culvert; small metal disk stamped "P 15 27.49" (Cameron County B. M.)-----	27. 646
Los Fresnos, 1.0 mi. W. of, 15 ft. N. and 1,500 ft. E. from crossroads, in top of N. concrete head wall of culvert; small metal disk stamped "P 14 26.91" (Cameron County B. M.)-----	27. 044
Los Fresnos, 1.3 mi. W. of, 20 ft. N. and 280 ft. E. from crossing of Old Alice rd., in top of concrete head wall of culvert; small metal disk stamped "P 13 29.06" (Cameron County B. M.)-----	29. 187
From Brazos Santiago Pass quadrangle generally west along State Highway 100 to road junction 2.9 miles east of Los Fresnos (by J. B. Leachman in 1929)	
Port Isabel, 3.7 mi. W. of Port Isabel & Rio Grande Valley Ry. sta., 0.6 mi. W. of junction of T-rd. S., 170 ft. E. of sign "Point Isabel 3.5 mi.," 15 ft. NE. of highway, in top of concrete culvert; small metal disk stamped "P 38" (Cameron County B. M.)-----	9. 314
Port Isabel, 4.0 mi. NW. of, 20 ft. NE. of highway, in top of concrete culvert; small metal disk stamped "P 37" (Cameron County B. M.)-----	10. 710
Port Isabel, 4.2 mi. NW. of, 20 ft. NE. of highway, in top of concrete culvert; small metal disk stamped "P 36" (Cameron County B. M.)-----	9. 834
Port Isabel, 4.4 mi. NW. of, 20 ft. NE. of highway, in top of concrete culvert; small metal disk stamped "P 35" (Cameron County B. M.)-----	10. 815
Port Isabel, 4.7 mi. NW. of, 380 ft. SE. of concrete sign "Point Isabel 4.5 mi.," 20 ft. NE. of highway, in top of concrete culvert; small metal disk stamped "P 34" (Cameron County B. M.)-----	10. 508
Port Isabel, 5.5 mi. NW. of, 15 ft. NE. of highway, 380 ft. SE. of junction of rd. N., in top of concrete culvert; small metal disk stamped "P 33 10.67" (Cameron County B. M.)-----	10. 750
Port Isabel, 5.6 mi. NW. of, 0.8 mi. S. of Laguna Vista, about 500 ft. N. of Port Isabel & Rio Grande Valley Ry., 27 ft. N. and 20 ft. E. from junction of rd. N., in concrete post; standard tablet stamped "JBL 5 1929"-----	11. 601
Port Isabel, 6.9 mi. NW. of, 15 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 32" (Cameron County B. M.)-----	7. 421
Port Isabel, 7.7 mi. NW. of, 3 ft. S. of concrete signpost "Point Isabel 7.5 mi.," 80 ft. N. of highway, in concrete post; standard tablet stamped "JBL 6 1929"-----	6. 891

	Feet
Reference mark, on top of concrete signpost; chiseled square-----	10. 71
Port Isabel, 8.5 mi. NW. of, 20 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 31" (Cameron County B. M.)-----	10. 833
Port Isabel, 9.6 mi. NW. of, 225 ft. E. of junction of Buena Vista rd., in top of concrete culvert; small metal disk stamped "P 30" (Cameron County B. M.)-----	10. 274
Port Isabel, 9.6 mi. NW. of, 0.9 mi. NE. of Esoes, 100 ft. W. of Bayview Citrus Corporation sign, about 400 ft. N. of Port Isabel & Rio Grande Valley Ry., 40 ft. N. and 35 ft. W. from junction of Buena Vista rd., in concrete post; standard tablet stamped "JBL 7 1929".	8. 257
Esoes, 0.2 mi. NE. of, 350 ft. W. of R. R. milepost 16, 30 ft. NW. of highway, in top of concrete culvert; small metal disk stamped "P 29" (Cameron County B. M.)-----	11. 600
Esoes, 0.3 mi. SW. of, 7.6 mi. NE. of Los Fresnos, 360 ft. E. of concrete sign, "Point Isabel 10.5 mi.," 100 ft. NE. of R. R. track, 15 ft. NW. of highway, in top of concrete culvert; small metal disk stamped "P 28" (Cameron County B. M.)-----	10. 995
Los Fresnos, 6.8 mi. NE. of, 15 ft. NW. of highway, in top of concrete culvert; small metal disk stamped "P 27" (Cameron County B. M.)-----	13. 498
Los Fresnos, 6.4 mi. NE. of, 45 ft. SE. of highway, in root of small mesquite tree; copper nail and washer-----	10. 56
Los Fresnos, 6.2 mi. NE. of, 0.4 mi. NE. of junction of Port Isabel-Brownsville rd., 15 ft. NW. of highway, in top of concrete culvert; small metal disk stamped "P 26" (Cameron County B. M.)-----	11. 843
Los Fresnos, 5.8 mi. E. of, 35 ft. S. and 140 ft. W. from center of junction of Port Isabel-Brownsville rd., 15 ft. W. of rd. sign, in concrete post; standard tablet stamped "JBL 8 1929"-----	10. 436
Los Fresnos, 5.5 mi. E. of, 15 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 25 12.29" (Cameron County B. M.)-----	12. 341
Los Fresnos, 4.9 mi. E. of, 250 ft. W. of junction of dim rd. S., 250 ft. E. of junction of Share No. 31 rd. N., 40 ft. S. of highway, in root of 8-in. mesquite tree; copper nail and washer-----	14. 28
Los Fresnos, 4.6 mi. E. of, 15 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 24 13.71" (Cameron County B. M.)-----	13. 783
Los Fresnos, 3.9 mi. E. of, 15 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 23 13.20" (Cameron County B. M.)-----	13. 275
Los Fresnos, 3.3 mi. E. of, 15 ft. N. of highway, in top of concrete culvert; small metal disk stamped "P 22 13.51" (Cameron County B. M.)-----	13. 579
From point 9.6 miles northwest of Port Isabel north along Buena Vista road 2.8 miles, thence west along San Jose ranch road to crossroads 4 miles north and 2.8 miles east from Los Fresnos (by J. B. Leachman in 1929)	
Port Isabel, 9.6 mi. NW., thence 0.9 mi. N. from, 2.1 mi. S. of Abney and end of San Benito & Rio Grande Valley Ry. track, 470 ft. S. of power line, 670 ft. S. and 30 ft. E. from crossroads, in concrete post; small metal disk stamped "U 2 8.94" (Cameron County B. M.)-----	8. 965
Abney, 1.6 mi. S. of, 30 ft. E. of rd., in concrete post; small metal disk stamped "U 3 11.03" (Cameron County B. M.)-----	11. 055

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	Feet
Abney, 1.1 mi. S. of, 980 ft. S. of crossroads, 30 ft. E. of rd., in concrete post; small metal disk stamped "U 4 16.40" (Cameron County B. M.)	16.520
Abney, 0.7 mi. S. of, 30 ft. E. of rd., 75 ft. N. of dim E.-W. rd., in concrete post; small metal disk stamped "U 5 15.77" (Cameron County B. M.)	15.814
Abney, 0.2 mi. S. of, 2.3 mi. E. of Boory, 0.2 mi. S. and 3.4 mi. W. from Holly Beach, 0.2 mi. S. of S. B. & R. G. V. Ry., 40 ft. E. of T-rd. W., in concrete post; standard tablet stamped "JBL 9 1929"	14.717
Abney, 0.2 mi. S. of, 60 ft. N. of standard tablet stamped "JBL 9 1929," in concrete post; small metal disk stamped "U 6 14.89" (Cameron County B. M.)	14.909
Boory, 1.6 mi. E. of, 33 ft. S. of rd., in root of 10-in. mesquite tree; copper nail and washer	17.21
Boory, 1.0 mi. E. of, 30 ft. S. of rd., in root of 8-in. mesquite tree; copper nail and washer	17.29
Boory, 0.5 mi. E. of, 850 ft. W. of crossing of dim rd., 30 ft. S. of rd., in root of 10-in. mesquite tree; copper nail and washer	22.73
Boory, 45 ft. N. and 48 ft. E. from crossroads, 4.0 mi. N., thence 5.3 mi. E. from Los Fresnos, about 800 ft. S. of S. B. & R. G. V. Ry., 2 ft. S. of small store, in concrete post; standard tablet stamped "JBL 10 1929"	23.642
Reference mark, 210 ft. SE. of tablet, in SE. angle of crossroads, in root of 6-in. mesquite tree; copper nail and washer	23.54
Los Fresnos, 4.0 mi. N., thence 4.4 mi. E. from, 30 ft. S. and 310 ft. W. from crossroads, at rd. curve NW., in root of 10-in. mesquite tree; copper nail and washer	26.07
Los Fresnos, 4.0 mi. N., thence 4.1 mi. E. from, 35 ft. N. and 55 ft. W. from junction of T-rd. N., in root of 10-in. mesquite tree; copper nail and washer	23.69
Los Fresnos, 4.0 mi. N., thence 3.7 mi. E. from, 40 ft. N. of rd., 15 ft. E. of crossing of dim rd., in base of 24-in. mesquite tree; rail spike	21.08
Los Fresnos, 4.0 mi. N., thence 3.3 mi. E. from, 0.5 mi. E. of crossroads, 30' ft. S. of rd., 15 ft. E. of metal culvert, in notch in base of 16-in. mesquite tree; copper nail and washer	19.83

From road junction 5.6 miles northwest of Port Isabel northwest along roads
5.2 miles to intersection of Buena Vista road (by J. B. Leachman in 1929)

Port Isabel, 8.2 mi. NW. of, 1.5 mi. NW. of Laguna Vista, 1.1 mi. W., thence 1.7 mi. S. from Holly Beach, about 0.5 mi. N. of power line, 760 ft. W. of junction of rd. NW., 20 ft. S. of rd., in concrete post; standard tablet stamped "JBL 11 1929"	12.755
Reference mark, 220 ft. N. of tablet, 200 ft. N. of rd., in base of 5-in. mesquite tree; rail spike	14.15
Port Isabel, 8.7 mi. NW. of, 30 ft. S. of rd., in base of 5-in. mesquite tree; copper nail and washer	14.22
Port Isabel, 9.8 mi. NW. of, 30 ft. S. of rd., in crotch at base between forks of 6-in. mesquite tree; copper nail and washer	15.73
Port Isabel, 10.4 mi. NW. of, 0.4 mi. E. of crossing of Buena Vista rd., 100 ft. N. and 350 ft. W. from junction of rd. SE., 100 ft. W. of junction of T-rd. N., in base of 18-in. mesquite tree; rail spike	13.37

From point 0.2 miles south of Abney north along Buena Vista road into Josephine Island quadrangle (by J. B. Leachman in 1929)

	Feet
Abney, 0.7 mi. N. of, about 0.1 mi. S. of Box ranch, 20 ft. N. and 20 ft. E. from junction of private rd. E., 200 ft. N. of bridge over drainage canal, on top of concrete culvert; chiseled square	15. 32
Abney, 1.9 mi. N. of, 30 ft. W. of rd., in base of 10-in. mesquite tree; rail spike	15. 43
Abney, 2.6 mi. N. of, 1.1 mi. S. of crossroads at La Coma ranch, about 1,000 ft. S. of small wooden culvert, 30 ft. E. of rd., in concrete post; small metal disk stamped "U 12 10.93" (Cameron County B. M.)	10. 965
La Coma ranch, 930 ft. S. of crossroads at, 30 ft. E. of rd., in concrete post; small metal disk stamped "U 14 11.89" (Cameron County B. M.)	11. 851
La Coma ranch, 30 ft. S. and 30 ft. W. from crossing of dim rd., in concrete post; standard tablet stamped "JBL 12 1929"	12. 439
La Coma ranch, 0.3 mi. N. of, 35 ft. S. of small wooden culvert, 30 ft. E. of rd., in concrete post; small metal disk stamped "U 15 14.08" (Cameron County B. M.)	14. 124
La Coma ranch, 0.8 mi. N. of, 30 ft. E. of rd., in concrete post; small metal disk stamped "U 16 13.44" (Cameron County B. M.)	13. 479
La Coma ranch, 1.2 mi. N. of, about 450 ft. S. of angle NE. in rd., 30 ft. E. of rd., in concrete post; small metal disk stamped "U 17 14.58" (Cameron County B. M.)	14. 714
La Coma ranch, 1.7 mi. N. of, 30 ft. E. of rd., in concrete post; small metal disk stamped "U 18 16.69" (Cameron County B. M.)	16. 791
La Coma ranch, 2.4 mi. N. of, 0.3 mi. S. of Gran Jeno ranch house, 325 ft. S. of wooden culvert, 30 ft. W. of rd., in base of 8-in. mesquite tree; rail spike	15. 46
La Coma ranch, 2.6 mi. N. of, 250 ft. E. of Gran Jeno ranch house, 30 ft. E. of rd., in concrete post; small metal disk stamped "U 20 16.31" (Cameron County B. M.)	16. 450
La Coma ranch, 3.1 mi. N. of, 0.4 mi. N. of Gran Jeno ranch, 2 ft. S. of fence marking S. boundary of Coast Land Farms, 45 ft. S. and 33 ft. E. from crossing of dim rd., in concrete post; standard tablet stamped "JBL 13 1929"	16. 422
Reference mark, 40 ft. NW. of tablet, 30 ft. N. of fence, on concrete base of cattle guard; chiseled square	15. 92
La Coma ranch, 3.6 mi. N. of, 55 ft. N. and 55 ft. W. from crossroads, in base of small mesquite tree; rail spike	12. 84
La Coma ranch, 4.0 mi. N. of, 195 ft. S. and 35 ft. W. from junction of rd. SW., in base of small mesquite tree; rail spike	13. 54
From La Coma ranch generally east and south along road to Dixie Development Company camp near coast line (by J. B. Leachman in 1929; spur line leveled twice)	
La Coma ranch, 0.6 mi. E. of, 20 ft. N. of rd., projecting 2 in. above ground; top of auto axle	6. 03
La Coma ranch, 1.2 mi. E. of, 20 ft. N. of rd., projecting 2 in. above ground; top of auto axle	5. 98
La Coma ranch, 1.9 mi. E. of, near small cluster of palm trees on W. side of Resaca de la Gringa, 20 ft. N. of rd., projecting 2 in. above ground; top of auto axle	12. 71
La Coma ranch, 2.3 mi. E. of, on S. bank at point where rd. crosses resaca, about 80 ft. S. of rd., in concrete post; standard tablet stamped "JBL 18 1929"	12. 555

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	Feet
Reference mark, 190 ft. W. of tablet, at E. edge of resaca, in base of small mesquite tree; rail spike-----	7. 70
La Coma ranch, 2.6 mi. E. of, 60 ft. SE. of rd., on E. bank of resaca, in base of 10-in. mesquite tree; rail spike-----	10. 70
La Coma ranch, 3.2 mi. E. of, about 65 ft. S. and 90 ft. E. from junction of rd. SE., in base of 5-in. palm tree; rail spike-----	11. 68
La Coma ranch, 3.7 mi. NE. of, at junction of rd. NE., 15 ft. N. of rd., projecting 2 in. above ground; top of auto axle-----	11. 29
La Coma ranch, 4.1 mi. NE. of, about 250 ft. W. of shore line, 70 ft. N. and 100 ft. E. from junction of rd. W., at edge of small sand dune, projecting 2 in. above ground; top of auto axle-----	7. 12
La Coma ranch, 4.1 mi. NE., thence 0.7 mi. S. from, 15 ft. E. of rd., projecting 2 in. above ground; top of auto axle-----	9. 48
La Coma ranch, 4.1 mi. NE., thence 1.4 mi. S. from, 18 ft. S. of bunk house at Dixie Development Co. camp, 60 ft. SE. of rd., on N. side of small hill, in concrete post; standard tablet stamped "JBL 19 1929"-----	27. 212
Reference mark, 150 ft. S. of tablet, 170 ft. S. of bunk house, on S. side of small hill, set in concrete; top of galvanized pipe-----	27. 350
From La Coma ranch northwest along roads to junction of Rio Hondo East road near southwest end of Laguna Atascosa, thence southwest and south by way of Las Hormigas ranch to crossroads 4 miles north and 2.3 miles east from Los Fresnos, thence east 0.5 mile along San Jose ranch road (by J. B. Leachman in 1928)-----	
La Coma ranch, 0.5 mi. NW. of, 8 ft. S. and 2 ft. W. from center of gate in N.-S. fence line, projecting 5 in. above ground; top of auto axle-----	19. 50
La Coma ranch, 1.4 mi. NW. of, about 220 ft. NW. of old windmill at Rita; 5 ft. N. of rd. at bend W., in root of 18-in. mesquite tree; copper nail and washer-----	15. 08
La Coma ranch, 2.0 mi. NW. of, at edge of brush line, 15 ft. N. of rd., in root of 7-in. mesquite tree; copper nail and washer-----	10. 91
La Coma ranch, 2.7 mi. NW. of, 800 ft. SE. of Laguna Atascosa, 15 ft. N. of rd., projecting 2 in. above ground; top of auto axle-----	7. 16
La Coma ranch, 3.0 mi. NW. of, 200 ft. S. of Laguna Atascosa, in middle of curve to NE. and SW., 27 ft. N. and 16 ft. E. from center of gate in N.-S. fence line, in concrete post; standard tablet stamped "JBL 22. 1929"-----	6. 941
Reference mark, 29 ft. SW. of tablet, 1 ft. E. of fence, projecting 1 in. above ground; top of auto axle-----	6. 12
La Coma ranch, 4.4 mi. NW. of, at entrance to Laguna Atascosa of small bay W., in curve of shore line, 15 ft. S. of water, projecting 1 in. above ground; top of auto axle-----	5. 74
La Coma ranch, 4.9 mi. NW. of, near end of small bay W. from Laguna Atascosa, about 150 ft. S. of shore line, 70 ft. S. of rd., in base of 7-in. mesquite tree; rail spike-----	7. 99
La Coma ranch, 5.5 mi. NW. of, 10.0 mi. SE. of Rio Hondo, 1.5 mi. NE. of Las Hormigas ranch house, 0.6 mi. W. of small bay of Laguna Atascosa, 75 ft. S. and 60 ft. W. from junction of Rio Hondo East rd., in concrete post; standard tablet stamped "JBL 23 1929"-----	8. 317
Reference mark, 40 ft. SW. of tablet, at edge of brush, in base of 8-in. mesquite tree; rail spike-----	9. 62
Las Hormigas ranch house, 1.0 mi. NE. of, about 200 ft. S. of brush line, 60 ft. S. of rd. fork, in root of 18-in. mesquite tree; copper nail and washer-----	10. 31

	Feet
Las Hormigas ranch house, 0.5 mi. NE. of, at junction of rd. NE., 20 ft. E. of rd., in base of 12-in. mesquite tree; copper nail and washer	11. 37
Las Hormigas ranch house, 350 ft. NE. of, 250 ft. N. of windmill, 60 ft. N. of wooden fence of corral, 40 ft. N. of rd., in root of 14-in. mesquite tree; copper nail and washer	14. 42
Las Hormigas ranch house, 0.2 mi. SW. of, 20 ft. E. of rd., in root of 10-in. mesquite tree; copper nail and washer	15. 23
Las Hormigas ranch house, 0.9 mi. SW. of, 2.3 mi. E., thence 7.7 mi. N. from Los Fresnos, about 800 ft. S. of junction of Share No. 27 rd., 54 ft. N. and 51 ft. W. from center of gate in E.-W. fence crossing rd., in root of 10-in. mesquite tree; copper nail and washer	18. 38
Los Fresnos, 2.3 mi. E., thence 7.2 mi. N. from, 0.5 mi. S. of fence crossing rd., 90 ft. E. of rd., in root of 10-in. mesquite tree; copper nail and washer	17. 38
Los Fresnos, 2.3 mi. E., thence 6.6 mi. N., from, 0.2 mi. N. of white bridge over Resaca de Los Fresnos, 830 ft. N. of T-rd. W., in concrete post; standard tablet stamped "JBL 24 1929" (reported destroyed)	16. 588
Reference mark, 70 ft. E. of tablet, 75 ft. S. and 128 ft. E. from junction of rd. W., in base of 5-in. mesquite tree; rail spike	17. 72
Los Fresnos, 2.3 mi. E., thence 5.8 mi. N. from, 55 ft. E. of rd., in base of 6-in. mesquite tree; rail spike	16. 52
Los Fresnos, 2.3 mi. E., thence 5.2 mi. N. from, 15 ft. E. of rd., on top of concrete barrel culvert; chiseled square	10. 27
Los Fresnos, 2.3 mi. E., thence 5.0 mi. N. from, 15 ft. S. and 25 ft. W. from junction of T-rd. E., projecting 2 in. above ground; top of square iron rod	14. 78
Los Fresnos, 2.3 mi. E., thence 4.6 mi. N. from, 55 ft. W. of rd., in crotch at base of 5-in. mesquite tree; copper nail and washer	15. 65
Los Fresnos, 2.3 mi. E., thence 4.0 mi. N. from, 120 ft. N. and 42 ft. E. from intersection of San Jose ranch rd., in irrigation canal, in base of 10-in. mesquite tree; rail spike	26. 46
<i>From point 10 milés east of Rio Hondo west 5 miles along Rio Hondo East road into San Benito quadrangle (by J. B. Leachman in 1929)</i>	
Rio Hondo, 9.3 mi. E. of, 30 ft. S. and 290 ft. W. from junction of Share No. 27 rd., in base of small mesquite tree; rail spike	9. 41
Rio Hondo, 8.8 mi. E. of, 10 ft. W. of fence line with sign "475-Acre Tract," 25 ft. N. of rd., in base of 5-in. mesquite tree; rail spike	13. 15
Rio Hondo, 8.3 mi. E. of, 80 ft. E. of rd. SE.; 30 ft. S. of rd., in base of 20-in. mesquite tree; rail spike	18. 43
Rio Hondo, 7.7 mi. E. of, 30 ft. N. of rd., in base of 18-in. mesquite tree; rail spike	20. 31
Rio Hondo, 7.3 mi. E. of, 10.0 mi. N. of Los Fresnos, 36 ft. S. and 60 ft. W. from intersection of Paredes Line rd., 2 ft. N. of fence, in concrete post; standard tablet stamped "JBL 28 1929"	20. 488
Rio Hondo, 6.8 mi. E. of, 50 ft. W. of dim trail S., 30 ft. S. of rd., in base of 21-in. mesquite tree; rail spike	22. 90
Rio Hondo, 6.6 mi. E. of, 40 ft. S. and 20 ft. W. from junction of rd. SW. at La Tina ranch, in base of small mesquite tree; rail spike	21. 86
Rio Hondo, 6.1 mi. E. of, 140 ft. W. of small cleared field, 35 ft. S. of rd., in base of 24-in. mesquite tree; rail spike	23. 60

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From point 4 miles north and 0.3 mile east from Los Fresnos west 0.3 mile along San Jose ranch road, thence north along Paredes Line road into Josephine Island quadrangle (by J. B. Leachman in 1929)	
Los Fresnos, 4.5 mi. N. of, 0.5 mi. N. of San Jose ranch rd., 17 ft. W. of rd., in top of concrete culvert; small metal disk (Cameron County B. M.)	16. 225
Los Fresnos, 4.7 mi. N. of, 35 ft. E. of rd., 22 ft. W. of corner post at angle to N. and E. in fence, on top of round concrete post; chiseled square	21. 45
Los Fresnos, 5.0 mi. N. of, 17 ft. W. of rd., in top of concrete culvert; small metal disk (Cameron County B. M.)	17. 655
Los Fresnos, 5.2 mi. N. of, on E. side of white wooden bridge over Resaca de los Fresnos, in base of hand rail; top of N. iron bolt	17. 32
Los Fresnos, 5.6 mi. N. of, on E. side of white wooden bridge over Resaca de los Fresnos, in base of hand rail; top of third iron bolt from N. end	16. 67
Los Fresnos, 6.3 mi. N. of, 0.2 mi. S. of white wooden bridge over Resaca de los Fresnos, 30 ft. E. of rd., on top of round concrete post; chiseled square	18. 37
Los Fresnos, 6.5 mi. N. of, on E. side of white wooden bridge over Resaca de los Fresnos, in base of hand rail; top of center bolt	16. 45
Los Fresnos, 7.3 mi. N. of, 7.3 mi. E., thence 2.8 mi. S. from Rio Hondo, on top of small rise, 365 ft. N. of gate in W. fence at crossing of dim E.-W. rd., 33 ft. W. of rd., 6 ft. E. of fence, in concrete post; standard tablet stamped "JBL 29 1929"	25. 903
Reference mark, 120 ft. N. of tablet, 30 ft. W. of rd., in base of 18-in. mesquite tree; rail spike	27. 60
Rio Hondo, 7.3 mi. E., thence 2.1 mi. S. from, 35 ft. E. of rd., in base of 10-in. mesquite tree; rail spike	22. 02
Rio Hondo, 7.3 mi. E., thence 1.5 mi. S. from, 33 ft. W. of rd., in base of 18-in. mesquite tree; rail spike	22. 77
Rio Hondo, 7.3 mi. E., thence 0.9 mi. S. from, 16 ft. S. and 8 ft. E. from corner post of T-fence W., 30 ft. W. of rd., about 2 ft. above ground, in base of 14-in. mesquite tree; 10-penny nail	23. 03
Rio Hondo, 7.3 mi. E., thence 0.6 mi. S. from, 0.6 mi. S. of Rio Hondo East rd., 30 ft. E. of rd., 8 ft. W. of fence, in base of 24-in. mesquite tree; rail spike	21. 58
Rio Hondo, 7.3 mi. E., thence 0.4 mi. N. from, 3.1 mi. S. of La Leona, 40 ft. S. and 40 ft. W. from junction of dim rd. NE. to San Pedro ranch, 5 ft. W. of fence, in base of 24-in. mesquite tree; rail spike	20. 21
La Leona, 2.4 mi. S. of, about 800 ft. S. of Mexican house at El Alazan ranch, 40 ft. N. of small swamp on E. side of rd., 33 ft. E. of rd., in base of 30-in. mesquite tree; rail spike	19. 16
La Leona, 1.8 mi. S. of, 40 ft. E. of rd., in base of 18-in. mesquite tree; rail spike	20. 49
La Leona, 1.2 mi. S. of, 0.3 mi. S. of crossroads, 75 ft. N. of T-fence W., 33 ft. E. of rd., in base of 16-in. mesquite tree; rail spike	20. 20
From Fort Brown quadrangle north 1.4 miles along Paredes Line road, thence alternately southeast and northeast across country and along roads across Palo Alto Battlefield and back into Fort Brown quadrangle at point 0.3 mile west of Port Isabel & Rio Grande Valley Railway (by S. H. Holm in 1929)	
Los Fresnos, 4.5 mi. S. of, 30 ft. W. of rd., in concrete post; small metal disk (Cameron County B. M.)	18. 032
Los Fresnos, 4.0 mi. S. of, 15 ft. W. of rd., in top of concrete head wall of culvert; small metal disk (Cameron County B. M.)	18. 643

	Feet
Los Fresnos, 3.4 mi. S. of, 40 ft. N. and 35 ft. E. from junction of dim T-rd. E., almost opposite house, 40 ft. N. of gate, 1 ft. W. of fence line, in concrete post; standard tablet stamped "H 10 1929"-----	19. 906
Reference mark, 72 ft. W. of tablet, in base of 10-in. mesquite tree; copper nail and washer-----	19. 73
Los Fresnos, 3.4 mi. S., thence 1.1 mi. SE. from, on Palo Alto Battlefield, near top of slight rise; top of auto axle-----	14. 73
Los Fresnos, 3.4 mi. S., thence 1.8 mi. SE. from, near top of slight rise; top of auto axle-----	13. 84
Los Fresnos, 3.4 mi. S., thence 2.3 mi. SE. from, 50 ft. E. of N.-S. fence line, on S. edge of timber line, in root of 4-in. mesquite tree; copper nail and washer-----	14. 85
Los Fresnos, 3.4 mi. S., thence 3.1 mi. SE. from, about 7.5 mi. NE. along Brownsville-Port Isabel rd., thence 0.7 mi. NW. from Brownsville, in center of open plain; top of auto axle-----	10. 38
[Line jogs into Fort Brown quadrangle]	
Brownsville, about 8.7 mi. along Brownsville-Port Isabel rd. NE. of, 600 ft. N. of junction of rd. E., 42 ft. E. of rd., in notch near base of small mesquite tree; copper nail and washer-----	16. 05
Brownsville, 8.9 mi. NE., thence 1.1 mi. SE. from, 68 ft. N. and 32 ft. E. from junction of rd. SW., on top of ridge, at S. edge of timber line, in concrete post; standard tablet stamped "H 12 1929"-----	14. 100
Reference mark, 740 ft. W. of tablet, 34 ft. N. of rd., in base of 3-in. mesquite tree; copper nail and washer-----	12. 53
From point 3.4 miles south of Los Fresnos north along Paredes Line road to Los Fresnos (by S. H. Holm in 1929)	
Los Fresnos, 3.1 mi. S. of, 30 ft. W. of rd., in light brush patch, in concrete post; small metal disk (Cameron County B. M.)-----	18. 113
Los Fresnos, 2.7 mi. S. of, 30 ft. W. of rd., about opposite point of timber E. of rd., in concrete post; small metal disk (Cameron County B. M.)-----	18. 435
Los Fresnos, 1.0 mi. S. of, 200 ft. N. of white shed, 44 ft. W. of rd., in concrete post; small metal disk (Cameron County B. M.)-----	13. 275
From point 8.9 miles northeast of Brownsville northeast along Port Isabel road to junction of State Highway 100 (by S. H. Holm in 1929)	
Brownsville, 10.9 mi. NE. of, 5.8 mi. E., thence 2.8 mi. SW. from Los Fresnos, 35 ft. W. of rd., opposite junction of dim rd. E., in concrete post; standard tablet stamped "H 18 1929"-----	8. 695
Los Fresnos, 5.8 mi. E., thence 0.6 mi. SW. from, 30 ft. E. of rd.; top of auto axle-----	9. 68
From Fort Brown quadrangle at point about 9.9 miles northeast of Brownsville northeast along abandoned grade of Rio Grande Railway to point near Bahia Grande, thence southeast along road northeast of San Martin Lake and back into Fort Brown quadrangle (by S. H. Holm in 1929)	
Brownsville, 13.2 mi. NE. of, 400 ft. S. of cut, at N. end of grade over lagoon, in top of piling; large spike-----	6. 41
Brownsville, 13.4 mi. NE. of, 1.2 mi. W. of W. end of long dismantled trestle across lagoon, 43 ft. S. and 40 ft. W. from crossing of dim rd., in concrete post; standard tablet stamped "H 19 1929"-----	9. 737
Brownsville, 14.2 mi. NE. of, 1,000 ft. W. of W. end of dismantled trestle, 50 ft. S. of R. R. bed; top of 4-in. iron pipe-----	10. 48
Brownsville, 14.4 mi. NE., thence 0.6 mi. SE. from, at W. end of long island, in base of yucca tree; rail spike-----	16. 28

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	Feet
Brownsville, 14.4 mi. NE., thence 1.6 mi. SE. from, 34 ft. N. of rd., in base of yucca tree; rail spike-----	6.24
Brownsville, 14.4 mi. NE., thence 2.4 mi. SE. from, 50 ft. N. of rd., in base of yucca tree; rail spike-----	5.71
Brownsville, 14.4 mi. NE., thence 3.0 mi. SE. from, 140 ft. S. and 280 ft. E. from N. point of triangle formed by intersection of rds., 32 ft. S. of rd., 60 ft. S. of shore line of lagoon, in concrete post; standard tablet stamped "H 20 1929"-----	7.139
Reference mark, 26 ft. E. of tablet; top of auto axle-----	7.17
Brownsville, 14.4 mi. NE., thence 4.0 mi. SE. from, at E. end of patch of brush, about 600 ft. N. of W. end of low flat island, 12 ft. S. of rd.; top of auto axle-----	13.50

LULING QUADRANGLE

[Latitude 29°30'-29°45'; longitude 97°30'-97°45']

CALDWELL, GONZALES, AND GUADALUPE COUNTIES

From Seguin quadrangle east along Galveston, Harrisburg & San Antonio Railroad ⁶⁵ into Flatonia No. 3 quadrangle (by J. A. Hinman in 1898; double-rodded line)

Sullivan, about 3.5 mi. NE. of, 3.7 mi. SW. of Luling, at bridge over San Marcos River, at N. end of E. pier, in top of rock bridge seat; copper bolt stamped "398" ⁶⁶ -----	382. 521
Luling, 5.0 mi. W. of Ivy, at SW. corner of park opposite freight sta.; iron post stamped "426" (recovered in 1906)-----	410. 782
Ivy, 4.0 mi. W. of Harwood, 200 ft. W. of W. end of siding, E. of Luling-Harwood rd., in SW. corner of right-of-way fence; iron post stamped "455"-----	439. 471
Harwood, 100 ft. W. of sta., 25 ft. N. of track, 2 ft. W. of W. end of small park; iron post stamped "468" (recovered in 1924)-----	460. 602

From Seguin quadrangle along roads southeast to Belmont, thence northeast to Luling (by F. A. Nussle in 1908)

Belmont, 3.5 mi. W. of, 150 ft. S. of house, 20 ft. W. of gate on S. side of rd.; iron post stamped "427" (recovered in 1924)-----	427. 001
Nash Creek; surface of water Sept. 15, 1906-----	358. 5
Belmont, at store of G. A. Sather, 1.5 ft. from SE. corner, in wall, 3 ft. above ground, set vertically; standard tablet stamped "393" (recovered in 1924)-----	392. 890
Belmont, 2.8 mi. NE. of, 0.4 mi. NE. of Dilworth Springs School, near junction of rd. W., on E. side of rd.; iron post stamped "439" (recovered in 1924)-----	439. 500
Belmont, 6.6 mi. NE. of, 6.3 mi. S. of Luling, at rd. junction, on W. side of rd., near wire fence corner; iron post stamped "434" (recovered in 1924)-----	434. 023
Luling, 3.1 mi. S. of, 1,000 ft. S. of house and mail box of J. B. Wood, at junction of river rd. and bridge rd.; iron post stamped "394"-----	394. 140

From Luling southeast along San Antonio & Aransas Pass Railroad ⁶⁵ into Flatonia No. 3 quadrangle (by F. A. Nussle in 1908)

Luling, in front of sta.; top of rail-----	400. 2
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⁶⁵ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

⁶⁶ 1936 this bench mark was tied to U. S. Coast & Geodetic Survey standard disk stamped "A 350 1935" but the tie was unsatisfactory. The elevation given here is based on connections made at other nearby points.

	Feet
Luling, 3.0 mi. SE. of, 30 ft. N. of rd. crossing at milepost 165; iron post stamped "347" (recovered in 1924)-----	346. 723
Luling, 6.4 mi. SE. of, 1.1 mi. NW. of Ottine, near milepost 162, at rd. crossing, in NE. fence corner; iron post stamped "323"-----	323. 027
Ottine, in front of sta.; top of rail-----	338. 2
Ottine, 800 ft. SE. of sta., 3.4 mi. NW. of Slayden, at N. corner of cattle-guard fence; iron post stamped "328"-----	328. 132
Slayden, 500 ft. NW. of sta., at rd. crossing, at end of switch, at N. fence corner of cattle guard; iron post stamped "327"-----	327. 023
U. S. C. & G. S. standard disk stamped "J 350 1935" ⁶⁷ -----	328. 470
Slayden, in front of sta.; top of rail-----	327. 5
Slayden, 1.7 mi. SE. of, 1,500 ft. SE. of milepost 156, at SE. corner of rd. crossing; iron post stamped "305"-----	304. 980

From Luling northeast along roads into Lockhart quadrangle (by F. A. Nussle in 1906)

Luling, 3.6 mi. NE. of, 1.6 mi. S. of Union Center School, 230 ft. S. and 50 ft. E. from crossroads; iron post stamped "413" (recovered in 1924)-----	412. 932
Luling, 5.3 mi. NE. of, at SE. corner of junction of Tilmon and Harvey gin rds., in front of house of W. H. Ramsey; iron post stamped "413"-----	412. 698

From Seguin quadrangle at point about 0.5 mile southeast of Prairie Lea southeast along road to Luling (by F. A. Nussle in 1906)

Prairie Lea, 3.2 mi. SE. of, 5.3 mi. NW. of Luling, in SE. corner of intersection of rd., 30 ft. NE. of mail box of P. A. Styles; iron post stamped "460"-----	460. 169
Luling, 2.2 mi. NW. of, about 2,000 ft. SE. of schoolhouse, at junction of rd. SW., near SE. fence corner, 30 ft. E. of Jess mail box; iron post stamped "378"-----	378. 524

From Seguin quadrangle at point 1.2 miles northwest of Soefje ranch along roads alternately southeast and northeast to point 1.3 miles south of Belmont, thence north to Belmont (by E. E. Harris in 1924)

[Line jogs into Monthonalia quadrangle]

Soefje ranch house, 1.1 mi. NE. of, 70 ft. E. of junction of lane N. through gate, on S. side of rd., in root on N. side of 18-in. post-oak tree; copper nail and washer-----	397. 59
Soefje ranch house, 1.7 mi. E. of, in NW. corner of crossroads, in root on E. side of 18-in. post-oak tree; copper nail and washer-----	467. 63

[Line jogs into Monthonalia quadrangle]

Belmont, 1.3 mi. S. of, at SW. corner of highway bridge over Guadalupe River, on top of iron cylinder abutment; chiseled square-----	360. 99
Guadalupe River, under bridge; surface of water Oct. 8, 1924-----	330. 3

From point 6.6 miles northeast of Belmont along roads generally west into Seguin quadrangle (by E. E. Harris in 1924)

Belmont, 6.6 mi. NE., thence 1.0 mi. W. from, on N. side of rd., 0.5 mi. E. of gate, 1,600 ft. W. of house, in root on S. side of 6-in. post-oak tree; copper nail and washer-----	384. 78
Belmont, 6.6 mi. NE., thence 2.1 mi. NW. from, 1.3 mi. NE. of Nixon (New Bethlen) Church, in SE. corner of crossroads, in root on W. side of small mesquite tree; copper nail and washer-----	416. 75

⁶⁷ The tie between this mark and the bench mark stamped "327" was made in 1936.

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	Feet
Nixon Church, 0.4 mi. NE. of, in NE. corner of junction of rd. E., in root on E. side of 8-in. mesquite tree; copper nail and washer-----	414. 75
Nixon Church, 0.3 mi. SW. of, on S. side of rd., in angle of junction of rd. SE., in concrete post; standard tablet stamped "H 132 1924"-----	448. 990
Reference mark, 128 ft. N.50°E. of tablet, in root on E. side of 24-in. post-oak tree; copper nail and washer-----	449. 28
Nixon Church, 1.2 mi. SW. of, on SE. side of rd., in line with T-rd. NW., in root on E. side of 15-in. post-oak tree; copper nail and washer-----	464. 32
Nixon Church, 2.4 mi. W. of, on NE. side of rd., at junction of rd. SW., on SE. side of private lane to house, in root of small mesquite tree; copper nail and washer-----	491. 20
Nixon Church, 3.7 mi. W. of, 4.0 mi. E. of store of J. W. Brawner, in SE. corner of junction of rd. SE., at summit of grade, in angle in fence line, 6 ft. from corner post, in concrete post; standard tablet stamped "H 133 1924"-----	548. 557
Reference mark, 16.4 ft. W. of tablet, in root on E. side of 6-in. post-oak tree; copper nail and washer-----	547. 87

From Monthalia quadrangle at Soefje ranch north along road to point about 3.5 miles northwest of Belmont (by E. E. Harris in 1924)

Soefje ranch house, 1.0 mi. N. of, 0.4 mi. S. of house of John Adams, on W. side of lane, in root on E. side of 30-in. pecan tree; copper nail and washer-----	367. 25
Soefje ranch house, 2.5 mi. N. of, 1.0 mi. N. of Adams house, about 2.5 mi. along old rd. W. of Belmont, in SE. corner of junction of T-rd. S. through gate, in root of small mesquite tree; copper nail and washer-----	418. 50

From point on Belmont-Seguin road about 3.5 miles northwest of Belmont along roads alternately northwest and northeast to point 3.7 miles west of Nixon Church (by E. E. Harris in 1924)

Belmont, 4.2 mi. W. of, 1.8 mi. S. of Nash Creek (colored) School, on S. side of new State highway, on E. side of old rd. S., in center of top of parapet of concrete culvert; chiseled square-----	456. 03
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[Line jogs into Seguin quadrangle]

Nash Creek School, 50 ft. SE. of, in root on N. side of 10-in. mesquite tree; copper nail and washer-----	475. 03
Nash Creek School, 0.8 mi. N. of, in SE. corner of rd. forks, in root of 10-in. mesquite tree; copper nail and washer-----	523. 30

[Line jogs into Seguin quadrangle]

Nash Creek School, 1.3 mi. NW., thence 0.8 mi. E. from, on S. side of rd., 30 ft. E. of junction of rd. NE., in root on N. side of 15-in. post-oak tree; copper nail and washer-----	434. 47
Nash Creek School, 1.3 mi. NW., thence 1.8 mi. NE. from, on N. side of rd., 20 ft. E. of gate, in root on E. side of large leaning mesquite tree; copper nail and washer-----	437. 21
Nash Creek School, 1.3 mi. NW., thence 2.5 mi. NE. from, 2.6 mi. SW. of Nixon Church, at junction of rd. NE., on W. side of rd., in root on E. side of 12-in. mesquite tree; copper nail and washer-----	463. 30

From Belmont along roads southeast 2.2 miles, thence north and west to point 2.8 miles northeast of Belmont (by E. E. Harris in 1924)

Belmont, 1.0 mi. SE. of, on N. side of rd., on E. side of rd. N. through gate, in root on S. side of 15-in. mesquite tree; copper nail and washer-----	362. 34
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	Feet
Belmont, 2.0 mi. SE. of, on S. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	374. 08
Belmont, 2.2 mi. SE. of, on N. side of rd., 40 ft. E. of rd. N., in root on S. side of prominent post-oak tree; copper nail and washer-----	383. 95
Belmont, 2.2 mi. SE., thence 1.0 mi. N. from, at summit of grade, on E. side of Ottine rd., 15 ft. E. of fence line, in root on W. side of prominent forked post-oak tree; copper nail and washer-----	411. 33
Belmont, 2.2 mi. SE., thence 1.6 mi. N. from, on E. side of Ottine rd., 15 ft. S. of lane E. through gate, in concrete post; standard tablet stamped "H 131 1924"-----	455. 875
Reference mark, 44.6 ft. N. 40° E. of tablet, in root of 12-in. post-oak tree; copper nail and washer-----	457. 04
Belmont, 2.2 mi. SE., thence 2.2 mi. N. from, on N. side of sharp turn in Ottine rd., 1.5 mi. SE. of Dilworth Springs School, 15 ft. N. of fence line, 30 ft. E. of rd. through gate, in root on N. side of 6-in. post-oak tree; copper nail and washer-----	420. 41
Dilworth Springs School, 0.5 mi. SE. of, 2.4 mi. NE., thence 0.5 mi. SE. from Belmont, on N. side of rd., 200 ft. W. of deserted shack, in root on E. side of 15-in. post-oak tree; copper nail and washer-----	460. 87

From point 3.6 miles northeast of Luling north along road into Lockhart quadrangle (by E. E. Harris in 1924)

Luling, 4.9 mi. NE. of, 0.3 mi. S. of Union Center School, on S. edge of jog in main rd., just E. of rd. junction, 40 ft. NE. of house, in root on E. side of 24-in. oak tree; copper nail and washer-----	359. 33
Union Center School, 0.6 mi. N. of, on W. side of rd., on S. side of lane W. through gate, 150 ft. S. of house, 15 ft. W. of fence line, in root on E. side of 15-in. post-oak tree; copper nail and washer-----	376. 65

From Lockhart quadrangle south along roads to Harwood (by E. E. Harris in 1924)

Harwood, 6.2 mi. N. of, 0.5 mi. W. of house of C. A. Bell, in NW. corner of junction of dim rd., in root on S. side of 15-in. post-oak tree; copper nail and washer-----	500. 66
Harwood, 5.7 mi. N. of, just W. of Copperas Creek, in SW. corner of junction of T-rd. S., in root on N. side of 10-in. post-oak tree; copper nail and washer-----	440. 91
Harwood, 4.9 mi. N. of, in angle of junction of rd. NW., in right angle in fence line, 10 ft. from corner post, in concrete post; standard tablet stamped "H 148 1924"-----	508. 912
Reference mark, 35 ft. N. 60° E. of tablet, in root on N. side of 15-in. post-oak tree; copper nail and washer-----	510. 40
Harwood, 4.1 mi. N. of, 350 ft. N. of junction of rd. W., on W. side of rd. in bottom, 570 ft. S. of house, in fence line, in root on E. side of 18-in. post-oak tree; copper nail and washer-----	463. 15
Harwood, 3.3 mi. N. of, on W. side of rd., in front of house, in root on S. side of 12-in. post-oak tree; copper nail and washer-----	474. 08
Harwood, 2.7 mi. N. of, in SE. corner of crossroads, in right angle in fence line, 10 ft. from corner post, in concrete post; standard tablet stamped "H 149 1924"-----	469. 319
Reference mark, 106.5 ft. N. 30° W. of tablet, in root on E. side of 5-in. mesquite tree; copper nail and washer-----	467. 91
Harwood, 1.8 mi. N. of, 60 ft. W. of rd., opposite house, in root on E. side of 10-in. post-oak tree; copper nail and washer-----	447. 27
Harwood, 0.8 mi. N. of, near summit of grade, on E. side of rd., in root on N. side of 15-in. post-oak tree; copper nail and washer-----	441. 49

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From Harwood along roads southwest 5.5 miles, thence northwest to point 3.4 miles southeast of Luling, thence southwest to point on San Antonio & Aransas Pass Railroad 3 miles southeast of Luling (by E. E. Harris in 1924)	
Harwood, 0.9 mi. SW. of, on W. side of rd., near SW. corner of small bridge, in root on N. side of 6-in. mesquite tree; copper nail and washer	Feet 414. 20
Harwood, 2.0 mi. SW. of, on E. side of rd., opposite dim wood rd. W., in root on W. side of 15-in. red-oak tree; copper nail and washer	392. 76
Harwood, 2.6 mi. SW. of, in NW. corner of junction of rd. NW., in root on S. side of small mesquite tree; copper nail and washer	379. 51
Harwood, 3.3 mi. SW. of, in NW. corner of crossroads, in right angle in fence line, 6 ft. from corner post, in concrete post; standard tablet stamped "H 150 1924"	363. 056
Reference mark, 84.4 ft. S.20°E. of tablet, in root on N. side of 24-in. post-oak tree; copper nail and washer	359. 46
Harwood, 4.3 mi. SW. of, on W. side of rd., 40 ft. N. of bridge, 120 ft. S. of gate, in root on N. side of 18-in. post-oak tree; copper nail and washer	343. 54
Harwood, 5.5 mi. SW. of, 0.9 mi. SE. of Karnstadt store, in NW. angle of junction of Luling-Gonzales rd., in center of top of parapet of concrete culvert; chiseled square	327. 73
Karnstadt store, 2.0 mi. NE. of Ottine, 6.9 mi. SE. of Luling, on S. side of Luling-Gonzales rd., W. of rd. S. to Ottine, in center of top of parapet of concrete culvert; chiseled square	415. 51
Luling, 5.9 mi. SE. of, on N. side of rd., 10 ft. W. of gate, 3 ft. N. of fence line, in concrete post; standard tablet stamped "H 151 1924"	382. 083
Reference mark, 6.4 ft. N.30°W. of tablet, in root on E. side of 12-in. post-oak tree; copper nail and washer	386. 82
Luling, 4.7 mi. SE. of, on E. side of rd., in line with lane W. through gate, in root on S. side of 12-in. red-oak tree; copper nail and washer	375. 99
Luling, 3.9 mi. SE. of, on W. side of rd., on S. side of private lane SW. through gate, in root on N. side of 20-in. post-oak tree; copper nail and washer	381. 62
Luling, 3.4 mi. SE. of, on E. side of rd. junction, 40 ft. S. of bridge over Plum Creek, in root of small mesquite tree; copper nail and washer	332. 46

LYFORD QUADRANGLE

[Latitude 26°15'-26°30'; longitude 97°45'-98°00']

CAMERON, HIDALGO, AND WILLACY COUNTIES

From Raymondville east along roads into Fernando quadrangle (by J. L. Lenovitz in 1919; relevelled by T. F. Murphy in same year)	
U. S. C. & G. S. standard disk stamped "G 48 1917"	36. 608
From Raymondville northeast along St. Louis, Brownsville & Mexico Railway into La Sal Vieja quadrangle (by J. L. Lenovitz in 1919)	
U. S. C. & G. S. standard disk stamped "F 28 1917"	33. 120
Raymondville, 0.7 mi. NE. of, on W. side of track, at base of switch stand, in center of three spikes; iron plate	32. 35
From Raymondville west along road 8.4 miles (by J. L. Lenovitz in 1919; first 4 miles relevelled by T. F. Murphy in 1920 and entire line relevelled by H. P. Kilby in same year)	
Raymondville, 1.9 mi. W. of, at point where main rd. turns W., in SE. corner; iron post stamped "Prim Trav Sta No 23 1919 36"	36. 563

	Feet
Brenner triangulation sta., 5.3 mi. W. of Raymondville, 0.2 mi. W. of Cameron-Hidalgo county line, 246 ft. N. of center line of wagon rd. from Raymondville, near center of small cleared but uncultivated field of J. P. Brenner, in concrete cylinder; U. S. C. & G. S. standard disk-----	36. 314
Raymondville, 8.4 mi. W. of, 460 ft. W. of junction of T-rd. N., on S. side of rd., inside fence line, at blazed mesquite tree; iron post stamped "Prim Trav Sta No 25 1919 44" ⁶⁹ -----	43. 919
From point 8.4 miles west of Raymondville along road west 2.6 miles, thence north along Jesus Maria ranch road into La Sal Vieja quadrangle (by H. P. Kilby in 1919-20)	
Raymondville, 11.0 mi. W. of, in SE. angle of crossroads, between rd. and fence line; iron post stamped "1920 51"-----	51. 326
From Mercedes quadrangle at point in Santa Rosa along roads north and west to crossroads west of Cameron-Hidalgo county line, thence south 0.6 mile and back into Mercedes quadrangle (by J. B. Leachman in 1928)	
Santa Rosa, 15 ft. S. of W. entrance of North School, 235 ft. S. and 140 ft. E. from street intersection, in concrete post; standard tablet stamped "JBL 11 1928"-----	51. 349
Reference mark, 260 ft. S. and 140 ft. W. from tablet, on concrete highway; chiseled square-----	50. 14
Santa Rosa, 300 ft. E. of Southern Pacific R. R. sta., at rd. crossing; top of S. rail-----	51. 2
Santa Rosa, 0.2 mi. NW. of sta., 150 ft. SE. of junction of rd. E., 100 ft. S. of track, at end of irrigation ditch, in top of concrete wall; small metal disk (Cameron County B. M.)-----	54. 764
Santa Rosa, 0.7 mi. W. of sta., 40 ft. S. and 65 ft. W. from crossroads, in root of 24-in. mesquite tree; copper nail and washer-----	49. 83
Santa Rosa, 1.4 mi. W. of, 50 ft. S. and 110 ft. E. from crossroads, in root of 24-in. mesquite tree; copper nail and washer-----	52. 68
Santa Rosa, 1.7 mi. W. of, 0.4 mi. W. of crossroads, 15 ft. S. of rd., 50 ft. E. of fence, at end of irrigation ditch, in top of concrete wall; small metal disk (Cameron County B. M.)-----	58. 796
Santa Rosa, 2.2 mi. W. of, 40 ft. S. and 400 ft. E. from curve NW. in rd., 100 ft. W. of Cameron-Hidalgo county line, in concrete post; standard tablet stamped "JBL 12 1928" ⁷⁰ -----	52. 266
Reference mark, 10 ft. E. of tablet, in root of 20-in. mesquite tree; copper nail and washer-----	52. 40
Santa Rosa, 2.3 mi. W., thence 0.5 mi. S. from, 600 ft. W. of county line, 80' ft. N. and 25 ft. E. from dim crossroads, in root of 24-in. mesquite tree; copper nail and washer-----	53. 32
From point 0.5 mile south and 1.3 miles southeast from Sebastian northwest along Cameron-Willacy county-line road to Sebastian, thence generally southwest and south along road to Santa Rosa (by J. B. Leachman in 1928)	
Sebastian triangulation sta., 0.5 mi. S., thence 1.5 mi. SE. from St. Louis, Brownsville, & Mexico Ry. sta. at Sebastian, on fence line with wagon rd. along S. side; U. S. C. & G. S. standard reference disk-----	43. 198

⁶⁹ In 1937 this bench mark was reported destroyed.

⁷⁰ In 1936 this bench mark was reset 24.85 feet south of this position and 0.504 feet lower than its original elevation. The figures given represent the new elevation.

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	Feet
Sebastian, 0.8 mi. SW. of R. R. sta. at, 270 ft. N. of Cameron-Willacy county-line fence at angle to S. in rd., 30 ft. N. of rd. E., 1 ft. S. of corner post of T-fence N. at angle in fence, in concrete post; standard tablet stamped "JBL 20 1929"-----	43. 458
Sebastian, 1.4 mi. SW. of, at angle to S. in rd., 30 ft. W. of rd. S., in base of 24-in. mesquite tree; rail spike-----	46. 41
Sebastian, 2.1 mi. SW. of, about 0.4 mi. N. of N. levee of floodway, at angle to SW. in rd., 30 ft. E. of rd., in root of 12-in. mesquite tree; copper nail and washer-----	42. 61
Sebastian, 2.6 mi. SW. of, 750 ft. S. of N. levee of floodway, 150 ft. S. of southernmost of two Mexican huts on E. side of rd., 25 ft. E. of rd., in root of 12-in. mesquite tree; copper nail and washer-----	41. 52
Sebastian, 3.4 mi. SW. of, on El Cotillo ranch, 300 ft. W. of house, 450 ft. NW. of windmill, 90 ft. N. of white gate of T-rd. E. to ranch house, 45 ft. W. of rd., in root of 12-in. mesquite tree; copper nail and washer-----	48. 50
Sebastian, 3.8 mi. SW. of, 3.3 mi. N., thence 0.8 mi. E. from North School at Santa Rosa, 21 ft. N. and 19 ft. E. from junction of E.-W. rd., 380 ft. E. of junction of rd. S., 5 ft. N. and 1 ft. W. from corner fence post, in concrete post; standard tablet stamped "JBL 21 1929"-----	45. 946
Santa Rose, 3.3 mi. N., thence 0.3 mi. E. from, 150 ft. E. of junction of rd. S., 25 ft. N. and 30 ft. W. from junction of T-rd. N., in base of 12-in. mesquite tree; rail spike-----	44. 32
Santa Rosa, 3.1 mi. N. of, 850 ft. S. of junction of T-rd. S., 750 ft. SE. of house, 12 ft. E. of rd., on top of concrete head wall of irrigation canal; chiseled square-----	50. 11
Santa Rosa, 1.9 mi. N. of, 30 ft. S. and 10 ft. E. from crossroads, 60 ft. NE. of windmill, on top of concrete head wall of irrigation canal; chiseled square-----	50. 98
Santa Rosa, 1.5 mi. N. of, 100 ft. S. and 200 ft. E. from white house, 10 ft. W. of rd., on top of concrete head wall of irrigation ditch; chiseled square-----	51. 16
Santa Rosa, 1.1 mi. N. of, 50 ft. NW. of service sta., 105 ft. S. of dwelling, 15 ft. W. of junction of T-rd. E., on top of concrete head wall of irrigation canal; chiseled square-----	51. 03
Santa Rosa, 0.6 mi. N. of, 15 ft. W. of rd., 60 ft. S. of house, on top of concrete head wall of irrigation ditch; chiseled square-----	53. 02
From point 0.5 mile south and 1.3 miles southeast from Sebastian southeast along Cameron-Willacy county-line road 1.2 miles into Fernando quadrangle (by S. H. Holm in 1928)	
Sebastian, 0.5 mi. S., thence 2.3 mi. SE. from, 24 ft. N. and 22 ft. E. from crossroads, 4 ft. N. of fence, in 12-in. mesquite tree; rail spike-----	36. 60

MATHIS QUADRANGLE

[Latitude 28°00'-28°15'; longitude 97°45'-98°00']

BEE, JIM WELLS, LIVE OAK, AND SAN PATRICIO COUNTIES

From Sinton quadrangle near San Antonio, Uvalde & Gulf Railroad along roads northwest to point 0.5 mile east of Mathis, thence south and southwest to LaFruta, thence southwest along San Antonio & Aransas Pass Railroad ¹¹ into Banquete quadrangle (by S. R. Archer in 1928)

Mathis, 7.6 mi. SE. of, 0.2 mi. SE. of S. A. U. & G. R. R. milepost 120, at E.-W. fence line crossing rd. and track, 35 ft. E. of center line of rd., on S. side of fence; top of iron pipe-----

115. 69

¹¹ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

	Feet
Mathis, 6.8 mi. SE. of, 0.7 mi. SE. of Timon, 0.4 mi. SE. of milepost 119, on top of E. concrete head wall of three-foot galvanized iron drain pipe under track; chiseled square-----	103. 64
Mathis, 5.9 mi. SE. of, 0.2 mi. NW. of Timon, 70 ft. N. and 50 ft. W. from crossing, at R. R. right-of-way corner, in concrete post; standard tablet stamped "A 10 Texas 1923"-----	86. 794
Reference mark, 50 ft. W. of tablet, on N. side of rd. W., 4 in. S. of point directly under fence, 6 in. underground; top of iron pipe-----	85. 56
Mathis, 5.2 mi. SE. of, 0.2 mi. NW. and 0.8 mi. W. from Timon, in SE. angle of junction of T-rd. E., 4.5 ft. E. of fence corner; top of cap on iron pipe-----	82. 30
Mathis, 4.2 mi. SE. of, at point where rd. crosses bayou, 60 ft. S. of S. bank of bayou, on W. side of rd., in root on E. side of 12-in. hackberry tree; copper nail and washer-----	51. 07
Mathis, 3.4 mi. SE. of, on W. side of rd., opposite and in line with center of rd. E., at fence line; top of cap on iron pipe-----	123. 34
Mathis, 3.0 mi. SE. of, 1.4 mi. SE. of angle in rd. SE., 0.4 mi. NW. of junction of T-rd. E., on W. side of rd., at angle, in NE. corner of front yard, in concrete post; standard tablet stamped "A 11 Texas 1923"-----	124. 702
Reference mark, 95 ft. S.30°E. of tablet, on W. side of rd., 45 ft. S. of farmhouse, at S. side of gate, in root on SW. side of 8-in. mesquite tree; copper nail and washer-----	124. 51
Mathis, 2.0 mi. SE. of, 0.5 mi. SE. of angle in rd. SE., on top of E. head wall of concrete culvert; chiseled square-----	130. 98
Mathis, 1.5 mi. E. of, at angle to SE. in rd., on N. side of rd., at angle in fence line; top of cap on iron pipe-----	138. 91
Mathis, about 0.5 mi. E. of, 30 ft. N. and 55 ft. W. from junction of T-rd. S., in fence corner, on W. side of fence line N., in concrete post; standard tablet stamped "A 12 Texas 1923" and "Prim Trav Sta No 62 K 1925" (recovered in 1925)-----	145. 547
Reference mark, 70 ft. W. of rd. junction, on top of S. head wall of concrete culvert; chiseled square (recovered in 1925)-----	148. 87
U. S. C. & G. S. standard disk stamped "N 334 1935" ⁷² -----	159. 015
Mathis, 0.5 mi. E. and 0.7 mi. S. from, on W. side of rd., in line with center line of rd. E., at fence line; top of cap on iron pipe-----	134. 92
Mathis, 0.5 mi. E. and 1.8 mi. SW. from, opposite fence line and private rd. E., 45 ft. S. of fence line W. along N. edge of mesquite timber, on W. side of rd., at fence line; top of cap on iron pipe-----	128. 20
Mathis, 0.5 mi. E. and 2.8 mi. SW. from, opposite and 15 ft. S. of line with S. end of farmhouse on W. side of rd., on E. side of rd., in fence line, 10 ft. S. of gate to garden, in root 4 in. underground on E. side of small mesquite tree; copper nail and washer-----	136. 16
Mathis, 0.5 mi. E. and 3.0 mi. SW. from, 1.0 mi. NE. of LaFruta, 800 ft. NE. of summit of hill, at angle in rd. and E.-W. fence line crossing, on W. side of rd., in fence corner, on N. side of fence line W., in concrete post; standard tablet stamped "A 13 Texas 1923" and "Prim Trav Sta No 61 K 1925"-----	135. 633
LaFruta, 0.5 mi. N. of, 525 ft. SE. of San Antonio & Aransas Pass R. R. milepost 238, on top of E. head wall of concrete culvert under track; chiseled square-----	76. 46
LaFruta, in front of shelter shed; top of rail-----	64. 5

⁷² The tie between this bench mark and the standard tablet stamped "A 12 Texas 1923" was made in 1936.

666 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
LaFruta, 235 ft. S. of sta., on E. side of track, at N. one of two westernmost pillars supporting water tank, on top of NE. corner of brick foundation; chiseled square-----	64. 55
LaFruta, 1.1 mi. SW. of, 1.1 mi. NE. of Sandia, 20 ft. N. of S. end of concrete highway bridge over creek, directly over W. square concrete pillar of three southernmost pillars under bridge, at foot on S. side of fourth pipe post of chain railing from S. end, on top of guard wall; chiseled square-----	78. 05
Sandia, N. of main entrance to Sandia State Bank building, on top of NW. corner of concrete curb; chiseled square-----	134. 11
Sandia, 570 ft. NE. of R. R. sta., at W. right-of-way fence line, on S. side of fence line leading to cattle guard, in concrete post; standard tablet stamped "A 14 Texas 1923" and "Prim Trav Sta № 60 K 1923" (recovered in 1925)-----	132. 129
Sandia, in front of sta.; top of rail-----	131. 6
Sandia, 0.9 mi. SW. of, 1.0 mi. NE. of Casa Blanca, opposite and 160 ft. SW. of R. R. sign "Casa Blanca 1 mi.," on SE. side of highway, at fence line, in root on NW. side of 8-in. mesquite tree; copper nail and washer (not recovered in 1925)-----	153. 82
Casa Blanca, 300 ft. N. of shelter shed, in NE. angle of junction of T-rd. SE., in fence corner; top of iron pipe (recovered in 1925)-----	178. 35
Casa Blanca, in front of shelter shed-----	179. 8
From point 0.5 mile east of Mathis northwest along San Antonio, Uvalde & Gulf Railroad into Cadiz quadrangle (by F. L. Shalibo in 1923)	
Mathis, on N. side of town, in front of service sta. of John Wagron & Co., on NE. corner of concrete base; chiseled square-----	160. 82
Mathis, 0.7 mi. NW. of, at rd. crossing, 60 ft. W. of track, on S. side of rd., in fence corner, in concrete post; standard tablet stamped "S 24 1923"-----	144. 024
Reference mark, 60 ft. S. of tablet, on W. side of track, in NE. corner of wooden culvert; copper nail-----	142. 67
Mathis, 1.8 mi. NW. of, at NE. corner of wooden bridge, in 14-in. beam; copper nail-----	113. 80
Mathis, 4.2 mi. NW. of, 1.7 mi. SE. of Cornelia, 50 ft. N. of rd. crossing, in E. end of N. tie to switch lever; copper nail-----	99. 58
Cornelia, 500 ft. N. of sta., on NE. side of track, 30 ft. S. of gate, 1 ft. E. of fence line, in concrete post; standard tablet stamped "S 25 1923" (recovered in 1925)-----	86. 294
Reference mark, 20 ft. S. of tablet, in base of large mesquite tree; copper nail-----	87. 62
Cornelia, 1.8 mi. NW. of, 1.7 mi. SE. of Mount Lucas, at NW. corner of 900-ft. bridge over Nueces River, in wooden support; copper nail-----	96. 41
Mount Lucas, on S. side of sta., on NE. side of track, 10 ft. N. of gate, in fence line, in concrete post; standard tablet stamped "S 26 1923"-----	106. 088
Reference mark, 120 ft. SE. of tablet, in front of cottage, in root of large oak tree; copper nail-----	106. 16
Mount Lucas, 2.1 mi. NW. of, 1.3 mi. SE. of Dinero, at Twin Oaks, on SW. side of track, at NW. end of siding, in tie to switch lever; copper nail-----	109. 43
Dinero, opposite N. end of sta., on SW. side of track, in fence corner, in concrete post; standard tablet stamped "S 27 1923" (recovered in 1925)-----	110. 578

	Feet
Reference mark, 170 ft. SE. of tablet, 300 ft. SE. of sta., 7 ft. E. of siding, in root of mesquite tree; copper nail (recovered in 1925)-----	110. 65
From Sandia southwest along San Antonio & Aransas Pass Railroad to Casa Blanca, thence northwest and north along roads by way of Lagarto to Dinero (by H. P. Jones in 1925)-----	
Sandia, 0.9 mi. SW. of, 1.0 mi. NE. of Casa Blanca, opposite sign "Yard Limit," on top of W. wall of concrete culvert; chiseled square-----	153. 59
Casa Blanca, 0.9 mi. NW. of, on NE. side of Lagarto rd., opposite farmhouse, 45 ft. inside fence line, at gate to pasture, in root on S. side of 8-in. mesquite tree; copper nail and washer-----	194. 56
Casa Blanca, 1.9 mi. NW. of, on NE. side of rd., inside fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 58 K 1925 J 19"-----	180. 298
Reference mark, 50 ft. NE. of fence line, in root of mesquite tree; copper nail and washer-----	180. 37
Casa Blanca, 4.0 mi. NW. of, on W. side of rd., in front of ranch house of R. P. Dubose, 16 ft. SW. of mail box, in root on E. side of mesquite tree; copper nail and washer-----	182. 51
Casa Blanca, 5.0 mi. NW. of, 5.0 mi. S. of Lagarto, 0.5 mi. SE. of crossing of Jim Wells-Live Oak county line, 230 ft. S. and 50 ft. E. from junction of second-class rd. W. to windmill, 120 ft. N. and 100 ft. W. from junction of old rd. W. at Killmer mail box, on W. side of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 57 K 1925 J 20"-----	175. 818
Reference mark, on E. side of rd., in root of mesquite tree; copper nail and washer-----	174. 33
Lagarto, 4.0 mi. S. of, 0.5 mi. N. of county line, on W. side of rd., about 175 ft. N. of Molinero Creek, in root on E. side of mesquite tree; copper nail and washer-----	170. 82
Lagarto, 2.9 mi. S. of, 100 ft. S. of wooden bridge over creek, on E. side of rd., in root of 10-in. mesquite tree; copper nail and washer-----	151. 09
Lagarto, about 1.7 mi. S. of, on E. side of rd., 10 ft. E. of cattle guard and gate, between pastures, in concrete post; standard tablet stamped "Prim Trav Sta No 56 K 1925 J 21"-----	162. 510
Reference mark, NE. of cattle guard, in root on S. side of mesquite tree; copper nail and washer-----	161. 89
Lagarto, 0.7 mi. S. of, 65 ft. N. of fence line and gate, on E. side of rd., at junction of rd. SW., in root of 6-in. mesquite tree; copper nail and washer-----	179. 68
Lagarto, on NW. side of Dinero rd., 225 ft. NE. of store, in root on N. side of 11-in. mesquite tree; copper nail and washer-----	157. 71
Lagarto, 1.3 mi. NW. of, about 0.8 mi. S. of ranch house, at SW. corner of field, in concrete post; standard tablet stamped "Prim Trav Sta No 55 K 1925 J 22"-----	158. 686
Reference mark, at corner of field, in root on E. side of mesquite tree; copper nail and washer-----	158. 28
Lagarto, 2.3 mi. NW. of, about 1,000 ft. N. of gate between pastures, on SW. side of rd., in root on E. side of 10-in. mesquite tree; copper nail and washer-----	145. 63
Lagarto, 3.5 mi. NW. of, on E. side of rd., in root of W. side of mesquite tree; copper nail and washer-----	145. 13

	Feet
Lagarto, 4.7 mi. NW. of, 3.8 mi. SE. of Dinero, 25 ft. N. of junction of rd. N. to ranch house, on E. side of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 54 K 1925 J 23"-----	105. 375
Reference mark, 150 ft. NE. of rd. fork, in root on S. side of 10-in. mesquite tree; copper nail and washer-----	102. 31
Dinero, 2.8 mi. S. of, on E. side of rd., in root of 9-in. mesquite tree; copper nail and washer-----	147. 49
Dinero, 1.5 mi. SE. of, in front of ranch house of Holman Cartwright, 200 ft. SW. of gate, in root on N. side of 24-in. live-oak tree; copper nail and washer-----	112. 53
From Dinero northwest along road into Oakville quadrangle ⁿ (by H. P. Jones in 1925)	
Dinero, 1.9 mi. NW. of, 6.2 mi. SE. of Mikeska, about 0.2 mi. E. of ranch house of D. L. Shipp, on N. side of rd., in root on S. side of 11-in. mesquite tree; copper nail and washer-----	137. 03
From Cadiz quadrangle along roads southeast 0.4 mile, thence southwest 3 miles to Dinero (by H. P. Jones in 1925)	
Dinero, 3.0 mi. NE. of, 40 ft. NW. of crossroads, 80 ft. N. of stone building, in root of mesquite tree; copper nail and washer-----	198. 34
Dinero, 2.1 mi. NE. of, 0.8 mi. NE. of bridge over Nueces River, on NW. side of rd., in fence line, in root on E. side of 12-in. mesquite tree; copper nail and washer-----	96. 05
Nueces River, under bridge; surface of water Feb. 19, 1925-----	57. 2
Dinero, 1.1 mi. N. of, about 600 ft. SW. of bridge over Nueces River, in front of house, in fence line, at gate, in root on S. side of 18-in. mesquite tree; copper nail and washer-----	102. 82
From crossroads three miles northeast of Dinero generally southeast, south, and southwest along Mathis-Oakville road and other roads to Cornelius (by H. P. Jones in 1925)	
Dinero, 3.0 mi. NE., thence 1.0 mi. SE. from, 7.2 mi. N. of Cornelius, about 150 ft. N. of ranch house of A. Martinez, on SW. side of rd., in root on N. side of 30-in. live-oak tree; copper nail and washer-----	120. 06
Cornelia, 6.0 mi. N. of, 35 ft. SW. of junction of T-rd. SW. to Mount Lucas, in fence corner, in concrete post; standard tablet stamped "J 29 1925"-----	132. 743
Reference mark, 80 ft. SW. of rd. junction, in root of mesquite tree; copper nail and washer-----	130. 16
Cornelia, 4.9 mi. N. of, on SW. side of rd., in root of mesquite tree; copper nail and washer-----	137. 55
Cornelia, 3.9 mi. NE. of, 75 ft. E. of wooden culvert, on SW. side of rd., in fence line, in root of 14-in. mesquite tree; copper nail and washer-----	100. 53
Cornelia, 3.1 mi. NE. of, on SE. side of rd., 18 ft. S. of gate to ranch house, in NW. corner of field, in concrete post; standard tablet stamped "Prim Trav Sta No 63 K 1925 J 30"-----	105. 724
Reference mark, 40 ft. E. of gate, in root of mesquite tree; copper nail and washer-----	108. 20
Cornelia, 1.8 mi. NE. of, 350 ft. NW. of junction of dim rd. SW., 300 ft. NW. of wooden culvert, on SW. side of main rd., in root on N. side of 24-in. live-oak tree; copper nail and washer-----	150. 46
Cornelia, 0.8 mi. NE. of, 200 ft. S. of ranch house of Reeves Brown, in root of 8-in. mesquite tree; copper nail and washer-----	141. 84

ⁿ This line cuts the northeast corner of Ramirena quadrangle, but no bench marks were set in that portion of the line.

From Mathis northwest and southwest along road to Lagarto (by H. P. Jones in 1925)

	Feet
Mathis, in S.W. part of town, near Mexican settlement, on N. side of Lagarto rd., in N.E. angle of crossroads, in fence corner, 10 ft. N. of corner post, in root of double mesquite tree; copper nail and washer	134. 82
Mathis, 1.5 mi. NW. of, on N.E. side of rd., about 1,000 ft. W. of junction of rd. S., in corner of pasture, in root of mesquite tree; copper nail and washer	131. 52
Mathis, 2.5 mi. NW. of, 300 ft. N. of ranch house of Arthur Coffin, on SW. side of rd., in concrete post; standard tablet stamped "J 31 1925"	89. 130
Reference mark, on N. side of rd., in root of 7-in. mesquite tree; copper nail and washer	88. 86
Mathis, 3.5 mi. NW. of, on SW. side of rd., inside fence line, in root on N. side of 12-in. mesquite tree; copper nail and washer	72. 80
Mathis, 4.5 mi. NW. of, 1.5 mi. SE. of bridge over Nueces River, about 800 ft. NW. of Live Oak-San Patricio county line, about 250 ft. W. of small cemetery, on N. side of rd., in root on W. side of 10-in. mesquite tree; copper nail and washer	75. 46
Mathis, 6.0 mi. NW. of, 2.6 mi. NE. of Lagarto, on SE. end of iron bridge over Nueces River, in top of S. end of concrete wing wall; standard tablet stamped "J 32 1925"	74. 906
Nueces River, under bridge; surface of water March 2, 1925	43. 5
Lagarto, 1.6 mi. NE. of, on S. side of rd., in root of 12-in. mesquite tree; copper nail and washer	149. 38

MERCEDES QUADRANGLE ⁷⁴

[Latitude 26°00'-26°15'; longitude 97°45'-98°00']

CAMERON AND HIDALGO COUNTIES

From San Benito quadrangle west along Combes-Santa Rosa road (State Highway 107) to Santa Rosa, thence north 0.2 mile into Lyford quadrangle (by J. B. Leachman in 1928)

Combes, 0.1 mi. SE., thence 1.2 mi. W. from St. Louis, Brownsville & Mexico Ry. sta. at, 0.3 mi. S., thence 4.3 mi. E. from North School in Santa Rosa, 20 ft. S. and 40 ft. W. from junction of T-rd. N., in top of concrete culvert; small metal disk (Cameron County B. M. 1)	42. 872
Santa Rosa, 0.3 mi. S., thence 3.8 mi. E. from, 940 ft. E. of junction of T-rd. N., 20 ft. S. of rd., in top of concrete culvert; small metal disk (Cameron County B. M. 2)	43. 514
Santa Rosa, 0.3 mi. S., thence 3.1 mi. E. from, 0.2 mi. E. of crossroads, 20 ft. S. of rd., in top of culvert; small metal disk (Cameron County B. M. 4)	44. 302
Santa Rosa, 0.3 mi. S., thence 2.9 mi. E. from, 25 ft. S. and 90 ft. E. from crossroads, in concrete post; standard tablet stamped "JBL 10 1928"	44. 116
Santa Rosa, 0.3 mi. S., thence 2.7 mi. E. from, 20 ft. S. of rd., in top of concrete culvert; small metal disk (Cameron County B. M. 5)	44. 800
Santa Rosa, 0.3 mi. S., thence 2.2 mi. E. from, 0.4 mi. E. of crossroads, 20 ft. S. of rd., in top of concrete culvert; small metal disk (Cameron County B. M.)	46. 301
Santa Rosa, 0.3 mi. S., thence 1.5 mi. E. from, 45 ft. N. and 90 ft. E. from crossroads, in root of 18-in. mesquite tree; copper nail and washer	46. 60

⁷⁴ The area south of the Rio Grande lies in Mexico.

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	Feet
Santa Rosa, 0.3 mi. S., thence 1.3 mi. E. from, 20 ft. S. and 700 ft. E. from crossroads, in top of concrete wall of irrigation ditch; small metal disk (Cameron County B. M.)-----	49. 886
Santa Rosa, 0.3 mi. S., thence 0.5 mi. E. from, 0.1 mi. W. of crossroads, 15 ft. S. of rd., at end of irrigation ditch, in top of concrete wall; small metal disk (Cameron County B. M. 9)-----	52. 685
Santa Rosa, 0.3 mi. S. of North School, 250 ft. N. and 100 ft. W. from junction of T-rd. E., in root of 20-in. mesquite tree; copper nail and washer-----	49. 00
From Lyford quadrangle south along road near Cameron-Hidalgo county line to U. S. Highway 83, thence west 0.8 mile (by J. B. Leachman in 1928)	
Santa Rosa, 2.3 mi. W., thence 1.0 mi. S. from Southern Pacific R. R. sta. at, 260 ft. S. of irrigation ditch, 600 ft. W. of Cameron-Hidalgo county line, 70 ft. E. of rd., in root of 30-in. mesquite tree; copper nail and washer-----	54. 35
Santa Rosa, 2.3 mi. W., thence 1.5 mi. S. from, 260 ft. S. and 20 ft. E. from crossing of dim rd., in root of 30-in. mesquite tree; copper nail and washer-----	56. 05
Santa Rosa, 2.3 mi. W., thence 2.2 mi. S. from, 600 ft. W. of county line, 15 ft. E. of rd., 110 ft. N. of levee, in root of 8-in. mesquite tree; copper nail and washer-----	54. 99
Santa Rosa, 2.3 mi. W., thence 3.0 mi. S. from, 0.7 mi. W., thence 4.4 mi. N. from Bixby, 35 ft. S. and 110 ft. E. from crossroads, in concrete post; standard tablet stamped "JBL 13 1928"-----	54. 972
Reference mark, 55 ft. S. and 75 ft. W. from tablet, in root of 12-in. mesquite tree; copper nail and washer-----	55. 04
Bixby, 0.7 mi. W., thence 3.6 mi. N. from, 1,320 ft. N. of crossroads, 30 ft. E. of rd., on top of concrete lock of irrigation ditch; chiseled square-----	58. 50
Bixby, 0.7 mi. W., thence 2.9 mi. N. from, 0.5 mi. N. of crossroads, 150 ft. SE. of Mexican house, 20 ft. W. of rd., on S. side of irrigation ditch, on top of concrete lock; chiseled square-----	59. 79
Bixby, 0.7 mi. W., thence 2.4 mi. N. from, 300 ft. S. and 20 ft. E. from crossroads, in yard of Lange dwelling, in concrete post; standard tablet stamped "JBL 14 1928"-----	59. 724
Bixby, 0.7 mi. W., thence 1.9 mi. N. from, 0.5 mi. N. of crossroads, 20 ft. W. of rd., on concrete lock of irrigation canal; chiseled square-----	62. 78
Bixby, 0.7 mi. W., thence 0.6 mi. N. from, 0.6 mi. N. of St. Louis, Brownsville & Mexico Ry. track, about 50 ft. W. of Cameron-Hidalgo county line, 230 ft. S. of irrigation ditch, 30 ft. W. of rd., in root of 30-in. mesquite tree; copper nail and washer-----	59. 51
Bixby, 0.7 mi. W. of, 80 ft. S. and 110 ft. W. from junction of U. S. Highway 83, 140 ft. W. of Cameron-Hidalgo county line, 160 ft. S. of track, 2 ft. E. of brick garage, in concrete post; standard tablet stamped "JBL 15 1928"-----	59. 765
U. S. C. & G. S. standard disk stamped "W 58 1918 70.42"-----	73. 172
From road junction 0.7 mile west of Bixby east 0.3 mile along U. S. Highway 83, thence generally south along roads to point 0.5 mile south of crossing of Arroyo Colorado, thence alternately west and south to point on State Highway 48, 1.2 miles northwest of Santa Maria (by J. B. Leachman in 1928)	
Bixby, 0.4 mi. W., thence 1.0 mi. S. from, 30 ft. W. of rd., on S. side of irrigation ditch, on concrete lock; chiseled cross-----	62. 39

	Feet
Bixby, 0.4 mi. W., thence 1.6 mi. S. from, 25 ft. S. and 100 ft. E. from right-angle bend to E. in rd., in root of 24-in. mesquite tree; copper nail and washer-----	61. 76
Bixby, 3.0 mi. along Bixby-Santa Maria rd. S. of, 0.5 mi. S. of Arroyo Colorado, 0.8 mi. E. of Cameron-Hidalgo county line, 20 ft. S. and 20 ft. W. from junction of T-rd. W., in concrete post; standard tablet stamped "JBL 16 1928"-----	53. 418
Reference mark, 45 ft. N. and 40 ft. W. from tablet, 25 ft. N. and 65 ft. W. from rd. junction, in root of 8-in. mesquite tree; copper nail and washer-----	53. 70
Bixby, 3.0 mi. S., thence 0.8 mi. W. from, 0.9 mi. NW., thence 2.0 mi. N. from Santa Maria, 180 ft. E. of Cameron-Hidalgo county line, 80 ft. N. and 180 ft. E. from crossroads, in root of 10-in. mesquite tree; copper nail and washer-----	55. 54
Santa Maria, 1.2 mi. NW. of, 66 ft. W. of N. corner of Zacatal ranch house, on E. side of Brownsville rd.; International Boundary Commission reference monument 31-----	69. 557
From point 0.3 mile south and 1.3 miles east from Santa Rosa along roads west 0.7 mile, thence south to U. S. Highway 83, thence northeast 0.8 mile (by S. H. Holm in 1928)	
Santa Rosa, 0.6 mi. E., thence 0.8 mi. S. from, 940 ft. N. of crossroads, 45 ft. N. and 86 ft. W. from farmhouse, 36 ft. W. of rd., in top of knot near base of 15-in. mesquite tree; copper nail and washer-----	53. 09
Santa Rosa, 0.6 mi. E., thence 1.7 mi. S. from, 250 ft. NW. of house, 40 ft. E. of rd., 10 ft. E. of fence, in root of mesquite tree; copper nail and washer-----	53. 92
Santa Rosa, 0.6 mi. E., thence 3.1 mi. S. from, 0.7 mi. NE., thence 2.9 mi. N. from La Feria, 10 ft. E. of rd., on top of N. end of E. head wall of irrigation ditch; chiseled square-----	54. 72
La Feria, 0.7 mi. NE., thence 2.3 mi. N. from, 28 ft. S. and 18 ft. E. from junction of T-rd. E., 2 ft. E. of telephone pole, in concrete post; standard tablet stamped "H 2 1928"-----	56. 054
Reference mark, 10 ft. N. and 8 ft. W. from tablet, on E. concrete head wall of canal; chiseled square-----	56. 64
La Feria, 0.7 mi. NE., thence 1.6 mi. N. from, 43 ft. S. and 13 ft. E. from junction of T-rd. W., on top of E. head wall of irrigation ditch; chiseled square-----	60. 02
La Feria, 0.7 mi. NE., thence 1.2 mi. N. from, 30 ft. S. and 14 ft. E. from junction of T-rd. E., on top of E. concrete head wall of irrigation canal; chiseled square-----	61. 26
La Feria, 0.7 mi. NE., thence 0.6 mi. N. from, 40 ft. W. of rd., 40 ft. S. of fence line E., in root of twin mesquite tree; copper nail and washer-----	53. 57
La Feria, 0.9 mi. along U. S. Highway 83 NE. of, 40 ft. E. of crossroads, in top of S. concrete head wall of culvert; small metal disk stamped "H 60 55.00" (Cameron County B. M.)-----	55. 080
U. S. C. & G. S. standard disk stamped "D 59 1918 53.42"-----	53. 537

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From point 1.5 miles northeast of La Feria southwest along St. Louis, Brownsville & Mexico Railway to La Feria, thence south 3 miles along Dukes Highway, thence along roads east 0.8 mile and south 2.2 miles to San Benito & Rio Grande Valley Railway, thence east into San Benito quadrangle (by J. B. Leachman in 1928)

	Feet
La Feria, about 0.5 mi. N.E. of, 100 ft. S. of R. R. track, 30 ft. S. of rd., in top of concrete culvert; small metal disk (Cameron County B. M.)	55. 799
U. S. C. & G. S. standard disk stamped "E 59 1918 59.38"	59. 495
La Feria, 0.7 mi. S. of, about 150 ft. N. of white house, 20 ft. E. of rd., on NW. corner of top of large rectangular concrete structure housing pump; chiseled square	59. 32
La Feria, 1.4 mi. S. of, 20 ft. S. of pumping sta., 30 ft. W. of rd., on top of E. end of concrete head wall of irrigation canal; chiseled square	58. 14
La Feria, 2.0 mi. S. of, at steel highway bridge over Arroyo Colorado, on NE. concrete abutment; chiseled square	59. 47
La Feria, 3.0 mi. S. of, 20 ft. N. and 33 ft. E. from crossroads, in concrete post; standard tablet stamped "JBL 24 1928"	55. 890
Reference mark, 23 ft. W. of tablet, 15 ft. N. and 10 ft. E. from crossroads, on concrete highway; chiseled square	55. 16
La Feria, 3.0 mi. S., thence 0.5 mi. E. from, 2.0 mi. E., thence 2.2 mi. N. from Santa Maria, about 200 ft. SE. of white house with red roof and with windmill in yard, 140 ft. N. and 40 ft. E. from junction of T-rd. W., in root of 12-in. mesquite tree; copper nail and washer	51. 81
Santa Maria, 2.0 mi. E., thence 1.4 mi. N. from, about 0.5 mi. N. of crossroads, 35 ft. E. of rd., in base of 24-in. ebony tree; rail spike	56. 26
Santa Maria, 2.0 mi. E., thence 1.0 mi. N. from, 240 ft. NE. of small white house, 40 ft. S. and 55 ft. E. from cross roads, in base of 10-in. mesquite tree; rail spike	55. 54
Santa Maria, 2.0 mi. E., thence 0.4 mi. N. from, 30 ft. E. of rd., in root of 12-in. mesquite tree; copper nail and washer	56. 03
Santa Maria, 2.0 mi. E. of, 30 ft. S. of San Benito & Rio Grande Valley Ry. track, 18 ft. E. of rd., 1 ft. N. of fence, in concrete post; standard tablet stamped "JBL 25 1928"	61. 413
Reference mark, 430 ft. N. of tablet, 400 ft. N. of track, 36 ft. W. of rd., in root of 24-in. ebony tree; copper nail and washer	60. 19
Santa Maria, 2.6 mi. E. of, 3.6 mi. W. of Rangerville, 600 ft. E. of Mexican house, 10 ft. N. of track, on top of concrete head wall of irrigation ditch; chiseled square	63. 12
Rangerville, 2.0 mi. W. of, 500 ft. E. of R. R. milepost 13, 50 ft. S. of track, in root of 18-in. ebony tree; copper nail and washer	59. 61
Rangerville, 1.6 mi. W. of, 0.4 mi. W. of rd. crossing, 50 ft. S. of track, 200 ft. W. of junction of dim rd. S., in root of 16-in. mesquite tree; copper nail and washer	54. 21
From point on Duke Highway 2 miles south of La Feria along roads north 0.1 mile, thence west 0.3 mile near north bank of Arroyo Colorado (by J. B. Leachman in 1928; spur line leveled twice)	
La Feria, 1.9 mi. S., thence 0.3 mi. W. from, in E. end of concrete wall of large irrigation siphon; square-headed bolt (Texas Reclamation Dept. T. B. M. 7)	57. 543

From San Benito quadrangle at point 0.8 mile south and 0.5 mile east from Primera along roads west 0.3 mile, south 0.8 mile, east 0.3 mile, and south 1.4 miles to U. S. Highway 83, thence southwest 1.6 miles (by S. H. Holm in 1928)

	Feet
Primera, 0.7 mi. S., thence 0.2 mi. E. from, 30 ft. S. and 18 ft. W. from junction of T-rd. S., 2 ft. S. of corner fence post, in concrete post; standard tablet stamped "H 1 1928"-----	43. 207
Reference mark, 12 ft. S. and 40 ft. E. from tablet, in root of mesquite tree; copper nail and washer-----	43. 54
Primera, 1.7 mi. S., thence 0.2 mi. E. from, 1.5 mi. N., thence 0.2 mi. E. from Stuart Independent School, 80 ft. N. and 12 ft. W. from junction of E.-W. rd., at SW. corner of bridge over canal, in trunk near base of twisted locust tree; copper nail and washer-----	46. 79
Stuart Independent School, 0.5 mi. NE., thence 1.1 mi. N. from, 18 ft. N. and 29 ft. W. from junction of T-rd. E., in division line of fields; top of 5-in. concrete post-----	42. 36
Stuart Independent School, 0.5 mi. NE., thence 0.4 mi. N. from, 60 ft. W. of rd., at irrigation ditch, on top of S. head wall of brick sluice gate; chiseled square-----	48. 59
Stuart Independent School, 0.5 mi. NE. of, 3.4 mi. SW. of Harlingen, 15 ft. S. and 50 ft. E. from center of intersection of U. S. Highway 83, 85 ft. S. and 36 ft. E. from center of crossing of St. Louis, Brownsville & Mexico Ry., in top of S. concrete head wall of culvert; small metal disk stamped "H 51 49.32" (Cameron County B. M.)-----	49. 394
Reference mark, 30 ft. N. of disk, on top of N. head wall of culvert; chiseled square-----	49. 37
Stuart Independent School, 400 ft. NW. of, 40 ft. S. and 60 ft. E. from grade crossing, 40 ft. N. and 50 ft. E. from junction of rd. N., 20 ft. N. and 12 ft. E. from junction of rd. S., on top of N. concrete head wall of culvert; chiseled square-----	49. 66
Stuart Independent School, 0.8 mi. SW. of, 1.5 mi. NE. of Chasladd, 80 ft. NW. of store and service sta., 40 ft. N. and 45 ft. E. from grade crossing, 25 ft. N. and 25 ft. E. from crossroads, on top of N. concrete head wall of culvert; chiseled square-----	48. 59
U. S. C. & G. S. standard disk stamped "C 59 1918 55.40"-----	55. 525
From Stuart Independent School northeast 0.5 mile along U. S. Highway 83, thence generally south along Dilworth Crossing road and other roads by way of Bangerville to Las Rusias ranch (by J. B. Leachman in 1928)	
Stuart Independent School, 0.5 mi. NE., thence 0.7 mi. S. from, 3.4 mi. SW., thence 0.7 mi. S. from Harlingen, 175 ft. NE. of white house, 20 ft. N. and 18 ft. E. from crossroads, in top of concrete culvert; small metal disk (Cameron County B. M.)-----	52. 494
Stuart Independent School, 0.5 mi. NE., thence 1.0 mi. S. from, about 0.3 mi. N. of crossroads, 15 ft. E. of rd., in top of concrete wall of irrigation ditch; small metal disk (Cameron County B. M.)-----	53. 988
Stuart Independent School, 0.5 mi. NE., thence 1.3 mi. S. from, 830 ft. N. of yellow house, 30 ft. S. and 50 ft. W. from crossroads, in concrete post; standard tablet stamped "JBL 27 1928"-----	51. 092
Stuart Independent School, 0.5 mi. NE., thence 2.4 mi. S. from, 300 ft. S. and 50 ft. W. from junction of T-rd. E., 300 ft. N. of Arroyo Colorado; at junction of private rd. W., in root of 12-in. mesquite tree; copper nail and washer-----	44. 07
Stuart Independent School, 0.5 mi. NE., thence 2.8 mi. S. from, 200 ft. S. of levee, on S. bank of Arroyo Colorado, 20 ft. E. of rd., in root of 20-in. mesquite tree; copper nail and washer-----	44. 49

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Stuart Independent School, 0.5 mi. NE., thence 3.4 mi. S. from, 75 ft. SW. of Mexican house, 20 ft. N. and 25 ft. W. from crossroads, in concrete post; standard tablet stamped "JBL 23 1928" -----	Feet
Reference mark, 50 ft. S. of tablet, 25 ft. W. of rd., on top of concrete head wall of irrigation ditch; chiseled square-----	49. 094
Stuart Independent School, 0.5 mi. NE., thence 3.8 mi. S. from, 25 ft. N. of rd., 15 ft. S. of canal at sharp bend, 65 ft. N. of house, on top of concrete water pipe from irrigation ditch; chiseled square-----	51. 84
Stuart Independent School, 0.5 mi. NE., thence 4.6 mi. S. from, 2.2 mi. by rd. N., thence 0.5 mi. W. from Rangerville, 800 ft. E. of irrigation ditch, 20 ft. S. and 10 ft. W. from junction of T-rd. S., in base of 6-in. willow tree; rail spike-----	50. 19
	50. 63
[Line jogs into San Benito quadrangle]	
Rangerville, 0.7 mi. SW. of, 1,130 ft. N. of house, 930 ft. N. of small lake, 10 ft. W. of rd., on top of concrete culvert of irrigation canal; chiseled square-----	60. 30
Rangerville, 1.8 mi. SW. of, 45 ft. E. of rd., 20 ft. W. of white house, in root of 18-in. mesquite tree; copper nail and washer-----	56. 47
Rangerville, 2.0 mi. SW. of, 15 ft. W. and 35 ft. S. from crossroads, on top of concrete head wall of irrigation ditch; chiseled square-----	55. 62
Rangerville, 2.8 mi. SW. of, 0.5 mi. E. of Venadito, 0.2 mi. W. of Las Rusias ranch, 75 ft. NE. of store, 120 ft. N. and 22 ft. W. from junction of T-rd. N., on top of concrete head wall of irrigation ditch; chiseled square-----	60. 17
Las Rusias ranch, 16 ft. from NW. corner of brick church; International Boundary Commission reference monument 34-----	59. 584
From point where Bixby-Santa Maria road crosses Arroyo Colorado northeast 0.7 mile along arroyo (by J. B. Leachman in 1929; single spur line)	
La Feria, about 3 mi. SW. of, 150 ft. W. of low bridge over arroyo, on left bank, 50 ft. N. of rd., in base of 10-in. mesquite tree; nail (Texas Reclamation Dept. T. B. M. 4)-----	43. 36

MISSION QUADRANGLE

[Latitude 26°00'–26°15'; longitude 98°15'–98°30'']¹⁶

HIDALGO COUNTY

From San Juan quadrangle northwest along St. Louis, Brownsville & Mexico Railway to Havana (by R. C. Seitz in 1913; last 2.6 miles leveled twice)

McAllen, 1.9 mi. NW. of, 3.9 mi. SE. of Mission sta., opposite milepost 36, on S. right-of-way line; iron post stamped "1913 130" (recovered by U. S. C. & G. S. in 1918 and designated "V 59")-----	130. 098
Mission, 0.9 mi. SE. of, in SE. angle of crossroads, 600 ft. E. of milepost 39, 50 ft. N. of track; iron post stamped "1913 138" (recovered by U. S. C. & G. S. in 1918 and designated "A 60"; restamped "137.949" by U. S. C. & G. S. in 1934)-----	137. 949
Mission, in front of sta., top of S. rail-----	142. 0
Mission, 0.4 mi. NW. of, 1.3 mi. SE. of Mamie, in top of N. end of concrete canal siphon; standard tablet stamped "1913 149" (recovered by U. S. C. & G. S. in 1918 and designated "C 60"; restamped "148.779" by U. S. C. & G. S. in 1934)-----	148. 779
Mamie, 700 feet east of sta., at grade crossing; top of S. rail-----	139. 1
Mamie sta., opposite signboard; top of N. rail-----	135. 2

¹⁶ The southwest portion of this area lies in Mexico.

	Feet
Mamie, 0.9 mi. NW. of, 2.8 mi. E. of Chihuahua, about 0.5 mi. E. of milepost 43, 50 ft. N. of track, in SW. angle of crossroads; iron post stamped "1913 133" (recovered by U. S. C. & G. S. in 1918 and designated "D 60")-----	132. 861
Chihuahua, opposite sta. sign; top of S. rail-----	130. 3
Chihuahua, 0.7 mi. NW. of, 0.8 mi. E. of Closner, opposite milepost 46, on S. right-of-way line; iron post stamped "1913 124" (recovered by U. S. C. & G. S. in 1918 and designated "G 60"; restamped "123.071" by U. S. C. & G. S. in 1934)-----	123. 071
Closner, in front of sta.; top of S. rail-----	125. 1
Penitas, at rd. crossing N. of Cavazos Bros. general store; top of S. rail-----	127. 1
Penitas, 1.3 mi. NW. of, 2.6 mi. SE. of Havana, S. of Monterey ranch house, 18 ft. S. of track; International Boundary Commission monument designated "Reference point 14" (recovered by U. S. C. & G. S. in 1918 and designated "H 60")-----	124. 583
Havana, 2.4 mi. SE. of, opposite milepost 49, on N. right-of-way line; iron post stamped "1913 126" (recovered by U. S. C. & G. S. in 1918 and designated "I 60"; restamped "125.197" by U. S. C. & G. S. in 1934)-----	125. 197
Havana, about 100 ft. NE. of schoolhouse at edge of village, 50 ft. S. of track, 30 ft. W. of rd.; iron post stamped "S 1913 130" (recovered by U. S. C. & G. S. in 1918 and designated "L 60"; restamped "129.294" by U. S. C. & G. S. in 1934)-----	129. 294
From San Juan quadrangle southwest along road 5.4 miles to Hidalgo, thence southeast along Military road and back into San Juan quadrangle (by R. C. Seitz in 1913; leveled twice)	
McAllen, 0.9 mi. NW., thence 5.6 mi. SW. from, 2.1 mi. NE. of Hidalgo, on E. side of rd. at junction of T-rd. W. to Granjeno; International Boundary Commission monument designated "Reference point 20"-----	104. 074
Hidalgo, 0.8 mi. N. of, on W. side of rd. at slight bend E. around slough; iron post stamped "S 1913 107"-----	106. 241
Hidalgo, in NE. corner of yard of abandoned courthouse; International Boundary Commission monument designated "Reference point 21"-----	105. 714

MOGLIA QUADRANGLE

[Latitude 27°30'-27°45'; longitude 98°45'-99°00']

DUVAL AND WEBB COUNTIES

From Hebbronville No. 1 quadrangle northeast along roads by way of Santonino and Dinn ranches into Parrilla Creek quadrangle (by S. L. Parker in 1919-20)

Oilton, 10.9 mi. along Benavides rd. NE. of, 1.0 mi. NE. of Mexican ranch house, at rd. fork, in line of E.-W. wire fence, 6 ft. E. of gate across public rd.; iron post stamped "1919 775"-----	774. 501
Oilton, 11.6 mi. NE. of, 0.7 mi. S. of Santonino ranch house, 15 ft. E. of rd., 18 in. above ground, in 6-in. mesquite bush; copper nail and washer-----	767. 32
Oilton, 12.2 mi. NE. of, 180 ft. W. of large white stone house at Santonino ranch, 350 ft. W. of rd. fork, in line with N.-S. wire fence, 6 ft. N. of gate; iron post stamped "1919 755"-----	754. 732
Oilton, 13.2 mi. NE. of, in small hollow, 15 ft. S. of center line of rd., 18 in. above ground, at point where branch was cut off 8-in. forked mesquite tree; copper nail-----	750. 00
Oilton, 14.1 mi. NE. of, 1.1 mi. W. of ranch house of J. T. Dinn, 20 ft. S. of rd., 30 in. above ground, in N. side at point where branch was cut off 12-in. mesquite tree; copper nail and washer-----	756. 05

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Oilton, 15.2 mi. NE. of, about 1,000 ft. SE. of Dinn ranch house, 18 ft. N. of rd., 5 ft. W. of corner of barbwire fence, 6 in. S. of fence line; iron post stamped "1919 787"	Feet 786. 296
Oilton, 16.3 mi. NE. of, 10 ft. S. of rd., in root on N. side of 7-in. mesquite bush; copper nail and washer	751. 34

MONTHALIA QUADRANGLE

[Latitude 29°15'-29°30'; longitude 97°30'-97°45']

GONZALES AND GUADALUPE COUNTIES

Along roads southeast to Soefje ranch, thence northeast (by E. E. Harris in 1924)

[A jog from Luling quadrangle]

Soefje ranch house, 200 ft. S. of, in NE. angle of crossroads, in right angle in fence line, in concrete post; standard tablet stamped "H 129 1924"	405. 255
Reference mark, 90 ft. N. 60°W. of tablet, in root on W. side of 10-in. live-oak tree; copper nail and washer	401. 48

Along roads southeast to point 2.4 miles southwest of Belmont, thence north-northeast 0.3 mile (by E. E. Harris in 1924)

[A jog from Luling quadrangle]

Soefje ranch house, 2.9 mi. E. of, 2.4 mi. SW. of Belmont, about 7 mi. N. of Leesville, in SE. corner of crossroads, in concrete post; standard tablet stamped "H 130 1924"	419. 260
Reference mark, 104 ft. W. of tablet, in root on N. side of 12-in. live-oak tree; copper nail and washer	420. 31

MOUTH OF RIO GRANDE QUADRANGLE⁷⁰

[Latitude 25°45'-26°00'; longitude 97°00'-97°15']

CAMERON COUNTY

From International Boundary monument 54 about 0.7 mile southeast of Verdolaga Lake north to Boca Chica-Brownsville highway, thence northeast to Boca Chica, thence south 2.8 miles along beach (by S. H. Holm in 1929)

Boca Chica, 3.8 mi. SW., thence 0.5 mi. S. from, about 2 mi. E. of Estrella ranch, on N. side of rd.; International Boundary reference monument 54	6. 496
Boca Chica, 3.8 mi. SW. of, 17 ft. N. of rd., in top of concrete head wall of culvert; small metal disk (Cameron County B. M.)	7. 489
Boca Chica, 2.9 mi. SW. of, about 300 ft. E. of large lake bottom, at angle to N. in shore line, 140 ft. N. of rd., at base of low ridge, in 6-in. yucca; rail spike	7. 08
Boca Chica, 2.1 mi. SW. of, at wide curve in shore line of lagoon, 70 ft. N. of rd., in 5-in. yucca; rail spike	7. 35
Boca Chica, 1.3 mi. SW. of, 35 ft. S. of rd., 15 ft. N. of shore line, in small concrete post; top of ½-in. bolt	4. 474
Boca Chica, about 600 ft. S. of white house and toll sta. at, 60 ft. S. of S. end of toll bridge over Boca Chica Pass, in line with center of bridge, about 400 ft. W. of Gulf of Mexico, 50 ft. S. of board driveway, in concrete post; standard tablet stamped "H 27 1929"	3. 491
Boca Chica, 0.8 mi. along beach S. of, about 150 ft. W. of gulf, at NE. corner of pavilion, in piling supporting corner; rail spike	5. 12
Boca Chica, 2.2 mi. S. of, about 900 ft. W. of gulf, at E. base of N.-S. ridge, on W. edge of flat, 50 ft. W. of large drift log, 200 ft. W. of dim rd., in small concrete post; top of ½-in. bolt	4. 412

⁷⁰ The greater part of this area, south of the Rio Grande, lies in Mexico.

Boca Chica, 2.8 mi. S. of, 0.3 mi. W. of gulf, about 630 ft. N. of Rio Grande, on top of small sand hill; International Boundary Commission reference monument 55-----

Feet

13. 812

NATALIA QUADRANGLE

[Latitude 29°00'-29°15'; longitude 98°45'-99°00']

ATASCOSA, BEXAR, Frio, AND MEDINA COUNTIES

From Yancey quadrangle at point about 2.5 miles southeast of Moore east, thence south along road near west border of quadrangle about 4 miles (by E. E. Harris in 1930; single spur line)

Moore, 1.6 mi. S. and 1.1 mi. E. from, on N. side of right-angle turn in rd., 50 ft. W. of gate, in root on NE. side of 8-in. mesquite tree; copper nail and washer-----

607. 08

Moore, 2.4 mi. S. and 1.1 mi. E. from, in SE. corner of junction of T-rd. E., at gate across S. rd., in root on N. side of 12-in. mesquite tree; copper nail and washer-----

595. 12

Moore, 3.3 mi. S. and 1.1 mi. E. from, on E. side of rd., on N. side of dim rd. E., at gate crossing S. rd., in root on SE. side of leaning mesquite tree; copper nail and washer-----

577. 65

Moore, 3.9 mi. S. and 1.1 mi. E. from, 40 ft. S. of junction of T-rd. E. to Berry ranch, on W. side of rd., in crotch of mesquite tree; copper nail and washer-----

578. 79

From point on International-Great Northern Railroad 0.7 mile northeast of Natalia along roads southwest about 0.4 mile, thence east 0.7 mile (by E. E. Harris in 1930; single spur line)

U. S. C. & G. S. B. M. designated "U 36 1917"-----
Natalia, 300 ft. NW. of high school, in SW. angle of junction of N.-S. rd., in root of oak tree; copper nail and washer-----

689. 083

739. 65

From point on International-Great Northern Railroad 2.2 miles northeast of Devine south along road 1.3 miles (by E. E. Harris in 1930; single spur line)

U. S. C. & G. S. B. M. designated "X 36 1917"-----
Devine, 2.2 mi. NE., thence 1.3 mi. S. from (1.3 mi. in air line NE. of Devine), 40 ft. E. of well No. 10, in root on E. side of 15-in. mesquite tree; copper nail and washer-----

683. 988

656. 89

From Devine west along road to Zig Zag School (by E. E. Harris in 1930; single spur line)

U. S. C. & G. S. standard disk stamped "Y 36 1917"-----
Devine, 1.0 mi. W. of, in SW. corner of right-angle turn in rd., at foot of hill, in root on NW. side of leaning mesquite tree; copper nail and washer-----

647. 722

651. 63

Devine, 2.0 mi. W. of, at summit of grade, 800 ft. W. of wooden bridge over San Francisco Creek, on N. side of rd., at angle in fence line, in root on SW. side of 15-in. live-oak tree; copper nail and washer-----

676. 31

Devine, 3.0 mi. W. of, 3.0 mi. E. of Zig Zag School, 26 ft. S. of center line of rd., 22 ft. W. of driveway S., 2 ft. S. of fence line, in concrete post; standard tablet stamped "H 71 1930"-----

712. 285

Reference mark, 200 ft. N.80°E. of tablet, in root on N. side of 15-in. live-oak tree; copper nail and washer-----

709. 30

Zig Zag School, 1.8 mi. E. of, at junction of ranch rd. N., 60 ft. W. of right-angle turn, in cultivated field, in root on E. side of 36-in. live-oak tree; copper nail and washer-----

709. 38

Zig Zag School, 1.0 mi. E. of, on NW. wing wall of small bridge; chiseled square-----

680. 83

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	Feet
Zig Zag School, 200 ft. SW. of, on S. side of rd., in line with T-rd. N., in concrete post; bronze tablet stamped "731.181 Ft. Sam Houston" (U. S. C. E. B. M.)-----	731. 349
From Devine southwest along International-Great Northern Railroad 1 mile, thence alternately east and southeast along road into Poteet quadrangle (by E. E. Harris in 1930)	
U. S. C. & G. S. B. M. designated "Z 36 1917"-----	636. 400
Devine, 1.0 mi. SW., thence 0.6 mi. E. from, 1.0 mi. by rd. S. of Devine, in NE. corner of crossroads, in root on N. side of 40-in. live-oak tree; copper nail and washer-----	640. 28
Devine, 1.0 mi. SW., thence 1.2 mi. E. from, on NE. side of rd., 190 ft. SE. of house, 25 ft. W. of small wooden bridge over canal, on head wall of concrete culvert; chiseled square-----	675. 14
Devine, 1.0 mi. SW., thence 2.1 mi. E. from, 22 ft. S. and 24 ft. E. from center of crossroads, in concrete post; standard tablet stamped "H 72 1930"-----	648. 900
Reference mark, 115 ft. S.60°W. of tablet, in root on NE. side of 36-in. live-oak tree; copper nail and washer-----	643. 64
Devine, 1.0 mi. SW., thence 3.1 mi. E. from, on S. side of rd., 50 ft. E. of rd. SW., near NE. corner of Mexican shack, 5 ft. SW. of fence line, in root on SW. side of leaning live-oak tree; copper nail and washer-----	650. 00
Devine, 1.0 mi. SW., thence 4.1 mi. E. from, at junction of T-rd. N., on S. side of rd., 100 ft. W. of angle SE. in rd., in root on N. side of 36-in. live-oak tree; copper nail and washer-----	629. 90
Devine, 1.0 mi. SW., thence 5.3 mi. E. from, 6.2 mi. NW. of ranch of H. N. Crawford, 50 ft. E. of farm rd. N. through gate, 50 ft. E. of angle E. in rd., 21 ft. N. of center line of rd., 2 ft. N. of fence line, in concrete post; standard tablet stamped "H 73 1930"-----	618. 919
Reference mark, 137 ft. S.70°W. of tablet, in fence line, in root on NE. side of 15-in. live-oak tree; copper nail and washer-----	616. 82
Crawford ranch, 5.8 mi. NW., thence 0.2 mi. N. from, 120 ft. SW. of house, in root on N. side of 36-in. live-oak tree; copper nail and washer ⁷⁷ -----	636. 27
Crawford ranch, 5.1 mi. NW. of, on S. edge of angle E. in rd., 60 ft. E. of ranch rd. S., in root on N. side of 18-in. live-oak tree; copper nail and washer-----	609. 36
Crawford ranch, 4.8 mi. NW. of, in NE. corner of crossroads, in root on S. side of 15-in. live-oak tree; copper nail and washer-----	615. 09
Crawford ranch, 3.1 mi. NW. of, in NE. corner of intersection of dim rd., in root on E. side of 18-in. live-oak tree; copper nail and washer-----	620. 40
Crawford ranch, 2.6 mi. NW. of, 27 ft. SW. and 27 ft. SE. from dim crossroads, in center of group of five live-oak trees, in concrete post; standard tablet stamped "H 74 1930"-----	630. 145
Reference mark, 182 ft. N.70°E. of tablet, on N. side of 12-in. live-oak tree; copper nail and washer-----	629. 92
Crawford ranch, 2.1 mi. NW. of, 20 ft. S. of rd., 15 ft. W. of gate, in root on NW. side of 15-in. oak tree; copper nail and washer-----	623. 01
Crawford ranch, 1.2 mi. NW. of, in SW. corner of crossroads, in root on N. side of 15-in. oak tree used as gatepost; copper nail and washer-----	591. 35
Crawford ranch, 0.4 mi. NW. of, in SE. corner of right-angle turn in lane to S., at T-angle in fence line, in root on S. side of 15-in. pecan tree; copper nail and washer-----	607. 90

⁷⁷ On single spur line north 0.2 mile.

Crawford ranch, 0.5 mi. SE. of, 0.4 mi. SW. of Narravo School, 33 ft. S. and 26 ft. W. from junction of T-rd. W., in concrete post; bronze tablet (U. S. C. E. B. M.)-----	593. 320
Narravo School, 0.2 mi. NE. of, 2.1 mi. W. of Anchorage, in NW. corner of right-angle turn SE. in rd., in crotch of live-oak tree; copper nail and washer-----	572. 03
From point on International-Great Northern Railroad 4 miles northeast of Moore northeast along highway 1.6 miles (by E. E. Harris in 1930; single spur line)-----	
U. S. C. & G. S. standard disk stamped "B 37 1917"-----	628. 660
Moore, 4.7 mi. NE. of, 180 ft. S. of junction of rd. E., on W. side of highway, 300 ft. NE. of ranch house, in root on E. side of 12-in. oak tree; copper nail and washer-----	640. 03
Moore, 5.6 mi. NE. of, opposite R. R. water tank, on W. side of highway, 40 ft. W. of fence line, in root on S. side of 10-in. oak tree; copper nail and washer-----	641. 13

NEW BRAUNFELS QUADRANGLE

[Latitude 29°30'-29°45'; longitude 98°00'-98°15']

BEXAR, COMAL, AND GUADALUPE COUNTIES

From Bracken quadrangle east along Galveston, Harrisburg & San Antonio Railroad ⁸⁰ into Seguin quadrangle (by J. A. Hinman in 1896-97; leveled twice)-----	
Cibolo, on S. side of track, 5.3 mi. W. of Marion, at store of Charles Fromer, at NW. corner of building, in vertical rock wall; standard tablet stamped "712" ⁷⁹ -----	704. 274
Marion, 5 ft. N. of first telegraph pole W. of passenger sta., on N. side of track; iron post stamped "651" (recovered in 1924) ⁸⁰ -----	643. 556
Marion, 6.0 mi. E. of, near section house 81, at bridge over Guadalupe River, in S. end of W. rock pier, in coping; copper bolt stamped "552"-----	544. 937
From Hunter quadrangle southwest along International-Great Northern Railroad into Bracken quadrangle (by J. A. Hinman in 1897)-----	
Goodwin, 4.0 mi. NW. of I. G. N. sta. at New Braunfels, 40 ft. E. of main track, 5 ft. S. of first telegraph pole N. of sta.; iron post stamped "695" (recovered in 1924 and stamped "H 27 1924"; also recovered by U. S. C. & G. S. in 1904) ⁸¹ -----	689. 260
New Braunfels, in front of sta., center of track-----	637. 3
New Braunfels, at R. R. bridge over Dry Comal Creek, in top of N. end of E. rock pier; copper bolt stamped "638" (recovered by U. S. C. & G. S. in 1904) ⁸² -----	633. 486
New Braunfels, about 5.5 mi. SW. of, 2.6 mi. NE. of Corby, 75 ft. N. of trestle 507, 5 ft. S. of second telegraph pole S. of mileboard 234; iron post stamped "692"-----	687. 265
Corbyn, in front of signboard; center of track-----	709. 0

⁷⁸ Now part of the Texas & New Orleans Division of the Southern Pacific Co.⁷⁹ In 1917 this bench mark was reset, at the same elevation, in the northwest corner of a brick building owned by A. G. Schrout.⁸⁰ In 1925 it was reported that the railroad grade had been raised, and the description of this bench mark was revised to read: "73 ft. SW. of sta., 25 ft. N. of main track, about 30 in. below surface of platform, enclosed in box; iron post stamped '651'."⁸¹ In 1925 this bench mark was reset 1.103 feet lower than its original elevation, and restamped "40 C 1925 689." The figures given represent the new elevation. The revised description of this mark is "Goodwin, opposite sta., 164 ft. N. of milepost 223, 39 ft. E. of track."⁸² In 1936 this bench mark was reported destroyed.

From Seguin quadrangle at point 0.3 mile north and 5.2 miles east from Goodwin along roads northwest and southwest to point 2 miles southeast of Goodwin (by I. F. Hazelwood in 1924)

Goodwin, 0.5 mi. N. and 5.0 mi. E. from, 28 ft. S. and 12 ft. W. from junction of rd. SW., in root of 5-in. mesquite tree; copper nail and washer-----

Feet
559. 21

[Line jogs into Hunter quadrangle]

Goodwin, 2.0 mi. SE., thence 4.0 mi. NE. from, 15 ft. N. and 80 ft. W. from junction of T-rd. NW., in fence line, in root on E. side of 10-in. mesquite tree; copper nail and washer-----

592. 32

Goodwin, 2.0 mi. SE., thence 3.5 mi. NE. from, 15 ft. S. and 15 ft. W. from junction of private rd. to house on S. side of rd., in root on W. side of 8-in. mesquite tree; copper nail and washer-----

635. 12

Goodwin, 2.0 mi. SE., thence 2.9 mi. NE. from, on NE. end of 50-by 12-ft. concrete bridge; chiseled square-----

640. 19

Goodwin, 2.0 mi. SE., thence 2.0 mi. NE. from, at gate to residence of Herbert Kickertiz, on E. side of rd., 1.5 ft. N. and 0.5 ft. W. from fence line, in concrete post; standard tablet stamped "H 25 1924"

691. 836

Reference mark, on concrete base of gate; chiseled square-----

687. 42

Goodwin, 2.0 mi. SE., thence 1.6 mi. NE. from, near junction of T-rd. SE., 40 ft. E. of ford across Mesquite Creek, on SE. end of concrete pavement; chiseled square-----

667. 12

Goodwin, 2.0 mi. SE., thence 0.6 mi. NE. from, at ford across Alligator Creek, 16 ft. W. of NE. corner of concrete pavement; chiseled square-----

644. 95

Goodwin, 2.0 mi. SE. of, 65 ft. S. and 20 ft. E. from junction of T-rd. N., in root on E. side of 10-in. mesquite tree; copper nail and washer-----

664. 63

From point 2 miles southeast of Goodwin northwest along road to Goodwin (by I. F. Hazelwood in 1924; leveled by R. G. Clinite in 1925)

Goodwin, 0.9 mi. SE. of, 24 ft. E. of junction of T-rd. NW., in concrete post; standard tablet stamped "Prim Trav Sta No 5 J 1924 H 26"-----

672. 624

Reference mark, 60 ft. N. and 15 ft. E. from tablet, in fence corner, on limestone rock; chiseled square-----

673. 38

Goodwin, 120 ft. N. of intersection of International-Great Northern R. R., 30 ft. E. of rd., in root on W. side of 20-in. mesquite tree; copper nail and washer-----

687. 67

From Goodwin northwest along road to Gruene Station (by I. F. Hazelwood in 1924; leveled twice)

Goodwin, 1.2 mi. NW. of, 0.3 mi. SE. of Gruene Sta., near center of W. side of yard of Thornhill School, in root on N. side of 12-in. hackberry tree; copper nail and washer-----

677. 07

Gruene Sta., 130 ft. N. of sta., on rock; chiseled square-----

670. 29

From New Braunfels northeast along Missouri-Kansas-Texas Railroad to Gruene Station, thence north along road into Hunter quadrangle by (C. E. Reick in 1924; leveled to Gruene Station by I. F. Hazelwood in same year)

U. S. C. & G. S. copper bolt designated "Q 6"-----

635. 399

U. S. C. & G. S. B. M. designated "R 6"-----

630. 826

U. S. C. & G. S. B. M. designated "S 6"-----

633. 995

New Braunfels, in front of M. K. T. R. R. sta., top of E. rail⁸³-----

632. 2

New Braunfels, at E. end of R. R. bridge over Comal Creek, on NW. corner of concrete abutment; chiseled square⁸³-----

628. 88

⁸³ Established by I. F. Hazelwood.

	<i>Feet</i>
New Braunfels, 50 ft. E. of crossing of Union Street, in root on SE. side of 10-in. hackberry tree; copper nail and washer-----	635. 71
New Braunfels, 2.5 mi. NE. of Comal County courthouse at, 1.4 mi. SW. of Gruene Sta., 20 ft. S. of rd. crossing, about 6 ft. E. of track, on large limestone rock; chiseled square-----	666. 96
Gruene, in front of sta., top of rail-----	670. 1
From Hunter quadrangle south and southeast along Bear Creek and other roads to New Braunfels (by C. E. Reick in 1924)	
Bear Creek, 5.8 mi. S. of, 8.2 mi. NW. of Comal County prison at New Braunfels, 250 ft. E. of rd. junction, 30 ft. N. of highway, in ledge; standard tablet stamped "R 7 1924"-----	885. 151
Reference mark, 250 ft. W. of tablet, in NW. angle of rd. junction, on top of stone monument; chiseled square-----	889. 44
New Braunfels, 7.4 mi. NW. of, at junction of Smithson Valley and Elm Creek rds., on S. side of rd., in root of 15-in. oak tree; copper nail-----	909. 06
New Braunfels, 6.4 mi. NW. of, on S. side of Elm Creek rd., at creek crossing, in root of 12-in. cedar tree; copper nail-----	787. 26
New Braunfels, 5.2 mi. by route N. of, 1.2 mi. W. of river rd., 6 ft. S. of gate, on boulder; chiseled square-----	785. 49
New Braunfels, 5.0 mi. N. of, 1.0 mi. W. of river rd., at crossroads, 30 ft. W. of gate; iron post stamped "R 8 Texas 1924"-----	825. 172
Reference mark, 100 ft. E. of iron post, on N. side of rd., on ledge; chiseled square-----	831. 97
New Braunfels, 4.0 mi. NE. of, 15 ft. S. of intersection of river rd. and Elm Creek rd., on ledge; chiseled square-----	770. 55
New Braunfels, 3.0 mi. N. of, on N. side of river rd., on concrete base of Landa ranch gatepost; chiseled square-----	744. 66
New Braunfels, 1.9 mi. NE. of, in triangle of rd. junction, 80 ft. E. of office of lime plant; iron post stamped "R 9 Texas 1924"-----	642. 841
Reference mark, 250 ft. S. of iron post, on E. side of rd., in root of 20-in. pecan tree; copper nail-----	639. 30
From New Braunfels along roads generally south to point 1.8 miles east of Marion, thence west to Marion (by I. F. Hazelwood in 1924; leveled by R. G. Clinite in 1925)	
New Braunfels, at NE. corner of intersection of San Antonio and Santa Clara Streets, on top of concrete curb; chiseled square-----	636. 28
New Braunfels, 25 ft. S. and 35 ft. E. from intersection of Coll and Santa Clara Streets, in NW. corner of yard, in root on N. side of 10-in. ligustrinum tree; copper nail and washer-----	668. 77
New Braunfels, at water tank, in SE. concrete base; chiseled square-----	687. 38
New Braunfels, 1.5 mi. S. of Comal County prison, about 150 ft. W. of city limits, at junction of rd. S. to Marion, 1.5 ft. S. and 1.5 ft. W. from NE. fence corner, 6 in. below surface of ground; 1½ in. galvanized pipe with cap-----	700. 65
New Braunfels, 2.3 mi. S. of, 40 ft. S. and 30 ft. E. from right-angle bend in rd., in root on E. side of 16-in. hackberry tree; copper nail and washer-----	676. 01
New Braunfels, 2.9 mi. S. of, 60 ft. W. of right-angle turn in rd. from SW. to SE.; iron post stamped "H 28 1924"-----	694. 847
Reference mark, 72 ft. E. of iron post, on E. side of rd., in root of four-pronged mesquite tree; copper nail and washer-----	694. 64

	Feet
New Braunfels, 3.6 mi. S. of, near Comal-Guadalupe county line, at W. corner of rd., in root of three-pronged mesquite tree; copper nail and washer-----	712. 10
New Braunfels, 4.4 mi. S. of, 10 ft. S. and 65 ft. W. from rd. junction, in root of four-pronged mesquite tree; copper nail and washer-----	752. 09
New Braunfels, 5.4 mi. S. of, about 300 ft. N. of drain, on E. side of rd., 5 ft. E. of fence line, in root on W. side of 9-in. mesquite tree; copper nail and washer-----	673. 61
New Braunfels, 5.7 mi. S. of, in NE. corner of rd. junction, in concrete post; standard tablet stamped "Prim Trav Sta No 3 J 1924 H 29"-----	696. 709
Reference mark, 60 ft. S. and 10 ft. E. from tablet, in root on N. side of 9-in. mesquite tree; copper nail and washer-----	697. 22
New Braunfels, 6.5 mi. S. of, 110 ft. N. of drain, on W. side of rd., 12 ft. W. of fence line, in root on E. side of 13-in. mesquite tree; copper nail and washer-----	657. 71
New Braunfels, 7.0 mi. S. of, 30 ft. W. of bend SE in rd., 15 ft. N. of private gate to W., 1.5 ft. W. of fence line, in root on S. side of clump of mesquite trees; copper nail and washer-----	693. 70
New Braunfels, 7.8 mi. S. of, in SW. corner of crossroads, set in concrete; bronze tablet stamped "Fort Sam Houston, Renigner 673. 638" (U. S. C. E. B. M.)-----	674. 751
Reference mark, in SE. corner of crossroads, at fence corner, in root of 14-in. mesquite tree; copper nail and washer-----	674. 62
New Braunfels, 8.4 mi. S. of, 1.9 mi. E., thence 2.1 mi. NW. from Marion, about 25 ft. N. of rd. junction, in front of residence, 5 ft. S. of fence, in root of 12-in. mesquite tree; copper nail and washer-----	665. 74
Marion, 1.9 mi. E., thence 1.6 mi. N. from, in SW. angle of bend in rd. from E. to SE., 15 ft. SE. of fence, in root on S. side of 6-in. mesquite tree; copper nail and washer-----	645. 69
Marion, 1.9 mi. E., thence 0.5 mi. N. from, in NE. corner of fence, set in concrete, top of iron pipe-----	650. 80
Marion, 1.9 mi. E. of, at junction of NE.-SW. rd., 60 ft. N. of SE. corner of fence, in fence line, in root on N. side of 12-in. mesquite tree; copper nail and washer-----	620. 39
Marion, 1.6 mi. E. of, in NW. angle of right-angle bend in rd., 160 ft. N. of crossroads, 85 ft. N. of R. R. crossing, in concrete post; standard tablet stamped "Prim Trav Sta No 2 J 1924 H 31"-----	633. 494
Reference mark, at SE. corner of crossroads, on top of E. wing of concrete culvert; chiseled square-----	637. 22
Marion, 0.5 mi. E. of, on NE. corner of concrete bridge; chiseled square-----	634. 55
From point 1.6 miles east of Marion along roads alternately southeast and southwest 7 miles to point about 5.5 miles southeast of Marion, thence east and northeast into Seguin quadrangle at point 2 miles northeast of Seguin (by I. F. Hazelwood in 1924)	
Marion, 1.6 mi. E., thence 0.6 mi. SE. from, 20 ft. N. and 20 ft. W. from junction of rd. W. and jog in main rd. from SE. to NE., about 180 ft. W. of jog in rd. from NE. to SE., in fence corner, in root on E. side of 4-in. mesquite tree; copper nail and washer-----	611. 14
Marion, 1.6 mi. E., thence 1.3 mi. SE. from, at junction of T-rd. SW., on W. side of rd., about 70 ft. S. of fence corner, in root on NE. side of 9-in. mesquite tree; copper nail and washer-----	616. 24

	Feet
Marion, 1.6 mi. SE., thence 0.8 mi. NE. from (3.7 mi. by route E., SE., and SW. from Marion), directly in front of residence of A. J. Schienelbien, 130 ft. E. of gate on S. side of rd., in root on E. side of 15-in. mesquite tree; copper nail and washer-----	652. 90
Marion, 1.6 mi. SE., thence 0.4 mi. NE. from, 35 ft. W. of center of rd. corner, 1 ft. W. of fence line, in root on E. side of 5-in. mesquite tree; copper nail and washer-----	623. 09
Marion, 1.6 mi. SE. of, 23 ft. S. and 13 ft. E. from junction of NW.-SE. rd., in fence line, in root on S. side of 4-in. mesquite tree; copper nail and washer-----	604. 56
Marion, 2.0 mi. SE. of, 20 ft. S. and 165 ft. E. from junction of E.-W. rd., in S. fence line, in root on NW. side of 18-in. mesquite tree; copper nail and washer-----	660. 69
Marion, 2.8 mi. SE. of, about 1,000 ft. E. of rd., on farm of E. Krueger, at summit of hill, in 9 in. of cement; iron post stamped "H 32 1924"-----	706. 036
Reference mark, 4 ft. E. of iron post, 10 in. above ground, set in concrete; 1½-in. galvanized pipe-----	705. 12
Marion, 4.0 mi. SE. of, at NW. corner of woods, 16 ft. S. and 9 ft. W. from NW. fence corner, in root on E. side of three-pronged mesquite tree; copper nail and washer-----	587. 78
Marion, 4.7 mi. SE. of, on E. side of rd., 75 ft. S. and 65 ft. W. from SW. corner of house, in fence line, in root on N. side of 10-in. mesquite tree; copper nail and washer-----	580. 24
Marion, 5.0 mi. SE. of, in SW. fence corner, in base of two-pronged mesquite tree; copper nail and washer-----	600. 24
Marion, 5.5 mi. SE. of, in SW. corner of crossroads, in concrete post; standard tablet stamped "Prim Trav Sta No 1 J 1924 H 33"-----	571. 068
Reference mark, in SE. corner of crossroads, 18 ft. N. of fence, in root on N. side of 9-in. mesquite tree; copper nail and washer-----	569. 27
Marion, 5.5 mi. SE., thence 0.6 mi. E. from, 4.7 mi. W. of Leissner School, on road to Seguin, on N. side of crossroads, 25 ft. N. of SE. corner of field, in fence line, in root on SE. side of 12-in. mesquite tree; copper nail and washer-----	603. 28
Leissner School, 3.4 mi. W. of, 70 ft. S. and 150 ft. E. from main entrance to farm of Karl Kunker, in root on SW. side of 10-in. mesquite tree; copper nail and washer-----	609. 15
Leissner School, 2.7 mi. SW. of, 50 ft. S. and 110 ft. E. from center of rd. junction, 150 ft. N. of farmhouse, in root on W. side of 10-in. mesquite tree; copper nail and washer-----	612. 59
Leissner School, 1.9 mi. SW. of, at junction of T-rd. NE., 3.5 ft. S. and 3.5 ft. E. from SE. fence corner, in 10 in. of concrete; iron post stamped "H 34 1924"-----	628. 381
Reference mark, 10 ft. N. of NE. fence corner, in fence line, in root on E. side of 6-in. mesquite tree; copper nail and washer-----	627. 02
Leissner School, 0.6 mi. SW. of, near E. end of gate leading to farm of Andre Wolke, in root on S. side of 8-in. mesquite tree; copper nail and washer-----	633. 36
Leissner School, on SE. corner of flagpole base; chiseled square-----	639. 35
Leissner School, 0.7 mi. NE. of, at NE. corner of crossroads, 1 ft. N. and 3 ft. E. from SW. fence corner, in concrete post; standard tablet stamped "H 35 1924"-----	617. 971
Reference mark, 2 ft. N. and 2 ft. W. from tablet, set 2.5 ft. in ground, in about 9 in. of concrete; top of cap on galvanized pipe-----	617. 49

684 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Leissner School, 1.7 mi. NE. of, in NE. corner of crossroads, 1.5 ft. N. and 1.5 ft. E. from SW. fence corner, set in concrete; top of cap on 1½-in. galvanized gas pipe-----	595. 00
From point about 6.5 miles southeast of New Braunfels generally northeast along roads to point 0.5 mile north and 1.7 miles east from Clear Spring (by I. F. Hazelwood in 1924; leveled twice; re-leveled by R. G. Clinite in 1925)	
Seguin West Base, about 6.5 mi. SE. of New Braunfels, 1.4 mi. SE., thence 0.7 mi. SW. from Clear Spring, 3,609 ft. SW. of Seguin-New Braunfels rd., about 1,312 ft. NE. of Guadalupe River, on small hill, in cultivated field, on land formerly owned by Henry Steinman, in concrete block about 10 in. square, 8 in. above ground; bronze tablet stamped "622.400 West Base" (U. S. C. E. B. M.) ^a -----	621. 349
Clear Spring, 1.4 mi. SE. of, 60 ft. W. of junction of T-rd. NE., in root of 18-in. mesquite tree; copper nail and washer-----	591. 02
Clear Spring, 1.4 mi. SE., thence 0.9 mi. NE. from, on N. side of rd., 1 ft. S. of fence line, in root on S. side of 9-in. mesquite tree; copper nail and washer-----	626. 98
Clear Spring, 1.8 mi. in air line E. of, in field, in fence line, about 634 ft. W. of rd., bronze tablet stamped "638.231 1" (U. S. C. E. B. M.)-----	638. 045
Clear Spring, 0.5 mi. N. and 1.7 mi. E. from, on SW. side of rd., 35 ft. N. and 35 ft. E. from NE. corner of residence of George Eiband, in root on SE. side of 8-in. hackberry tree; copper nail and washer-----	632. 65
From point 0.5 mile north and 1.7 miles east from Clear Spring northeast and east along roads into Seguin quadrangle (by I. F. Hazelwood in 1924)	
Clear Spring, 1.0 mi. N. and 2.2 mi. E. from, about 1 mi. SW. of Hornbortel gin, about 90 ft. NE. of corner of private lane, in fence line, in root on N. side of 4-in. mesquite tree; copper nail and washer-----	630. 61
Hornbortel gin, about 250 ft. S. of, 60 ft. S. of center of rd., in root on W. side of 18-in. hackberry tree; copper nail and washer-----	623. 23
Hornbortel gin, about 0.5 mi. E. of, 15 ft. N. and 60 ft. W. from junction of T-rd. S., at Eiband & Fisher store, in root on SW. side of 15-in. hackberry tree; copper nail and washer-----	610. 50
From Seguin quadrangle generally west along roads to point 1.8 miles east of Clear Spring (by I. F. Hazelwood in 1924)	
Clear Spring, 0.2 mi. N. and 3.3 mi. E. from, 50 ft. N. and 15 ft. E. from junction of T-rd. W., in root on SE. side of 15-in. mesquite tree; copper nail and washer-----	615. 61
Clear Spring, 0.1 mi. S. and 2.2 mi. E. from, 60 ft. N. and 15 ft. E. from center of crossroads, in root on W. side of 4-in. mesquite tree; copper nail and washer-----	632. 88
From Seguin quadrangle at point 2.1 miles south and 2 miles west from Geronimo west along road to Cordova School (by I. F. Hazelwood in 1924; spur line leveled twice)	
Geronimo, 2.1 mi. S., thence 2.2 mi. W. from, at Cordova School, in NE. angle of junction of T-rd. N., in SW. corner of schoolyard, in concrete post; standard tablet stamped "Prim Trav Sta No 17 J 1924 H 38"-----	585. 753

^a This bench mark replaced the U. S. Coast & Geodetic Survey triangulation station mark formerly located in this vicinity.

NEW FOUNTAIN QUADRANGLE

685

	Feet
Reference mark, 65 ft. E. of tablet, on SE. corner of concrete flagpole base; mark not described-----	585. 99
From point 2 miles southeast of Goodwin southeast along road to point 0.5 mile north and 1.7 miles east from Clear Spring (by R. G. Clinite in 1926)	
Goodwin, 3.3 mi. SE. of, at junction of T-rd. NE., in fence corner, in root of forked mesquite tree; copper nail and washer-----	650. 65
Goodwin, 4.6 mi. SE. of, in E. angle of crossroads, at gate at fence corner, in root of 6-in. mesquite tree; copper nail and washer-----	641. 63
From point 0.5 mile southeast of Clear Spring southeast along road 0.9 mile (by R. G. Clinite in 1925; leveled twice)	
U. S. C. & G. S. B. M. designated "T 6"-----	616. 144

NEW FOUNTAIN QUADRANGLE

[Latitude 29°15'-29°30'; longitude 99°00'-99°15']

MEDINA COUNTY

From Lacoste quadrangle west along Galveston, Harrisburg & San Antonio Railroad ⁸⁵ into Sabinal No. 2 quadrangle (by J. A. Hinman in 1896; double-rodded line)	
Dunlay, 4.5 mi. W. of, about 5 mi. E. of Hondo, at bridge over Hondo River, on N. end of E. rock pier, in coping; copper bolt stamped "832 SA"-----	825. 789
Hondo, at Medina County courthouse, on SW. corner of portico, in rock pedestal between two iron pillars; standard tablet stamped "901" (recovered by U. S. C. & G. S. in 1917, stamped "894. 63," and designated "A 35") ⁸⁶ -----	894. 795
Hondo, about 5 mi. W. of, 3.3 mi. E. of D'Hanis, 10 ft. E. of milepost 264; iron post stamped "904" (recovered by U. S. C. & G. S. in 1917, stamped "897.08," and designated "J 34") ⁸⁷ -----	897. 236

From Yancey quadrangle north along Pearsall-Hondo road to Hondo (by J. A. Hinman in 1897)

Hondo, 6.7 mi. S. of, about 200 ft. S. of Live Oak Slough, 40 ft. S. of 3 large live-oak trees, on E. side of rd., 8 ft. from fence; iron post stamped "782 SA"-----	775. 103
Hondo, 3.2 mi. S. of, at intersection of lane, in NW. fence corner; iron post stamped "840 SA"-----	833. 397
From Sabinal No. 2 quadrangle southeast along D'Hanis-Fohn ranch road into Yancey quadrangle (by J. A. Hinman in 1897)	
D'Hanis, about 6 mi. SE. of, 10 ft. W. of rd., near gate, 1.5 ft. N. of wire fence; iron post stamped "981 SA"-----	974. 432

⁸⁵ Now part of the Texas & New Orleans Division of the Southern Pacific Co.⁸⁶ In 1922 it was reported by the U. S. Coast & Geodetic Survey that a line was cut through the old elevation "901."⁸⁷ In 1922 it was reported by the U. S. Coast & Geodetic Survey that a line was cut through the old elevation "904." The U. S. Coast & Geodetic Survey describes this mark as "about midway between the eighth and ninth telegraph poles west of milepost 263."

OAKVILLE QUADRANGLE

[Longitude $28^{\circ}15'$ — $28^{\circ}30'$ —longitude $98^{\circ}00'$ — $98^{\circ}15'$]

LIVE OAK COUNTY

From Cadiz quadrangle northwest along San Antonio, Uvalde & Gulf Railroad to Mikeska, thence along roads southwest 2.8 miles, northwest 5.5 miles, and northeast 3.6 miles by way of George West to Mathis-Oakville road, thence northwest 1 mile, thence alternately northeast and southeast to Beeville-Mikeska road, thence generally southwest to Mikeska (by F. L. Shallbo in 1923-24)

Mikeska, 1.7 mi. SE. of, at crossing of proposed second-class rd., on SW. side of track, at edge of right-of-way, in concrete post; standard tablet stamped "S 29"	Feet
	107. 359
Reference mark, 30 ft. N. of tablet, in W. side of small mesquite tree; copper nail	109. 12
Mikeska, opposite N. end of sta., 100 ft. NE. of track, 10 ft. N. of gate, in fence line, in concrete post; standard tablet stamped "S 30 1923" (recovered in 1925)	118. 036
Mikeska, 1.7 mi. SW. of, 300 ft. NE. of T-rd. NW. to ranch house, 200 ft. N. of small drain, on S. side of rd., in fence line, in base of mesquite tree; copper nail	223. 94
Mikeska, 2.8 mi. SW. of, in E. angle of crossroads, 5 ft. E. of corner fence post, in concrete post; standard tablet stamped "S 31 1923"	278. 570
Mikeska, 2.8 mi. SW., thence 1.3 mi. NW. from, 1.0 mi. SW., thence 4.4 mi. SE. from George West, in SW. angle of crossroads, 8 ft. S. of E.-W. fence, in root of mesquite tree; copper nail	213. 13
George West, 1.0 mi. SW., thence 2.7 mi. SE. from, 240 ft. SE. of iron bridge over Spring Creek, on W. side of rd., in angle of fence line, in concrete post; standard tablet stamped "S 32 1923"	120. 706
Reference mark, 50 ft. N. of tablet, in right-of-way, in root of mesquite tree; copper nail	119. 08
George West, 1.0 mi. SW., thence 1.4 mi. SE. from, 150 ft. N. of angle in rd., in center of rd., in root on E. side of large oak tree; copper nail	218. 18
George West, 1.0 mi. SW. of, in E. angle of crossroads, 20 ft. E. of corner fence post, in root of mesquite tree; copper nail	213. 38
George West, at N. entrance to Live Oak County courthouse, in top of W. end of bottom step; standard tablet stamped "S 33 1923" and "Prim Trav Sta No 7 K 1925" (recovered by U. S. C. & G. S. in 1933)	154. 914
Reference mark, 2 ft. W. of tablet, on same step; chiseled square	154. 89
George West, 1.2 mi. NE. of, 170 ft. NE. of bridge over Nueces River, 30 ft. S. of rd., at right-angle turn, in root of large oak tree; copper nail	119. 31
George West, 2.6 mi. NE. of, 0.3 mi. NW. of Marbach School, in S. angle of junction of Mathis-Oakville rd., 4 ft. S. of corner fence post, in concrete post; standard tablet stamped "S 46 1924" (recovered by U. S. C. & G. S. in 1933)	135. 649
Reference mark, on opposite side of rd., 30 ft. S. of wire gate, 3 ft. E. of fence, in root of large oak tree; copper nail	136. 69
George West, 3.6 mi. NE., thence 1.0 mi. NW. from, 6.0 mi. SE. of Oakville, 1.3 mi. NW. of Marbach School, in SE. angle of junction of rd. NE., 5 ft. S. of wire gate, in base of leaning mesquite tree; copper nail	142. 09

	Feet
George West, 4.0 mi. by direct route NE. of, 1.1 mi. NE. of Marbach School, on Beeville rd., on NE. side of driveway to residence of W. H. Lindholm, 12 ft. W. of gate, in concrete post; standard tablet stamped "S 47 1924" (recovered by U. S. C. & G. S. in 1933)-----	173. 438
Reference mark, 130 ft. W. of tablet, 30 ft. N. of house, in root of twin trees; copper nail-----	171. 25
George West, 4.3 mi. NE., thence 1.2 mi. SE. from, 0.7 mi. SE. of crossing of Little Gamble Creek, 20 ft. SE. of junction of NE.-SW. rd., 15 ft. N. of corner fence post, in root of mesquite tree; copper nail-----	168. 99
George West, 5.2 mi. NE. and 1.2 mi. SE. from, 1.4 mi. NW. of residence of Tom Sexton, 40 ft. NW. of rd., opposite T-rd. SE., in concrete post; standard tablet stamped "S 48 1924"-----	210. 910
Reference mark, on opposite side of rd., 20 ft. E. of rd. junction, in root of large mesquite tree; copper nail-----	212. 94
George West, 5.2 mi. NE. and 1.9 mi. SE. from, 0.7 mi. NW. of residence of Tom Sexton, 10 ft. N. of rd., 500 ft. E. of plank gate, 50 ft. NW. of NE. corner of field, in root of mesquite tree; copper nail-----	211. 13
George West, 5.1 mi. NE. and 2.5 mi. SE. from, in NE. corner of yard at residence of Tom Sexton, on NW. bank of Gamble Gully, in concrete post; standard tablet stamped "S 49 1924"-----	183. 643
Reference mark, 80 ft. N. of tablet, opposite house on N. side of driveway, in root of twin trees; copper nail-----	185. 16
George West, 4.3 mi. NE. and 2.7 mi. SE. from, 4.2 mi. NE. along Beeville rd., thence 1.1 mi. NW. from Mikeska, 0.5 mi. NW. of junction of T-rd. SW., in SW. angle of crossroads, near gate, in root of mesquite tree; copper nail-----	157. 67
Mikeska, 4.2 mi. NE., thence 1.1 mi. NW. from, near center of Big Flat, 300 ft. E. of wire gate, on NE. side of second-class rd., in root of mesquite tree; copper nail-----	170. 08
Mikeska, 4.2 mi. NE. of, at right-angle turn to SE. in main rd., in E. fence corner, in concrete post; standard tablet stamped "S 50 1924"-----	162. 252
Reference mark, 60 ft. SW. of tablet, at S. corner of angle in rd., in root of large mesquite tree; copper nail-----	162. 32
Mikeska, 3.0 mi. NE. of, 600 ft. N. of pond, 130 ft. SW. of wooden bridge, on SE. side of rd., in root of large oak tree; copper nail-----	134. 91
Mikeska, 2.2 mi. NE. of, 0.7 mi. SE. of Gussettville School, at junction of Mathis-Oakville rd., on SW. side of rd., 6 ft. S. of fence, 20 ft. W. of wire gate, in root of mesquite tree; copper nail-----	127. 49
From George West northwest along San Antonio, Uvalde & Gulf Railroad to Ike West, thence along roads northeast, northwest, and southwest by way of Oakville to Three Rivers, thence northwest 3.3 miles along Tilden road, thence southwest and south along roads and across country by way of Bell Ranch to point about 2 miles south and 2.5 miles east from Simmons, thence east and northeast to Ike West (by F. L. Shalibo in 1923-24; leveled twice along railroad)	
George West, 1.0 mi. NW. of, 300 ft. SE. of milepost 87, 50 ft. SW. of track, in root of mesquite tree; copper nail-----	141. 12
George West, 2.1 mi. NW. of, 2.5 mi. SE. of Ike West, 270 ft. NW. of milepost 86, on SW. side of track, in fence line, in concrete post; standard tablet stamped "S 34 1923" (recovered by U. S. C. & G. S. in 1933)-----	137. 506
Reference mark, 30 ft. S. of tablet, 10 ft. W. of telephone pole in root of mesquite tree; copper nail-----	137. 64

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	<i>Feet</i>
Ike West, 0.6 mi. SE. of, at N. end of cut, 100 ft. SW. of track, in root of twin mesquite trees; copper nail-----	143. 92
Ike West, 100 ft. SW. of rd. crossing, in W. angle of junction of T-rd. NW., 5 ft. N. of corner fence post, in concrete post; standard tablet stamped "S 35 1923" (recovered by U. S. C. & G. S. in 1933)-----	169. 265
Ike West, 1.1 mi. NE. of, on W. side of Oakville rd., in fence line, in root of 10-in. mesquite tree; copper nail-----	200. 71
Ike West, 1.8 mi. NE. of, 80 ft. S. of junction of rd. SE., on E. side of rd., in fence line, in root of mesquite tree; copper nail-----	213. 88
Ike West, 3.0 mi. NE. of, 2.4 mi. SW. of Oakville, at summit of hill, on SE. side of rd., in fence line, in concrete post; standard tablet stamped "S 36 1924"-----	179. 413
Reference mark, 35 ft. NE. of tablet, in root of mesquite tree; copper nail-----	177. 92
Oakville, 1.9 mi. SW. of, 3.5 mi. NE. of Kittie, at rd. junction, 90 ft. NE. of wooden bridge, 8 ft. N. of fence line, in root of mesquite tree; copper nail-----	126. 53
Oakville, at SE. corner of high school building, in concrete post; standard tablet stamped "S 37 1924"-----	174. 808
Reference mark, 290 ft. SE. of tablet, on NW. side of rd., 30 ft. W. of gate, in root of mesquite tree; copper nail-----	171. 37
Oakville, 1.3 mi. NW. of, in SE. angle of crossroads, 15 ft. SE. of corner fence post, in root on W. side of large mesquite tree; copper nail-----	199. 48
Oakville, 2.4 mi. NW. of, on W. side of old San Antonio rd., 80 ft. S. of small drain, 4 ft. W. of fence line, in root of large mesquite tree; copper nail-----	200. 06
[Line jogs into Sunland quadrangle]	
Oakville, 3.9 mi. NW., thence 0.9 mi. SW. from, on E. side of Wilson ranch rd., 60 ft. SW. of dry stream crossing, in base of mesquite tree, copper nail-----	194. 27
Oakville, 3.9 mi. N., thence 1.7 mi. SW. from, about 0.2 mi. SW. of Wilson ranch house, in SW. angle of crossroads, in root of mesquite tree; copper nail-----	239. 81
Oakville, 3.9 mi. N., thence 2.9 mi. SW. from, 2.6 mi. NE. of Three Rivers, 60 ft. SE. of Hamilton ranch house, 1 ft. E. of corner fence post, in concrete post; standard tablet stamped "S 39 1924"-----	232. 706
Reference mark, 120 ft. N. of tablet, 4 ft. E. of fence line, in root of mesquite tree; copper nail-----	233. 43
Three Rivers, 1.1 mi. N. of, at three corners, 40 ft. E. of junction of rd. S., on N. side of rd., in fence line, in root of large mesquite tree; copper nail-----	170. 32
Three Rivers, at State Bank building, in N. end of concrete step; standard tablet stamped "S 40 1924" and "Prim Trav Sta No 3 K 1925" (recovered by U. S. C. & G. S. in 1933)-----	145. 662
Reference mark, 1 ft. N. of tablet, on concrete walk; chiseled square-----	145. 12
Three Rivers, 1.9 mi. W., thence 0.8 mi. NW. from, 200 ft. SE. of junction of second-class rd. SW., 40 ft. NE. of Tilden rd., in base of leaning tree; copper nail-----	147. 95
Three Rivers, 1.9 mi. W., thence 1.4 mi. NW. from, 7.8 mi. E. of Calliham, 30 ft. NW. of junction of second-class rd. N., 2 ft. W. of N.-S. fence line, in concrete post; standard tablet stamped "S 42 1924" and "Prim Trav Sta No 8 K 1925" (recovered in 1925; recovered also by U. S. C. & G. S. in 1933)-----	203. 346

	<i>Feet</i>
Reference mark, 40 ft. E. of tablet, 50 ft. N. of rd., in root of mesquite tree; copper nail-----	201. 15
Three Rivers, 3.3 mi. by route NW., thence 0.9 mi. SW. from, 80 ft. E. of farmhouse, 12 ft. E. of fence line, in root of mesquite tree; copper nail-----	226. 50
Three Rivers, 3.3 mi. NW., thence 2.1 mi. SW. from, 30 ft. W. of fence corner, in E.-W. fence line, in root of mesquite tree; copper nail-----	236. 96
[Line jogs into Simmons quadrangle]	
Nueces River, 900 ft. N. of Bell ranch house; surface of water Jan. 19, 1924 (water about 3 ft. deep)-----	119. 1
Three Rivers, 4.5 mi. SW., thence 0.9 mi. S. from, 2.2 mi. E., thence 2.4 mi. N. from Simmons, 150 ft. S. of Bell ranch house, 30 ft. E. of corral, in root on N. side of large tree; copper nail-----	161. 08
Simmons, 2.2 mi. E., thence 1.0 mi. N. from, 1.4 mi. S. of Bell ranch house on Big Tank rd., 30 ft. N. of junction of rd. NW., in root of large mesquite tree; copper nail-----	145. 59
Simmons, 2.2 mi. E. of, 1.0 mi. S., thence 3.8 mi. W. from Kittie, in NW. angle of crossroads, 30 ft. W. of gate, in fence line, in concrete post; standard tablet stamped "S 43 1924"-----	185. 870
Reference mark, 12 ft. NE. of tablet, in root of mesquite tree; copper nail-----	185. 63
Simmons, 2.2 mi. E., thence 0.8 mi. S. from, on E. side of old rd. to Big Tank, in root of large mesquite tree; copper nail-----	188. 40
Simmons, 2.2 mi. E., thence 2.9 mi. S. from, 6.1 mi. SW. and 1.0 mi. S. from Ike West, on old rd. to Big Tank, 12 ft. E. of gate, in fence line, in concrete post; standard tablet stamped "S 44 1924"-----	289. 522
Reference mark, 40 ft. N. of tablet, on E. side of rd., in root of mesquite tree; copper nail-----	290. 69
Ike west, 5.1 mi. SW., thence 1.0 mi. S. from, about 700 ft. W. of W. fence line of property of George West, 300 ft. N. of farmhouse, 30 ft. S. of gate to driveway, 3 ft. W. of fence, in root of mesquite tree; copper nail-----	307. 24
Ike West, 5.1 mi. SW. of, at W. fence line of George West pasture, at concrete property line post No. 11, top of post-----	295. 21
Ike West, 4.6 mi. SW. of, 50 ft. E. of crossing of proposed rds., on N. side of rd., in root of mesquite tree; copper nail-----	288. 47
Ike West, 4.1 mi. SW. of, in SE. angle of intersection of proposed rd., at concrete property line post No. 6; top of post-----	272. 85
Ike West, 3.1 mi. SW. of, 30 ft. S. of junction of N.-S. rd., on W. side of rd., in fence line, in concrete post; standard tablet stamped "S 45 1924" and "Prim Trav Sta No 15 1925"-----	194. 791
Reference mark, 20 ft. N. of tablet, on S. side of proposed rd., on W. side of rd., at concrete property post; top of post-----	198. 29
Ike West, 2.0 mi. SW. of, 0.7 mi. W. of ranch house of George West, on S. side of ranch rd., in root of mesquite tree; copper nail-----	179. 65
Ike West, 1.3 mi. SW. of, in front of ranch house of George West, on NW. side of rd., in root of mesquite tree; copper nail-----	182. 74

From road junction 3.3 miles northwest of Three Rivers northwest 1.6 miles along
Tilden road into Simmons quadrangle (by H. P. Jones in 1925)

Three Rivers, 4.3 mi. NW. of, 6.9 mi. E. of Calliham, on N. side of rd., 20 ft. NW. of gate, 20 ft. N. of mail box No. 1, in root of mesquite tree; copper nail and washer (recovered by U. S. C. & G. S. in 1933)-----

177. 355

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From Mathis quadrangle ⁸⁸ northwest and northeast along roads by way of Mikeska to Gussetville School on Mathis-Oakville road, thence southeast 2.5 miles into Cadiz quadrangle (by H. P. Jones in 1926)	Feet
Mikeska, 4.7 mi. SE. of, 3.4 mi. NW. of Dinero, on N. side of rd., 30 ft. N. of gate, in concrete post; standard tablet stamped "J 24 1925"	202. 985
Reference mark, 65 ft. SE. of gate, in root on S. side of 20-in. live-oak tree; copper nail and washer-----	202. 22
Mikeska, 4.0 mi. SE. of, on N. side of rd., in root on S. side of 20-in. live-oak tree; copper nail and washer-----	154. 90
Mikeska, 2.7 mi. SE. of, on S. side of rd., in root on N. side of 15-in. mesquite tree; copper nail and washer-----	205. 23
Mikeska, 2.0 mi. SE. of, on N. side of rd., at ranch house of J. M. Gerhardt, in SE. corner of yard, in fence corner, 8 ft. NW. of gate, in concrete post; standard tablet stamped "J 25 1925"-----	146. 728
Reference mark, 45 ft. SW. of yard gate, in root on E. side of large live-oak tree; copper nail-----	148. 94
Mikeska, 1.2 mi. S. of, on SW. side of rd., in root on N. side of 30-in. oak tree; copper nail and washer-----	251. 26
Mikeska, 0.5 mi. SW. of, on E. side of rd., 80 ft. NE. of rd. fork, inside fence line, in root of 6-in. mesquite tree; copper nail and washer-----	164. 88
Nueces River, under bridge; surface of water Feb. 16, 1925-----	72. 8
Mikeska, 1.4 mi. NE., thence 0.8 mi. SE. from, 0.7 mi. SE. of Gussetville School, opposite T-rd. NE. to Beeville, on SW. side of rd. known as old Spanish trail, 20 ft. W. of wire gate, 6 ft. S. of fence, in root of mesquite tree; copper nail-----	127. 49
Mikeska, 1.4 mi. NE., thence 1.6 mi. SE. from, on SW. side of rd., 50 ft. S. of crossing of second-class rd., in concrete post; standard tablet stamped "Prin Trav Sta No 98 K 1924" and "J 26 1925"-----	130. 645
Reference mark, in SE. angle of crossroads, in root of mesquite tree; copper nail and washer-----	132. 75

OSO CREEK QUADRANGLE

[Latitude 27°30'-27°45'; longitude 97°15'-97°30']

KLEBERG AND NUECES COUNTIES

From Corpus Christi quadrangle at point 2.8 miles southwest of Corpus Christi along roads southwest to Morgan gin, thence west 2.8 miles into Petronilla quadrangle (by C. R. Fisher in 1922)	Feet
Corpus Christi, 3.5 mi. SW. of Texas Mexican Ry. sta., in S. angle of junction of T-rd. SE., 2 ft. E. of fence corner, in concrete post; standard tablet stamped "F 12 Texas 1922 38"-----	33. 283
Reference mark, 100 ft. N. of tablet, on E. wall of concrete culvert; chiseled square-----	36. 03
Corpus Christi, 4.5 mi. SW. of, on E. side of rd., opposite large sign on barn, 1 ft. from large fence post; top of iron pipe-----	31. 79
Corpus Christi, 5.0 mi. SW. of, 25 ft. S. of rd. crossing, in center of top of E. wall of concrete culvert; chiseled square-----	33. 42
Corpus Christi, 6.0 mi. SW. of, 1.9 mi. N.E. of Morgan gin, at rd. crossing, 2 ft. NE. of NE. fence corner, in concrete post; standard tablet stamped "F 13 Texas 1922 31"-----	30. 618
Morgan gin, 0.8 mi. NE. of, 400 ft. NE. of bridge over Oso Creek, on top of N. end of W. wall of concrete culvert; chiseled square-----	19. 88

⁸⁸ This line cuts the northeast corner of Ramirena quadrangle but no bench marks were set in that portion of the line.

	Feet
Morgan gin, at crossroads, 1.4 mi. E. of London School, on top of W. wall of concrete culvert; chiseled square-----	31. 92
London School, in SE. corner of yard, in concrete post; standard tablet stamped "F 14 Texas 1922 35"-----	34. 750
Reference mark, 60 ft. E. of tablet, on top of N. wall of concrete culvert; chiseled square-----	36. 93
From Petronilla quadrangle southeast and northeast along roads and across country by way of Garcia and Coyote windmills to Mud Bridge over Oso Bay, thence along roads alternately northwest and northeast into Corpus Christi quadrangle at point 2.9 miles southeast of Corpus Christi (by C. R. Fisher in 1922)	
Los Laureles ranch house, 3.1 mi. SE. of, 2.9 mi. SW. of Garcia windmill, 50 ft. S. of rd., 3 ft. E. of fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 7 1922 Texas F 20 28"-----	28. 424
Garcia windmill, 250 ft. S. of, 20 ft. N. of SE. corner of fence around windmill, in concrete post; standard tablet stamped "F 21 Texas 1922 17"-----	16. 882
Garcia windmill, 1.1 mi. NE. of, 2.2 mi. SW. of Coyote windmill, 5 ft. SE. of rd., at post; top of iron pipe-----	14. 99
Coyote windmill, 120 ft. W. of, 4 ft. inside SW. corner of fence around windmill, in concrete post; standard tablet stamped "F 22 Texas 1922 19"-----	18. 642
Coyote windmill, 1.5 mi. N. of, 1.0 mi. S. of Dutches (Dioces) windmill, 3 ft. W. of W. gatepost for rd. between Coyote and Dutches windmills; top of iron pipe-----	14. 06
Coyote windmill, 1.5 mi. N., thence 1.0 mi. E. from, 3 ft. E. of E. post of large picket gate; top of iron pipe-----	14. 64
Coyote windmill, 1.5 mi. N., thence 1.2 mi. NE. from, 3.1 mi. SW. of Guajolote windmill, 2 ft. W. of intersection of three fences, in concrete post; standard tablet stamped "Prim Trav Sta No 8 1922 Texas F 23 16"-----	15. 543
Guajolote windmill, 2.2 mi. SW. of, 3 ft. N. of N. post of gate to La Vinia windmills; top of iron pipe-----	22. 86
Guajolote windmill, 1.1 mi. SW. of, 2 ft. N. of fence post; top of iron pipe-----	19. 52
Guajolote windmill, 60 ft. E. of; top of iron pipe-----	15. 64
Guajolote windmill, 0.8 mi. NE. of, 0.8 mi. SW. of Mud Bridge over Oso Bay, at edge of bay, 2 ft. S. of fence corner; top of iron pipe-----	18. 98
Mud Bridge over Oso Bay, 100 ft. E. of E. end of, 40 ft. N. of rd., 3 ft. W. of gate, in concrete post; standard tablet stamped "F 24 Texas 1922 40"-----	3. 932
Mud Bridge, 1.0 mi. NW. of, 150 ft. W. of junction of T-rd. NE., 2 ft. N. of large mesquite post; top of iron pipe-----	12. 84
Mud Bridge, 1.8 mi. NW. of, at crossroads, 3 ft. W. of SW. fence corner; top of iron pipe-----	14. 98
Mud Bridge, 2.7 mi. NW. of, in S. angle of junction of T-rd. SW., 200 ft. E. of house of W. F. Johnston, 3 ft. W. of fence corner, in concrete post; standard tablet stamped "F 25 Texas 1922 18"-----	18. 082
Mud Bridge, 3.8 mi. NW. of, at right-angle turn to NE. in main rd., 2 ft. N. of NE. fence corner; top of iron pipe-----	22. 06
Mud Bridge, 3.8 mi. NW., thence 1.0 mi. NE. from, at rd. crossing, on E. side of rd., at S. end of picket fence; top of iron pipe-----	22. 63
Mud Bridge, 3.8 mi. NW., thence 2.1 mi. NE. from, at crossroads, 1 ft. S. of S. post of panel gate; top of iron pipe-----	23. 55

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	Feet
Mud Bridge, 3.8 mi. NW., thence 2.6 mi. NE. from, 7.0 mi. SE. of Texas Mexican Ry. sta. at Corpus Christi, at crossroads, 3 ft. S. of NW. corner, in concrete post; standard tablet stamped "F 26 Texas 1922 22"	21. 726
Corpus Christi, 6.0 mi. SE. of, at junction of rd. SE., at large curve, near fence corner; top of iron pipe	22. 07
Corpus Christi, 5.0 mi. SE. of, in E. angle of crossroads, 10 ft. N. of fence corner; top of iron pipe	24. 54
Corpus Christi, 3.8 mi. SE. of, in W. angle of junction of rd. SW., in corner of field, in concrete post; standard tablet stamped "F 27 Texas 1922 32"	31. 738
From crossroads at Morgan gin alternately south and east along roads by way of El Camito ranch to point 1 mile south of Dutches windmill (by C. R. Fisher in 1892)	
Morgan gin, 1.0 mi. S. of, in NW. angle of junction of T-rd. W., 300 ft. NE. of small white house, 2 ft. E. of fence corner; top of iron pipe	27. 93
Morgan gin, 2.5 mi. S. of, in NW. angle of crossroads, 3 ft. N. of fence corner, in concrete post; standard tablet stamped "F 28 Texas 1922 27"	27. 314
Morgan gin, 3.5 mi. S. of, 1.0 mi. N., thence 1.0 mi. W. from El Camito ranch, in NE. angle of junction of E.-W. rd., 2 ft. S. of lone fence post; top of iron pipe	24. 51
El Camito ranch, 1.0 mi. N. of, in SE. angle of junction of T-rd. S., 2 ft. S. of fence corner; top of iron pipe	23. 89
El Camito ranch, 300 ft. S. of, 30 ft. N. of fence corner, in fence line, in concrete post; standard tablet stamped "F 29 Texas 1922 19"	19. 482
El Camito ranch, 1.0 mi. E. of, 1.5 mi. NW. of Portales ranch house, 25 ft. S. of large iron post, in fence line, 2 ft. N. of N. gatepost; top of iron pipe	18. 84
Portales ranch house, 200 ft. NW. of, 3 ft. E. of NE. corner of fence around small field, in concrete post; standard tablet stamped "F 30 Texas 1922 17"	17. 123
Portales ranch house, 1.0 mi. S. of, 0.8 mi. N. of Dutches windmill, 20 ft. W. of rd. fork, near wooden post; top of iron pipe	15. 15
Dutches windmill, 150 ft. E. of, 5 ft. S. of NE. corner of fence around water tank, in concrete post; standard tablet stamped "F 31 Texas 1922 14"	14. 400

PARRILLA CREEK QUADRANGLE

[Latitude 27°30'-27°45'; longitude 98°30'-98°45']

DUVAL COUNTY

From Moglia quadrangle east and northeast along roads by way of Los Encinos and Chappa ranches into Benavides quadrangle at point near Mansana ranch (by S. L. Parker in 1919-20)

Oilton, 18.0 mi. NE. of, 26.3 mi. W. of Benavides, about 600 ft. S. of Ingram ranch house, at lane N. to house, 4 ft. W. of NW. fence corner, on N. side of public rd., 6 in. S. of wire fence; iron post stamped "1919 697"	696. 587
Benavides, 23.8 mi. SW. of, 2.1 mi. E. of Los Encinos ranch house, 55 ft. S. of public rd., in edge of comparatively open pasture, 1 ft. above ground, in fork of 6-in. mesquite bush; copper nail and washer	761. 16

	Feet
Benavides, 22.2 mi. SW. of, 2.9 mi. SW. of Chappa ranch house, 4 ft. S. of wooden gate across public rd., 6 in. W. of N.-S. fence line; iron post stamped "1919 745"-----	744. 527
Benavides, 19.1 mi. SW. of, 0.3 mi. NE. of Chappa ranch house, 11 ft. N. of wooden gate across rd., 10 in. E. of N.-S. fence line; iron post stamped "1920 673"-----	672. 345
Benavides, 18.2 mi. SW. of, 120 ft. W. of brow of small hill, 10 ft. N. of rd., on top of limestone outcrop; chiseled square-----	633. 08
Benavides, 17.2 mi. SW. of, at wind pump and tank, 40 ft. SW. of pump, on NE. corner of large concrete water trough; chiseled square-----	603. 60
Benavides, 15.8 mi. SW. of, 0.9 mi. W. of old Borjas ranch, 15 ft. N. of rd., 1 ft. above ground, in prominent mesquite bush; copper nail and washer-----	577. 94
Benavides, 14.9 mi. SW. of, at old Borjas ranch, about 600 ft. N. of wind pump, in SE. angle of crossroads; iron post stamped "1920 563"-----	562. 041
Benavides, 13.8 mi. SW. of, 15 ft. N. of rd., in root on N. side of 8-in. forked mesquite tree; rail spike-----	542. 54
Benavides, 13.1 mi. SW. of, on hillside sparsely covered with mesquite, 40 ft. N. of rd., 18 in. above ground, in S. side of 12-in. mesquite tree; rail spike-----	544. 12
Benavides, 12.1 mi. SW. of, about 130 ft. SE. of lone wind pump, 20 ft. SE. of earth embankment forming water tank, at fence corner; iron post stamped "1920 545"-----	543. 950
Benavides, 11.1 mi. SW. of, about 0.2 mi. W. of wooden gate across rd., 30 ft. N. of rd., 2 ft. above ground, in S. side of 12-in. forked mesquite tree; copper nail and washer-----	542. 94
Benavides, 8.8 mi. SW. of, 120 ft. N. of Mansana ranch house, 4 ft. E. of gate, 1 ft. N. of wire fence; iron post stamped "1920 490"-----	488. 835
Benavides, 5.6 mi. W. of, 0.3 mi. E. of wooden corral, 6 ft. N. of gate across public rd., 6 in. E. of fence line; iron post stamped "1920 444" ⁸⁹ -----	443. 202

From Benavides quadrangle southwest and southeast along Texas Mexican Railway into Falfurrias No. 2 quadrangle ⁹⁰ (by E. E. Harris in 1923)

Realitos, 5.2 mi. NE. of, on E. side of track, opposite milepost 82, 5 ft. S. of and in line with telephone poles, in concrete post; standard tablet stamped "H 34 Texas 1923" (recovered by U. S. C. & G. S. in 1933)-----	458. 802
Reference mark, 184.6 ft. N. 70°E. of tablet, 4 ft. W. of and in line with poles, 2 in. underground; top of cap on iron pipe-----	457. 83

⁸⁹ In 1939 it was reported that this bench mark was in poor condition, with several bullet holes through the post and cap.

⁹⁰ This line cuts the southwest corner of Benavides quadrangle, but no bench marks were set in that portion of the line.

PEARSALL QUADRANGLE

[Latitude 28°45'-29°00'; longitude 99°00'-99°15']

FRIO COUNTY

From Sabinal No. 3 quadrangle¹¹ along roads east and northeast into Yancey quadrangle (by J. A. Hinman in 1897)

Friotown, 7.1 mi. SE. of, 15 ft. S. of rd., 25 ft. N. of four hackberry trees; iron post stamped "591 SA" and "Prim Trav Sta No 45 LS 1925 Texas"-----	Feet 584. 389
Friotown, 10.3 mi. SE. of, 3.3 mi. W. of Cowden (formerly Henson) ranch house, about 2 mi. W. of Hondo Creek, 3 ft. S. of fence at roadside; iron post stamped "594 SA" and "Prim Trav Sta No 44 LS 1925 Texas"-----	587. 365
Cowden ranch house, 300 ft. SE. of, at junction of Friotown-Moore and Friotown-Pearsall rds.; iron post stamped "615 SA" and "Prim Trav Sta No 43 LS 1925 Texas" (recovered in 1925)-----	608. 326
Cowden ranch house, 3.2 mi. E. of, at intersection of Friotown-Moore and Pearsall-Hondo rds.; iron post stamped "696 SA"-----	689. 379
From point 4.8 miles northeast of Pearsall southwest along International-Great Northern Railroad 0.7 mile, thence northwest along road to Cowden ranch (by R. G. Clinite in 1926)	
U. S. C. & G. S. standard disk stamped "H 37 1917"-----	698. 558.
Pearsall, 4.1 mi. N.E. of, 0.25 mi. S. of milepost "308," 50 ft. W. of track, on E. side of San Antonio-Laredo highway, in line with rd. N.W., in concrete post; standard tablet stamped "Prim Trav Sta No 41 LS 1925 Texas C 22"-----	685. 821
Pearsall, about 5 mi. due N. of, in E. angle of junction of Cowden ranch rd. and rd. from Hondo, in root of mesquite tree; copper nail-----	663. 27
Cowden (formerly Henson) ranch house, 1.7 mi. SE. of, 70 ft. N.E. of rd., in clump of live-oak trees, in root of 14-in. live-oak tree; copper nail-----	616. 66
Pearsall, 6.9 mi. N. of, 1.25 mi. SE. of Cowden ranch house, on S. side of rd., 20 ft. S. of gate at entrance to Cowden ranch, 4 ft. W. of wire fence, in concrete post; standard tablet stamped "Prim Trav Sta No 42 LS 1925 Texas C 23"-----	657. 102
Reference mark, 28 ft. E. of tablet, in root of small mesquite tree; copper nail-----	656. 67
From Pearsall northwest along road 11.4 miles into Divot quadrangle (by R. G. Clinite in 1925)	
U. S. C. & G. S. standard disk stamped "K 37 1917"-----	631. 505.
Pearsall, 1.4 mi. NW. of, 150 ft. W. of summit of hill, 350 ft. NW. of house, on N. side of rd., in base of crooked mesquite tree; copper nail-----	640. 03
Pearsall, 2.2 mi. NW. of, on NE. side of Pearsall-Friotown rd., 24 ft. N. and 37 ft. E. from E. approach of concrete causeway at dip in rd., 24 ft. N. and 30 ft. E. from junction of T-rd. NE. to house of Paul Vinton (Mexican), 2 ft. S. of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 39 LS 1925 Texas C 25"-----	597. 997
Reference mark, 85 ft. W. of tablet, on N. side of concrete causeway, at N. end of first expansion joint from W. approach; chiseled square-----	596. 18

¹¹ This line crosses the northeast corner of Divot quadrangle but no permanent bench marks were set along that portion of the line.

	Feet
Pearsall, 3.5 mi. NW. of, on NE. side of rd., in center of top of N. coping of concrete culvert; chiseled circle-----	565. 48
Pearsall, 4.6 mi. NW. of, on SW. side of rd., 6 ft. S. of wire fence, in root of 12-in. mesquite tree; copper nail-----	590. 25
Pearsall, 5.1 mi. NW. of, 1.0 mi. SE. of Frio River bridge on Pearsall-Friotown rd., 24 ft. S. and 215 ft. W. from center of small concrete bridge over Buck Creek, 24 ft. S. of center line of rd., inside fence, in concrete post; standard tablet stamped "Prim Trav Sta No 38 LS 1925 Texas C 26"-----	552. 683
Reference mark, 220 ft. E. of tablet, on NE. concrete wing wall of bridge; chiseled square-----	555. 98
Pearsall, 5.9 mi. NW. of, on N. end of W. concrete abutment of 100-ft. plank culvert; chiseled circle-----	548. 33
Pearsall, 6.1 mi. NW. of, at iron bridge over Frio River, on S. side of rd., on SE. concrete wing wall; chiseled circle-----	554. 52
Pearsall, 7.1 mi. NW. of, on N. side of rd., 600 ft. SW. of red house and windmill, in root on E. side of three giant live-oak trees, 25 ft. N. of gate; copper nail-----	551. 54
Pearsall, 8.0 mi. NW. of, on S. side of rd., 80 ft. SE. of bridge over Frio Slough, in root of 14-in. mesquite tree; copper nail-----	565. 75
Pearsall, 8.6 mi. NW. of, on S. side of Pearsall-Friotown rd., 2.5 mi. NW. of Frio River bridge, 17 ft. W. of gate, 18 ft. S. of T-rd. S. through gate, 35 ft. S. and 220 ft. W. from Frio Valley service sta., 2 ft. N. and 5 ft. E. from corner fence post, opposite ranch house of Bennie Crilman, in concrete post; standard tablet stamped "Prim Trav Sta No 37 LS 1925 Texas C 27"-----	567. 053
Reference mark, 60 ft. N. of tablet, in front of house, in root of 12-in. mesquite tree; copper nail-----	567. 03
Pearsall, 9.9 mi. NW. of, on SW. side of rd., 0.5 mi. NW. of junction of Batesville rd., 5 ft. S. of fence, in root of forked mesquite tree; copper nail-----	587. 77
Pearsall; 11.1 mi. NW. of, on SW. side of rd., 150 ft. W. of gate to farmhouse, in clearing, 7 ft. S. of fence, in root of 18-in. mesquite tree; copper nail-----	602. 95
From point 8.6 miles northwest of Pearsall along roads south 5.2 miles, thence east and southeast to Melon, thence north along International-Great Northern Railroad to point 3.2 miles south of Pearsall (by R. G. Clinite in 1925)	
Pearsall, 8.6 mi. NW., thence 1.2 mi. S. from, 1.2 mi. S. of ranch house of Bennie Crilman and Frio Valley service sta., on W. side of Frio River, on rd. to ranch of Portee & Half, 5 ft. S. and 6 ft. W. from wooden gate which is the third gate S. of sta., 2 ft. S. of wire fence, in concrete post; standard tablet stamped "Prim Trav Sta No 36 LS 1925 Texas C 29"-----	578. 811
Reference mark, 105 ft. SW. of tablet, in root of forked mesquite tree; copper nail-----	578. 98
Crilman ranch house, 2.2 mi. S. of, 170 ft. N. of rd. junction and drain, on W. side of rd., in root of 14-in. mesquite tree; copper nail-----	551. 80
Crilman ranch house, 3.3 mi. S. of, on W. side of rd., in small depression, in base of 10-in. leaning mesquite tree; copper nail-----	564. 44
Crilman ranch house, 4.4 mi. S. of, on E. side of rd., in root of forked mesquite tree; copper nail-----	575. 86

	Feet
Crilman ranch house, 4.7 mi. S. of, about 1 mi. W. of Frio River crossing, about 7.5 mi. due W. of Pearsall, 50 ft. S. and 10 ft. E. from intersection of N.-S. ridge rd. and rd. leading SW. to Portee & Halff ranch, on summit of hill, in concrete post; standard tablet stamped "Prim Trav Sta No 35 LS 1925 Texas C 30"-----	568. 261
Crilman ranch house, 5.2 mi. S. of, 4.6 mi. NW., thence 3.1 mi. W. from Melon, in S. angle of rd. junction, about 700 ft. NW. of apiary, in base of forked mesquite tree; copper nail-----	537. 84
Melon, 4.6 mi. NW., thence 2.4 mi. W. from, on W. bank of Frio River, 60 ft. SW. of old cut in W. bank at old abandoned crossing, on S. side of old rd., in root on NE. side of 20-in. forked live-oak tree; copper nail-----	526. 40
Melon, 4.6 mi. NW., thence 1.3 mi. W. from, between two forks of Buck Creek, 35 ft. N. of center line of rd., in root of 14-in. elm tree; copper nail-----	518. 85
Melon, 4.6 mi. NW., thence 0.4 mi. SW. from, 30 ft. N. of rd. junction, in base of crooked mesquite tree; copper nail-----	545. 61
Melon, 4.6 mi. NW. of, 1,000 ft. W. of residence of R. G. Smith, on Oppenheimer land, 10 ft. S. and 10 ft. E. from center of crossroads, 2 ft. W. of wire fence, on S. side of gate, in concrete post; standard tablet stamped "Prim Trav Sta No 34 LS 1925 Texas C 31"-----	551. 889
Reference mark, 50 ft. W. of tablet, in root of 8-in. mesquite tree; copper nail-----	551. 84
Melon, 3.5 mi. NW. of, 80 ft. SE. of gate at settlement crossroads, in root of clump of mesquite trees; copper nail-----	571. 34
Melon, 2.1 mi. NW. of, 3.2 mi. SW. of Pearsall, in N. angle of crossroads, in root on NW. side of 10-in. crooked mesquite tree; copper nail-----	561. 58
Melon, 1.0 mi. NW. of, at junction of T-rd. SW., 10 ft. SE. of fence corner, 1 ft. SW. of fence, 1-in. iron bolt 20 in. long driven through hole in fan belt pulley set flush with ground; top of square head of bolt-----	571. 38
Melon, 53 ft. N. and 46 ft. E. from crossing of I. G. N. R. R., about 3.5 mi. S. of Pearsall, 46 ft. E. of nearest rail; on W. side of San Antonio-Laredo highway, in NW. angle of junction rd. W., in concrete post; standard tablet stamped "Prim Trav Sta No 33 LS 1925 Texas C 32"-----	602. 415
Reference mark, 20 ft. SE. of tablet, at N. end of concrete culvert, on W. wing wall; chiseled square-----	599. 51
U. S. C. & G. S. B. M. designated "M 37 1917"-----	589. 874
From point on International-Great Northern Railroad about 1 mile south of Derby north to Derby, thence along roads northwest and north to point 4.7 miles south of Crilman ranch house (by R. G. Clinite in 1925)	
U. S. C. & G. S. B. M. designated "P 37 1917"-----	505. 701
Derby, near S. limits of, 300 ft. S. of sta., of E. side of San Antonio-Laredo highway, 50 ft. E. of rd., 200 ft. NW. of Bennett house, 15 ft. S. of NW. corner fence post of Bennett yard; in concrete post, standard tablet stamped "Prim Trav Sta No 32 LS 1925 Texas C 33" (recovered in 1928)-----	517. 966
Reference mark, 80 ft. NW. of tablet, at N. end of concrete culvert, on top of W. wing wall; chiseled square-----	517. 21
Derby, 1.0 mi. W. of, on N. side of rd., 6 ft. N. and 30 ft. W. from gate at junction of T-rd. N., 110 ft. NW. of gate at junction of T-rd. S., in root of three-forked mesquite tree; copper nail-----	497. 17

	Feet
Derby, 2.0 mi. W. of, on S. side of rd., 12 ft. S. of SE. corner of iron bridge over Frio River, inside fence, in root on N. side of giant live-oak tree; copper nail-----	477. 02
Derby, 3.1 mi. NW. of, on Leona Valley rd., on land of G. A. Blackaller, 15 ft. S. of center line of rd., 10 ft. W. of gap in fence at entrance to ranch, 1 ft. N. of wire fence; standard tablet stamped "Prim Trav Sta No 51 LS 1925 Texas C 34"-----	488. 286
Reference mark, 14 ft. SW. of tablet, in crotch of 12-in. mesquite tree; copper nail-----	490. 34
Derby, 4.1 mi. NW. of, on N. side of rd., 5 ft. N. and 40 ft. W. from gate at intersection of dim rd., in root of 8-in. mesquite tree; copper nail-----	508. 71
Derby, 5.2 mi. NW. of, on S. side of rd., 140 ft. W. of small plank bridge, 7 ft. S. of fence, in root of leaning mesquite tree; copper nail-----	505. 79
Derby, 5.8 mi. NW. of, 30 ft. S. and 20 ft. W. from intersection of Leona Valley and Pearsall-Carrizo Springs rds.; standard tablet stamped "Prim Trav Sta No 50 LS 1925 Texas C 35"-----	508. 768
Reference mark, 35 ft. SW. of tablet, in base of 12-in. mesquite tree; copper nail-----	509. 24
Derby, 5.8 mi. NW., thence 0.6 mi. N. from, on NW. side of Carrizo Springs-Pearsall rd., at S. entrance to ranch of Portee & Halff, 35 ft. E. of gate, in base of 12-in. mesquite tree; copper nail-----	522. 10
Portee & Halff ranch, 1.0 mi. N. of S. entrance to, on W. side of rd., 25 ft. S. of junction of old abandoned rd., in root on E. side of 7-in. mesquite tree; copper nail-----	558. 57
Portee & Halff ranch, 2.0 mi. NW. of S. entrance to, 3,500 ft. NW. of Mexican house, on W. side of rd., in root on E. side of smaller of two mesquite trees; copper nail-----	568. 22
Portee & Halff ranch, on NW. corner of, 3.1 mi. NW. of S. entrance, 3.0 mi. S. and 8.7 mi. W. from Pearsall, 9.0 mi. SW. of ranch house of Bennie Crilman, 1,000 ft. E. of ranch house, 150 ft. E. of water pond, 115 ft. E. of easternmost of two windmills, on E. side of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 49 LS 1925 Texas C 36"-----	620. 021
Reference mark, 115 ft. W. of tablet, at easternmost of two windmills, on E. side of concrete cap of well; figure "4" of 24 of date "Dec 4 24" cut in concrete-----	627. 04
Crilman ranch house, 8.0 mi. S. of, 1.0 mi. NE. of two windmills, on W. side of rd., in root of 12-in. mesquite tree; copper nail-----	559. 67
Crilman ranch house, 6.9 mi. S. of, 140 ft. N. of junction of dim rd., at N. side of old clearing, on E. side of rd., in root of 14-in. mesquite tree; copper nail-----	525. 51
Crilman ranch house, 5.7 mi. S. of, 1.0 mi. SW. of rd. junction, on Portee and Halff ranch, at SW. corner of abandoned field, at windmill, on W. side of rd., 150 ft. N. of gate, on rim on N. side of smaller of two concrete tanks; chiseled square-----	539. 38
From point 1 mile northwest of Melon southwest along road 2.2 miles (by R. G. Clinite in 1925; spur line leveled twice)	
Melon, 1.0 mi. NW., thence 1.1 mi. SW. from, on SE. side of rd., 400 ft. SW. of gate to ranch of N. S. McKinley, 3 ft. SE. of fence, in forked mesquite tree; copper nail-----	549. 05

	Feet
Melon, 1.0 mi. NW., thence 2.2 mi. SW. from, 55 ft. NE. of Evans ranch house, on NW. side of rd., in root of forked mesquite tree; copper nail-----	556. 58
Melon, 1.0 mi. NW., thence 2.2 mi. SW. from, in front of Evans ranch house, 10 ft. N. of yard gate, in root on N. side of large forked live-oak tree; copper nail-----	556. 14
From Pearsall south along International-Great Northern Railroad 0.8 mile (by R. G. Clinite in 1925; spur line leveled twice)	
Pearsall, at S. limits of, 25 ft. E. of center line of San Antonio-Laredo highway, at first left-angle turn in highway S. of Pearsall, 80 ft. S. and 120 ft. W. from Pearsall Bottling Works, 2.5 ft. NE. of telephone pole, in concrete post; standard tablet stamped "Prim Trav Sta No 40 LS 1925 Texas C 37"-----	627. 437
From Dilley quadrangle at point 2.3 miles southeast of Derby northwest along road to Derby (by J. A. Shumate in 1928)	
Derby, 1.1 mi. SE. of, 40 ft. S. of rd., on N. edge of concrete water tank at windmill; chiseled square-----	506. 83
From Schattel quadrangle at point about 6.5 miles east of Pearsall west along road to Pearsall (by E. E. Harris in 1930)	
Pearsall, 6.0 mi. E. of, on N. edge of rd., at concrete bridge over Buckhorn Creek, on W. end of N. parapet; chiseled square-----	552. 42
Pearsall, 5.3 mi. E. of, on N. side of rd., 860 ft. W. of junction of rd. SE. to Goldfinch, in center of top face of NW. wing wall of concrete culvert; chiseled square-----	563. 78
Pearsall, 4.3 mi. E. of, 30 ft. N. of center line of rd., 22 ft. W. of gate to pasture, at fence corner, 1.5 ft. N. of fence line, in concrete post; standard tablet stamped "H 92 1930"-----	617. 525
Reference mark, 338 ft. S. 60°W. of tablet, on S. side of rd., on large sandstone boulder; chiseled square-----	618. 59
Pearsall, 3.3 mi. E. of, on N. side of rd., 2 ft. S. and 20 ft. E. from T-angle in fence line, on large boulder; chiseled square-----	634. 99
Pearsall, 2.2 mi. E. of, on N. side of rd., 100 ft. W. of private rd. N., in root on SE. side of southernmost of three live-oak trees; copper nail and washer-----	643. 07
Pearsall, 1.6 mi. E. of, 120 ft. E. of Y-rd. junction, midway between two rds. 41 ft. W. of fence, in center of triangle, in concrete post; standard tablet stamped "H 93 1930"-----	642. 089
Reference mark, 131 ft. W. of tablet, in center of N. head wall of concrete culvert at rd. fork; chiseled square-----	641. 07
Pearsall, 0.8 mi. E. of, on N. side of rd., on W. side of driveway at entrance to Pearsall cemetery, in center of head wall of concrete culvert; chiseled square-----	642. 64

PETRONILLA QUADRANGLE

[Latitude 27°30'–27°45'; longitude 97°30'–97°45']

KLEBERG AND NUECES COUNTIES

From Oso Creek quadrangle at point 1.4 miles west of London School west 0.2 mile, thence south and southwest to Los Laureles ranch, thence southeast 1.1 miles and back into Oso Creek quadrangle (by C. R. Fisher in 1922)	
London School, 1.6 mi. W. of, 10.6 mi. NE. of Los Laureles ranch house, at T-rd. S., at NE. fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 3 1922 Texas F 15"-----	35. 662
Reference mark, 40 ft. N. 75°W. of tablet, on top of W. wall of concrete culvert; chiseled square-----	37. 61

	Feet
Los Laureles ranch house, 9.6 mi. NE. of, at SE. corner of picket fence around white house; top of iron pipe-----	40. 09
Los Laureles ranch house, 8.8 mi. NE. of, 300 ft. N. of ranch house, E. of large reservoir, in center of top of E. wall of concrete culvert; chiseled square-----	38. 95
Los Laureles ranch house, 7.6 mi. NE. of, 25 ft. W. of W. post of gate to J. O. Chapman's Santa Cruz ranch, in concrete post; standard tablet stamped "Prim Trav Sta No 4 1922 Texas F 16"-----	42. 445
Los Laureles ranch house, 6.5 mi. NE. of, on W. side of rd.; top of iron pipe-----	41. 57
Los Laureles ranch house, 5.5 mi. NE. of, on E. side of rd., 2 ft. W. of telephone pole; top of iron pipe-----	38. 44
Los Laureles ranch house, 4.3 mi. NE. of, 0.9 mi. N. of crossroads at Santa Cruz ranch, on E. side of rd., 8 ft. S. of telephone pole, in concrete post; standard tablet stamped "F 17 Texas 1922"-----	36. 987
Los Laureles ranch house, 3.2 mi. NE. of, 0.3 mi. S. of Santa Cruz ranch, 20 ft. W. of W. gatepost, in fence corner; top of iron pipe-----	35. 40
Los Laureles ranch house, 1.7 mi. NE. of, at Kleberg-Nueces county line 30 ft. E. of rd.; in concrete post; standard tablet stamped "Prim Trav Sta No 5 1922 Texas F 18"-----	33. 779
Los Laureles ranch house, 0.6 mi. NE. of, on E. side of rd., at sharp bend, at T-fence E., 2 ft. W. of fence line; top of iron pipe-----	30. 24
Los Laureles ranch house, 500 ft. N. of, 10 ft. W. of W. post of gate for rd. N., in concrete post; standard tablet stamped "Prim Trav Sta No 6 1922 Texas F 19"-----	28. 149
Los Laureles ranch house, 0.8 mi. SE. of, 100 ft. S. of rd. fork, 2 ft. W. of W. gatepost; top of iron pipe-----	23. 37
From Kingsville quadrangle east along Kingsville road to Los Laureles ranch (by S. R. Archer in 1923; section between El Chiltipin and Los Laureles ranches relevelled by E. E. Harris in same year)	
El Chiltipin ranch house, 9.7 mi. W. of, 1.0 mi. E. of Palo Marcado well, 15 ft. S. of rd.; top of cap on iron pipe-----	49. 65
El Chiltipin ranch house, 8.8 mi. W. of, 15 ft. N. of rd.; top of cap on iron pipe-----	40. 48
El Chiltipin ranch house, 7.8 mi. W. of, 0.6 mi. W. of Noria Hondo wells, 100 ft. N. of old rd., on S. side of present rd.; top of auto axle-----	35. 22
El Chiltipin ranch house, 7.2 mi. W. of, in Richard Kleberg pasture, at Noria Hondo wells, 115 ft. SW. of N. well, in NW. corner of fence around earth tank, 4 ft. from corner post, in concrete post; standard tablet stamped "Prim Trav Sta No 28 Y 1923 Texas A 4"-----	35. 932
Reference mark, 212 ft. N.65°E. of tablet, 98 ft. N.60°E. of N. windmill, at NE. corner of fence around earth tank, in fence corner, 2 ft. from corner, 6 in. underground; top of cap on iron pipe-----	35. 87
El Chiltipin ranch house, 6.2 mi. W. of, 10 ft. S. of rd.; top of cap on iron pipe-----	35. 19
El Chiltipin ranch house, 5.0 mi. W. of, 0.5 mi. W. of gate in N.-S. fence line, 18 ft. N. of rd.; top of cap on iron pipe-----	34. 98
El Chiltipin ranch house, 4.5 mi. W. of, at N.-S. fence line, 27 ft. S. of S. gatepost, 1.2 ft. W. of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 29 Y 1923 Texas A 5"-----	34. 722
Reference mark, 100 ft. N.10°W. of tablet, 58 ft. N. of N. gatepost, 5 in. W. of fence, 6 in. underground; top of cap on iron pipe-----	34. 35
El Chiltipin ranch house, 3.5 mi. W. of, 1.0 mi. E. of gate in N.-S. fence line, 11 ft. S. of rd.; top of cap on iron pipe-----	35. 44

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	Feet
El Chiltipin ranch house, 2.5 mi. W. of, 0.5 mi. NW. of Aljivares windmill, 20 ft. N. of rd.; top of cap on iron pipe-----	36. 95
El Chiltipin ranch house, 1.4 mi. W. of, 0.9 mi. N.31°E. of Aljivares windmill, 45 ft. N. of rd., in open pasture, in concrete post; standard tablet stamped "Prim Trav Sta No 30 Y 1923 Texas A 6'"-----	30. 017
Reference mark, 100 ft. N.70°E. of tablet, 38 ft. N. of rd., 6 in. underground; top of cap on iron pipe-----	29. 20
El Chiltipin ranch house, 0.5 mi. W. of, 9 ft. S. of rd.; top of cap on iron pipe-----	32. 31
El Chiltipin ranch, 570 ft. SE. of main ranch house, 180 ft. SW. of windmill, in SW. corner of fence around earth tank, 4.5 ft. from corner post, in concrete post; standard tablet stamped "Prim Trav Sta No 31 Y 1923 Texas A 7'"-----	35. 671
Reference mark, 135 ft. SE. of tablet, in NE. side of 6-in. mesquite tree; copper nail and washer-----	34. 96
El Chiltipin ranch house, 1.0 mi. E. of, 15 ft. S. of rd.; top of cap on iron pipe-----	23. 12
El Chiltipin ranch house, 1.5 mi. E. of, 3.8 mi. W. of Los Laureles ranch house, 2.4 mi. W. of bridge over Petronilla Creek (Agua Dulce), 18 ft. S. of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 32 Y 1923 Texas A 8'"-----	22. 844
Reference mark, 162.9 ft. N.84°W. of tablet, 10 ft. N. of N. edge of rd., 6 in. underground; top of cap on iron pipe-----	22. 19
Los Laureles ranch house, 1.7 mi. W. of, 1.3 mi. W. of bridge over Petronilla Creek, between two rd. beds, on N. side of main rd.; top of cap on iron pipe-----	22. 78
Los Laureles ranch house, 1.4 mi. W. of, on S. side at W. end of bridge over Petronilla Creek, in top of last concrete block; standard tablet stamped "Prim Trav Sta No 33 Y 1923 Texas A 9'"-----	6. 224
Reference mark, on N. side at E. end of bridge, on top of last concrete block; chiseled square-----	5. 21
Los Laureles ranch house, 0.6 mi. W. of, on N. side of main rd., on S. side of old rd. bed; top of cap on iron pipe-----	28. 40
From Kingsville quadrangle northeast along road near St. Louis, Brownsville & Mexico Railway to point 3 miles northeast of Driscoll (by E. E. Harris in 1923)	
Driscoll, in front of sta.; top of rail-----	62. 8
Driscoll, 0.3 mi. NE. of sta., in SE. angle of crossroads, in L-angle in fence line, 18 in. from each fence, in concrete post; standard tablet stamped "H 11 Texas 1923"-----	60. 145
Reference mark, 49 ft. N. of tablet, on W. end of top of N. parapet of concrete bridge over ditch; chiseled square-----	61. 89
Driscoll, 1.2 mi. NE. of, 1,300 ft. NE. of Petronilla Creek, 360 ft. S. of R. R. milepost 133, on E. side of rd., on N. end of E. parapet of concrete highway bridge; chiseled square-----	62. 32
Driscoll, 2.2 mi. NE. of, opposite milepost 134, on E. side of rd., on N. end of E. parapet of concrete bridge; chiseled square-----	64. 85
Driscoll, 3.3 mi. NE. of, 500 ft. NE. of milepost 135, on E. side of rd., 750 ft. NE. of junction of rd. W., on top near S. end of E. parapet of concrete bridge; chiseled square-----	62. 07
U. S. C. & G. S. standard disk stamped "B 47 1917 66.65"-----	66. 765

From Robstown quadrangle at point 2.3 miles south of Violet along roads south 4.4 miles to E. O. Stubbs farm, thence west 3 miles, thence south and south-east by way of Luby ranch to El Chiltipin ranch (by E. E. Harris in 1923; last 8.4 miles leveled twice)	Feet
Violet, 2.8 mi. S. of, in NW. angle of junction of T-lane W., in L-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	58. 45
Violet, 3.7 mi. S. of, at right-angle jog in rd., in NW. angle of rd. junction, in L-angle in fence line, 2 ft. from each fence, in concrete post; standard tablet stamped "Prim Trav Sta No 34 Y 1923 Texas H 2"-----	58. 345
Reference mark, 91.6 ft. W. of tablet, 1 ft. N. of fence line; top of cap on iron pipe-----	57. 65
Violet, 5.2 mi. S. of, 1.5 mi. N. of E. O. Stubbs farm, on E. side of rd., in SE. corner of T-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	58. 84
Stubbs farm, 1.0 mi. N., thence 2.5 mi. E. from Petronilla, on N. side of rd., just E. of dwelling, in NW. corner of T-angle in fence line, 2 ft. from each fence, in concrete post; standard tablet stamped "Prim Trav Sta No Y 35 1923 Texas H 3"-----	55. 233
Reference mark, 96.7 ft. W. of tablet, 1 ft. N. of fence line; top of cap on iron pipe-----	54. 67
Petronilla, 1.0 mi. N., thence 1.5 mi. E. from, in NE. corner of junction of T-lane N., in L-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	54. 53
Petronilla, 1.0 mi. N. of, at offset crossroads, on W. side of N.-S. rd., 50 ft. N. of T-rd. W., in top of parapet of concrete bridge over ditch; standard tablet stamped "Prim Trav Sta No 36 Y 1923 Texas H 4"-----	54. 634
Reference mark, 25.9 ft. N. 63°E. of tablet, on N. end of E. parapet of bridge; chiseled square-----	54. 76
Petronilla, 25 ft. N. and 1.2 ft. W. from crossroads, on E. end of top of N. parapet of concrete bridge over ditch; chiseled square-----	51. 52
Petronilla, 1.0 mi. S. of, at jog in N.-S. rd., in SW. angle of junction of T-rd. S., in L-angle in fence line, 1 ft. from each fence, in concrete post; standard tablet stamped "Prim Trav Sta No 37 Y 1923 Texas H 5"-----	46. 150
Reference mark, 102.2 ft. S. of tablet, in L-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	45. 43
Petronilla, 2.0 mi. S. of, in SW. angle of junction of T-rd. W., in L-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	44. 09
Petronilla, 3.0 mi. S. of, 0.4 mi. N. and 0.3 mi. W. from gate to Luby ranch, on E. side of rd., in SE. corner of T-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	42. 99
Petronilla, 3.4 mi. S., thence 0.3 mi. E. from, 50 ft. W. of N. gate to Luby ranch, on S. side of rd., 2 ft. S. of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 38 Y 1923 Texas H 6" ⁹² -----	40. 079
Reference mark, 37 ft. W. of tablet, 1 ft. S. of fence line; top of cap on iron pipe-----	39. 62
Luby ranch, in NW. angle of junction of T-rd. W. to headquarters of, in L-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	38. 04
Luby ranch, at S. gate, 25 ft. W. of rd., on N. side of fence, in NE. corner of T-angle in fence line, 2 ft. from each fence; top of cap on iron pipe-----	34. 76

⁹² In 1937 this bench mark was destroyed.

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	Feet
Luby ranch, 1.7 mi. S. of, 4.0 mi. NW. of El Chiltipin ranch house, on W. side of rd., 30 ft. S. of junction of T-rd. E., 1 ft. W. of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No Y 39 1923 Texas H 7"	34. 366
Reference mark, 17.8 ft. S. of tablet, 1 ft. E. of fence line; top of cap on iron pipe	33. 78
El Chiltipin ranch house, 3.4 mi. NW. of, in NW. angle of junction of E.-W. rd., in L-angle in fence line, 18 in. from each fence; top of cap on iron pipe	33. 92
El Chiltipin ranch house, 2.7 mi. NW. of, 12 ft. E. of N. gate, 1 ft. S. of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 40 Y 1923 Texas H 8"	32. 709
Reference mark, 19.4 ft. N.65°E. of tablet, 1 ft. S. of second fence post E. of gate; top of cap on iron pipe	31. 95
From road junction 2 miles south of Petronilla west and northwest along roads into Kingsville quadrangle at point 1 mile south of Driscoll (by E. E. Harris in 1923)	
Petronilla, 2.0 mi. S., thence 0.8 mi. W. from, in SE. angle of junction of T-rd. S., in L-angle in fence line, 15 in. from each fence; top of cap on iron pipe	42. 04
Petronilla, 2.0 mi. S., thence 1.5 mi. W. from, in SW. angle of junction of T-rd. S., just W. of bridge over canal; top of cap on iron pipe	43. 85
Petronilla, 2.0 mi. S., thence 2.5 mi. W. from, on N. side of rd., 20 ft. N. of gate, at jog in E.-W. fence line, in corner, 2 ft. from each fence, in concrete post; standard tablet stamped "H 9 Texas 1923"	48. 367
Reference mark, 65.3 ft. E. of tablet, 1 ft. S. of fence line; top of cap on iron pipe	47. 52
Petronilla, 2.0 mi. S., thence 3.5 mi. W. from, 1.0 mi. SW., thence 4.2 mi. SE. from Driscoll, 1,000 ft. N. of Barbee cotton gin, just N. of bridge, on E. side of prominent bend in rd.; top of cap on iron pipe	45. 34
Driscoll, 1.0 mi. SW., thence 2.5 mi. SE. from, 70 ft. S. and 70 ft. W. from crossroads, in L-angle in fence line, 2 ft. from each fence, in concrete post; standard tablet stamped "H 10 Texas 1923"	49. 792
Reference mark, 102.3 ft. E. of tablet, in L-angle in fence line, 2 ft. from each fence; top of cap on iron pipe	49. 20
Driscoll, 1.0 mi. SW., thence 1.5 mi. SE. from, 30 ft. S. of center line of rd., on SE. side of T-rd. SW., 1 ft. W. of first fence post S. of corner; top of cap on iron pipe	53. 61
Driscoll, 1.0 mi. SW., thence 0.5 mi. SE. from, in NW. angle of crossroads, in L-angle in fence line, 18 in. from each fence; top of cap on iron pipe	58. 58

POTEET QUADRANGLE

[Latitude 29°00'-29°15'; longitude 98°30'-98°45']

ATASCOSA AND BEXAR COUNTIES

Generally south along Pleasonton road (by M. S. Bright in 1901)

[A jog from Saspamco quadrangle]

Earle, 4.5 mi. S. of, midway between mileposts 16 and 17, on W. side of rd., at fence corner; iron post stamped "593 SA"	586. 112
Earle, 7.0 mi. S. of, on W. side of rd., opposite milepost 19, near wire fence; iron post stamped "594 SA"	587. 266

From Saspamco quadrangle at point near Childress store west and north along settlement roads, Gates Valley road, and San Antonio-Amphion road into West San Antonio quadrangle (by M. S. Bright in 1901)

	Feet
Childress store, 4.2 mi. W. of, about 3.5 mi. SE. of Gates Valley Church, on E. side of rd., at W. entrance to pasture of John Cavender, 4 ft. E. of gate; iron post stamped "501 SA"-----	494. 063
Gates Valley Church, about 0.4 mi. N. of, at rd. junction, on SE. side of rd., 200 ft. S. of house of H. Meadows, near rail fence; iron post stamped "525 SA"-----	518. 146
U. S. C. & G. S. standard disk stamped "W 324 1935" ⁹³ -----	534. 205
Gates Valley Church, 2.8 mi. N. of, at gate in rd. fork, near wire fence; iron post stamped "585 SA"-----	578. 217
Gates Valley Church, 5.2 mi. N. of, 21.5 mi. SW. of San Antonio, on W. side of rd., 1,400 ft. N. of E.-W. sand ridge, 900 ft. S. of gate, near wire fence; iron post stamped "657 SA"-----	650. 317
San Antonio, 18.5 mi. SW. of, about 900 ft. N. of junction of settlement rd. SE., on W. side of rd., 4 ft. N. of 24-in. blazed blackjack tree; iron post stamped "751 SA"-----	744. 024
San Antonio, 15.8 mi. SW. of, at summit of ridge, 1,800 ft. N. of church, on E. side of rd., near wire fence; iron post stamped "631 SA"-----	624. 291
From West San Antonio quadrangle at point 1.7 miles north of Bexar along roads south to Rossville, thence east to point 0.4 mile north of Gates Valley Church (by M. S. Bright in 1901)	
Bexar, about 1 mi. N. of, in NE. angle of crossroads, near 18-in. post-oak tree used as corner fence post; iron post stamped "634 SA"-----	627. 355
Bexar, about 1 mi. S. of, 1.0 mi. N. of Somerset (Old Somerset), 275 ft. N. of junction of lane W., on E. side of rd., near wire fence, 8 ft. W. of 30-in. post-oak tree; iron post stamped "682 SA"-----	675. 312
Somerset, 2.0 mi. S. of, about 6 mi. N. of Rossville, on E. side of rd., near wire fence, 6 ft. N. of 14-in. hickory tree; iron post stamped "745 SA"-----	738. 260
Rossville, 3.2 mi. N. of, on E. side of rd., at SE. fence corner of cultivated field; iron post stamped "651 SA"-----	644. 190
Rossville, at SW. corner of post office, on E. side of rd.; iron post stamped "557 SA" (recovered in 1930)-----	550. 298
Rossville, 1.8 mi. SE. of, at intersection of dim E.-W. rd. and Benton-Pleasanton rd., in fence corner; iron post stamped "563 SA" ⁹⁴ -----	556. 535
From Natalia quadrangle along roads generally east to Rossville, thence southeast 5.5 miles, thence southwest into Jourdanton quadrangle at point 0.2 mile southwest of Amphion (by E. E. Harris in 1930)	
Anchorage, 1.1 mi. NW. of, on N. side of rd., 100 ft. W. of junction of T-rd. S., in root on S. side of 10-in. live-oak tree between two larger live-oak trees; copper nail and washer-----	576. 64
Anchorage, 0.15 mi. S. of post office, 40 ft. E. of center line of rd., at right-angle turn N. in rd., in line with S. edge of rd. W., in root on N. side of 20-in. mesquite tree; copper nail and washer-----	554. 43
Anchorage, 0.5 mi. E. of, 2.1 mi. SW. of Rossville, 19 ft. S. of sharp angle N. in rd., 50 ft. E. of small bridge, 2 ft. S. of fence line, in concrete post; standard tablet stamped "H 76 1930"-----	495. 717

⁹³ The tie between this mark and the bench mark stamped "525 SA" was made in 1936.

⁹⁴ In 1930 this bench mark was moved to a point described as "28 feet southeast and 22 feet southwest from junction of T-road southwest" and reset 0.399 foot higher than its original elevation. The figures given represent the new elevation.

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	Feet
Reference mark, 138 ft. N.10°W. of tablet, in crotch of prominent mesquite tree; copper nail and washer-----	494. 54
Rossville, 1.0 mi. SW. of, on W. side of rd., in root on E. side of 18-in. mesquite tree; copper nail and washer-----	544. 50
Rossville, about 0.25 mi. N. of post office, 1,280 ft. N. of iron post, at rd. junction, at N. corner of service sta., on concrete base of gas pumps; chiseled square ⁸⁵ -----	560. 00
Rossville, 1.0 mi. SE. of, at junction of T-lane N., on S. side of angle in rd., at T-angle in fence line, in crotch of small mesquite tree; copper nail and washer-----	589. 38
Rossville, 2.6 mi. SE. of, in SW. corner of junction of T-rd. S., in root on W. side of prominent mesquite tree; copper nail and washer-----	536. 86
Rossville, 3.4 mi. E. of, on N. side of rd., 75 ft. W. of ranch rd. N. through gate, in root on N. side of 60-in. live-oak tree; copper nail and washer-----	500. 73
Rossville, 4.7 mi. SE. of, on E. side of rd., in center of top of SW. concrete wing wall of bridge; chiseled square-----	468. 89
Rossville, 5.5 mi. SE. of, 2.0 mi. NW. of Poteet, 4.0 mi. NE. of Amphion, 31 ft. S. and 19 ft. W. from junction of T-rd. W., in concrete post; standard tablet stamped "H 79 1930"-----	492. 151
Reference mark, 1,490 ft. S.30°W. of tablet, in root on N. side of large live-oak tree in rd.; copper nail and washer-----	493. 09
Amphion, 3.0 mi. NE. of, in SE. corner of junction of T-rd. SE., in crotch of small mesquite tree; copper nail and washer-----	487. 96
Amphion, 2.0 mi. NE. of, at junction of private rd. E. to house on hill, on W. side of rd., in root on SW. side of leaning mesquite tree; copper nail and washer-----	437. 21
Amphion, 1.6 mi. NE. of, at bridge over creek; on W. side of rd., on NW. corner of steel girder; top of iron bolt head-----	425. 62
Amphion, 0.7 mi. NE. of, 20 ft. W. of center line of rd., in front of house, at summit of grade, 2.5 ft. S. and 0.5 ft. E. from angle in fence line, in concrete block; bronze tablet (U. S. C. E. B. M.)-----	495. 648
Amphion, at jog in NW.-SE. cross rd., 41 ft. S. and 24 ft. W. from junction of T-rd. NW., in angle in fence line, 2.5 ft. from each fence, in concrete post; standard tablet stamped "H 81 1930"-----	469. 705

ROBSTOWN QUADRANGLE

[Latitude 27°45'-28°00'; longitude 97°30'-97°45']

NUECES AND SAN PATRICIO COUNTIES

From Banquete quadrangle southeast along Texas Mexican Railway to Robstown (by S. L. Parker in 1920; relevelled by J. H. Wilke and E. E. Harris in 1923)

Robstown, 4.3 mi. NW. of, opposite milepost 141, 40 ft. S. of track, 30 ft. W. of rd. S.; top of cap on iron pipe (established in 1923; recovered by U. S. C. & G. S. in 1932)-----	82. 552
Robstown, 3.3 mi. NW. of, 120 ft. SE. of milepost 142, 45 ft. SW. of rd. crossing, on W. side of rd. S., 4 ft. W. of fence corner, 1 ft. N. of right-of-way fence line; iron post stamped "1920 85" (recovered by U. S. C. & G. S. in 1932 and designated "W 12")-----	85. 125
Reference mark, 73 ft. S.80°W. of iron post, 6 in. underground; top of cap on iron pipe (established in 1923)-----	84. 13

⁸⁵ Established as a reference mark for the bench mark stamped "557 SA," previously described.

	Feet
Robstown, 1.3 mi. NW. of, about 100 ft. SE. of milepost 144, at corner of fence S., 1 ft. N. of fence line; top of cap on iron pipe (established in 1923)-----	75. 40
U. S. C. & G. S. standard disk stamped "O 46 1917 77.32"-----	77. 441
From Robstown southeast and east along Texas Mexican Railway 2.9 miles, thence alternately south and east along roads into Petronilla quadrangle at point 2.3 miles south of Violet (by E. E. Harris in 1923)	
U. S. C. & G. S. standard disk stamped "R 46 1917 65.02"-----	65. 141
Robstown, 2.9 mi. E., thence 2.0 mi. S. from, 2.0 mi. S., thence 1.8 mi. W. from Violet, in NW. angle of junction of T-rd. W., in L-angle in fence line, 2 ft. from each fence, in concrete post; standard tablet stamped "Prim Trav Sta No 16 Y 1923 Texas H 1"-----	68. 407
Reference mark, 100 ft. N. of tablet, 1 ft. W. of fence line, 6 in. underground; top of cap on iron pipe-----	68. 02
Violet, 2.0 mi. S., thence 0.9 mi. W. from, in SW. angle of junction of T-rd. S., in NE. corner of F. Schultz farm; top of cap on iron pipe-----	64. 16
Violet, 2.0 mi. S. of, in SW. angle of junction of N.-S. rd., in NE. corner of Olson farm, in angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	58. 08
From point 1.9 miles west of Clarkwood east along Texas Mexican Railway 3 miles (by J. H. Wilke in 1923; leveled twice)	
U. S. C. & G. S. standard disk stamped "S 46 1917 57.99"-----	58. 104
Clarkwood, 1.0 mi. W. of, 5 ft. W. of third telephone pole E. of milepost 152, on S. side of track; top of cap on 1½-in. iron pipe-----	54. 54
Clarkwood, opposite sta.; top of rail-----	50. 6
Clarkwood, 660 ft. E. of sta., at T-rd. N., 50 ft. W. of rd., on N. side of track, in line with telegraph poles; top of cap on 1½-in. iron pipe-----	48. 21
U. S. C. & G. S. standard disk stamped "T 46 1917 46.50"-----	46. 621
From Clarkwood along roads north 3.2 miles, thence northwest to Calallen, thence north along St. Louis, Brownsville & Mexico Railroad to Nueces River (by J. H. Wilke in 1923; leveled twice)	
Clarkwood, 1.1 mi. N. of, 28 ft. N. and 25 ft. E. from junction of T-rd. E., at SW. corner of field, opposite earthen water tank, inside fence, in concrete post; standard tablet stamped "Prim Trav Sta No 21 Y 1923 Texas W 13 53"-----	52. 795
Reference mark, 46.5 ft. W. of tablet, on W. side of rd., inside fence, 8 in. underground; top of cap on 1-in. iron pipe-----	51. 71
Clarkwood, 2.2 mi. N. of, about 1,000 ft. N. of one and one-half story house, on W. side of rd., at fence line through brush; top of cap on 1½-in. iron pipe-----	55. 86
Clarkwood, 3.2 mi. N. of, 2.3 mi. SE. of Nuecestown, 1.2 mi. SW. of Viola, 47 ft. S. and 35 ft. W. from junction of Corpus Christi-San Antonio rd., 2 ft. N. of fence, in concrete post; standard tablet stamped "Prim Trav Sta No 22 Y 1923 Texas W 14 65"-----	65. 146
Reference mark, 86.2 ft. NE. of tablet, on N. side of rd., 3 ft. NE. of fence corner at fence N., 6 in. underground; top of cap on 1-in. iron pipe-----	63. 30
Nuecestown, 1.5 mi. SE. of, at junction of rd. S., on SW. corner of concrete culvert; chiseled square-----	58. 83
Nuecestown, 1.2 mi. SE. of, on SW. side of rd., at angle, 200 ft. W. of gate to house on S. side of rd., at fence on high bank; top of cap on 1½-in. iron pipe-----	65. 99
Nuecestown, 0.9 mi. SE. of, on SW. corner of concrete culvert; chiseled square-----	33. 22

	<i>Feet</i>
Nuecestown, 0.7 mi. SE. of, on NE. corner of concrete culvert; chiseled square-----	60. 20
Nuecestown, 48 ft. SE. of SE. corner of store, on N. side of rd., 2 ft. NW. of telephone pole, at fence; top of cap on 1½-in. iron pipe-----	67. 07
Nuecestown, 0.6 mi. NW. of, on SW. corner of concrete culvert over ravine; chiseled square-----	52. 75
Nuecestown, 0.9 mi. NW. of, 3.4 mi. SE. of Calallen, in S. angle of junction of T-rd. SW., on high bank, about 3 ft. SE. of corner fence post, in concrete post; standard tablet stamped "W 15 1923 65"-----	65. 255
Reference mark, 50 ft. E. of tablet, at fence on high bank, 6 in. underground; top of cap on 1-in. iron pipe-----	63. 42
Calallen, 2.9 mi. SE. of, on SE. corner of concrete culvert; chiseled square-----	11. 99
Calallen, 2.8 mi. SE. of, on concrete culvert; chiseled square-----	16. 98
Calallen, 2.6 mi. SE. of, at rd. S. to house, 33 ft. SE. of concrete culvert, 4 ft. W. of gate; top of cap on 1½-in. iron pipe-----	41. 07
Calallen, 2.0 mi. SE. of, on SW. corner of concrete culvert; chiseled square-----	40. 15
Calallen, 1.3 mi. SE. of, on SW. corner of concrete culvert; chiseled square-----	15. 11
Calallen, 0.8 mi. SE. of, 50 ft. S. and 140 ft. E. from rd. fork, in rear of large signboard, at fence; top of 1½-in. iron pipe with cap-----	14. 62
Calallen, 0.7 mi. SE. of, on NW. corner of concrete culvert; chiseled square-----	13. 69
U. S. C. & G. S. standard disk stamped "L 46 1917 34.08"-----	34. 199
Calallen, at St. Louis, Brownsville & Mexico Ry. sta., at switch stand; top of rail-----	33. 5
U. S. C. & G. S. standard disk stamped "K 46 1917 11.05"-----	11. 165
From Angelita northeast along St. Louis, Brownsville & Mexico Railway to Odem, thence northwest along San Antonio, Uvalde & Gulf Railroad to Hubert, thence along roads southwest and northwest into Banquete quadrangle at point about 1.5 miles east of San Patricio (by J. H. Wilke in 1923)	
U. S. C. & G. S. standard disk stamped "J 46 1917 31.40"-----	31. 516
Angelita, 1.2 mi. NE. of, 1.6 mi. SW. of Odem, in line with rd. E., at fence between R. R. right-of-way and rd., flush with ground; top of bolt-----	53. 01
Odem, at NW. corner of crossing of S. L. B. & M. Ry. and S. A. U. & G. R. R.; top of rail common to both lines-----	75. 6
U. S. C. & G. S. standard disk stamped "M 46 1917 77.15"-----	77. 267
Odem, 1.1 mi. NW. of, on E. side of rd. crossing, 59 ft. SW. of track, 8 ft. S. of R. R. right-of-way, under fence; top of cap on 1½-in. iron pipe-----	81. 71
Odem, 1.9 mi. NW. of, in NW. angle of rd. junction, 8 ft. W. of fence corner; top of cap on 1½-in. iron pipe-----	78. 04
Odem, 2.7 mi. NW. of, opposite gate near house, in line with fence S., on N. edge of R. R. right-of-way, at fence; top of cap on 1½-in. iron pipe-----	84. 20
Odem, 3.7 mi. NW. of, 1.0 mi. SE. of Frederick, at rd. crossing, 48 ft. N. of track, on E. side of rd., 10 ft. E. of fence corner, in concrete post; standard tablet stamped "W 1 Texas 1923 90"-----	89. 977
Reference mark, 55.5 ft. W. of tablet, 49 ft. N. of track, on W. side of rd., under fence, 6 in. underground; top of cap on 1-in. pipe-----	89. 48
Frederick, on N. side of R. R. right-of-way, 6 ft. W. of fence corner; top of cap on 1½-in. iron pipe-----	93. 21
Frederick, opposite switch stand; top of rail-----	95. 6

	Feet
Frederick, 1.0 mi. NW. of, 0.5 mi. SE. of Edroy, at rd. crossing, on E. side of rd., on S. edge of R. R. right-of-way, 8 ft. E. of fence corner; top of cap on 1½-in. iron pipe-----	95. 58
Edroy, 175 ft. NE. of sta., 45 ft. S. of SW. corner of houses just E. of store, in concrete post; standard tablet stamped "W 2 1923 98"-----	98. 476
Reference mark, 205.3 ft. W. of tablet, on W. side of rd. N., at fence, 6 in. underground; top of cap on 1-in. iron pipe-----	97. 93
Edroy, at rd. crossing; top of rail-----	98. 4
Edroy, 0.6 mi. NW. of, 150 ft. NW. of rd. crossing, at private rd. to Mexican house, 8 ft. W. of gatepost; top of cap on 1½-in. iron pipe-----	83. 56
Edroy, 1.7 mi. NW. of, 1.0 mi. SE. of Hubert, on N. side of rd., at SE. corner of lot at windmill, 27 ft. E. of fence corner; top of cap on 1½-in. iron pipe-----	99. 75
Hubert, in NE. angle of crossroads, 7 ft. E. of corner fence post, in concrete post; standard tablet stamped "Prim Trav Sta No 5 Y 1923 Texas W 3"-----	103. 979
Reference mark, 50.5 ft. E. of tablet, just inside fence, 6 in. underground; top of 1-in. iron pipe-----	103. 26
Hubert, at rd. crossing; top of rail-----	106. 5
Hubert, 1.0 mi. SW. of, about 570 ft. S. of house on W. side of rd., on W. right-of-way of rd.; top of cap on 1½-in. iron pipe-----	103. 95
Hubert, 2.0 mi. SW. of, on W. side of rd., 7 ft. S. and 31 ft. E. from SE. corner of two-story house, at fence; top of cap on 1½-in. iron pipe-----	104. 29
Hubert, 3.0 mi. SW. of, on N. side of sharp turn NW. in rd., just inside fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 6 Y 1923 Texas W 5 22"-----	22. 611
Reference mark, 50 ft. NE. of tablet, at fence, 6 in. underground; top of cap on 1-in. iron pipe-----	22. 69
Hubert, 3.0 mi. SW., thence 1.0 mi. NW. from, 375 ft. NW. of gate to house with red roof, on N. side of rd., at edge of brush; top of cap on 1½-in. iron pipe-----	27. 15
From Banquete quadrangle at point about 2.7 miles southwest thence 2.5 miles southeast from Bluntzer along roads southeast 2.4 miles, southwest 3.3 miles, northwest 1.6 miles, and southwest 0.7 mile and back into Banquete quadrangle at point about 1 mile northeast of Rabb (by J. H. Wilke fn 1923)	
Bluntzer, 2.7 mi. S., thence 2.9 mi. SE. from, 5.0 mi. N., thence 5.5 mi. NW. from Robstown, 600 ft. N. of rd., at rd. to house, just W. of gate, in concrete post; standard tablet stamped "Prim Trav Sta No 9 Y 1923 Texas W 8 72"-----	72. 019
Reference mark, 50 ft. W. of tablet, 2 ft. inside fence, 6 in. underground; top of cap on 1-in. iron pipe-----	71. 10
Robstown, 5.0 mi. N., thence 4.6 mi. NW. from, inside rd. fence, under fence N.; top of cap on 1½-in. iron pipe-----	93. 93
Robstown, 5.0 mi. N., thence 3.6 mi. NW. from, in SE. angle of junction of T-rd. SE.; at new bungalow and water tank, 5 ft. E. of fence corner; top of cap on 1½-in. iron pipe-----	96. 44
Robstown, 4.0 mi. N. and 3.6 mi. W. from, about 1,200 ft. S. of large yellow house, on W. side of rd., at fence line W., 2 ft. W. of fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 10 Y 1923 Texas W 9. 93"-----	92. 679
Reference mark, 49.7 ft. N. of tablet, under fence, 6 in. underground; top of cap on 1-in. iron pipe-----	92. 20

708 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Robstown, about 2.7 mi. N. and 3.7 mi. W. from, at rd. W. to house, 35 ft. N. of gate; top of cap on 1½-in. iron pipe-----	90. 95
Robstown, 1.7 mi. N. and 3.8 mi. W. from, 2.0 mi. NE., thence 1.6 mi. SE. from Rabb, in NE. angle of junction of T-rd. NE., in fence corner; top of cap on 1½-in. iron pipe-----	88. 44
Rabb, 2.0 mi. NE., thence 0.9 mi. SE. from, on S. side of rd., at T-fence N. and lane NW. through gate, in concrete post; standard tablet stamped "Prim Trav Sta No 11 Y 1923 Texas W 10 88"-----	87. 698
Reference mark, 50 ft. E. of tablet, just outside fence, 6 in. underground; top of cap on 1-in. iron pipe-----	86. 74
Rabb, 2.0 mi. NE. of, in SW. angle of junction of T-rd. SW., in fence corner; top of cap on 1½-in. iron pipe-----	85. 61
Rabb, 1.4 mi. NE. of, in SE. angle of crossroads, in fence corner; top of cap on 1½-in. iron pipe-----	84. 83

From Hubert northwest 1.7 miles along San Antonio, Uvalde & Gulf Railroad (by J. H. Wilke in 1923; leveled twice)

Hubert, 0.6 mi. NW. of, at fence with gate across rd., on N. side of rd., 27 ft. NW. of fence corner; top of cap on 1½-in. iron pipe-----	105. 90
Hubert, 1.3 mi. NW. of, at NW. corner of crossroads; top of pipe-----	109. 31
Hubert, 1.5 mi. NW. of, at middle one of three concrete R. R. culverts, on highest point on S. end; chiseled square-----	112. 66
Hubert, 1.8 mi. NW. of, 8 ft. E. of milepost 122, 41 ft. S. of center line of track; top of cap on 1½-in. iron pipe-----	111. 93

From point on San Antonio, Uvalde & Gulf Railroad 1.3 miles northwest of Hubert along road northeast and north into Sinton quadrangle (by J. H. Wilke in 1923; leveled twice)

Hubert, 1.3 mi. NW., thence 0.7 mi. NE. from, 100 ft. NW. of rd. fork, 15 ft. N. of gate to lane; top of 2-in. iron pipe with elbow-----	108. 54
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ROCKPORT QUADRANGLE

[Latitude 28°00'–28°15'; longitude 97°00'–97°15']

ARANSAS, REFUGIO, AND SAN PATRICIO COUNTIES

From Aransas Pass quadrangle northeast along Aransas Pass-Rockport road to Rockport, thence generally west and southwest along roads by way of Port Bay and Pocket Farm and back into Aransas Pass quadrangle at Rincon ranch (by E. E. Harris in 1923)

Rockport, 1.0 mi. SW. of, just N. of old shipyard site, on E. side of rd., in center of top of parapet of concrete culvert; chiseled square-----	5. 30
Rockport magnetic sta., 0.57 mi. S. of Aransas County courthouse, at end of Live Oak Street, in plot of land laid out for city park, just N. of clump of live-oak trees, in concrete post; U. S. C. & G. S. standard magnetic sta. disk designated "Prim Trav Sta No 48 Y 1923 Texas H 19"-----	5. 547
Rockport, at N. entrance to courthouse, in E. end of top stone step; standard tablet stamped "H 20 Texas 1923"-----	10. 984
Reference mark, 100 ft. N. 50°E. of tablet, at S. entrance to county jail, on W. end of second stone step from ground; chiseled square-----	8. 30
Rockport, at NW. corner of junction of Aransas Pass rd. and rd. W. to Bayside, in center of top of parapet of concrete culvert; chiseled square-----	6. 82
Rockport, 1.2 mi. W. of rd. junction, on S. side of rd., 40 ft. E. of fence corner; top of concrete post 4 in. square at top-----	17. 41

	Feet
Rockport, 2.4 mi. W. of, at first bend in rd. W. of Rockport, 34 ft. N. of rd., 4 ft. W. of SW. corner of yard fence, in concrete post; standard tablet stamped "Prim Trav Sta No 47 Y 1923 Texas H 21"	12. 213
Reference mark, 108 ft. S.55°W. of tablet, in root on N. side of 20-in. live-oak tree; copper nail and washer-----	10. 68
Rockport, 3.3 mi. W. of, 35 ft. N. of rd., in root on N. side of 4-in. live-oak tree, one of six trees in clump; copper nail and washer-----	6. 79
Rockport, 4.4 mi. W. of, 0.9 mi. E. of Port Bay Hunting & Fishing Club, on NW. side of rd. SE. to Aransas Pass, on S. side of fence, 4 ft. W. of gatepost, in concrete post; standard tablet stamped "Prim Trav Sta No 46 Y 1923 Texas H 22"-----	5. 540
Reference mark, 119.1 ft. N.65°W. of tablet, 1 ft. S. of fence post; top of cap on iron pipe-----	5. 00
Rockport, 5.5 mi. W. of, about 0.2 mi. SW. of Port Bay Hunting & Fishing Club, 0.3 mi. NE. of E. end of causeway across Port Bay, on S. side of rd., in slight angle in fence line, 1 ft. S. of fence; top of cap on iron pipe-----	3. 97
Rockport, 5.8 mi. W. of, in SE. corner of floor of causeway; copper nail and washer-----	6. 47
Rockport, 6.3 mi. W. of, in SW. corner of floor of causeway; copper nail and washer-----	6. 91
Port Bay, 1 ft. below causeway; surface of water April 3, 1923, at 7:30 a. m.-----	5. 9
Rockport, 7.0 mi. W. of, 0.7 mi. W. of W. end of causeway, 780 ft. W. of westernmost of four small wooden bridges, 300 ft. E. of highway tangent and in line with it, 38 ft. S. of center line of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 45 Y 1923 Texas H 23"-----	4. 194
Reference mark, 39 ft. N.80°W. of tablet, in small grass plot, 6 in. underground; top of cap on iron pipe-----	3. 16
Rockport, 8.0 mi. W. of, on N. side of rd., 700 ft. E. of easternmost of three small wooden bridges, on N. edge of bank; top of cap on iron pipe-----	8. 30
Rockport, 9.0 mi. W. of, 50 ft. N. of center line of rd., in line with telephone poles, 5 ft. E. of pole; top of cap on iron pipe-----	9. 25
Rockport, 10.0 mi. W. of, about 3 mi. SE. of Bayside, about 2 mi. NE. of Pocket Farm of Fulton Coleman Pastures Co., 0.2 mi. S. of Sorresson Clubhouse, on Copane Bay, 800 ft. SE. of junction of rd. to Pocket Farm, at gatepost, in concrete post; standard tablet stamped "Prim Trav Sta No 44 Y 1923 Texas H 24"-----	16. 428
Reference mark, 222 ft. S.33°W. of tablet, on concrete post 4 in. square at top; chiseled cross-----	16. 73
Pocket Farm, 0.8 mi. NE. of, 1 ft. E. of fence and telephone line; top of cap on iron pipe-----	11. 16
Pocket Farm, 0.3 mi. NE. of, about 800 ft. W. of flowing well, on N. side of fence and telephone line, 1 ft. N. of gate; top of cap on iron pipe-----	11. 62
Pocket Farm, 1.2 mi. SW. of, 2.5 mi. NE. of headquarters of Rincon ranch, along fence and telephone line N. from Tasajio windmill, at fence W., 0.4 mi. E. of gate in fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 43 Y 1923 Texas H 25"-----	11. 716
Reference mark, 655 ft. N. of tablet, at Aransas-San Patricio county line, on NE. side of fence and telephone line; top of iron pipe-----	12. 16
Rincon ranch headquarters, 1.6 mi. NE. of, 0.5 mi. N. of Tasajio windmill, 1 ft. E. of fence and telephone line; top of cap on iron pipe-----	18. 19

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Rincon ranch headquarters, 1.0 mi. NE. of, just W. of Tasajio windmill, on N. side of fence, 1 ft. E. of corner post at gate in fence line; top of cap on iron pipe-----	Feet 19. 23
SABINAL NO. 2 QUADRANGLE	
[Latitude 29°15'—29°30'; longitude 99°15'—99°30']	
MEDINA AND UVALDE COUNTIES	
From New Fountain quadrangle west along Galveston, Harrisburg & San Antonio Railroad ⁶⁸ into Uvalde No. 1 quadrangle (by J. A. Hinman in 1896; double-rodded line)-----	
D'Hanis, about 1 mi. W. of, 3.9 mi. SE. of Seco, at bridge over Seco River, 11 telegraph poles E. of mileboard 269, in top of N. end of E. rock pier; copper bolt stamped "889"-----	882. 580
Seco, 1.4 mi. W. of, about 5.5 mi. E. of Sabinal, 75 ft. E. of mileboard 274, about 50 ft. S. of track; iron post stamped "1006 SA" (recovered by U. S. C. & G. S. in 1917, stamped "999.58," and designated "G 34") ⁶⁹ -----	999. 736
Sabinal, 0.25 mi. E. of sta., 35 ft. E. of milepost 280, in solid rock; iron post stamped "957 SA" (recovered in 1930)-----	950. 844
From Sabinal north along Sabinal-Utopia road to old Bandera-Sabinal road, thence northeast into Tarpley quadrangle (by J. A. Hinman in 1896; double-rodded line)-----	
Sabinal, about 4.2 mi. N. of, at junction of Bandera-Sabinal county rd., 800 ft. NE. of two-story stone house of Bascom Lyles; iron post stamped "1022 SA" ⁷⁰ -----	1, 015. 786
Sabinal, 9.8 mi. NE. of, 30 ft. E. of rd., 45 ft. W. of lone 15-in. live-oak tree; iron post stamped "1102 SA"-----	1, 094. 223
From Sabinal south along Sabinal-Friotown road into Sabinal No. 3 quadrangle (by J. A. Hinman in 1897)-----	
Sabinal, 3.4 mi. S. of, at junction of Sabinal-Batesville and Sabinal-Friotown rds.; iron post stamped "894 SA"-----	887. 710
From Sabinal generally north along Utopia road 4 miles (by E. E. Harris in 1930; single spur line)-----	
Sabinal, 0.9 mi. N. of, on E. side of rd., 50 ft. S. of lane E., 1 ft. W. of fence line, in root on E. side of small mesquite tree; copper nail and washer-----	964. 71
Sabinal, 1.2 mi. N. of, in NE. corner of junction of T-rd. W., on head wall of concrete culvert; chiseled square-----	971. 60
Sabinal, 2.0 mi. N. of, on E. side of rd., 80 ft. S. of junction of rd. E., in crotch of mesquite tree; copper nail and washer-----	983. 48
Sabinal, 2.0 mi. N., thence 0.9 mi. W. from, 275 ft. W. of gate at end of lane, 100 ft. SE. of dwelling, on NW. corner of concrete foundation of steel windmill; chiseled square ⁷¹ -----	985. 27
Sabinal, 2.9 mi. N. of, 70 ft. E. of center line of rd., opposite lane W., on S. side of fence line, in crotch of mesquite tree; copper nail and washer-----	996. 58

⁶⁸ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

⁶⁹ The U. S. Coast & Geodetic Survey reports that in 1922 a line was cut through the old elevation "1006." The U. S. C. & G. S. describes this mark as "6 telegraph poles west of milepost 273."

⁷⁰ In 1930 this mark was reported destroyed. It was replaced by the bench mark stamped "H 62 1930," described on p. 711.

⁷¹ On single spur line west 0.9 mile.

SABINAL NO. 3 QUADRANGLE

711

Sabinal, 4.0 mi. N. of, 28 ft. W. of center line of Utopia rd., 26 ft. N. of pasture rd., about 500 ft. NE. of two-story stone house, 2.5 ft. W. of fence line, in concrete post; standard tablet stamped "H 62 1930"	Feet
Reference mark, 240 ft. S. 40°E. of tablet, on NE. corner of concrete foundation of windmill; chiseled square	1,011.800
	1,010.33

From Sabinal east along State highway about 1 mile (by E. E. Harris in 1930; single spur line)

Sabinal, 1.0 mi. E. of, 60 ft. S. of back of house, on SW. corner of concrete foundation of well No. C-97; chiseled square	947.59
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SABINAL NO. 3 QUADRANGLE

[Latitude 29°00'-29°15'; longitude 99°15'-99°30']

FRIO, MEDINA, UVALDE, AND ZAVALA COUNTIES

From Sabinal No. 2 quadrangle along Sabinal-Friotown road and other roads generally south by way of Woodward ranch to Friotown, thence east and southeast into Pearsall quadrangle ² (by J. A. Hinman in 1897)

Sabinal, 6.0 mi. S. of, 20 ft. W. of rd., 50 ft. N. of NE. corner of old stone house; iron post stamped "844 SA"	837.748
Sabinal, 9.8 mi. S. of, 1.0 mi. N. of Sabinal River crossing, at junction of Sabinal-Friotown rd. and ranch rd.; iron post stamped "799 SA"	792.704
Sabinal, 11.7 mi. S. of, at junction of Sabinal-Friotown and Friotown-Uvalde rds.; iron post stamped "768 SA"	761.630
Sabinal, 15.1 mi. S. of, at junction of rd. which crosses Blanco Creek and Frio River just above mouth of Sabinal River; iron post stamped "723 SA"	716.666
Sabinal, 18.9 mi. S. of, 6.1 mi. NW. of Woodward ranch, 200 ft. S. of slough, 15 ft. W. of rd., near plain cattle trail; iron post stamped "706 SA"	699.566
Woodward ranch, 2.0 mi. NW. of, at intersection of rd. near gate, rd. W. very dim; iron post stamped "692 SA"	685.521
Woodward ranch, 1.7 mi. SE. of, 3.2 mi. NW. of Friotown, on E. side of rd., at point where rd. turns left to avoid mudhole; iron post stamped "653 SA"	646.401
Friotown, at abandoned courthouse now used as store and post office, on E. side of N. entrance, in foundation wall; copper bolt stamped "632 SA" (recovered in 1930)	625.814
Friotown, 3.8 mi. SE. of, 125 ft. N. of gate on bank of Frio River, 15 ft. S. of rd.; iron post stamped "620 SA" and "Prim Trav Sta No 46 LS 1925 Texas" (recovered in 1925)	613.451

From Yancey quadrangle generally southwest along Hondo-Friotown road and Blackaller ranch road to Woodward ranch (by J. A. Hinman in 1897)

Seco Creek Crossing, 3.0 mi. W. of, 7.2 mi. NE. of Blackaller ranch house, at junction of settlement rd. and Friotown-Hondo county rd.; iron post stamped "678 SA" ³	670.934
Blackaller ranch house, 4.0 mi. NE. of, at point where present rd. leaves old rd. on account of wash, returning a short distance below, 3 ft. S. of rd.; iron post stamped "666 SA"	659.476

¹ This bench mark replaces the iron post stamped "1022 SA," described on p. 710.

² This line crosses the northeast corner of Dirst quadrangle but no permanent bench marks were set along that portion of the line.

³ Described in Yancey quadrangle also

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From Woodward ranch southwest along ranch road to Friotown-Uvalde road, thence east to Friotown (by J. A. Hinman in 1897)	
Woodward ranch, 4.9 mi. SW. of, 4.6 mi. W. of Friotown, at intersection of Friotown-Uvalde rd.; iron post stamped "673 SA" (recovered in 1930)	Feet 666. 784
From Blackaller ranch generally north along roads by way of Virgil Johnson ranch into Sabinal No. 2 quadrangle (by J. A. Hinman in 1897)	
Blackaller ranch house, 6.0 mi. N. of, 35 ft. S. of rd., 80 ft. S. of Woodward windmill, 200 ft. E. of N.-S. mesquite-pole fence in Woodward pasture; iron post stamped "790 SA"	783. 453
Blackaller ranch house, 9.0 mi. N. of, 13.2 mi. SW. of D'Hanis, in front of residence of Virgil Johnson, on rd. from point on Friotown-Hondo rd. near John Allen place to Sabinal, 2,000 ft. S. of Squirrel Creek; N. iron post stamped "815 SA"	808. 478
D'Hanis, 9.8 mi. SW. of, 10 ft. E. of gate, in fence corner; iron post stamped "925 SA"	918. 507
D'Hanis, 6.5 mi. SW. of, at rd. junction, 50 ft. S. of gate, near E.-W. fence; iron post stamped "966 SA"	959. 622
From Friotown northeast along road into Yancey quadrangle (by E. E. Harris in 1930; single spur line)	
Friotown, 0.6 mi. NE. of, in NE. corner of rd. junction, near N. bank of Frio River, in root on S. side of mesquite tree; copper nail and washer	627. 63
Friotown, 1.6 mi. NE. of, on SE. side of rd., in root on E. side of prominent mesquite tree; copper nail and washer	647. 35
Friotown, 2.7 mi. NE. of, 24 ft. NW. of center line of rd., at gate, 1.5 ft. from fence line, in concrete post; standard tablet stamped "H 65 1930"	632. 315
Reference mark, 140 ft. S.30°W. of tablet, in root on NE. side of leaning mesquite tree; copper nail and washer	630. 96
Friotown, 3.8 mi. NE. of, on E. side of rd., 25 ft. N. of gate, in root on W. side of forked mesquite tree; copper nail and washer	649. 33
Friotown, 4.6 mi. NE. of, on W. side of rd., in root on E. side of 20-in. live-oak tree; copper nail and washer	675. 25
From point 0.6 mile northeast of Friotown north along road to Blackaller ranch (by E. E. Harris in 1930; single spur line)	
Friotown, 1.7 mi. N. of, 40 ft. W. of center of angle in rd., at N. end of turn-out for mudhole, in crotch of mesquite tree; copper nail and washer	638. 83
Friotown, 2.3 mi. N. of, 40 ft. N. of gate in fence line crossing rd., on E. side of rd., in root on E. side of 12-in. mesquite tree; copper nail and washer	642. 49
Friotown, 3.3 mi. N. of, about 0.9 mi. SE. of Blackaller ranch house, on W. side of rd., at summit of grade, W. of old abandoned oil derrick, on prominent sandstone ledge; chiseled square	673. 04
Blackaller ranch house, about 300 ft. SE. of, near NE. corner of Mexican house, in root on W. side of large mesquite tree; copper nail and washer	652. 78
From point on Uvalde road 4.6 miles west of Friotown along roads north 0.8 mile, thence west 4.8 miles (by E. E. Harris in 1930; single spur line)	
Friotown, about 4.7 mi. W. of, in SE. corner of crossroads, 15 ft. E. of cattle guard, in root on W. side of large mesquite tree; copper nail and washer	660. 43

	<i>Feet</i>
Friotown, about 5.9 mi. W. of, in SW. corner of intersection of dim rd., in crotch of mesquite tree; copper nail and washer-----	668. 29
Friotown, about 6.6 mi. W. of, 31 ft. N. of center line of rd., 13 ft. E. of ranch rd. N., at cattle guard, 2.5 ft. E. of fence line, in concrete post; standard tablet stamped "H 63 1930"-----	681. 150
Reference mark, 80 ft. S.40°E. of tablet, in crotch of mesquite tree; copper nail and washer-----	680. 67
Friotown, about 7.7 mi. W. of, at W. end of graded rd., in SE. corner of crossroads, in root on N. side of large mesquite tree; copper nail and washer-----	693. 37
Friotown, about 8.6 mi. W. of, in fork of Y-rd., in root on W. side of mesquite tree; copper nail and washer-----	700. 61
Friotown, about 9.7 mi. W. of, 8 ft. N. of ranch rd. at gate, 100 ft. SE. of Mexican shack, 35 ft. N. of windmill, 2 ft. W. of fence, in concrete post; standard tablet stamped "H 64 1930"-----	708. 521
Reference mark, 139 ft. W. of tablet, in root on E. side of 12-in. mesquite tree; copper nail and washer-----	708. 26

From point about 6.6 miles west of Friotown northwest along road 1.9 miles (by E. E. Harris in 1930; single spur line)

Friotown, 6.6 mi. W., thence 0.8 mi. NW. from, 50 ft. S. of gate in fence line crossing rd., at edge of ranch rd., in root on N. side of large mesquite tree; copper nail and washer-----	683. 00
Friotown, 6.6 mi. W., thence 1.4 mi. NW. from, in NW. corner of junction of rd. W., at gate in fence line, 10 ft. W. of fence, in root on W. side of small mesquite tree; copper nail and washer-----	685. 62
Friotown, 6.6 mi. W., thence 1.9 mi. NW. from, on S. side of rd., 100 ft. SE. of ranch house, E. of windmill, in root on N. side of prominent mesquite tree; copper nail and washer-----	694. 48

From point 4.7 miles west of Friotown east along road 1.8 miles (by E. E. Harris in 1930; single spur line)

Friotown, 3.6 mi. W. of, on S. side of graded rd., on E. side of cleared field S. of rd., in root on N. side of prominent mesquite tree; copper nail and washer-----	657. 51
Friotown, 3.0 mi. W. of, 40 ft. S. of graded rd., 50 ft. W. of N.-S. ranch rd., in root on E. side of mesquite tree; copper nail and washer-----	657. 60

SALTIMBO RANCH QUADRANGLE

[Latitude 26°45'-27°00'; longitude 97°30'-97°45']

KENEDY COUNTY

At San Jose ranch (by J. L. Lenovitz in 1919-20)

[A jog from Tarida Ranch quadrangle]

San Jose ranch, at SE. corner of corral; iron post stamped "Prim Trav Sta No 12 1919" and "L 1920 35"-----	35. 298
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From Tarida Ranch quadrangle at point 1.1 miles northwest of San Jose ranch northwest along road by way of Saltillo ranch into Armstrong quadrangle at point 1.7 miles east of Norias (by J. L. Lenovitz in 1919-20)

San Jose ranch, 2.9 mi. NW. of, on N. side of rd.; iron post stamped "Prim Trav Sta No 13 1919" and "L 1920 27"-----	26. 994
San Jose ranch, 3.5 mi. W. of, 6.3 mi. SE. of gate at Saltillo ranch house, on S. side of rd., in mesquite tree; copper nail and washer-----	25. 66
Saltillo ranch, 2.9 mi. SE. of, on S. side of rd.; iron post stamped "Prim Trav Sta No 14 1919" and "L 1920 21"-----	20. 834

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	Feet
Saltillo ranch, opposite gate; iron post stamped "Prim Trav Sta No 15 1919" and "L 1920 29"-----	29. 466
From Tarida Ranch quadrangle at point 4.7 miles southeast of Norias northwest 3 miles along road into Armstrong quadrangle (by J. L. Lenovitz in 1920)-----	
Norias, 4.4 mi. SE. of, on E. side of rd., in trunk of mesquite tree; copper nail and washer-----	22. 80
Norias, 2.6 mi. SE. of, on E. side of rd., in trunk of mesquite tree; copper nail and washer-----	20. 57
Norias, 2.1 mi. SE. of, on E. side of rd., in mesquite tree; copper nail and washer-----	18. 49
From Armstrong quadrangle at point about 3 miles northeast of Armstrong generally east, southeast, and south along fence lines and roads by way of San Pedro and Los Tajos ranches to San Jose ranch (by A. K. Andrews in 1920-21)-----	
Armstrong, 5.5 mi. NE. of, 5.2 mi. NW. of San Pedro ranch house, 600 ft. W. of sand hills, in fence line; iron post stamped "Prim Trav Sta No 45 W 21"-----	21. 258
San Pedro ranch house, 1.5 mi. W. of, in E.-W. fence line; iron post stamped "Prim Trav Sta No 46 W 1920 25"-----	26. 214
San Pedro ranch house, 2.7 mi. SE. of, 3.5 mi. NW. of artesian well at Los Tajos ranch, at sharp turn in N.-S. fence line; iron post stamped "Prim Trav Sta No 51 W 1920 9"-----	10. 137
Los Tajos ranch, 0.5 mi. SE. of ranch house, 900 ft. N. of cattle pens, 300 ft. N. of artesian well, in N.-S. fence line; iron post stamped "Prim Trav Sta No 50 W 1920 12"-----	12. 577
Los Tajos ranch, 5.0 mi. along fence line SE. of, 4.5 mi. along rd. N., thence 0.9 mi. along fence line SE. from San Jose ranch, 8.8 mi. SE. of San Ignacio ranch house, at T-fence corner; iron post stamped "Prim Trav Sta No 49 W 1920 10"-----	10. 096
From Armstrong quadrangle at point about 3.5 miles southeast of Armstrong southeast across country and along fence lines by way of San Ignacio ranch to point 4.5 miles north along road and 0.9 mile southeast along fence line from San Jose ranch (by Basil Tuttle in 1920-21)-----	
Armstrong, 4.2 mi. SE. of, 4.3 mi. NW. of San Ignacio ranch house, 500 ft. SE. of narrow opening between two sand dunes, in small patch of mesquite brush, in root of 4-in. mesquite bush; copper nail and washer-----	17. 75
San Ignacio ranch house, 0.6 mi. NW. of, 70 ft. S. of rd., in base of lone mesquite tree; copper nail and washer-----	17. 77
San Ignacio ranch house, about 1,600 ft. S. of, 50 ft. W. of watering trough, on N. side of E.-W. fence line, on W. side of gate; iron post stamped "Prim Trav Sta No 4 W Texas 1920 16"-----	16. 210
San Ignacio ranch house, 3.9 mi. E. of, on top of hill, 2 ft. from post in E.-W. fence, below red and white signal board; iron post stamped "Prim Trav Sta No 48 1920 20"-----	20. 502

SAN BENITO QUADRANGLE *

[Latitude 26°00'-26°15'; longitude 97°30'-97°45']

CAMERON COUNTY

From Fernando quadrangle at point in Combes southeast 0.2 mile along road to Santa Rosa road, thence east 3.3 miles, thence north 0.2 mile and back into Fernando quadrangle (by J. B. Leachman in 1928)

	Feet
Combes, about 400 ft. SE. of St. Louis, Brownsville & Mexico Ry. sta., 20 ft. S. and 30 ft. W. from crossroads, in telegraph pole; rail spike	41. 15
Combes, 0.1 mi. SE., thence 0.8 mi. E. from sta., 35 ft. S. of rd., 35 ft. N. and 80 ft. W. from house, in root of small mesquite tree; copper nail and washer	39. 70
Combes, 0.1 mi. SE., thence 1.5 mi. E. from, 30 ft. N. of rd., 15 ft. S. of Mexican hut, in root of 18-in. mesquite tree; copper nail and washer	35. 44
Combes, 0.1 mi. SE., thence 2.1 mi. E. from, 1,000 ft. E. of junction of T-rd. N., 70 ft. N. of rd., in root of 18-in. mesquite tree; copper nail and washer	33. 47
Combes, 0.1 mi. SE., thence 2.8 mi. E. from, 0.6 mi. S. and 1.7 mi. W. from Briggs Coleman School, 90 ft. N. and 30 ft. W. from crossroads, 110 ft. NE. of small service sta., in concrete post; standard tablet stamped "JBL 1 1928" (recovered in 1929)	32. 948
Reference mark, 40 ft. S. and 30 ft. W. from tablet, 50 ft. N. and 60 ft. W. from crossroads, on concrete base of service sta. pump; chiseled square	32. 82
From Combes west 1 mile along Santa Rosa road (State Highway 107) into Mercedes quadrangle (by J. B. Leachman in 1928)	
Combes, 0.1 mi. SE., thence 0.5 mi. W. from St. Louis, Brownsville & Mexico Ry. sta. at, 50 ft. S. and 20 ft. W. from junction of T-rd. S., on concrete culvert at irrigation ditch; chiseled square	44. 17
Combes, 0.1 mi. SE., thence 1.0 mi. W. from, 70 ft. S. and 20 ft. W. from junction of T-rd. S., on S. wall of culvert at irrigation ditch; chiseled square	45. 88
From road junction 0.1 mile southeast and 0.5 mile west from Combes along roads west 0.5 mile, thence south and west into Mercedes quadrangle at point 0.8 mile south and 0.5 mile east from Primera (by S. H. Holm in 1928)	
Combes, 0.6 mi. S. and 1.0 mi. W. from, 1.1 mi. N. and 0.5 mi. E. from Primera, 350 ft. S. and 25 ft. W. from crossroads, in root of 25-in. locust tree; copper nail and washer	41. 40
Primera, 0.5 mi. N. and 0.5 mi. E. from, 1.9 mi. W., thence 0.3 mi. N. from Avondale, 30 ft. S. and 80 ft. E. from junction of private T-rd. W., at angle in irrigation ditch, on shelf on sluice gate; chiseled square	43. 21
Primera, 0.3 mi. S. and 0.5 mi. E. from, 32 ft. E. of crossing of Southern Pacific R. R., on N. concrete head wall of irrigation ditch; chiseled square	46. 81
Primera, 0.8 mi. S., thence 0.5 mi. E. from, 40 ft. N. and 15 ft. W. from junction of rd. S. at offset crossroads, 38 ft. N. and 32 ft. E. from junction of rd. N., in knot near base of 15-in. mesquite tree; copper nail and washer	45. 23

* A small area in the southwest corner of this quadrangle, south of the Rio Grande, lies in Mexico.

From Fernando quadrangle at point 0.4 mile south of Briggs Coleman School along roads alternately south and east to Rio Hondo (by S. H. Holm in 1928)

Briggs Coleman School, 0.4 mi. S. of, 250 ft. S. and 30 ft. W. from junction of T-rd. W., in root of 18-in. mesquite tree; copper nail and washer ⁶	Feet 31. 58
Briggs Coleman School, 0.6 mi. S., thence 0.4 mi. E. from, 12 ft. N. and 750 ft. W. from crossroads, on top of N. concrete head wall of culvert over irrigation canal; chiseled square	35. 18
Briggs Coleman School, 0.6 mi. S., thence 1.1 mi. E. from, 0.8 mi. N. and 4.1 mi. W. from Rio Hondo, 12 ft. N. and 23 ft. E. from crossroads, on top of N. concrete head wall of culvert; chiseled square	33. 48
Rio Hondo, 0.8 mi. N. and 3.5 mi. W. from, 30 ft. S. and 10 ft. E. from crossroads, on top of E. end of culvert in irrigation canal; chiseled square	33. 23
Rio Hondo, 0.3 mi. N. and 2.2 mi. W. from, 300 ft. W. of crossing of dim rd., 20 ft. N. of rd., in crotch near base of twin mesquite tree; copper nail and washer	33. 60
Rio Hondo, 1.2 mi. W. of, 120 ft. N. and 30 ft. E. from center of rd. fork, in base of twin mesquite tree; copper nail and washer (reported destroyed)	27. 23
Rio Hondo, 0.5 mi. W. of, 6 ft. N. and 5 ft. W. from NW. corner of steel bridge over Arroyo Colorado, in top of wooden pile of approach; small metal disk stamped "E 14 28.34" (Cameron County B. M.)	28. 447
Rio Hondo, 400 ft. S. of San Benito & Rio Grande Valley Ry. sta., at center of crossing of Main street; top of E. rail	28. 6
Rio Hondo, 500 ft. SE. of crossing of R. R. and rd., 50 ft. W. of track, 2 ft. SE. of water tower and windmill, in concrete post; bronze disk stamped "W 1924" (U. S. C. E. B. M. 5)	26. 615
From Rio Hondo alternately east and south along roads by way of Lantana to road junction 1.4 miles east and 3.2 miles south from Rio Hondo (by S. H. Holm in 1928)	
Rio Hondo, 0.6 mi. E., thence 0.1 mi. S. from, 400 ft. S. and 15 ft. W. from junction of Sam Houston Boulevard, 50 ft. S. and 15 ft. W. from junction of T-rd. E., in top of W. concrete head wall of culvert; small metal disk stamped "E 22 28.87" (Cameron County B. M.)	29. 020
Rio Hondo, 0.6 mi. E., thence 1.0 mi. S. from, 20 ft. N. and 14 ft. W. from junction of private rd. NW., in top of W. concrete head wall of culvert; small metal disk stamped "E 21 30.69" (Cameron County B. M.)	30. 825
Rio Hondo, 0.6 mi. E., thence 1.7 mi. S. from, 26 ft. S. and 14 ft. W. from junction of T-rd. E., 90 ft. N. and 14 ft. W. from junction of Rancho Colorado rd., in top of W. concrete head wall of culvert; small metal disk stamped "E 20 30.28" (Cameron County B. M.)	30. 425
Rio Hondo, 0.6 mi. E., thence 2.5 mi. S. from, 0.1 mi. E., thence 0.5 mi. N. from Lantana, 900 ft. N. and 30 ft. W. from junction of dim T-rd. E., at edge of timber; top of 4- by 4-in. concrete land mark	30. 70
Lantana, 400 ft. E. of Southern Pacific R. R. sta., 35 ft. N. and 80 ft. W. from crossing, 18 ft. S. of SE. corner of Wade & Newton shipping shed, 5 ft. E. of telegraph pole, in line with poles, in concrete post; standard tablet stamped "H 4 1928"	29. 657

⁶ This bench mark was originally established by J. B. Leachman in the same year.

	Feet
Lantana, 0.1 mi. E., thence 0.2 mi. S. from, 0.6 mi. E., thence 3.2 mi. S. from Rio Hondo, 50 ft. S. of junction of rd. SE., 25 ft. N. of store and service sta., 3 ft. above ground, in trunk of 18-in. mesquite tree; copper nail and washer-----	36. 17
Rio Hondo, 1.4 mi. E., thence 3.2 mi. S. from, 35 ft. S. of junction of T-rd. E., on W. side of Barreda rd., in concrete post; bronze disk stamped "F 6 1924" (U. S. C. E. B. M.)-----	30. 486
From point 1.4 miles east and 3.2 miles south from Rio Hondo along roads south 4.5 miles, west 0.8 mile, thence south 2.9 miles to St. Louis, Brownsville & Mexico Railway at point 3.3 miles southeast of San Benito, thence northwest 0.3 mile (by S. H. Holm in 1928; first 3.3 miles leveled twice)	
Rio Hondo, 1.4 mi. E., thence 4.5 mi. S. from, 1.0 mi. E., thence 1.8 mi. S. from Lantana, 30 ft. S. and 50 ft. E. from junction of T-rd. E., in root of small mesquite tree; copper nail and washer-----	24. 69
Rio Hondo, 1.4 mi. E., thence 5.3 mi. S. from, 50 ft. E. of rd., opposite house, on top of concrete head wall in drainage ditch; chiseled square-----	24. 96
Rio Hondo, 1.4 mi. E., thence 6.5 mi. S. from, 2.0 mi. NE., thence 2.8 mi. SE. from San Benito, 2.5 mi. W. of San Jose Ranch School, 35 ft. S. and 22 ft. W. from crossroads, 4 ft. W. of corner fence post, in concrete post; standard tablet stamped "H 6 1928"-----	26. 480
Rio Hondo, 1.4 mi. E., thence 6.5 mi. S. from, near NE. corner of crossroads, in head wall of irrigation ditch; small metal disk (Cameron County B. M.)-----	29. 762
Rio Hondo, 1.4 mi. E., thence 7.2 mi. S. from, 3.5 mi. E. of San Benito, 75 ft. N. and 22 ft. W. from crossing of San Benito & Rio Grande Valley Ry.; top of section of rail set vertically-----	29. 36
Rio Hondo, 1.4 mi. E., thence 7.5 mi. S. from, 0.4 mi. S. and 3.5 mi. E. from San Benito, 12 ft. S. and 28 ft. E. from center of wooden bridge over irrigation canal, on top of concrete sluice gate; chiseled square-----	27. 38
San Benito, 2.8 mi. SE. along U. S. Highway 83 and Iowa Gardens rd., thence 1.0 mi. N. from, 30 ft. S. and 18 ft. E. from junction of N.-S. rd., 8 ft. N. and 17 ft. E. from center of wooden bridge over irrigation canal, on top of concrete sluice gate; chiseled square-----	30. 78
San Benito, 2.8 mi. SE., thence 0.2 mi. N. from, 9 ft. N. and 32 ft. E. from center of 30-in. corrugated iron culvert in irrigation canal, on top of N. head wall of sluice gate; chiseled square-----	32. 35
San Benito, 2.8 mi. SE., thence 0.8 mi. S. from, 1.4 mi. NW., thence 0.2 mi. N. from Barreda, 30 ft. N. and 70 ft. W. from junction of T-lane E., in crotch at base of small mesquite tree; copper nail and washer-----	30. 13
U. S. C. & G. S. standard disk stamped "T 48 1918 32.70"-----	32. 815
From point 2 miles northeast thence 2.8 miles southeast from San Benito east 4.3 miles along San Jose ranch rd., thence generally north along roads about 4 miles, thence west 4.3 miles to point 1.4 miles east and 3.2 miles south from Rio Hondo (by S. H. Holm in 1928; leveled by J. M. Lawson in 1929)	
San Benito, 2.0 mi. NE., thence 3.3 mi. SE. from, 2.0 mi. W. of San Jose Ranch School, in top of N. concrete head wall of culvert; small metal disk (Cameron County B. M.)-----	23. 146
San Jose Ranch School, 1.5 mi. W. of, 33 ft. N. and 26 ft. W. from crossroads, in top of N. concrete head wall of irrigation ditch; small metal disk (Cameron County B. M.)-----	25. 211
San Jose Ranch School, 1.2 mi. W. of, in N. concrete head wall of culvert; small metal disk (Cameron County B. M.)-----	27. 451

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	Feet
San Jose Ranch School, 0.8 mi. W. of, 30 ft. N. and 25 ft. W. from crossroads, in top of concrete head wall of irrigation ditch; small metal disk (Cameron County B. M.)-----	28. 355
San Jose Ranch School, 0.3 mi. W. of, 20 ft. N. and 15 ft. W. from junction of T-rd. N., 6 ft. N. of corner fence post, in concrete post; standard tablet stamped "H 7 1928"-----	30. 087
Reference mark, 6 ft. S. and 3 ft. W. from tablet, on head wall of culvert; chiseled square-----	30. 40
San Jose Ranch School, 0.6 mi. E. of, 30 ft. N. and 700 ft. E. from junction of T-rd. N., in top of N. concrete head wall of irrigation ditch; small metal disk (Cameron County B. M.)-----	28. 756
San Jose Ranch School, 1.0 mi. E. of, 1.6 mi. N. of Kreston, 15 ft. N. and 70 ft. E. from intersection of Olmito North rd., in top of N. concrete head wall of irrigation ditch; small metal disk (Cameron County B. M.; recovered in 1929)-----	24. 219
San Jose Ranch School, 1.5 mi. E. of, 1.0 mi. W. of Lacoma, 4.0 mi. N., thence 2.0 mi. W. from Los Fresnos, in N. concrete head wall of culvert in drainage ditch; small metal disk (Cameron County B. M.)-----	18. 87
Lacoma, 0.8 mi. W. of, 30 ft. N. and 25 ft. W. from junction of T-rd. N., in concrete post; standard tablet stamped "H 8 1928" (recovered in 1929)-----	20. 209
Lacoma, 0.8 mi. W., thence 0.5 mi. N. from, 75 ft. S. and 30 ft. E. from junction of rd. along N. side of Resaca de los Fresnos, 5 ft. N. of NE. corner of bridge, in root of small mesquite tree; copper nail and washer-----	20. 61
Lacoma, 1.1 mi. W. and 1.0 mi. N. from, 425 ft. S. of crossroads, 25 ft. W. of rd., in base of 8-in. mesquite tree; copper nail and washer-----	22. 33
Lacoma, 1.1 mi. W. and 1.4 mi. N. from, 24 ft. S. and 36 ft. W. from junction of rd. SE., in base of small mesquite tree; copper nail and washer-----	21. 41
Lacoma, 1.1 mi. W. and 1.8 mi. N. from, 1.4 mi. S. of Hadata, 112 ft. N. and 36 ft. W. from crossing of Southern Pacific R. R., 7 ft. S. and 5 ft. E. from telegraph pole, in line of poles, in concrete post; standard tablet stamped "H 9 1928"-----	21. 194
Hadata, 0.7 mi. S. of, 48 ft. S. and 42 ft. E. from crossroads, in top of knot near base of small mesquite tree; copper nail and washer-----	18. 26
Hadata, 0.1 mi. S. of, 0.3 mi. S. of Barratada ranch, 27 ft. N. of center of gate, in root of 12-in. mesquite tree; copper nail and washer-----	26. 08
Hadata, on W. side of Alice Coach rd., 35 ft. S. 40° E. of SE. corner of School 3 of District 10, in schoolyard, in concrete post; bronze disk stamped "F 3 1924 25.5" (U. S. C. E. P. B. M. 5)-----	26. 201
Hadata, about 0.6 mi. N. of, opposite junction of Alice Coach and Nopal rds., 20 ft. W. of blazed tree, in mesquite tree; spike (U. S. C. E. I. B. M. 17)-----	21. 022
Hadata, 0.6 mi. N., thence 0.3 mi. W. from, 2.0 mi. S. of Las Yescas School, 15 ft. N. and 42 ft. W. from crossroads, in base of 6-in. mesquite tree; $\frac{1}{2}$ -in. spike-----	16. 60
Hadata, 0.6 mi. N., thence 1.2 mi. W. from, 25 ft. N. and 6 ft. E. from junction of rd. N., in trunk near base of 10-in. mesquite tree; $\frac{1}{2}$ -in. spike-----	21. 03

	Feet
Hadata, 0.6 mi. N., thence 2.1 mi. W. from, 0.7 mi. E. of Lozano, 150 ft. S. and 32 ft. E. from crossroads, 32 ft. N. and 32 ft. E. from crossing of Southern Pacific R. R., in concrete post; standard tablet stamped "H 10 1928"-----	26. 264
Lozano, 0.3 mi. S., thence 0.3 mi. E. from, 40 ft. S. and 50 ft. E. from junction of dim T-rd. S., in notch of 18-in. mesquite tree; copper nail and washer-----	25. 66
Lozano, 0.3 mi. S. of, 3.0 mi. E., thence 3.0 mi. S. from Rio Hondo, 48 ft. N. and 15 ft. W. from crossroads, on top of concrete head wall of culvert; chiseled square-----	26. 12
From point 0.6 mile north and 0.3 mile west from Hadata generally north along roads by way of Las Yescas ranch into Fernando quadrangle at point 5.2 miles east and 1.9 miles north from Rio Hondo (by S. H. Holm in 1928; leveled twice)	
Las Yescas School, 1.0 mi. S. of, 240 ft. S. and 30 ft. W. from rd. fork, in base of 16-in. mesquite tree; $\frac{1}{2}$ -in. spike-----	20. 56
Las Yescas School, 950 ft. S. and 300 ft. E. from, 0.2 mi. S. of junction of T-rd. S., in fence line, in 8-in. mesquite tree; $\frac{1}{2}$ -in. spike-----	21. 59
Las Yescas School, 300 ft. NE. of, 5.3 mi. E., thence 0.8 mi. SE. from Rio Hondo, 40 ft. E. of junction of rd. E., 13 ft. N. and 6 ft. E. from NW. corner of fence, in base of 8-in. mesquite tree; $\frac{1}{2}$ -in. spike-----	22. 45
Rio Hondo, 5.2 mi. E. of, 27 ft. S. and 30 ft. W. from intersection of Olmito North and Rio Hondo East rds., 2 ft. W. of corner fence post, in concrete post; standard tablet stamped "H 11 1928"-----	17. 198
Reference mark, 60 ft. N. and 110 ft. E. from tablet, in trunk near base of 6-in. mesquite tree; $\frac{1}{2}$ -in. spike-----	19. 27
Rio Hondo, 5.2 mi. E., thence 0.8 mi. N. from, 33 ft. E. of junction of rd. NW., in knot near base of 6-in. twin mesquite tree; small stove bolt and nut-----	15. 63
From road junction 0.6 mile east and 3.2 miles south from Rio Hondo southwest along Sam Houston Boulevard to San Benito (by S. H. Holm in 1928)	
Rio Hondo, 0.6 mi. E., thence 3.4 mi. SW. from, 5.3 mi. NE. of San Benito, 300 ft. S. of store and service sta., in top of W. concrete head wall of culvert; small metal disk stamped "E 18 35.54" (Cameron County B. M.)-----	35. 705
Cowgill triangulation sta., 4.4 mi. NE. of San Benito, 20 ft. N. and 18 ft. W. from junction of dim T-rd. SE., in line with rd., in concrete post; U. S. C. & G. S. standard reference disk-----	32. 780
San Benito, 2.8 mi. NE. of, about 600 ft. S. of Nopalton sta. on San Benito & Rio Grande Valley Ry., 30 ft. E. of rd., on top of concrete slab over well; chiseled square-----	34. 03
San Benito, 2.0 mi. NE. of, 150 ft. N. of R. R. crossing, 15 ft. E. of rd., on top of E. head wall of culvert; chiseled square-----	36. 13
San Benito, 1.6 mi. NE. of; small metal disk stamped "38.96" (Cameron County B. M.)-----	39. 115
San Benito, 1.1 mi. NE. of, 10 ft. S. and 125 ft. E. from junction of rd. SE., 35 ft. E. of store and service sta., in line with power-line poles, in concrete post; standard tablet stamped "H 5 1928"-----	38. 401
San Benito, 1.1 mi. NE. of, between track and rd., in curb of irrigation culvert; small metal disk (Cameron County B. M.)-----	39. 329
San Benito, 0.6 mi. NE. of, 300 ft. S. of R. R. crossing, 50 ft. W. of street, in top of W. head wall of drainage canal; small metal disk stamped "E 11 40.35" (Cameron County B. M.)-----	40. 423
U. S. C. & G. S. standard disk stamped "R 48 1918 40.16"-----	40. 276

From Harlingen generally east along Palmetto Boulevard and other roads to Southern Pacific Railroad at point 1.2 miles west of Arroyo, thence east to point 1 mile east of Lantana, thence south along road 0.3 mile (by J. B. Leachman in 1928)	
U. S. C. & G. S. standard disk stamped "M 48 1918 44.87" (recovered in 1929)	Feet 44. 987
Harlingen, at corner of Harrison and Eighth Streets, 20 ft. S. and 2 ft. E. from curb; top of 4-in. concrete post used as street sign	42. 57
Harlingen, on Harrison Street, 1.0 mi. E. of St. Louis, Brownsville & Mexico Ry. sta., 30 ft. S. and 60 ft. E. from street intersection, on top of S. concrete wall of irrigation ditch; chiseled square	43. 33
Harlingen, 1.8 mi. E. of, 15 ft. N. and 35 ft. W. from junction of T-rd. N.; 80 ft. W. of irrigation ditch, in top of concrete culvert; small metal disk (Cameron County B. M.)	39. 476
Harlingen, 2.3 mi. E. of, 0.5 mi. E. of junction of T-rd. N., 370 ft. W. of small house, 30 ft. N. of rd., in top of concrete wall of irrigation ditch; small metal disk (Cameron County B. M.)	38. 105
Harlingen, 2.8 mi. E. of, 30 ft. N. and 40 ft. E. from junction of T-rd. N., in top of concrete culvert; small metal disk (Cameron County B. M.)	34. 71
Harlingen, 2.9 mi. E. of, 30 ft. N. and 520 ft. E. from junction of T-rd. N., 440 ft. E. of irrigation ditch, 45 ft. S. and 35 ft. E. from house, 2 ft. N. of fence line, in concrete post; standard tablet stamped "JBL 19 1928"	35. 552
Harlingen, 3.6 mi. E. of, 20 ft. S. and 30 ft. E. from junction of T-rd. N., 50 ft. W. of irrigation ditch, on top of concrete culvert; chiseled square	33. 79
Harlingen, 4.6 mi. E. of, 1.5 mi. W., thence 0.4 mi. S. from Southern Pacific R. R. sta. at Arroyo, 0.5 mi. E. of junction of T-rd. N., 45 ft. N. and 35 ft. E. from bend N. in rd., 45 ft. N. of Mexican hut, in root of 12-in. mesquite tree; copper nail and washer	29. 42
Arroyo, 100 ft. E. of sta., 25 ft. N. of track, 12 ft. S. of telegraph pole, in concrete post; standard tablet stamped "JBL 20 1928"	33. 176
Reference mark, 100 ft. W. of tablet, at E. end of sta., on stone door-sill; chiseled square	34. 66
Arroyo, 0.3 mi. E. of, at E. end of R. R. bridge over Arroyo Colorado, in base plate of N. truss; top of rivet	36. 41
Arroyo, 1.0 mi. E. of, 0.7 mi. W. of Lantana, 1,000 ft. W. of crossing of San Benito & Rio Grande Valley Ry., 190 ft. W. of rd. crossing, 10 ft. S. of track, on top of concrete wall of irrigation ditch; chiseled square	34. 46
Lantana, 700 ft. NE. of sta., 0.6 mi. E., thence 3.0 mi. S. from Rio Hondo, 350 ft. N. of rd. crossing, in top of W. concrete head wall of culvert; small metal disk stamped "E 19 26.26" (Cameron County B. M.)	26. 432
Lantana, 0.7 mi. E. of, 10 ft. N. and 50 ft. W. from rd. crossing, on top of concrete head wall of irrigation ditch; chiseled square	33. 70
From point 4.6 miles east of Harlingen north 0.4 mile along road to Southern Pacific Railroad, thence west 0.5 mile, thence along roads north 1.4 miles, west 0.8 mile, north 1.2 miles, and east 1.2 miles to road junction 3.2 miles west and 0.3 mile north from Rio Hondo (by J. B. Leachman in 1928)	
Harlingen, 4.1 mi. E., thence 1.0 mi. N. from, 0.6 mi. N. of Southern Pacific R. R. track, 0.2 mi. W. of irrigation ditch, 20 ft. S. and 20 ft. E. from crossroads; top of metal culvert	32. 18

	Feet
Harlingen, 4.1 mi. E., thence 1.8 mi. N. from, 33 ft. N. of junction of Harlingen-Rio Hondo rd., 2 ft. N. of fence, in concrete post; standard tablet stamped "JBL 26 1928"-----	32. 173
Harlingen, 3.3 mi. E. and 2.3 mi. N. from, 0.5 mi. N. of Harlingen-Rio Hondo rd., 25 ft. E. of rd., in root of 14-in. mesquite tree; copper nail and washer-----	32. 78
Harlingen, 3.3 mi. E. and 3.0 mi. N. from, 20 ft. S. of rd. at bend E., about 900 ft. SW. of windmill, 45 ft. NW. of Mexican hut, in root of 20-in. mesquite tree; copper nail and washer-----	31. 46
Harlingen, 3.5 mi. E. and 3.1 mi. N. from, 9.0 mi. by rd. W. of Rio Hondo, about 500 ft. E. of windmill, 110 ft. W. of junction of rd. NE., about 50 ft. S. of Mexican house, in root of 18-in. mesquite tree; copper nail and washer-----	33. 81
Rio Hondo, 0.3 mi. N. and 3.0 mi. W. from, 15 ft. S. and 15 ft. W. from junction of T-rd: E., at angle in main rd., in concrete post; standard tablet stamped "H 3 1928"-----	31. 490
Reference mark, 20 ft. N. and 35 ft. W. from tablet, in root of 6-in. mesquite tree; copper nail and washer-----	31. 23
From Harlingen southeast along St. Louis, Brownsville & Mexico Railway 2.8 miles, thence along roads generally southwest to point 3.2 miles northeast thence 1.3 miles southeast from Rangerville, thence northwest and west 3.3 miles into Mercedes quadrangle (by J. B. Leachman in 1928; leveled twice)	
Harlingen, 0.8 mi. SE. of St. Louis, Brownsville & Mexico Ry. sta., 28 ft. W. of track, on top of concrete head wall of irrigation ditch; chiseled square-----	45. 54
U. S. C. & G. S. standard disk stamped "P 48 1918 38.14"-----	38. 258
Harlingen, 2.3 mi. SE. of, 25 ft. S. and 25 ft. W. from crossing of private rd., in top of concrete wall of irrigation ditch; iron bolt-----	44. 08
Harlingen, 2.8 mi. SE. of, 20 ft. N. and 20 ft. E. from rd. crossing, 150 ft. NW. of house, at end of irrigation canal, on top of concrete dam; chiseled square-----	42. 78
Harlingen, 2.8 mi. SE., thence 0.8 mi. SW. from, 70 ft. N. and 30 ft. W. from intersection of State Highway 96, at end of irrigation canal, in top of concrete dam; small metal disk stamped "H 53 45.02" (Cameron County B. M.)-----	45. 134
Harlingen, 2.8 mi. SE., thence 1.4 mi. SW. from, 130 ft. S. and 800 ft. W. from crossroads, 100 ft. SW. of Mexican house, 2 ft. E. of fence, in concrete post; standard tablet stamped "JBL 21 1928"-----	44. 527
Reference mark, 100 ft. E. of tablet, 100 ft. S. of rd., in root of 12-in. mesquite tree; copper nail and washer-----	45. 02
Harlingen, 2.8 mi. SE., thence 1.9 mi. SW. from, 450 ft. SW. of right-angle bend SE. in irrigation ditch, 15 ft. SE. and 27 ft. SW. from junction of T-rd. NW., on top of concrete valve control box for irrigation canal; chiseled square-----	47. 85
Harlingen, 2.8 mi. SE., thence 2.4 mi. SW. from, 20 ft. NE. and 300 ft. NW. from junction of T-rd. SW., 325 ft. NW. of Mexican house, on top of concrete valve control box for irrigation canal; chiseled square-----	47. 95
Harlingen, 2.8 mi. SE., thence 2.7 mi. SW. from, 200 ft. SW. and 80 ft. NW. from junction of NE.-SW. rd., in root of 10-in. mesquite tree; copper nail and washer-----	43. 20
Harlingen, 2.8 mi. SE., thence 3.2 mi. SW. from, about 1,000 ft. NE. of white house, 20 ft. SW. and 25 ft. SE. from junction of T-rd. SE., on small concrete culvert; chiseled square-----	46. 98

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	Feet
Harlingen, 2.8 mi. SE., thence 4.2 mi. SW. from, 3.2 mi. NE., thence 1.3 mi. SE. from Rangerville, about 0.2 mi. NW. of irrigation ditch, 95 ft. SE. and 175 ft. NE. from junction of T-rd. NW., 6 ft. N. of Mexican shack, in concrete post; standard tablet stamped "JBL 22 1928"-----	44. 546
Reference mark, 5 ft. NW. of tablet, 90 ft. SE. of rd., in root of 10-in. mesquite tree; copper nail and washer-----	44. 57
Rangerville, 3.2 mi. NE., thence 0.5 mi. SE. from, 0.2 mi. SE. of right-angle bend SE. in irrigation ditch, 45 ft. NE. and 25 ft. SE. from crossroads, at irrigation canal; top of brick base of regulating gate-----	50. 82
Rangerville, 3.2 mi. NE. of, 100 ft. SE. of irrigation ditch, 70 ft. SW. and 40 ft. SE. from junction of Harlingen-Rangerville rd., in top of concrete culvert; small metal disk (Cameron County B. M.)-----	50. 904
Rangerville, 3.5 mi. NE. of, 20 ft. SE. and 100 ft. SW. from junction of T-rd. NW., in top of concrete head wall of irrigation canal; small metal disk (Cameron County B. M.)-----	51. 909
Rangerville, 3.5 mi. NE., thence 0.8 mi. NW. from, 250 ft. W. of house, 65 ft. S. of rd., on W. side of irrigation ditch, on top of concrete base of water control gate of irrigation canal; chiseled square-----	51. 10
Rangerville, 3.5 mi. NE., thence 1.3 mi. NW. from, 0.8 mi. E. of crossroads, 30 ft. N. of rd., on top of concrete head wall of irrigation canal; chiseled square-----	50. 54
From road junction 2.8 miles southeast along St. Louis, Brownsville & Mexico Railway thence 4.2 miles southwest along road from Harlingen along roads northeast 0.5 mile, thence alternately southeast and southwest by way of Mitchell to State Highway 48, thence east to point near La Paloma (by J. B. Leachman in 1928)	
Mitchell, 1.0 mi. NE., thence 1.0 mi. NW. from, 0.2 mi. SE. of crossroads, 250 ft. S. of Mexican shack, on top of concrete sluice gate of irrigation ditch; chiseled square-----	49. 35
Mitchell, 1.0 mi. NE., thence 0.8 mi. NW., from, 15 ft. SE. and 18 ft. NE. from crossing of Zillock ranch rd., 23 ft. SW. of irrigation canal, on top of concrete culvert; chiseled square-----	43. 38
Mitchell, 1.0 mi. NE., thence 0.5 mi. NW. from, 2.9 mi. SW., thence 2.8 mi. NW. from San Benito, 0.5 mi. NW. of San Benito & Rio Grande Valley Ry., 40 ft. NW. and 40 ft. NE. from junction of NE.-SW. rd., 40 ft. NW. and 5 ft. SW. from junction of T-rd. SE., 150 ft. E. of brown house, on top of concrete lock of irrigation canal; chiseled square-----	47. 22
Mitchell, 0.5 mi. NE. of, 50 ft. SW. and 30 ft. SE. from junction of T-rd. SE., 10 ft. S. of R. R. track, 140 ft. E. of house, on top of concrete head wall of irrigation canal; chiseled square-----	51. 39
Mitchell, 65 ft. NW. of R. R. track at, 45 ft. NW. and 120 ft. SW. from crossroads, in concrete post; standard tablet stamped "JBL 28 1928"-----	51. 392
Reference mark, 140 ft. NE. of tablet, on concrete valve control box of irrigation ditch; chiseled square-----	52. 24
Mitchell, 0.7 mi. SW. of, 0.3 mi. NE. of Nebraska, 20 ft. NW. of track, 10 ft. NW. and 13 ft. SW. from junction of T-rd. SW., on top of concrete lock of irrigation canal; chiseled square-----	57. 47
Nebraska, 0.5 mi. SW. of, 1.1 mi. NE. of Ohio, 15 ft. NW. of track, 120 ft. N. of house, 150 ft. NE. and 50 ft. NW. from junction of Line 13 rd., on concrete weir of irrigation canal; chiseled square-----	58. 85

	Feet
Nebraska, 0.5 mi. SW., thence 0.4 mi. SE. from, 0.9 mi. SW., thence 1.5 mi. NW. from Junior, 55 ft. NE. and 150 ft. SE. from bridge, 150 ft. S. of house, on top of concrete weir of irrigation canal; chiseled square-----	52. 69
Junior, 0.9 mi. SW., thence 1.0 mi. NW. from, 130 ft. S. of white house, 45 ft. SW. of irrigation ditch, 18 ft. NW. and 18 ft. NE. from crossroads, in concrete post; standard tablet stamped "JBL 29 1928"-----	47. 129
Reference mark, 50 ft. NE. of tablet, 68 ft. NE. of crossroads, on concrete culvert of irrigation ditch; chiseled square-----	49. 67
Junior, 0.9 mi. SW. of, 5.5 mi. SW. of San Benito, 60 ft. NE. and 15 ft. SE. from junction of Sam Houston Boulevard, 170 ft. E. of yellow house, in top of concrete culvert of irrigation ditch; small metal disk (Cameron County B. M.)-----	47. 387
Junior, 1.2 mi. SW. of, 1.9 mi. NW. of La Paloma, 35 ft. NE. and 15 ft. NW. from junction of La Paloma cutoff rd., on top of concrete culvert over drainage canal; chiseled square-----	45. 27
Junior, 1.9 mi. SW. of, 650 ft. NE. of sharp curve S. in rd., 30 ft. SE. of rd., on top of concrete culvert over drainage ditch parallel to rd.; chiseled square-----	43. 32
Junior, 3.0 mi. SW. of, 0.3 mi. SW., thence 1.7 mi. W. from La Paloma, 40 ft. S. and 20 ft. W. from junction of State Highway 48, 290 ft. S. of San Benito & Rio Grande Valley Ry. track, 40 ft. NE. of blue house, 70 ft. S. of Garcia store, in concrete post; standard tablet stamped "JBL 30 1928"-----	52. 490
La Paloma, 0.3 mi. SW., thence 1.2 mi. W. from, 90 ft. SW. of white house, 35 ft. S. and 175 ft. W. from center of junction of rd. SE., in top of concrete culvert; small metal disk (Cameron County B. M.)-----	52. 526
La Paloma, 0.3 mi. SW., thence 0.8 mi. W. from, 40 ft. S. and 20 ft. E. from crossroads, in top of concrete culvert; small metal disk (Cameron County B. M.)-----	49. 176
La Paloma, 0.3 mi. SW., thence 0.4 mi. W. from, 15 ft. S. and 30 ft. E. from junction of rd. SW., in top of head wall of concrete culvert of irrigation ditch; small metal disk (Cameron County B. M.)-----	52. 023
La Paloma, 0.3 mi. SW. of, at Berranco ranch, 36 ft. from NW. corner of bridge; International Boundary Commission reference monument 36-----	50. 627
From San Benito alternately southeast and southwest along roads and St. Louis, Brownsville & Mexico Railway to Ranchito, thence northwest 1 mile along old Military road (by J. B. Leachman in 1928)	
U. S. C. & G. S. standard disk stamped "R 48 1918 40.16"-----	40. 276
San Benito, 0.5 mi. SE. of St. Louis, Brownsville & Mexico Ry. sta., 70 ft. NW. of small trestle, 15 ft. SW. of track, on concrete culvert; chiseled square-----	33. 98
San Benito, 1.0 mi. SE. of, 55 ft. NE. and 25 ft. NW. from intersection of rd. and R. R., about 100 ft. N. of brown house, on top of concrete control gate for small irrigation ditch; chiseled square-----	34. 79
San Benito, 1.0 mi. SE., thence 0.4 mi. SW. from, 600 ft. NE. of intersection of Rio Grande Avenue and Eighth Street, 27 ft. SE. of rd. on E. side of irrigation canal, on top of concrete control gate; chiseled square-----	36. 23

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San Benito, 1.0 mi. SE., thence 0.9 mi. SW. from, 1.5 mi. NE., thence 1.0 mi. NW. from crossing of Resaca del Rancho Viejo, 150 ft. E. of white house, 18 ft. SE. and 20 ft. NE. from junction of NW.-SE. rd., on top of concrete control gate for irrigation ditch; chiseled square-----	Feet
	37. 49
Resaca del Rancho Viejo, 1.5 mi. NE., thence 0.5 mi. NW. from crossing of, 0.8 mi. SW. of St. L. B. & M. Ry., 45 ft. S. of white house, 16 ft. NE. and 20 ft. NW. from junction of Line M rd., in concrete post; standard tablet stamped "JBL 31 1928"-----	35. 570
Reference mark, 45 ft. SE. of tablet, on top of concrete control gate for small irrigation ditch; chiseled square-----	35. 92
Resaca del Rancho Viejo, 1.5 mi. NE. of, 20 ft. SW. and 40 ft. NW. from junction of NE.-SW. rd., in root of 5-in. mesquite tree; copper nail and washer-----	34. 52
Resaca del Rancho Viejo, 1.0 mi. NE. of, 50 ft. SE. and 15 ft. NE. from intersection of Pennsylvania Avenue, 150 ft. S. of white house, in top of concrete culvert; small metal disk (Cameron County B. M.)-----	39. 870
Resaca del Rancho Viejo, 0.4 mi. NE. of, 110 ft. NW. of rd. at end of irrigation lateral, on top of concrete base of water control valve; chiseled square-----	48. 88
Resaca del Rancho Viejo, 200 ft. NE. of, 30 ft. SE. and 100 ft. SW. from crossroads, 80 ft. NW. of Hinkley stucco house, in root of ebony tree; copper nail and washer-----	48. 78
Benito triangulation sta., about 4 mi. from standpipe at San Benito in azimuth $173^{\circ}59'23''$ from it, about 1 mi. from Thomas residence in azimuth $106^{\circ}30'38''$, on land belonging to San Pedro de Carrecitos estate probably on Portion 8. To reach sta., take rd. E. from Thomas' residence 0.25 mi. to point where it crosses large resaca, then take faint rd. S. along E. bank of resaca about 0.75 mi. to point where resaca makes large horseshoe loop to W. for about 0.5 mi. Distance across loop at base of horseshoe is about 902 ft. and sta. is about midway of distance and about 148 ft. E. of faint wagon rd. which crosses base of loop and continues down E. side of resaca. Sta. mark is U. S. C. & G. S. standard triangulation disk set in concrete post-----	48. 539
Reference mark, 140 ft. W. of triangulation sta., at edge of dim wagon rd., in concrete post; U. S. C. & G. S. standard reference disk-----	48. 854
Resaca del Rancho Viejo, 0.9 mi. SW. of, 2.1 mi. SE. of Lellan, 2.1 mi. NE., thence 2.3 mi. NW. from Ranchito, about 80 ft. N. of Hinkley & Merrel store, 80 ft. NW. and 15 ft. SW. from crossroads, on top of concrete base of water control gate of irrigation canal; chiseled square-----	45. 30
Ranchito, 2.1 mi. NE., thence 0.7 mi. NW. from, 140 ft. E. of Resaca del Rancho Viejo, 20 ft. N. of rd. at bend E., in root of 24-in. honey-locust tree; copper nail and washer-----	39. 45
Ranchito, 2.1 mi. NE., thence 0.2 mi. NW. from, at horseshoe bend in Resaca del Rancho Viejo, on narrow neck of land between stream at small end of horseshoe, 190 ft. SE. of bridge over W. branch, 120 ft. E. of W. branch, 60 ft. SW. of rd., 2 ft. W. of Clark residence, in concrete post; standard tablet stamped "JBL 32 1928"-----	47. 115
Reference mark, 190 ft. NW. of tablet, on top of SE. abutment of concrete bridge; chiseled square-----	42. 52

	Feet
Ranchito, 1.6 mi. NE. of, 350 ft. N. of crossroads, 20 ft. W. of rd., in root of 30-in. mesquite tree; copper nail and washer-----	41. 43
Ranchito, 1.4 mi. NE. of, 0.9 mi. NE. of crossing of San Benito & Rio Grande Valley Ry., 30 ft. S. and 30 ft. E. from junction of rd. SE., in root of 24-in. mesquite tree; copper nail and washer-----	42. 06
Ranchito, 30 ft. S. and 100 ft. W. from junction of old Military rd., 200 ft. W. of School 3 of District 3, 50 ft. W. of small store, in root of small mesquite tree; copper nail and washer-----	48. 50
Ranchito, about 0.5 mi. W. of, 600 ft. E. of bend SE. in levee on S. side of old Military rd., 30 ft. N. of rd., on top of concrete culvert; chiseled square-----	49. 98
Ranchito, 0.8 mi. NW. of, 25 ft. N. and 15 ft. E. from junction of T-rd. NE., about 60 ft. N. of levee, in top of concrete wall of small irrigation ditch; small metal disk (Cameron County B. M.)-----	51. 772
Ranchito, 1.0 mi. NW. of, 16 ft. from SE. corner of store at Calabazo ranch; International Boundary Commission reference monument 37-----	52. 006
<i>Along roads east 0.2 mile, thence south and southwest through Rangerville (by J. B. Leachman in 1928)</i>	
[A jog from Mercedes quadrangle]	
Rangerville, 2.2 mi. by rd. N. of, 35 ft. S. and 150 ft. W. from crossroads, 100 ft. W. of house, in root of 10-in. mesquite tree; copper nail and washer-----	47. 09
Rangerville, 1.6 mi. N. of, 45 ft. S. and 50 ft. W. from crossroads, at farmhouse, on concrete doorstep; chiseled square-----	49. 33
Rangerville, 0.6 mi. NE. of, 300 ft. SW. of white schoolhouse, 35 ft. SE. of rd., in top of concrete culvert of irrigation ditch; small metal disk (Cameron County B. M.)-----	56. 163
Mitla triangulation sta., 312 ft. from SW. corner of San Benito & Rio Grande Valley Ry. sta. at Rangerville, 52 ft. S. of track, 480 ft. W. of junction of rd. W., at edge of rd., in concrete post; U. S. C. & G. S. standard triangulation disk-----	55. 700
Reference mark, 30 ft. N. and 420 ft. E. from triangulation sta., on concrete base of cooling tower; chiseled square-----	58. 69
<i>From road junction 2.1 miles southeast of Lellan along roads alternately northwest and southwest to Sam Houston Boulevard, thence southwest to point 0.9 mile southwest of Junior (by J. B. Leachman in 1929)</i>	
Lellan, 1.8 mi. SE. of, 0.3 mi. NW. of Hinckley & Merrel store, 120 ft. NW. of Mexican house, 30 ft. NE. of irrigation ditch, 30 ft. SW. of rd., on top of concrete culvert; chiseled square-----	40. 85
Lellan, 1.0 mi. SE. of, 200 ft. W. of white house, 150 ft. E. of another house, about 110 ft. W. of center of crossroads, on top of concrete head wall of control gate for irrigation canal; chiseled square-----	47. 67
Lellan, 0.5 mi. SE. of, 0.5 mi. SE. of San Benito & Rio Grande Valley Ry., 0.7 mi. SE. of Highland School, 30 ft. N. of white house, 175 ft. SW. and 15 ft. SE. from junction of T-rd. SW., 2 ft. NW. of fence, in concrete post; standard tablet stamped "JBL 1 1929"-----	47. 734
Reference mark, 110 ft. NE. of tablet, about 100 ft. S. of rd. junction, on concrete sluice gate of irrigation canal; chiseled square-----	50. 44
Lellan, 0.5 mi. SE., thence 0.5 mi. SW. from, 0.6 mi. NE., thence 0.5 mi. SE. from Junior, about 0.5 mi. SE. of San Benito & Rio Grande Valley Ry., 180 ft. NE. of small red house, 25 ft. SE. and 33 ft. NE. from junction of T-rd. NW., on top of concrete water-control box for irrigation ditch; chiseled square-----	49. 38

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	Feet
Junior, 360 ft. W. of San Benito & Rio Grande Valley Ry. track, 25 ft. SE. and 100 ft. SW. from crossroads, in top of concrete head wall of irrigation canal; small metal disk (Cameron County B. M.)-----	51. 312
From point 3 miles southeast of San Benito southeast along St. Louis, Brownsville & Mexico Railway 3.4 miles, thence south 4.2 miles along Barreda Gardens Center road into Brownsville quadrangle (by J. B. Leachman in 1929; leveled twice along railroad)	
Barreda, 0.4 mi. SE. of, 70 ft. E. of track, 20 ft. W. of State Highway 96, in top of concrete culvert; small metal disk (Cameron County B. M.)-----	34. 422
Barreda, 0.8 mi. SE. of, 4.5 mi. NW. of Olmito, 70 ft. E. of track, 20 ft. W. of highway, in top of concrete culvert; small metal disk (Cameron County B. M.)-----	37. 092
U. S. C. & G. S. standard disk stamped "S 48 1918 35.36"-----	35. 479
Barreda, 1.8 mi. SE., thence 1.6 mi. S. from, 105 ft. N. and 50 ft. W. from house, 350 ft. N. of bridge over Resaca del Rancho Viejo, 20 ft. E. of junction of T-rd. W., in concrete post; standard tablet stamped "JBL 2 1929"-----	39. 946
Barreda, 1.8 mi. SE., thence 2.4 mi. S. from, on S. side of S. loop of horseshoe bend in Resaca del Rancho Viejo, 100 ft. W. of rd., 50 ft. NE. of house, in root of 24-in. mesquite tree; copper nail and washer-----	30. 68
Barreda, 1.8 mi. SE., thence 4.0 mi. S. from, opposite line between cottonfield and mesquite brush E. of rd., 20 ft. W. of rd., in root of small ebony tree; copper nail and washer-----	35. 20
From Fernando quadrangle south along San Benito & Rio Grande Valley Railway to Rio Hondo (by J. B. Leachman in 1929)	
Rio Hondo, 0.7 mi. N. of, 50 ft. E. of track, 100 ft. S. of rd. crossing, on E. side of irrigation ditch, on top of concrete base of valve gate; chiseled square-----	29. 10
From Los Cuates quadrangle west 1.5 miles along State Highway 100, thence north along Olmito North road to crossroads 1.6 miles north of Kreston, thence east 0.8 mile (by S. H. Holm in 1929)	
Los Fresnos, 1.8 mi. W. of, 0.5 mi. W. of junction of rd. N. to Los Fresnos School, 15 ft. N. of highway, in top of concrete head wall of culvert; small metal disk stamped "P 12 28.05" (Cameron County B. M.)-----	28. 174
Los Fresnos, 2.4 mi. W. of, 28 ft. N. and 34 ft. E. from junction of T-rd. N., on top of flume of drainage canal; chiseled square-----	26. 19
Los Fresnos, 3.0 mi. W. of, 30 ft. S. and 33 ft. E. from intersection of Olmito North rd., 180 ft. SW. of store and service sta., in concrete post; standard tablet stamped "H 6 1929"-----	34. 123
Reference mark, 60 ft. N. and 15 ft. W. from tablet, on E. head wall of culvert; chiseled square-----	34. 51
Los Fresnos, 3.0 mi. W., thence 0.4 mi. N. from, 190 ft. S. and 15 ft. W. from junction of T-rd. W., in top of concrete head wall of culvert; small metal disk (Cameron County B. M.)-----	34. 446
Los Fresnos, 3.0 mi. W., thence 1.7 mi. N. from, 0.8 mi. S. of Kreston, 18 ft. N. and 30 ft. W. from junction of T-rd. W., in root of 8-in. mesquite tree; copper nail and washer (reported destroyed)-----	35. 12
Kreston, 30 ft. S. and 20 ft. W. from crossroads at, 600 ft. N. of crossing of San Benito & Rio Grande Valley Ry., in top of W. head wall of culvert; small metal disk (Cameron County B. M.)-----	32. 750

	Feet
Kreston, 0.9 mi. N. of, 600 ft. S. of junction of T-rd. E., 15 ft. W. of rd., in top of concrete sluice gate of irrigation ditch; small metal disk (Cameron County B. M.)-----	26. 45
From Barreda east 3.5 miles along State Highway 100 (by S. H. Holm in 1929)	
Barreda, 0.5 mi. E. of, 350 ft. W. of dim T-rd. N., 15 ft. N. of rd., in concrete head wall of culvert; small metal disk stamped "P 2 40.44" (Cameron County B. M.)-----	40. 542
Barreda, 0.8 mi. E. of; small metal disk stamped "P 3 30.36" (Cameron County B. M.)-----	33. 813
Barreda, 1.0 mi. E. of, 230 ft. E. of signpost "Barreda 1 mi." 15 ft. N. of rd., in top of concrete head wall of culvert; small metal disk stamped "P 4 39.11" (Cameron County B. M.)-----	39. 264
Barreda, 2.0 mi. E. of, 4.3 mi. W. of Los Fresnos, 650 ft. W. of crossroads, 15 ft. N. of rd., in top of concrete head wall of culvert; small metal disk stamped "P 6 33.52" (Cameron County B. M.)-----	33. 662
Los Fresnos, 3.9 mi. W. of; small metal disk stamped "P 7 29.95" (Cameron County B. M.)-----	30. 082
Los Fresnos, 3.4 mi. W. of, 140 ft. W. of signpost "Barreda 3 mi." in top of N. concrete head wall of culvert; small metal disk stamped "P 8 32.59" (Cameron County B. M.)-----	32. 73
From road junction 0.6 mile southeast of Rio Hondo east 3.9 miles along Rio Hondo East road (by S. H. Holm in 1929)	
Rio Hondo, 1.5 mi. E. of, 76 ft. E. of crossroads, on N. side of rd., in top of large concrete head wall in irrigation canal; small metal disk (Cameron County B. M.)-----	30. 494
Rio Hondo, 1.9 mi. E. of, 57 ft. W. of crossroads, on N. side of rd., in top of large concrete head wall in irrigation ditch; small metal disk (Cameron County B. M.)-----	30. 712
Rio Hondo, 2.2 mi. E. of, at junction of dim T-rd. S.; small metal disk (Cameron County B. M.)-----	26. 285
Rio Hondo, 2.9 mi. E. of, 52 ft. S. and 15 ft. E. from crossroads, on top of E. concrete head wall of culvert; chiseled square-----	24. 10
Rio Hondo, 4.1 mi. E. of, 30 ft. N. and 50 ft. W. from crossing of dim trail, in leaning mesquite tree; rail spike-----	21. 84
From Harlingen alternately north and east along Rio Hondo and Briggs roads to crossroads 0.1 mile southeast and 2.8 miles east from Combes (by S. H. Holm in 1929)	
U. S. C. & G. S. standard disk stamped "N 48 1918 44.15"-----	44. 265
Harlingen, opposite Southern Pacific R. R. sta.; top of rail-----	39. 3
Harlingen, 1,400 ft. N. of sta., in center of A Street, on top of S. end of concrete irrigation canal; chiseled square-----	41. 63
Harlingen, 1.7 mi. NE. of, 15 ft. W. of rd. at curve E., 290 ft. S. of junction of T-rd. E., in top of concrete head wall of culvert; small metal disk stamped "F 3 37.95" (Cameron County B. M.)-----	38. 357
Harlingen, 2.7 mi. N. of, 30 ft. S. and 30 ft. W. from junction of T-rd. W., 25 ft. N. and 30 ft. W. from junction of T-rd. E., in top of concrete head well in irrigation ditch; small metal disk (Cameron County B. M.)-----	36. 872
Harlingen, 3.5 mi. N. of, 450 ft. N. of junction of T-rd. E., 16 ft. W. of rd., in top of concrete head wall of culvert in drainage ditch; small metal disk (Cameron County B. M.)-----	32. 199

Harlingen, 3.9 mi. N. of, 0.3 mi. S. of intersection of Combes-Santa Rosa rd., in W. head wall of irrigation canal; small metal disk (Cameron County B. M.)----- Feet
37. 445

SAN DIEGO QUADRANGLE

[Latitude $27^{\circ}45' - 28^{\circ}00'$; longitude $98^{\circ}00' - 98^{\circ}15'$]

DUVAL AND JIM WELLS COUNTIES

From Benavides quadrangle⁶ northeast along Texas Mexican Railway to San Diego, thence generally southeast and northeast into Banquete quadrangle (by S. L. Parker in 1920; leveled by E. E. Harris in 1923)

San Diego, at W. entrance to Duval County courthouse, in center near W. edge of top stone step; standard tablet stamped "H 50 Texas 1923" (set in 1923; recovered by U. S. C. & G. S. in 1932)-----	312. 243
Reference mark, 56.5 ft. W. of tablet, in center of N. stone curbing around garden; chiseled square (established in 1923; recovered by U. S. C. & G. S. in 1932)-----	307. 011
San Diego, 230 ft. NE. of sta., 55 ft. NE. of center of rd. crossing, 6 in. S. and 4 ft. E. from fence corner; iron post stamped "1920 306" (recovered by U. S. C. & G. S. in 1932)-----	304. 589
Reference mark, 39.9 ft. E. of iron post, 1 ft. S. of fence line, 6 in. underground; top of cap on iron pipe-----	303. 76
San Diego, 2.7 mi. SE. of, at Springfield switch, 500 ft. E. of milepost 112, at NW. corner of lot owned by E. A. Post, 4 ft. E. of fence corner, 1 ft. N. of fence line; iron post stamped "1920 285" ⁷ (recovered by U. S. C. & G. S. in 1932)-----	283. 930
San Diego, 5.6 mi. SE. of, 4.4 mi. NW. of Alice, 180 ft. SW. of milepost 115, on S. side of track, 25 ft. S. of center line of public rd., 4 ft. W. of gatepost which also serves as fence corner, 1 ft. N. of fence line; iron post stamped "1920 256" ⁸ (recovered by U. S. C. & G. S. in 1932)-----	255. 167
Alice, 2.4 mi. W. of, 150 ft. SW. of milepost 117, on S. side of track, 25 ft. S. of center line of public rd., 1 ft. N. of fence line; iron post stamped "1920 237" ⁹ (recovered by U. S. C. & G. S. in 1932)-----	235. 685
[Line jogs into Ben Bolt quadrangle]	
Alice, 4.0 mi. NE. of, 400 ft. SE. of milepost 123, 240 ft. W. of bridge over San Diego Creek, 10 ft. W. of lane S., 1 ft. N. of right-of-way of public rd.; iron post stamped "1920 170" (recovered by U. S. C. & G. S. in 1932)-----	167. 936
Reference mark, 73 ft. S. 60° W. of iron post, 1 ft. N. of fence line, 6 in. underground; top of cap on iron pipe (established in 1923)-----	167. 37
From Banquete quadrangle southwest along San Antonio & Aransas Pass Railroad to and across into Ben Bolt quadrangle at Alice (by E. E. Harris in 1923)	
Alfred, 2.7 mi. SW. of, 400 ft. N. of milepost 255, in SE. angle of junction of T-lane E. through gate, in NE. corner of T-angle in fence line, 2 ft. from each fence, in concrete post; standard tablet stamped "H 28 Texas 1923"-----	170. 454

⁶ This line cuts the southeast corner of Rosita Ranch quadrangle, but no permanent marks were set in that portion of the line.

⁷ In 1927 it was reported that this bench mark had been reset at an elevation 0.290 foot higher than that at which it was originally set. The figures given represent the new elevation.

⁸ In 1927 it was reported that this bench mark had been reset at an elevation 0.598 foot higher than that at which it was originally set. The figures given represent the new elevation.

⁹ In 1927 it was reported that this bench mark had been reset at an elevation 0.267 foot higher than that at which it was originally set. The figures given represent the new elevation.

¹⁰ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

	Fee ¹
Reference mark, 49 ft. S. of tablet, in crotch of mesquite tree; copper nail and washer-----	170. 62
Alfred, 3.8 mi. SW. of, opposite milepost 256, on E. side of rd., inside fence line, in root on S. side of small mesquite tree; copper nail and washer-----	180. 87
Alfred, 4.8 mi. SW. of, 2 ft. E. of milepost 257, on W. side of rd.; top of cap on iron pipe-----	189. 64
Alfred, 6.0 mi. SW. of, 5.0 mi. NE. of Alice, at Mary siding, on E. side of rd., just S. of cattle loading sta., 1 ft. E. of fence line, 5 ft. N. of gate, in concrete post; standard tablet stamped "H 29 Texas 1923"-----	189. 670
Reference mark, 108.6 ft. S. of tablet, 1 ft. E. of fence post, 6 in. underground; top of cap on iron pipe-----	188. 62
Alice, 4.1 mi. NE. of, 0.2 mi. SW. of rd. crossing, 200 ft. N. of milepost 259, on E. side of rd., 10 ft. N. of gate, 1 ft. W. of fence line; top of cap on iron pipe-----	194. 92
Alice, 3.0 mi. NE. of, at milepost 260, 150 ft. N. of lane W. through gate, on E. side of rd., on S. end of E. concrete wall of bridge; chiseled square-----	189. 67
Alice, 2.2 mi. NE. of, 110 ft. NW. of rd. crossing, in sharp angle in rd., in L-angle in fence line, 6 ft. from each fence, in concrete post; standard tablet stamped "H 30 Texas 1923"-----	187. 470
Reference mark, 173.2 ft. S. 10° E. of tablet, on E. side of rd., on N. end of wing wall of concrete culvert; chiseled square-----	190. 76
Alice, 1.3 mi. NE. of, on E. side of rd., 30 ft. N. of lane E. through gate to house on hill, in NE. corner of T-angle in fence line, 1 ft. from each fence; top of cap on iron pipe-----	198. 42
Alice, 0.7 mi. NE. of, in SW. angle of junction of T-rd. W., in L-angle in fence line; top of cap on iron pipe-----	199. 80

SAN IGNACIO NO. 1 QUADRANGLE

[Latitude 27°15'-27°30'; longitude 99°00'-99°15']

WEBB AND ZAPATA COUNTIES

From Aguilares quadrangle southeast along Texas Mexican Railway to Aguilares, thence east along road into Hebbronville No. 2 quadrangle (by S. L. Parker in 1919; relevelled by J. H. Wilke in 1923)

Villegas, opposite switch stand; top of rail-----	545. 7
Reiser, 70 ft. SE. of center of rd. crossing, on S. side of track, in line with telegraph poles; iron post stamped "1919 530"-----	529. 393
Aguilares, about 150 ft. E. of sta., on S. side of track, in line with telegraph poles; iron post stamped "1919 600" (recovered by U. S. C. & G. S. in 1932)-----	599. 349
Aguilares, about 900 ft. E. of sta., on SW. corner of concrete culvert; chiseled square (established in 1923)-----	596. 75
Aguilares, 0.6 mi. E. of, on SW. corner of concrete culvert; chiseled square (established in 1923)-----	599. 00
Aguilares, 1.3 mi. E. of, at summit, on S. side of rd., at edge of right-of-way; top of cap on 1½-in. iron pipe (established in 1923)-----	611. 87
Aguilares, 1.6 mi. E. of, on SW. corner of concrete culvert; chiseled square (established in 1923)-----	615. 06
Aguilares, 2.3 mi. E. of, at SW. corner of concrete bridge, on abutment; sunken chiseled square (established in 1923)-----	625. 82

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Aguilares, 3.6 mi. E. of, 3.5 mi. W. of Oilton, 575 ft. E. of point where gravel rd. makes angle to NE., 850 ft. W. of bank of pond, 20 ft. S. of rd.; iron post stamped "1919 662"-----	Feet
Oilton, 3.2 mi. W. of, on SW. corner of concrete culvert; sunken chiseled square (established in 1923)-----	661. 743
	668. 76

SAN JUAN QUADRANGLE

[Latitude 26°00'–26°15'; longitude 98°00'–98°15']¹¹

HIDALGO COUNTY

From Run ¹² post office west 1.3 miles along Military road, thence north along road to Donna, thence northwest along St. Louis, Brownsville & Mexico Railway into Mission quadrangle (by R. C. Seitz in 1919)

Run, in yard of post office (old Blanco plantation); International Boundary Commission monument designated "Reference point 26"-----	82. 716
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Run, 1.3 mi. W. of, 6.8 mi. S. of Donna, in NE. angle of crossroads, in anchor post; copper nail-----	83. 67
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Donna, 5.7 mi. S. of, 1.1 mi. N. of Military rd., on E. side of rd., on N. side of small clearing, in small tree; copper nail-----	77. 51
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Donna, 3.8 mi. S. of, on high ground between two sloughs, on W. side of rd.; iron post stamped "1913 76"-----	76. 584
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Donna, in SE. corner of public park; iron post stamped "1913 96" (recovered by U. S. C. & G. S. in 1918 and designated "J 59"; restamped "96.811" by U. S. C. & G. S. in 1934)-----	96. 811
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Donna, in front of sta. on St. Louis, Brownsville & Mexico Ry.; top of S. rail-----	94. 3
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Donna, 4.3 mi. NW. of, 0.6 mi. SE. of Ebenezer, opposite milepole 27, on S. right-of-way line; iron post stamped "1913 98" (recovered by U. S. C. & G. S. in 1918 and designated "X 59"; restamped "99.147" by U. S. C. & G. S. in 1934)-----	99. 147
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Ebenezer, in front of sta.; top of S. rail-----	102. 6
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San Juan, 0.5 mi. NW. of sta., in SW. angle of crossroads; iron post stamped "1913 109"-----	109. 687
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Pharr, just W. of sta., at grade crossing; top of S. rail-----	113. 5
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Pharr, 1.8 mi. NW. of, 1.3 mi. SE. of McAllen, 930 ft. E. of milepost 33, in SE. angle of crossroads; iron post stamped "1913 115" (recovered by U. S. C. & G. S. in 1918 and designated "S 59") ¹³ -----	116. 388
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McAllen, in front of sta.; top of S. rail-----	121. 6
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McAllen, in NE. angle of cross streets just SW. of sta., on curbstone; chiseled square-----	120. 66
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From point near McAllen on St. Louis, Brownsville & Mexico Railway south-west along road about 2 miles into Mission quadrangle (by R. C. Seitz in 1919; leveled twice)

McAllen, 0.8 mi. W., thence by 2.1 mi. S. from sta., on summit at W. side of rd., about 600 ft. N. of small white house; iron post stamped "S 1913 110"-----	109. 965
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From Mission quadrangle generally east along Military road to road junction 6.8 miles south of Donna (by R. C. Seitz in 1919; leveled twice)

Hidalgo, 2.1 mi. E. of, about 450 ft. E. of small bridge over canal, on N. side of rd., at SE. corner of cleared field; iron post stamped "S 1913 103"-----	102. 650
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¹¹ The southern part of this area lies in Mexico.

¹² This name has been changed to Raypaul and the post office has been discontinued.

¹³ In 1924 this bench mark was reported destroyed.

	Feet
Hidalgo, 3.4 mi. E. of, 75 ft. S. of rd., between two brick houses on Coapoti ranch; International Boundary Commission monument designated "Reference point 22"-----	100. 695
Hidalgo, 4.4 mi. E. of, on N. side of rd., 50 ft. E. of junction of T-rd. N. to Pharr, in tree; copper nail-----	97. 79
Hidalgo, 5.4 mi. E. of, 1.0 mi. W. of San Juan plantation sugar mill, at junction of rd. N. to San Juan, on S. side of rd., iron post stamped "S 1913 97"-----	96. 124
Hidalgo, 6.6 mi. E. of, 16 ft. from NW. corner of brick house about 600 ft. SE. of San Juan plantation sugar mill; International Boundary Commission monument designated "Reference point 23"-----	96. 462
Hidalgo, 8.7 mi. E. of, on E. side of ranch, on S. side of rd.; iron post stamped "S 1913 89"-----	89. 413
Hidalgo, 12.2 mi. E. of, 3.1 mi. W. of Run post office, 6.8 mi. S., thence 2.0 mi. W. from Donna, in SW. angle of crossroads; iron post stamped "S 1913 83"-----	82. 604

SAN MARCOS NO. 2 QUADRANGLE

[Latitude 29°45'-30°00'; longitude 97°45'-98°00']

CALDWELL, GUADALUPE, AND HAYS COUNTIES

From Austin No. 3 quadrangle south and southwest along International-Great Northern Railroad into Hunter quadrangle (by J. A. Hinman in 1897; leveled twice from San Marcos)

Kyle, 4.0 mi. S. of, 5.2 mi. NE. of San Marcos, at R. R. bridge over Blanco River, in top of NE. end of N. rock pier; copper bolt stamped "636"-----	631. 209
San Marcos, 0.5 mi. NE. of sta., at R. R. bridge over San Marcos River, in W. end of N. rock pier; copper bolt stamped "583" (recovered in 1906; also recovered by U. S. C. & G. S. in 1904)-----	577. 929
San Marcos, 3.3 mi. SW. of, S. of rd. crossing, near mileboard 215, on W. side of track; iron post stamped "662 SA"-----	657. 016
From San Marcos east along Missouri-Kansas-Texas Railroad into Lockhart quadrangle (by J. A. Hinman in 1897)	
San Marcos, 4.0 mi. E. of, 5.0 mi. W. of Maxwell, 10 ft. W. of ninth telegraph pole E. of mileboard 1018, 40 ft. S. of track, 30 ft. E. of wagon rd.; iron post (recovered by U. S. C. & G. S. in 1904)-----	581. 177
Maxwell, in front of sta., 3.5 mi. W. of Clear Fork, 30 ft. S. of center line of main track; iron post (recovered by U. S. C. & G. S. in 1904)-----	604. 083
From San Marcos generally south along roads into Seguin quadrangle at point 0.2 mile south of Zorn (by F. A. Nussle in 1906)	

San Marcos, 2.0 mi. S. of, in SW. corner of rd. junction, near signpost "Staples 10 miles; Seguin 25 miles"; iron post stamped "626"-----	625. 747
San Marcos, 5.0 mi. S. of, 150 ft. NE. of store of W. E. Gary, on W. side of rd., 5 ft. S. of telephone pole; iron post stamped "626"-----	625. 991
San Marcos, 9.0 mi. S. of, 2.3 mi. N. of Zorn, on W. side of rd., 50 ft. N. of gate, 200 ft. E. of house, near mail box 25; iron post stamped "628"-----	628. 579
Zorn, 50 ft. NE. of store, 100 ft. SW. of crossroads, between hitching rail and fence; iron post stamped "529"-----	530. 103

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From Lockhart quadrangle at point 2.3 miles northeast of Fentress along roads southwest to Fentress, thence southeast into Seguin quadrangle (by F. A. Nussle in 1906)

Fentress, 75 ft. NE. of Cumberland Presbyterian Church, 30 ft. S. of Lockhart-Kingsbury rd., 40 ft. W. of Fentress-Luling rd.; iron post stamped "444"-----	Feet 444. 203
From Fentress along roads northwest to San Marcos, thence northeast to point 1 mile southwest of Uhland, thence southeast into Lockhart quadrangle (by F. A. Nussle in 1906)	
Fentress, 4.1 mi. NW. of, 4.1 mi. SE. of Martindale, at NE. corner of junction of lane; iron post stamped "473"-----	473. 416
Martindale, 200 ft. SW. of Missionary Baptist Church, 40 ft. E. of main rd., at fence corner; iron post stamped "528"-----	527. 786
Martindale, 1.7 mi. NW. of, 5.7 mi. SE. of San Marcos, at junction of rd. NE. to Reedville, 250 ft. E. of Fuller house; iron post stamped "558"-----	558. 031
San Marcos, 3.5 mi. SE. of, near Guadalupe-Hays county line, at SE. corner of crossroads; iron post stamped "567"-----	567. 649
San Marcos River, at highway bridge; surface of water Oct. 22, 1906-----	550. 7
San Marcos, 3.6 mi. NE. of, 200 ft. SW. of High Prairie schoolhouse, at fence corner; iron post stamped "598"-----	598. 156
San Marcos, 6.2 mi. NE. of, at SW. corner of junction of Maxwell rd.; iron post stamped "623"-----	623. 040
San Marcos, 8.6 mi. NE. of, 3.5 mi. SW. of Uhland, in NW. corner of crossroads; iron post stamped "636"-----	635. 913
Uhland, 1.0 mi. SW. of, 9.8 mi. NW. of Lockhart, at junction of rd. SE., near mail box of E. Franke; iron post stamped "644"-----	644. 065
Lockhart, 7.0 mi. NW. of, at gate at point where telephone line crosses rd., on W. side of rd.; iron post stamped "611"-----	610. 879

SAN RAMON NO. 1 QUADRANGLE

[Latitude 28°45'-27°00'; longitude 98°00'-98°15']

BROOKS AND HIDALGO COUNTIES

From southwest corner of Armstrong quadrangle northwest and northeast along roads and across country and back into Armstrong quadrangle at point near northeast corner of Hidalgo County (by Basil Tuttle in 1921)

Andres ranch, 1.9 mi. NW. of, in opening between lines of mesquite brush on SW. and NE. sides, in base of 2-in. mesquite tree; copper nail and washer-----	49. 55
Andres ranch, 3.2 mi. NW. of, 1.3 mi. SW. of windmill, 50 ft. E. of second-class rd. N.; iron post stamped "Prim Trav Sta No 37 W 1919 Texas 51.6"-----	51. 660

SAN ROQUE LAKE NO. 2 QUADRANGLE

[Latitude 28°15'-28°30'; longitude 99°45'-100°00']

DIMMIT COUNTY

From Loma Vista No. 3 quadrangle southwest along Dentonia road to point 4.1 miles south of Carrizo Springs (by E. E. Harris in 1930; spur line)

Carrizo Springs, 3.0 mi. S. of, 110 ft. S. of junction of driveway to ranch house of C. T. Lindenborn, 20 ft. E. of center line of rd., in SW. corner of yard, in concrete post; standard tablet stamped "H 45 1930"-----	654. 228
Reference mark, 118 ft. N.45°W. of tablet, in root on NW. side of 12-in. mesquite tree; copper nail and washer-----	652. 33

	<i>Feet</i>
Carrizo Springs, 4.1 mi. S. of, at bridge that formerly spanned Carrizo Creek, on SW. end of NW. concrete wing wall; chiseled square-----	617. 73
From point 3.5 miles southwest of Carrizo Springs west along road to Gates ranch (by E. E. Harris in 1930; spur line)	
Gates Ranch, 2.8 mi. E. of, on N. edge of fork of rd., in crotch of small mesquite tree; copper nail and washer-----	670. 74
Gates Ranch, 0.7 mi. E. of, 140 ft. E. of gate in fence line crossing rd., on S. side of rd., in root on N. side of small mesquite tree; copper nail and washer-----	713. 50
From point about 9.8 miles south of Asherton southwest along highway to ranch of Claude Lindley (by E. E. Harris in 1930; spur line)	
U. S. C. & G. S. standard disk stamped "P 63"-----	613. 175
Claude Lindley ranch headquarters, 5.3 mi. NE. of, 80 ft. NE. of junction of T-rd. NW., on SE. side of rd., in root on W. side of mesquite tree; copper nail and washer-----	592. 26
Claude Lindley ranch headquarters, about 4.4 mi. NE. of, 165 ft. SW. of crossroads, on SE. side of rd., in root on SE. side of mesquite tree; copper nail and washer-----	606. 93
Claude Lindley ranch headquarters, 3.5 mi. NE. of, 90 ft. SW. and 30 ft. SE. from center of crossroads, in concrete post; standard tablet stamped "H 49 1930"-----	645. 237
Claude Lindley ranch, about 500 ft. NW. of headquarters, 22 ft. SE. of center line of main traveled rd., near end of rd., 20 ft. NE. of ranch rd., between fence and irrigation ditch, in concrete post; standard tablet stamped "H 50 1930"-----	612. 674
From point 9.8 miles south of Asherton northeast 1.5 miles, thence southeast 3 miles (by E. E. Harris in 1930; spur line)	
Claude Lindley ranch, 8.6 mi. NE. and 3.0 mi. SE. from, 360 ft. SE. of center of crossroads, at well No. DS 5-8, on SW. corner of concrete foundation of windmill; chiseled square-----	571. 80
From point 3.4 miles north of Asherton along road west 0.7 mile (by E. E. Harris in 1930; spur line)	
U. S. C. & G. S. standard disk stamped "W 63"-----	574. 553
Asherton, 3.4 mi. N. and 0.7 mi. W. from, on SE. side of rd., 90 ft. SW. of cattle guard, on NE. wing wall of small bridge; chiseled square-----	555. 10

SARITA QUADRANGLE

[Latitude 27°00'-27°15'; longitude 97°45'-98°00']

BROOKS, KENEDY, AND KLEBERG COUNTIES

From Armstrong quadrangle northeast along Lorita ranch-Turcotte road to Turcotte, thence south along St. Louis, Brownsville & Mexico Railway and back into Armstrong quadrangle (by Basil Tuttle in 1920-21; reeveled by A. K. Andrews in 1921)

Turcotte, 2.4 mi. SW. of, at jog in N. side of corral fence, 50 ft. W. of dipping vat; iron post stamped "Prim Trav Sta No 53 W 1920 38"-----	38. 131
[Line jogs into Armstrong quadrangle]	
Turcotte, 50 ft. W. of track, outside NE. corner of board fence around house of section foreman; iron post stamped "Prim Trav Sta No 52 W 1920 Texas 34"-----	34. 142

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SASPAMCO QUADRANGLE

[Latitude $29^{\circ}00'$ – $29^{\circ}15'$; longitude $98^{\circ}15'$ – $98^{\circ}30'$]

ATASCOSA, BEXAR, AND WILSON COUNTIES

From East San Antonio quadrangle at point 0.6 mile southeast of Elmendorf southeast along San Antonio & Aransas Pass Railroad¹⁴ to Calaveras, thence along roads southwest by way of Fairview to Verdi, thence generally north and back into East San Antonio quadrangle at point 1.2 miles north of Losoyo (by M. S. Bright in 1901)

	Feet
Saspamco, at switch, at rd. crossing, 3.2 mi. NW. of Calaveras, 15 ft.	480. 834
S. of track, 20 ft. N. of public rd.; iron post stamped "488 SA"-----	412. 6
Calaveras, in front of sta.; center of track -----	421. 088
Calaveras, 0.8 mi. SW. of, at summit of small ridge, on E. side of rd., near wire fence; iron post stamped "428 SA"-----	530. 042
Calaveras, 3.8 mi. SW. of, 6.0 mi. NE. of Fairview, at summit of ridge, on E. side of rd., near wire fence; iron post stamped "537 SA"-----	561. 858
Fairview, 1.0 mi. NE. of, 1,000 ft. N. of rd. junction, on W. side of rd., near wire fence; iron post stamped "569 SA"-----	512. 375
Fairview, 3.5 mi. SW. of, about 4.5 mi. NE. of Verdi, on N. side of rd., 4 ft. N. of gate, near wire fence; iron post stamped "519 SA"-----	448. 209
Verdi, 6 ft. NE. of post office, 4.9 mi. S. of Loire, near wire fence; iron post stamped "455 SA"-----	511. 396
Loire, at SE. corner of post office; iron post stamped "518 SA"-----	591. 520
Loire, 3.5 mi. N. of, on E. side of rd., in front of house of Washington Williams, near wire fence, 2 ft. N. of gate; iron post stamped "598 SA"-----	568. 648
Loire, about 7 mi. NW. of, 4.0 mi. S. of Losoyo, on E. side of rd., near wire fence, at offset in lane; iron post stamped "575 SA"-----	532. 98
Losoyo, 1.0 mi. S. of, on S. side of rd., near wire fence, on sandstone outcrop; chiseled mark-----	507. 594
Losoyo, 35 ft. N. of post office, on E. side of rd., near fence; iron post stamped "514 SA"-----	557. 037
From East San Antonio quadrangle along roads south to Childress store, thence west into Poteet quadrangle (by M. S. Bright in 1901)	
Earle, 2.0 mi. S. of, on W. side of rd., opposite milepost S. A. 14, near wire fence; iron post stamped "564 SA"-----	519. 176

(Line jogs into Poteet quadrangle)

Earle, 10.5 mi. S. of, 2.5 mi. N. of Childress store, 100 ft. W. of junction of settlement rd. NE. through gate, on W. side of rd., near wire fence; iron post stamped "526 SA"-----	500. 196
Childress store, 40 ft. W. of, in NE. fence corner; iron post stamped "507 SA"-----	

SCHATTTEL QUADRANGLE

[Latitude $28^{\circ}45'$ – $29^{\circ}00'$; longitude $98^{\circ}45'$ – $99^{\circ}00'$]

ATASCOSA AND Frio COUNTIES

From Jourdanton quadrangle at point about 1 mile southwest of Crown west along road into Pearsall quadrangle at point about 6.5 miles east of Pearsall (by E. E. Harris in 1930)

Crown, 1.8 mi. SW. of, 28 ft. NE. and 20 ft. NW. from junction of T-rd. N.E., in fence corner, 3 ft. from each fence, in concrete post; standard tablet stamped "H 85 1930"-----	508. 121
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¹⁴ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

	Feet
Crown, 2.8 mi. SW. of, 4.2 mi. NE. of Miguel, at SW. corner of bridge over creek, in mesquite tree; copper nail and washer-----	479. 72
Miguel, 2.9 mi. NE. of, on SE. side of rd., 100 ft. SW. of angle in rd. at forks, in fence line, in root on NW. side of mesquite tree; copper nail and washer-----	502. 33
Miguel, 2. 2 mile NE. of, 90 ft. NW. and 31 ft. NE. from junction of T-rd. NE., 2 ft. W. of fence line, in concrete post; standard tablet stamped "H 86 1930"-----	532. 152
Miguel, 1.4 mi. NE. of, on NW. side of angle in rd., in line with rd. SE., 20 ft. inside fence line, in root on E. side of 8-in. mesquite tree; copper nail and washer-----	511. 42
Miguel, 0.7 mi. NE. of, in center of angle in rd., in root on W. side of lone mesquite tree; copper nail and washer-----	542. 59
Miguel, 24 ft. SW. and 100 ft. SE. from junction of T-rd. NE., 2 ft. SW. of fence line, in concrete post; standard tablet stamped "H 87 1930"-----	528. 162
Reference mark, 95 ft. N. 75°E. of tablet, in root on SE. side of 18-in. mesquite tree; copper nail and washer-----	528. 65
Miguel, 0.6 mi. SW. of, on SE. side of rd., 280 ft. SW. of angle in rd., in root on E. side of prominent mesquite tree; copper nail and washer-----	544. 06
Miguel, 1.4 mi. SW. of, in NE. corner of crossroads, in root on NW. side of mesquite tree; copper nail and washer-----	572. 89
Miguel, 2.4 mi. SW. of, 37 ft. N. and 26 ft. W. from junction of T-rd. N., 4 ft. W. of fence line, in concrete post; standard tablet stamped "H 88 1930"-----	585. 441
Reference mark, 100 ft. S. 50°W. of tablet, in root on W. side of mesquite tree; copper nail and washer-----	586. 49
Miguel, 3.8 mi. SW. of, in NE. corner of crossroads, in crotch of mesquite tree; copper nail and washer-----	533. 10
Miguel, 4.2 mi. SW. of, on N. side of rd., 250 ft. W. of small wooden bridge, 30 ft. E. of ranch rd. N., at T-angle in fence line, in root on W. side of 12-in. mesquite tree; copper nail and washer-----	519. 28
Miguel, 5.5 mi. SW. of, 12.3 mi. E. of Pearsall, 22 ft. N. and 51 ft. W. from junction of T-rd. W., 3 ft. N. of fence line, in concrete post; standard tablet stamped "H 89 1930"-----	535. 045
Reference mark, 370 ft. N. of tablet, at angle in rd., in root on SE. side of lone mesquite tree; copper nail and washer-----	529. 64
Pearsall, 11.6 mi. E. of, on N. side of rd., at steel bridge over San Miguel Creek, in center of NE. concrete wing wall; chiseled square-----	487. 19
Pearsall, 10.7 mi. E. of, on S. side of rd., on E. slope of hill, 60 ft. E. of dim rd. N., in root on E. side of large mesquite tree; copper nail and washer-----	497. 05
Pearsall, 9.8 mi. E. of, 23 ft. N. and 33 ft. W. from junction of T-rd. N., 2 ft. N. of fence line, in concrete post; standard tablet stamped "H 90 1930"-----	530. 764
Pearsall, 9.1 mi. E. of, on N. side of rd., in center of top of NW. wing wall of concrete culvert; chiseled square-----	495. 00
Pearsall, 8.4 mi. E. of, on S. side of angle in rd., 20 ft. S. and 40 ft. E. from fence line, in root on SW. side of 10-in. mesquite tree; copper nail and washer-----	533. 67

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	Feet
Pearsall, 7.2 mi. E. of, 32 ft. NW. and 59 ft. NE. from crossroads, 2 ft. N. of fence line, in concrete post; standard tablet stamped "H 91 1930"-----	572. 862
Reference mark, 144 ft. S. 20°W. of tablet, in N.-S. fence line, in root on S. side of 10-in. mesquite tree; copper nail and washer-----	572. 89

SEGUIN QUADRANGLE

[Latitude 29°30'-29°45'; longitude 97°45'-98°00']

GUADALUPE COUNTY

From New Braunfels quadrangle east and northeast along Galveston, Harrisburg & San Antonio Railroad ¹⁴ into Luling quadrangle (by J. A. Hinman in 1898-97; leveled twice)

Seguin, in front of sta., 3.8 mi. SW. of Ilka, about 25 ft. N. of center line of main track, 1.5 ft. E. of fence enclosing small park; iron post stamped "560" (recovered in 1906) ¹⁶ -----	552. 565
Ilka, 0.25 mi. E. of, 5.8 mi. SW. of Kingsbury, 300 ft. W. of rd. crossing, 200 ft. W. of Neil residence, 1.5 ft. NW. of S. right-of-way fence; iron post stamped "558" (recovered in 1924)-----	550. 310
U. S. C. & G. S. standard disk stamped "T 329 1925" ¹⁷ -----	553. 440
Kingsbury, at W. side of sta., 4.5 mi. W. of Sullivan, on S. side of main track, 1.5 ft. W. of small park; iron post stamped "614"-----	606. 460
Sullivan, at SE. corner of section house 78, 40 ft. W. of head block at S. end of switch; iron post stamped "473"-----	465. 545
From San Marcos No. 2 quadrangle at point 0.2 mile south of Zorn south along road to Seguin, thence east and southeast along Seguin-Belmont road into Luling quadrangle at point about 4.5 miles northwest of Belmont (by F. A. Nussle in 1908)	
Zorn, 4.0 mi. S. of, 3.0 mi. N. of Geronimo, at NW. corner of crossroads, 300 ft. E. of schoolhouse; iron post stamped "614"-----	614. 597
Geronimo, in front of store, between hitching rail and gallery; iron post stamped "584" ¹⁸ -----	583. 705
Geronimo, 2.7 mi. S. of, 3.6 mi. N. of Guadalupe County courthouse at Seguin, at junction of lane E., 250 ft. NW. of house, 10 ft. S. of mail box of H. A. Glaeser; iron post stamped "584" (recovered in 1924 and restamped "H 19 1924")-----	583. 627
Seguin, 2.4 mi. E. of courthouse, 1.4 mi. W. of Junior, 250 ft. NE. of Geronimo Creek, 10 ft. W. of rd. crossing; iron post stamped "474"-----	474. 654
Seguin, 5.3 mi. E. of, 1.5 mi. E. of Junior, at crossroads, 50 ft. SE. of mail box of Aug. Maurer; iron post stamped "525"-----	525. 901
Seguin, 7.6 mi. E. of, at NW. corner of crossroads, 50 ft. E. of mail box of Hy. Bering; iron post stamped "512" ¹⁹ -----	511. 369
Seguin, 12.5 mi. SE. of, about 7 mi. NW. of Belmont, 50 ft. E. of store of Henry Herrman, near gate of wire fence; iron post stamped "448"-----	448. 960

¹⁴ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

¹⁵ In 1924 it was reported that this mark had been buried in regrading.

¹⁶ The tie between this mark and the bench mark stamped "558" was made in 1936.

¹⁷ In 1924 this mark was replaced by the bench mark set 186.3 feet south and 58.6 feet west from this position and stamped "H 21 1924," described on p. 741.

¹⁸ In 1924 this bench mark was replaced by a standard tablet stamped "H 153 1924 511" set in a concrete post 41 feet N.45°E. of this position and 1.164 feet lower than its original elevation. The figures given represent the new elevation.

The new bench mark is located at Wolf store, in the northeast corner of the junction of a T-road north, in angle of fence, near corner post.

From San Marcos No. 2 quadrangle at point near Fentress southeast along road into Luling quadrangle at point about 0.5 mile southeast of Prairie Lea (by F. A. Nussle in 1906)	
Prairie Lea, 200 ft. SE. of store of W. N. McKinney's Sons, 600 ft. NW. of Methodist Church, 500 ft. SW. of schoolhouse; at fence corner; iron post stamped "451"	Feet 451. 363
From point 2.7 miles south of Geronimo along roads south 0.8 mile, thence west 1.2 miles, thence south and southeast to Seguin (by E. E. Harris in 1924)	
Geronimo, 3.5 mi. S., thence 0.2 mi. W. from, 2.7 mi. N., thence 0.3 mi. W. from Guadalupe County courthouse at Seguin, on S. side of rd., 50 ft. E. of right-angle turn N. in rd., in root on W. side of small mesquite tree; copper nail and washer	588. 67
Seguin, 2.7 mi. N., thence 1.4 mi. W. from, in SW. corner of junction of T-rd. S., in right angle in fence line, 4 ft. from each fence, in concrete post; standard tablet stamped "H 121 1924"	561. 368
Seguin, about 1.5 mi. NW. of, on N. side of dirt rd. E., on E. side of lane N. through gate, in root on S. side of 10-in. mesquite tree; copper nail and washer	542. 51
Seguin, in NE. angle of junction of Jones and Mellon Avenues, in right angle in fence line, 5 ft. from each fence, in concrete post; standard tablet stamped "H 122 1924" (recovered by U. S. C. & G. S. in 1935)	528. 096
Reference mark, 58 ft. S.40°W. of tablet, in root on N. side of 12-in. mesquite tree; copper nail and washer	528. 18
From Seguin south along road to point 2.4 miles south of Seguin (by E. E. Harris in 1924; leveled by I. F. Hazelwood in same year)	
Seguin, near SW. corner of town, on W. side of Guadalupe rd., at intersection of W. Klen Street, in root on W. side of 15-in. mesquite tree; copper nail and washer	499. 06
Guadalupe River; surface of water Oct. 1, 1924	457. 0
Seguin, 1.8 mi. S. of Guadalupe County courthouse, on W. side of rd., 40 ft. N. of roadway to Farmers Cooperative Gin Co., 200 ft. S. of gin, 1 ft. W. of fence line, in root on S. side of 7-in. mesquite tree; copper nail and washer	500. 28
Seguin, 2.4 mi. S. of, 200 ft. S. of Spring store, 150 ft. S. of rd. junction, on E. bank of angle SE. in rd., in corner of pasture, in concrete post; standard tablet stamped "H 123 1924" and "Prim Trav Sta No 11 LS 1925 Texas" ("H 36" added to stamping by I. F. Hazelwood) ²⁰	561. 127
Reference mark, 147.3 ft. N.15°W. of tablet, at service sta., on SW. corner of concrete base; chiseled square	556. 71
From road junction 2.4 miles south of Seguin generally east along roads into Luling quadrangle at point 1.2 miles northwest of Soefje ranch (by E. E. Harris in 1924)	
Seguin, 3.4 mi. S. of, at summit of grade, on E. side of rd., on N. side of private lane through gate, in root on W. side of 15-in. mesquite tree; copper nail and washer	524. 38
Seguin, 4.4 mi. S. of, 0.3 mi. SW. of Cottonwood School, on E. side of rd., midway in angle of junction of rd. E.; in root on W. side of 24-in. post-oak tree; copper nail and washer	476. 13

²⁰ In 1933 this bench mark was described as being "on top of hill, along State Highway 123, 12 ft. E. of five-way rd. junction."

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	Feet
Cottonwood School, 0.7 mi. SE. of, in NE. angle of junction of T-rd. E., in right angle in fence line, 5 ft. from each fence, in concrete post; standard tablet stamped "H 124 1924" and "Prim Trav Sta No 10 LS 1925 Texas"-----	493. 139
Reference mark, 65 ft. S.30°E. of tablet, in root on N. side of 15-in. mesquite tree; copper nail and washer-----	494. 97
Cottonwood School, 1.8 mi. E. of, 3.7 mi. W. of Moss School, on W. side of right-angle turn in rd., in line with S. edge of rd. E., in root on N. side of forked mesquite tree; copper nail and washer-----	471. 09
Moss School, 2.8 mi. NW. of, on W. side of rd., in line with T-rd. E., in root on S. side of 6-in. hackberry tree; copper nail and washer-----	465. 52
Moss School, 1.8 mi. W. of, on W. side of rd., on S. side of lane W. through gate, in SE. corner of T-angle in fence line, in concrete post; standard tablet stamped "H 125 1924" and "Prim Trav Sta No 9 LS 1925 Texas"-----	462. 197
Moss School, 1.1 mi. W. of, 25 ft. S. and 40 ft. W. from junction of rd. S., in crotch of mesquite tree; copper nail and washer-----	484. 98
Moss School, in SW. corner of crossroads, in crotch of small mesquite tree; copper nail and washer-----	498. 10
Moss School, 1.2 mi. E. of, 3.4 mi. W. of Capote Church, in SE. corner of crossroads, 800 ft. E. of Zabriskie (Zoboroski) store, 250 ft. N. of Delaney Meeting House, in concrete post; standard tablet stamped "H 126 1924" and "Prim Trav Sta No 8 LS 1925 Texas"-----	451. 242
Reference mark, 60.9 ft. N.60°W. of tablet, in root on N. side of 30-in. post-oak tree; copper nail and washer-----	449. 78
Capote Church, 2.4 mi. SW. of, on N. side of rd., on W. side of private lane N. through gate, in root on S. side of 18-in. post-oak tree; copper nail and washer-----	464. 79
Capote Church, 1.4 mi. SW. of, on S. side of angle in rd., 750 ft. E. of small bridge over Salt Creek, at vat No. 2, in fence line, in root on E. side of 24-in. post-oak tree; copper nail and washer-----	440. 46
Capote Church, about 800 ft. NW. of, 400 ft. N. and 800 ft. W. from Capote School, at rd. junction and right-angle turn S. in main rd., 50 ft. N. of rd., in concrete post; standard tablet stamped "H 127 1924" and "Prim Trav Sta No 7 LS 1925 Texas"-----	487. 324
Capote Church, 0.8 mi. E. of, in NW. corner of rd. junction, in root on W. side of 6-in. mesquite tree; copper nail and washer-----	477. 19
Capote Church, 1.5 mi. E. of, 80 ft. SW. of Jahns School (Mathews School), 140 ft. E. of rd. fork, 20 ft. E. of E. fence line, in root on N. side of 12-in. post-oak tree; copper nail and washer-----	468. 81
Capote Church, 2.3 mi. SE. of, 0.8 mi. SW. of Capote ranch headquarters, 75 ft. S. and 35 ft. W. from junction of lane, 47 ft. SE. of fence corner, in concrete post; standard tablet stamped "H 128 1924" and "Prim Trav Sta No 12 LS 1925 Texas"-----	420. 515
Reference mark, 73.3 ft. S.30°E. of tablet, in root on N. side of 10-in. post-oak tree; copper nail and washer-----	420. 95
Capote ranch headquarters, about 600 ft. E. of, on S. side of rd. junction, in root on W. side of 20-in. live-oak tree; copper nail and washer-----	424. 33
Capote ranch headquarters, 0.8 mi. E. of, at NE. corner of Mexican shack, on small boulder; chiseled square-----	381. 93
Capote ranch headquarters, 1.5 mi. E. of, 1.3 mi. NW. of ranch house of H. Soefje, 30 ft. S. of rd., 100 ft. S. of house, in root on N. side of 40-in. pecan tree; copper nail and washer-----	383. 13

Along road northwest and northeast near east border of quadrangle at point about 1 mile south of Nash Creek School (by E. E. Harris in 1924)

[A jog from Luling quadrangle]

Nash Creek School, 1.0 mi. S. of, at junction of dim rd., in root on W. side of 12-in. post-oak tree; copper nail and washer-----

Feet
476.49

Along roads northwest to point 1.3 miles northwest of Nash Creek School, thence east 0.2 mile (by E. E. Harris in 1924)

[A jog from Luling quadrangle]

Nash Creek School, 1.3 mi. NW. of, in SW. corner of junction of rd. S. through gate to house of Ferd Beikers, 5 ft. W. of gatepost, in concrete post; standard tablet stamped "H 137 1924"-----

488.591

Reference mark, 61 ft. N.15°W. of tablet, in root on W. side of leaning mesquite tree; copper nail and washer-----

486.58

From Luling quadrangle generally west along roads to Ilka (by E. E. Harris in 1924)

Brawner store, 2.9 mi. E. of, in right-angle turn in rd., in root on N. side of 18-in. post-oak tree; copper nail and washer-----

515.43

Brawner store, 1.8 mi. E. of, 0.3 mi. W. of Nash Creek, 100 ft. W. of small drain, on S. side of rd., in root on N. side of 15-in. post-oak tree; copper nail and washer-----

486.92

Brawner store, 0.7 mi. E. of, at junction of rd. W., on E. side of rd., 12 ft. E. of fence line, in concrete post; standard tablet stamped "H 134 1924"-----

543.709

Reference mark, 55.1 ft. N.90°W. of tablet, in root on E. side of 12-in. mesquite tree; copper nail and washer-----

543.28

Brawner store, 0.4 mi. W. of, 25 ft. S. and 40 ft. E. from crossroads, on top of rock ledge; chiseled square-----

550.17

Brawner store, 1.3 mi. W. of, at junction of T-rd. S., on N. side of rd., in root on N. side of small mesquite tree; copper nail and washer-----

495.03

Brawner store, 2.6 mi. W. of, in NW. corner of crossroads, at right angle in fence line, 7 ft. from corner post, in concrete post; standard tablet stamped "H 135 1924"-----

511.416

Reference mark, 181 ft. S.20°E. of tablet, in root on E. side of 10-in. mesquite tree; copper nail and washer-----

515.18

Brawner store, 3.4 mi. W. of, 3.9 mi. E., thence 1.2 mi. S. from Ilka, on S. side of rd., in line with T-rd. N., in root on S. side of 15-in. post-oak tree; copper nail and washer-----

489.96

Ilka, 3.9 mi. E. of, at summit of grade, on E. side of rd., 25 ft. N. of dim cross lane, in root on E. side of small mesquite tree; copper nail and washer-----

530.02

Ilka, 3.0 mi. E. of, on E. side of rd., in line with old rd. W., in concrete post; standard tablet stamped "H 136 1924"-----

540.750

Ilka, 2.3 mi. E. of, on S. side of rd., on W. side of cross lane, in root on N. side of small mesquite tree; copper nail and washer-----

525.28

Ilka, 1.2 mi. E. of, on N. side of rd., 40 ft. W. of gate, in fence line, in root on S. side of small mesquite tree; copper nail and washer-----

492.53

From New Braunfels quadrangle at point 2 miles northeast of Leissner School east along road to point 2.4 miles south of Seguin (by I. F. Hazelwood in 1924)

Leissner School, 3.0 mi. NE. of, 2.4 mi. S., thence 1.0 mi. W. from Seguin, 25 ft. S. and 22 ft. W. from SW. corner of wooden bridge, 2 ft. S. of fence line, in root on N. side of 10-in. live-oak tree; copper nail and washer-----

519.65

From Seguin north along road to point 2.7 miles south of Geronimo (by I. F. Hazelwood in 1924; relevelled from Mott triangulation station by R. G. Clinite in 1925)	Feet
Seguin, at Guadalupe County courthouse, 3 ft. N. and about 13 ft. E. from SW. corner of yard, in stone monument; standard tablet stamped "H 37 1924" (recovered by U. S. C. & G. S. in 1935)-----	527. 732
Seguin, at R. R. sta., on NW. corner of E. window of telegraph sta.; chiseled square-----	555. 11
Seguin, 1.7 mi. N. of courthouse, at junction of T-rd. E. to Martindale, at residence of H. A. Heideke, 21 ft. N. and 7 ft. W. from SE. corner of lawn fence, in root on W. side of 7-in. hackberry tree; copper nail and washer-----	571. 60
Mott triangulation sta. (U. S. C. & G. S.), 1.9 mi. N. of Seguin, on W. side of Seguin-Geronimo rd., about 4 ft. E. of wire fence, in iron post filled with concrete; nail-----	581. 594
Reference mark, on E. side of rd., near wire fence, in concrete base; iron pipe-----	581. 40
Seguin, 2.7 mi. N. of, 3.6 mi. S. of Geronimo, 30 ft. N. and 20 ft. E. from junction of T-rd. S., in root on E. side of 4-in. mesquite stump; copper nail and washer-----	582. 67
From point 2.7 miles south of Geronimo along roads north 0.6 mile, thence west 1.4 miles, thence north to Navarro Agricultural High School, thence east to Geronimo (by I. F. Hazelwood in 1924; leveled twice from Navarro Agricultural High School)	
Seguin, 2.1 mi. S. of, at crossroads, 20 ft. N. of E.-W. rd., in SE. corner of schoolyard, in E. side of 18-in. hackberry tree; copper nail and washer-----	573. 81
Geronimo, 2.1 mi. S., thence 1.4 mi. W. from, 2.8 mi. S. of Navarro Agricultural High School, 18 ft. S. and 13 ft. E. from crossroads, on 10- by 10- by 20-in. limestone rock set 1.5 ft. in ground; chiseled square-----	588. 31
Navarro Agricultural High School, 1.8 mi. S. of, 20 ft. S. of junction of T-rd. W., in root on E. side of 8-in. hackberry tree; copper nail and washer-----	597. 76
Navarro Agricultural High School, 1.2 mi. S. of, 18 ft. S. and 15 ft. W. from crossroads, 1.5 ft. S. and 1.5 ft. W. from fence corner, in concrete post; standard tablet stamped "H 20 1924"-----	600. 201
Reference mark, 42 ft. E. of tablet, on 5- by 6- by 20-in. limestone rock set 18 in. in ground; chiseled square-----	600. 76
Navarro Agricultural High School, 0.8 mi. S. of, 35 ft. W. of center line of rd., in fence line, in root on E. side of four-pronged mesquite tree with 20-in. base; copper nail and washer-----	602. 32
Navarro Agricultural High School, 20 ft. S. and 25 ft. W. from NW. corner of, in root on W. side of 14-in. hackberry tree; copper nail and washer-----	603. 76
Navarro Agricultural High School, 0.7 mi. E. of, 1.3 mi. W. of Geronimo, 20 ft. N. of center line of rd., 2 ft. N. of fence line, in root on NW. side of 24-in. hackberry tree; copper nail and washer-----	592. 71
Geronimo, 0.9 mi. W. of, 15 ft. N. and 25 ft. E. from center of right angle turn S. in rd., 10 ft. W. of fence corner, in root on S. side of 12-in. mesquite tree; copper nail and washer-----	585. 66

	Feet
Geronimo, 190 ft. S. of NE. corner of bank, 22 ft. W. of center line of rd., 1 ft. NE. of NW. corner of yard fence, set in 9 in. of concrete; iron post stamped "H 21 1924" ²⁰	582. 531
Reference mark, 475 ft. N. of iron post, in root on E. side of 18-in. hackberry tree; copper nail and washer	583. 20
Reference mark 2,160 ft. N. and 60 ft. W. from iron post, in root on E. side of 24-in. hackberry tree; copper nail and washer	582. 78
From Navarro Agricultural High School along roads generally north near west border of quadrangle 6.1 miles, thence west into New Braunfels quadrangle at point 0.3 mile north and 5.2 miles east from Goodwin (by I. F. Hazelwood in 1924; 0.9 mile, beginning at point about 0.1 mile north of Navarro Agricultural High School, relevelled by R. G. Clinite in 1925)	
Navarro Agricultural High School, 785 ft. N. of, in SW. corner of junction of T-rd. W., in root on E. side of 10-in. mesquite tree; copper nail and washer	601. 60
Navarro Agricultural High School, 1.0 mi. N. of, 30 ft. S. and 18 ft. E. from SE. corner of residence of M. A. Henze, about 80 ft. W. of rd., in root on E. side of 24-in. hackberry tree; copper nail and washer	605. 24
Navarro Agricultural High School, 1.7 mi. N. of, 15 ft. W. of junction of T-rd. E., 1 ft. inside fence line, set in concrete; iron post stamped "H 22 1924"	621. 366
Reference mark, 20 ft. N. and 35 ft. E. from tablet, 1 ft. NE. of SW. fence corner, on limestone rock; chiseled square	620. 69
Navarro Agricultural High School, 2.4 mi. N. of, 60 ft. S. and 15 ft. W. from junction of T-rd. W., in root of three-pronged mesquite tree with 10-, 14-, and 16-in. trunks; copper nail and washer	626. 13
Navarro Agricultural High School, 3.4 mi. N. of, about 320 ft. S. and 110 ft. W. from house, on W. end of concrete and corrugated steel culvert; chiseled square	659. 36
Navarro Agricultural High School, 3.9 mi. N. of, 20 ft. N. and 25 ft. W. from junction of T-rd. E., in root on E. side of 18-in. elm tree; copper nail and washer	667. 08
Navarro Agricultural High School, 4.3 mi. N. of, 30 ft. S. of junction of T-rd. N., 3 ft. S. of fence line, in concrete post; standard tablet stamped "H 23 1924"	606. 619
Reference mark, 12 ft. W. of center line of T-rd. N., on top of concrete culvert; chiseled square	607. 77
Navarro Agricultural High School, 4.9 mi. N. of, at jog W. in N.-S. rd. and junction of rd. E., 80 ft. S. and 20 ft. E. from junction, in root on S. side of 10-in. hackberry tree; copper nail and washer	589. 27
Navarro Agricultural High School, 5.9 mi. N. of, 400 ft. NW. of rd. junction, 10 ft. SW. of center line of rd., in root on NE. side of 11-in. mesquite tree; copper nail and washer	561. 87
Navarro Agricultural High School, 6.1 mi. N. of, 0.3 mi. N. and 5.7 mi. E. from Goodwin, 12 ft. S. of center line of rd., 4 ft. inside fence line, in root on S. side of two-pronged mesquite tree with 24-in. base; copper nail and washer	558. 72
From New Braunfels quadrangle along roads east to point 2.4 miles north of Navarro Agricultural High School, thence south and southwest by way of Seguin East Base triangulation station and back into New Braunfels quadrangle (by I. F. Hazelwood in 1924)	
Seguin East Base (U. S. C. & G. S.) reference mark, 325 ft. N. and 735 ft. W. from site of East Base, set in concrete; iron pipe	601. 311

²⁰ This mark replaces the bench mark stamped "584" which was set 186.3 feet north and 58.6 feet east from this position. See p. 736.

SIMMONS QUADRANGLE

[Latitude 28°15'-28°30'; longitude 98°15'-98°30']

LIVE OAK AND McMULLEN COUNTIES

On Wentz road (by F. L. Shalibo in 1924)

[A jog from Oakville quadrangle]

Three Rivers, 4.5 mi. SW. of, in NE. angle of junction of T-rd. NW., 150 ft. W. of wooden bridge, 10 ft. E. of gate, in fence line, in concrete post; standard tablet stamped "S 42 1924" (recovered in 1925) -----

Reference mark, 20 ft. W. of tablet, 20 ft. N. of fence line, in root of mesquite tree; copper nail -----

From Oakville quadrangle west along Three Rivers-Tilden road to Calliham, thence generally southeast along roads to intersection of Wentz road and Live Oak-McMullen county line, thence northeast 5.1 miles (by H. P. Jones in 1925)

Calliham, 5.8 mi. E. of, on N. side of rd., in root on S. side of 10-in. mesquite tree; copper nail and washer -----

Calliham, 4.7 mi. E. of, on S. side of rd., at angle, inside fence line, in root of mesquite tree; copper nail and washer -----

Calliham, 3.6 mi. E. of, on S. side of rd., inside fence line, in root of mesquite tree; copper nail and washer -----

Calliham, 2.8 mi. E. of, on S. side of rd., opposite T-rd. N., at SE. corner of large field, in corner of wire fence, 3 ft. SW. of corner post, in concrete post; standard tablet stamped "Prim Trav Sta No 9 K 1925 J 33" (recovered by U. S. C. & G. S. in 1933) -----

Reference mark, 75 ft. NE. of rd. junction, in root of mesquite tree; copper nail and washer -----

Calliham, 1.8 mi. E. of, on S. side of rd., in root of 6-in. mesquite tree; copper nail and washer -----

Calliham, 0.8 mi. E. of, on S.-of rd., in root on N. side of 12-in. mesquite tree; copper nail and washer -----

Calliham, in NE. angle of intersection of Petroleum Avenue and T Street North, 125 ft. SW. of city water tank, 35 ft. W. of Gus Brunson General Store, 1 ft. E. of street light, in concrete post; standard tablet stamped "Prim Trav Sta No 10 K 1925 J 34" (recovered by U. S. C. & G. S. in 1933) -----

Reference mark, 36 ft. W. of Brunson store, on top of concrete base of street light; chiseled square -----

Calliham, 1.4 mi. S. of, 175 ft. E. of ranch house of Lon Claunt, in root on N. side of mesquite tree; copper nail and washer -----

Calliham, about 2 mi. S. of, about 900 ft. NW. of ranch house of Mac Stollcup, 12 ft. W. of fence line between pasture and field, at wire gate, in root of mesquite tree; copper nail and washer -----

Calliham, 2.2 mi. S. and 0.5 mi. E. from, in SE. angle of crossroads, 15 ft. S. of center line of E.-W. rd., 20 ft. E. of center line of N.-S. rd., in NW. corner of wire fence, 3 ft. SE. of corner post, in concrete post; standard tablet stamped "Prim Trav Sta No 27 K 1925 J 35" -----

Reference mark, 90 ft. SW. of center of crossroads, in root of mesquite tree; copper nail and washer -----

Calliham, 3.0 mi. S. and 1.1 mi. E. from, about 600 ft. E. of Live Oak-McMullen county line, on S. side of second-class rd. E., 75 ft. S. of gate between pastures, in root of mesquite tree; copper nail and washer -----

Feet
156. 596
156. 89

164. 99
171. 08
201. 11
197. 529
199. 11
207. 83
215. 68
232. 148
232. 68
242. 02
273. 10
248. 411
248. 36
228. 46

	Feet
Calliham, about 3.7 mi. S. and 1.6 mi. E. from, 2.2 mi. NW., thence 2.3 mi. SW. from Simmons, on SE. side of Wentz rd., at dim rd. N., 25 ft. W. of fence line, in root of mesquite tree; copper nail and washer-----	184. 15
Calliham, 3.9 mi. S. and 1.0 mi. E. from, 2.2 mi. NW., thence 2.9 mi. SW. from Simmons, 7.2 mi. NE. of Wentz, at Live Oak-McMullen county line, on NW. side of Wentz rd., in NW. angle of crossing of second-class rd., 5 ft. N. of plank gate, 1 ft. W. of wire fence, 18 ft. N. of center post between gate and auto pass, in concrete post; standard tablet stamped "Prim Trav Sta No 11 K 1925 J 36"-----	225. 863
Simmons, 2.2 mi. NW., thence 1.2 mi. SW. from, on SE. side of Wentz rd., 250 ft. E. of wire gate to pasture, 5 ft. inside fence line, in root of mesquite tree; copper nail and washer-----	227. 03
Simmons, 2.2 mi. NW. of, 6.7 mi. SW. of Three Rivers, 20 ft. NW. of and in line with W. edge of T-rd. SE. to Simmons, 7 ft. N. of corner post of T-fence N., in concrete post; standard tablet stamped "Prim Trav Sta No 12 K 1925 J 37"-----	175. 102
Reference mark, 50 ft. NE. of rd. junction, in root of mesquite tree; copper nail and washer-----	175. 22
Three Rivers, 5.5 mi. SW. of, on NW. side of rd., 60 ft. NE. of junction of T-rd. S. through gate, 50 ft. N. of mail box of G. H. Roseberry, in root of mesquite tree; copper nail and washer-----	173. 30
From intersection of Three Rivers-Wentz road and Live Oak-McMullen county line along roads southwest and west to Wentz, thence alternately north and west into Tilden quadrangle at point about 4.8 miles southeast of Tilden (by H. P. Jones in 1925)	
Simmons, 2.2 mi. NW., thence 4.0 mi. SW. from, 6.2 mi. NE. of Wentz, on NW. side of rd., in root on S. side of 11-in. mesquite tree; copper nail and washer-----	198. 41
Wentz, 5.2 mi. NE. of, on NW. side of rd., in root of mesquite tree; copper nail and washer-----	220. 08
Wentz, 4.1 mi. NE. of, on SE. side of rd., 15 ft. inside S. fence, in root of mesquite tree; copper nail and washer-----	188. 16
Wentz, 3.0 mi. NE. of, on N. side of rd., in root of mesquite tree; copper nail and washer-----	181. 19
Wentz, 2.7 mi. E. of, on S. side of rd., at 35° bend from SW. to W., 20 ft. S. and 12 ft. E. from center post between plank gate and auto pass, in N.-S. fence line, at fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 34 K 1925 J 38"-----	179. 741
Wentz, 1.8 mi. E. of, on S. side of rd., in root on N. side of mesquite tree; copper nail and washer-----	220. 24
Wentz, 1.0 mi. E. of, 25 ft. NE. of crossroads, in corner of pasture fence; top of steel shaft-----	248. 98
Wentz, 170 ft. SW. of SW. corner of high school building, in SW. corner of schoolyard fence, 2 ft. NE. of corner post, in concrete post; standard tablet stamped "Prim Trav Sta No 33 K 1925 J 39"-----	258. 480
Reference mark, 4 ft. S. of center of W. entrance to schoolhouse, on concrete porch; chiseled square-----	261. 08
Wentz, 1.0 mi. N. of, on W. side of rd., 35 ft. NW. of junction of T-rd. W., in fence corner, on concrete post; chiseled square-----	285. 76
Wentz, 1.0 mi. N., thence 0.8 mi. W. from, on S. side of rd., 350 ft. NW. of small vacant frame house, 40 ft. W. of corner fence post, in root of mesquite tree; copper nail and washer-----	293. 90

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	Feet
Wentz, 1.0 mi. N., thence 2.0 mi. W. from, on N. side of rd., 275 ft. E. of dim T-rd. N., in root of mesquite tree; copper nail and washer	262. 31
Wentz, 1.0 mi. N., thence 3.0 mi. W. from, on S. side of rd., in NW. corner of cultivated field, in fence corner, in line with fence on E. side of T-rd. N., in concrete post; standard tablet stamped "Prim Trav Sta No 32 K 1925 J 40"	283. 460
Reference mark, 150 ft. SW. of rd. junction, in pasture, in root of mesquite tree; copper nail and washer	283. 37
Wentz, 2.0 mi. N. and 3.0 mi. W. from, on W. side of old rd., in root of mesquite tree; copper nail and washer	327. 05
Wentz, 3.0 mi. N. and 3.0 mi. W. from, 5.4 mi. SE. of Tilden, on W. side of rd., 18 ft. NW. of junction of T-lane W., 15 ft. S. of fence corner, in root of mesquite tree; copper nail and washer	349. 32
From Tilden quadrangle just north of Frio River east, south, and southwest along roads and across country to point on Tilden road 3.5 miles southwest of Calliham, thence along road northeast to Calliham (by H. P. Jones in 1925)	
Frio River, 5.0 mi. NE. of Tilden, 1.8 mi. E. of Teal ranch house, at crossing; surface of water March 28, 1925	199. 7
Teal ranch house, 1.8 mi. E. of, on N. side of Frio River, at old crossing, in root of 20-in. ash tree; copper nail and washer	205. 26
Teal ranch house, 2.9 mi. E. of, 4.2 mi. W. of Byrne ranch house, on N. side of dim E.-W. rd., in root of 11-in. mesquite tree; copper nail and washer	235. 06
Teal ranch house, 4.4 mi. E. of, 2.7 mi. W. of Byrne ranch house, 15 ft. N. and 15 ft. E. from crossing of N.-S. rd., in concrete post; standard tablet stamped "Prim Trav Sta No 28 K 1925 J 44"	261. 423
Byrne ranch house, 2.1 mi. W. of, at crossing of second-class NE.-SW. rd., in root of mesquite tree; copper nail and washer	294. 95
Byrne ranch house, 0.7 mi. W. of, on S. side of rd., 15 ft. S. of gate, in fence corner, in root of 12-in. mesquite tree; copper nail and washer	268. 31
Byrne ranch house, 20 ft. SW. of SW. corner of, at junction of old rd. to Crowther, in SW. corner of front yard fence, 3 ft. NE. of corner post, in concrete post; standard tablet stamped "Prim Trav Sta No 25 K 1925 J 45"	216. 951
Reference mark, 60 ft. SW. of SW. corner of ranch house, in root on S. side of 5-in. mesquite tree; copper nail and washer	215. 58
Byrne ranch house, 0.5 mi. S. of, 90 ft. W. of rd. fork, 40 ft. W. of gate between pastures, in root of 10-in. mesquite tree; copper nail and washer	198. 89
Byrne ranch house, 1.6 mi. S. of, 2.9 mi. SW. of Calliham, on NW. side of Three Rivers-Tilden rd., 120 ft. SW. of junction of T-rd. N. through gate at mail boxes for Byrne ranch, in root on N. side of 18-in. mesquite tree; copper nail and washer	266. 05
Calliham, 3.6 mi. SW. of, on S. side of rd., at bend from SW. to W., 32 ft. S. of auto pass, in corner of wire fence, in concrete post; standard tablet stamped "Prim Trav Sta No 26 K 1925 J 46" (recovered by U. S. C. & G. S. in 1933)	296. 390
Reference mark, 30 ft. SW. of auto pass, 20 ft. W. of corner fence post, in root of mesquite tree; copper nail and washer	296. 42
Calliham, 1.9 mi. SW. of, on W. side of rd., 40 ft. N. of auto pass and gate in N.-S. wire fence line, in root of mesquite tree; copper nail and washer	240. 36
Calliham, 0.8 mi. SW. of, 150 ft. S. of schoolhouse, on N. side of rd., in root of 6-in. mesquite tree; copper nail and washer	215. 04

SMITHSON VALLEY QUADRANGLE

745

From crossroads at Byrne ranch generally north along Crowther road into Whitsett quadrangle (by H. P. Jones in 1925)

Byrne ranch house, about 1 mi. N. of, on E. side of Crowther rd., in root on W. side of 6-in. mesquite tree; copper nail and washer-----
220. 45

Byrne ranch house, 0.9 mi. NW. of, on NW. side of old rd. to Crowther, in root on S. side of mesquite tree; copper nail and washer-----
200. 83

From Tilden quadrangle northeast along road 0.9 mile to road junction 1 mile north and 3 miles west from Wentz (by H. P. Jones in 1925)

Wentz, 0.7 mi. N. and 3.5 mi. W. from, 3.2 mi. SE., thence 1.2 mi. NE. from McIlroy ranch house, on E. side of second-class rd., in root of mesquite tree; copper nail and washer-----
304. 52

SINTON QUADRANGLE

[Latitude 28°00'-28°15'; longitude 97°30'-97°45']

BEE, REFUGIO, AND SAN PATRICIO COUNTIES

From Robstown quadrangle north and northwest along road to Nolan triangulation station (by J. H. Wilke in 1923; leveled twice)

Nolan triangulation sta., 9.0 mi. S.65°E. from Mathis, 0.25 mi. N. of Mathis-Sinton wagon rd., 136 ft. NW. of ranch house of Christopher Nolan, 22 ft. N. of fence on S. side of pasture, near stock pens, in concrete post built on top of old base of U. S. C. & G. S. triangulation sta.; standard tablet stamped "Prim Trav Sta No 4 Y 1923 W 4"-----
111. 031

Reference mark, 50 ft. from sta., in direction of windmill, 1½-in. iron pipe filled with concrete, with nail in one end-----
109. 58

From Nolan triangulation station along road west to San Antonio, Uvalde & Gulf Railroad, thence northwest along railroad into Mathis quadrangle (by S. R. Archer in 1923)

Mathis, 8.6 mi. SE. of, 2.5 mi. NW. of Hubert, 2.5 mi. SE. of Timon, 0.3 mi. SE. of milepost 121, on S. side of E.-W. fence line crossing rd. and track, on E. side of fence E. of rd., in fence corner; top of iron pipe with cap-----
114. 42

SMITHSON VALLEY QUADRANGLE

[Latitude 29°45'-30°00'; longitude 98°15'-98°30']

BLANCO, COMAL, AND KENDALL COUNTIES

From Hunter quadrangle at point 5.2 miles west of Sattler along roads northwest and northeast by way of Cranes Mill to Fischer Store, thence south and southeast and back into Hunter quadrangle at point 2.4 miles northwest of Hancock (by C. E. Reick in 1924)

Sattler, 5.9 mi. E. of, 5.7 mi. SE. of Cranes Mill, on E. side of Bear Creek rd., in root of 16-in. cedar tree; copper nail-----
1, 032. 56

Cranes Mill, 4.7 mi. S. of, 300 ft. N. of junction of Bear Creek and Cranes Mill rds., on W. side of rd.; iron post stamped "R 10 Texas 1924"-----
1, 056. 228

Reference mark, 300 ft. S. of tablet, in center of rd. fork, on ledge; chiseled square-----
1, 054. 06

Cranes Mill, 3.7 mi. S. of, 150 ft. N. of Tom Creek, in angle of junction of ranch rd. NE., in root of 35-in. oak tree; copper nail-----
939. 69

Cranes Mill, 1.0 mi. S. of, on W. side of curve in rd., in root of 20-in. twin elm tree; copper nail-----
896. 66

Cranes Mill, about 500 ft. W. of, 110 ft. SE. of Engel store, in ledge; standard tablet stamped "R 11 Texas 1924"-----
889. 666

Reference mark, 40 ft. N. of tablet, in root of 8-in. elm tree; copper nail-----
889. 69

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	Feet
Cranes Mill, 0.8 mi. N. of, at concrete bridge over Guadalupe River, 10 ft. N. of W. end, in root of 60-in. cypress tree; copper nail-----	834. 30
Cranes Mill, 2.1 mi. N. of, on W. side of rd. at curve on summit, in root of 18-in. oak tree; copper nail-----	1, 067. 41
Cranes Mill, 3.2 mi. N. of, 3.6 mi. SW. of Fischer Store, on W. side of rd., 20 ft. E. of gate, in ledge; standard tablet stamped "R 12 Texas 1924"-----	1, 080. 867
Reference mark, 10 ft. W. of tablet, in root of 15-in. oak tree; copper nail-----	1, 081. 95
Fischer Store, 2.2 mi. SW. of, on S. side of rd., in root of 12-in. cedar tree; copper nail-----	1, 149. 27
Fischer Store, 0.4 mi. SW. of, on E. side of rd., 150 ft. S. of drain, in root of 18-in. oak tree; copper nail-----	1, 199. 25
Fischer Store, 30 ft. N. of junction of New Braunfels rd., 120 ft. W. of store, in ledge; standard tablet stamped "Prim Trav Sta No 11 J 1924 Texas R 13"-----	1, 158. 971
Reference mark, 60 ft. E. of tablet, in root of 20-in. oak tree; copper nail-----	1, 157. 68
Fischer Store, 1.4 mi. S. of, on W. side of rd., in root of 15-in. oak tree; copper nail-----	1, 182. 41
Fischer Store, 2.6 mi. S. of, on E. side of rd., in root of 20-in. oak tree leaning W. over rd.; copper nail-----	1, 045. 55
Fischer Store, 3.4 mi. SE. of, 2.7 mi. NW. of post office at Hancock, at summit of rd. divide between Guadalupe and Blanco Rivers, on E. side of rd., in boulder; standard tablet stamped "Prim Trav Sta No 10 J 1924 Texas R 14"-----	1, 090. 137
Reference mark, 130 ft. SE. of tablet, on W. side of rd., on ledge; chiseled square-----	1, 092. 69

From Fischer Store northwest along road 3.4 miles into Blanco No. 3 quadrangle
(by C. E. Reick in 1924)

Fischer Store, 1.0 mi. W. of, on S. side of rd., 100 ft. E. of dry stream crossing, in root of 18-in. elm tree; copper nail-----	1, 167. 32
Fischer Store, 2.3 mi. NW. of, on S. side of rd., in root of 15-in. oak tree; copper nail-----	1, 285. 82
Fischer Store, 3.3 mi. NW. of, 80 ft. S. of mail box of George Lennartz, in root of 10-in. elm tree; copper nail-----	1, 232. 35

Along road southwest and northwest 2.3 miles to point near Twin Sisters
(by C. E. Reick in 1924)

[A jog from Blanco No. 3 quadrangle]

Twin Sisters, 1.8 mi. SE. of, 120 ft. W. of junction of lane N., on S. side of rd., in root of 24-in. walnut tree; copper nail-----	1, 232. 56
Twin Sisters, 0.8 mi. SE. of, on S. side of rd., 70 ft. S. of white house, in root of 36-in. oak tree; copper nail-----	1, 258. 41

From Blanco No. 3 quadrangle at point 0.2 mile south of Twin Sisters along roads south to point 1.9 miles south of Twin Sisters, thence generally west into Boerne quadrangle at point 1.6 miles east of Kendalia (by C. E. Reick in 1924)

Twin Sisters, 1.0 mi. S. of post office at, on W. side of rd., on W. end of concrete culvert; chiseled square-----	1, 344. 40
Twin Sisters, 1.9 mi. S. of, at junction of rd. W. to Kendalia, on N. end of concrete culvert; chiseled square-----	1, 380. 45
Twin Sisters, 3.1 mi. SW. of, on Kendalia rd., 10 ft. W. of gate of Henry Artz; iron post stamped "R 20 Texas 1924"-----	1, 442. 641

Feet

Reference mark, 70 ft. W. of tablet, on ledge; chiseled square-----	1,439. 93
Twin Sisters, 4.2 mi. SW. of, 5.3 mi. E. of Kendalia, about 1 mi. S. of Twin Sisters Mtn., on S. side of Kendalia rd., in root of 15-in. oak tree; copper nail-----	1,386. 62
Kendalia, 4.2 mi. E. of, on N. side of Kendalia rd., in root of large twin oak tree; copper nail-----	1,404. 80
Kendalia, 3.2 mi. E. of, about 2.5 mi. W. of Twin Sisters Mtn., 50 ft. NE. of Simmons Creek crossing, inside pasture fence, in ledge; stand- ard tablet stamped "Prim Trav Sta No 27 J 1924 Texas R 21"-----	1,290. 219
Reference mark, 220 ft. W. of tablet, in root of 24-in. elm tree; copper nail-----	1,300. 829
Kendalia, 2.1 mi. E. of, 80 ft. W. of gate, on N. side of rd., in root of 10-in. oak tree; copper nail-----	1,382. 99
From road junction 1.9 miles south of Twin Sisters along roads south and south- east to point 5.5 miles northwest of Smithsons Valley, thence generally north- east to Rebecca Creek School, thence southeast to point on Guadalupe River 0.8 mile north of Cranes Mill (by C. E. Reick in 1924)	
Twin Sisters, 3.0 mi. S. of post office at, about 10 mi. S. of Blanco, on W. side of rd., 50 ft. NW. of T-rd. W. through gate, in ledge; standard tablet stamped "Prim Trav Sta No 19 J 1924 Texas R 24"-----	1,413. 922
Reference mark, 30 ft. W. of tablet, on N. end of culvert; chiseled square-----	1,413. 52
Twin Sisters, 3.8 mi. S. of, on W. side of rd., on W. end of concrete culvert; chiseled square-----	1,345. 85
Twin Sisters, 4.9 mi. S. of, on W. side of rd., on W. end of concrete culvert; chiseled square-----	1,292. 00
Twin Sisters, 6.0 mi. S. of, on E. side of rd., in triangle at junction of rd. SE., on concrete culvert; chiseled square-----	1,239. 88
Twin Sisters, 6.4 mi. S. of, about 15 mi. S. of Blanco, on E. side of rd., in line with T-rd. W., in ledge; standard tablet stamped "Prim Trav Sta No 18 J 1924 Texas R 25" (recovered by U. S. C. & G. S. in 1935) ..	1,210. 746
Reference mark, 340 ft. S. of tablet, on W. side of rd., in root of 30-in. oak tree; copper nail-----	1,206. 11
Twin Sisters, 7.4 mi. S. of, 1.6 mi. NE. of Spring Branch, on W. side of rd., 40 ft. E. of waterhole, on concrete culvert; chiseled square-----	1,093. 73
Twin Sisters, 8.6 mi. S. of, 100 ft. S. of gate to lane E., on E. end of concrete culvert; chiseled square-----	1,061. 09
Twin Sisters, 9.6 mi. S. of, 1.5 mi. NW. of Guadalupe River, on S. end of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1935)-----	1,052. 616
Twin Sisters, 10.6 mi. SE. of, 5.5 mi. NW. of Smithsons Valley, 50 ft. N. of junction of Camp Rusty rd., in root of 10-in. oak tree; copper nail-----	1,000. 94
Smithsons Valley, 5.0 mi. NW. of, at steel bridge over Guadalupe River, in SE. pier; standard tablet stamped "Prim Trav Sta No 16 J 1924 Texas R 33" (on spur from previous B. M.; leveled twice. Re- covered by U. S. C. & G. S. in 1935)-----	997. 331
Twin Sisters, 10.6 mi. SE., thence 1.4 mi. NE. from, 0.3 mi. SW. of Remmlers Crossing of Guadalupe River, on SE. side of ranch rd., 200 ft. W. of drain S., in root of 30-in. oak tree; copper nail-----	980. 64
Remmlers Crossing, 0.8 mi. NW. of, on NW. side of rd., near fence, in root of 12-in. cedar tree; copper nail-----	1,034. 15

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	Feet
Remmlers Crossing, 1.7 mi. NW. of, 7.2 mi. SW. of Rebecca Creek School, on W. side of rd. through ranch of Gus Rust, 80 ft. N. of stream crossing, in boulder; standard tablet stamped "R 26 Texas 1924"	1, 036. 815
Reference mark, 320 ft. E. of tablet, on N. side of rd., on ledge; chiseled square	1, 032. 36
Rebecca Creek School, 5.6 mi. SW. of, about 60 ft. SE. of rd. junction, in root of 10-in. oak tree; copper nail	1, 026. 40
Rebecca Creek School, 4.5 mi. SW. of, near S. border of Porter ranch, about 0.5 mi. N. of Remmler house, 60 ft. NW. of gate, in root of 30-in. oak tree; copper nail	1, 023. 16
Rebecca Creek School, 3.5 mi. SW. of, 100 ft. N. of junction of rd. N., 10 ft. W. of twin oak tree, in ledge; standard tablet stamped "R 27 Texas 1924"	1, 004. 341
Reference mark, 10 ft. E. of tablet, in root of twin oak tree; copper nail	1, 006. 30
Rebecca Creek School, 2.2 mi. SW. of, 0.7 mi. E. of Pantermuehl ranch, 10 ft. SW. of gate, on boulder; chiseled square	926. 55
Rebecca Creek School, 1.0 mi. W. of, near head of valley on Kaderli ranch, on N. side of rd., in root of 20-in. elm tree; copper nail	962. 82
Rebecca Creek School, 1,000 ft. NE. of, 150 ft. E. of gate, on N. side of rd., in ledge; standard tablet stamped "R 28 Texas 1924"	983. 171
Reference mark, 140 ft. E. of tablet, on ledge; chiseled square	974. 15
Rebecca Creek School, 1.5 mi. SE. of, 1.9 mi. N. of Cranes Mill, 0.8 mi. N. of Flugarth ranch house, on E. side of rd., in root of 18-in. elm tree; copper nail	893. 16
From Boerne quadrangle at point 6.3 miles west of Spring Branch generally east along roads to Spring Branch, thence northeast 1.6 miles to road junction 7.4 miles south of Twin Sisters (by C. E. Reick in 1924)	
Spring Branch, 5.4 mi. W. of, 0.7 mi. by rd. W. of Curry Creek, on W. side of rd., in root of 10-in. hickory tree; copper nail	1, 151. 00
Curry Creek; surface of water Dec. 11, 1924	1, 024. 3
Spring Branch, 4.0 mi. W. of, 0.7 mi. E. of Curry Creek, on S. side of rd., in root of 18-in. oak tree; copper nail	1, 159. 64
Spring Branch, 2.8 mi. W. of, 0.4 mi. W. of ranch house of James Coffield, 10 ft. SW. of gate, in ledge; standard tablet stamped "R 31 Texas 1924"	1, 136. 160
Reference mark, 340 ft. E. of tablet, on N. side of rd., on boulder; chiseled square	1, 132. 50
Spring Branch, 1.4 mi. W. of, 10 ft. E. of gate at rd. junction, in root of 20-in. oak tree; copper nail	1, 134. 90
Spring Branch, 100 ft. SE. of post office, on S. side of rd., near fence, in concrete base; standard iron post stamped "R 32 Texas 1924"	1, 105. 626
Reference mark, 100 ft. W. of tablet, in root of 30-in. oak tree; copper nail	1, 103. 91

SOUTH OF LOPENA ISLAND QUADRANGLE

[Latitude 26°30'-26°45'; longitude 97°15'-97°30']

KENEDY AND WILLACY COUNTIES

From Fernando quadrangle northeast along road about 7 miles to Sauz triangulation station ²¹ (by J. L. Lenovitz in 1920; spur line leveled twice)

Sauz ranch house, 4.6 mi. NE. of, on N. side of road at curve, in mesquite tree; copper nail and washer	14. 24
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²¹ This line cuts the southeast corner of Tarida Ranch quadrangle but no marks were set in that section of the line.

Sauz ranch house, 6.6 mi. NE. of, 0.2 mi. E. of two windmills, 10 ft. S. of rd.; iron post stamped "Prim Trav Sta No 5 1919" and "L 1920 13"-----

Sauz ranch house, 11.5 mi. NE. of, 1.5 mi. S. of Fish house, 40 ft. from E. shore, on high bluff, in concrete post; U. S. C. & G. S. standard reference disk ²² stamped "L 1920 11"-----

Feet
12. 856
10. 716

SUNILAND QUADRANGLE

[Latitude 28°30'-28°45'; longitude 98°00'-98°15']

ATASCOSA, BEE, KARNES, AND LIVE OAK COUNTIES

Along roads about 3.9 miles northwest of Oakville (by F. L. Shalibo in 1924)

[A jog from Oakville quadrangle]

Oakville, 3.9 mi. NW. of, in SW. angle of crossroads, 3 ft. SW. of corner fence post, in concrete post; standard tablet stamped "S 38 1924"-----

Reference mark, 130 ft. NW. of tablet, 100 ft. W. of main rd., 60 ft. N. of abandoned rd., in root of mesquite tree; copper nail-----

253. 926
254. 02

TARIDA RANCH QUADRANGLE

[Latitude 28°30'-28°45'; longitude 97°30'-97°45']

KENEDY AND WILLACY COUNTIES

From Fernando quadrangle at point near Sauz ranch along roads northwest to Punta del Monte ranch, thence southwest into La Sal Vieja quadrangle at point 1.8 miles northeast of Yturria (by J. L. Lenovitz in 1919)

Sauz ranch house, 2.9 mi. NW. of, 2.4 mi. SE. of abandoned San Andreas ranch house, on W. side of rd., in concrete post; aluminum tablet stamped "L 1919 19"-----

18. 832

San Andreas ranch, at E. end of corral, at T-fence line with gate on either side; iron post stamped "L 1919 29"-----

29. 291

San Andreas ranch house, 2.0 mi. NW. of, 6.3 mi. SE. of Punta del Monte ranch, at S. end of comparatively open space, on W. side of rd., opposite blazed mesquite tree on E. side of rd.; iron post stamped "L 1919 20"-----

19. 948

Punta del Monte ranch, 5.5 mi. SE. of, on S. side of rd., in large mesquite tree; copper nail and washer-----

20. 16

Punta del Monte ranch, 4.3 mi. SE. of, at gate between King and Yturria properties; iron post stamped "L 1919 22" and "Prim Trav Sta No 45 1920"-----

21. 846

Punta del Monte ranch, 1.5 mi. SE. of, on S. side of rd., in blazed mesquite tree; 40-penny nail-----

27. 33

Punta del Monte ranch, at residence of superintendent, at SW. corner of fence; iron post stamped "Prim Trav Sta No 44 1919 25"-----

24. 645

From point 4.3 miles southeast of Punta del Monte ranch east 3 miles along old Cameron-Willacy county line, thence northwest along road by way of San Francisco ranch into Saltillo Ranch quadrangle at point about 4.7 miles southeast of Norias (by J. L. Lenovitz in 1919-20)

San Francisco ranch house, 2.0 mi. S. of, in SE. corner of crossroads, in mesquite tree; copper nail and washer-----

18. 28

San Francisco ranch house, 2.0 mi. S. of, 250 ft. E. of crossroads, on S. side of rd., 2 ft. W. of old county-line milepost 15, in concrete post; aluminum tablet stamped "L 1919 17" and "Prim Trav Sta No 46 1920"-----

16. 799

²² This is the reference disk for Sauz triangulation station, reported washed away.

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	Feet
San Francisco ranch house, at gate, on E. side of rd., in concrete post; aluminum tablet stamped "L 1919 17"-----	17. 536
San Francisco ranch house, 2.8 mi. NW. of, on W. side of rd., in tree; copper nail and washer-----	21. 93
San Francisco ranch house, 3.4 mi. NW. of, on W. side of rd., in partly cleared area, in mesquite tree; copper nail and washer-----	17. 35
San Francisco ranch house, 3.4 mi. NW. of, on E. side of rd. at curve, in line with rd. NE., in concrete post; aluminum tablet stamped "L 1919 18" ²³ -----	17. 626
San Francisco ranch house, 5.3 mi. NW. of, on E. side of rd.; in live-oak tree; copper nail and washer-----	25. 89
San Francisco ranch house, 6.0 mi. NW. of, on E. side of rd., in clearing, in mesquite tree; copper nail and washer-----	22. 87
San Francisco ranch house, 6.8 mi. NW. of, 10.5 mi. SE. of Norias, at gate in King-Yturria property-line fence across rd., on E. side of rd., on N. side of fence, in concrete post; aluminum tablet stamped "L 1920 19"-----	19. 363
Norias, 9.4 mi. SE. of, on W. side of rd., in mesquite tree; copper nail and washer-----	21. 16
Norias, 8.4 mi. SE. of, 700 ft. S. of point where rd. emerges from lagoon, in clearing, in mesquite tree; copper nail and washer-----	19. 35
Norias, 7.9 mi. SE. of, on E. side of rd., at N. end of clearing, in mesquite tree; copper nail and washer-----	17. 92
Norias, 7.7 mi. SE. of, on W. side of rd., in concrete post; aluminum tablet stamped "L 1920 19"-----	18. 725
Norias, 6.6 mi. SE. of, on E. side of rd., in trunk of mesquite tree; copper nail and washer-----	20. 18
Norias, 4.8 mi. SE. of, on S. side of lagoon, on E. side of rd., in sand mound; iron post stamped "L 1920 19"-----	19. 271
From Fernando quadrangle at point near Sauz ranch along roads generally north to San Jose ranch, thence northwest 1.1 miles into Saltillo Ranch quadrangle (by J. L. Lenovitz in 1920; section between Sauz and San Jose ranches relevelled by A. J. Kavanagh in same year)	
Sauz ranch house, 2.0 mi. N. of, on W. side of rd., at T-fence; iron post stamped "Prim Trav Sta No 6 1919" and "L 1920 15"-----	15. 597
Sauz ranch house, 3.7 mi. N. of, on E. side of rd., just beyond lagoon, in mesquite tree; copper nail and washer-----	14. 69
Sauz ranch house, 5.6 mi. N. of, in SE. corner of crossroads; iron post stamped "Prim Trav Sta No 7 1919" and "L 1920 18"-----	17. 983
Sauz ranch house, 7.1 mi. N. of, at S. edge of sand hills, on E. side of rd., in mesquite tree; copper nail and washer-----	18. 02
Sauz ranch house, 8.0 mi. N. of, on N. side of rd., at curve, in mesquite tree; copper nail and washer-----	16. 72
Sauz ranch house, 9.6 mi. N. of, 4.1 mi. S. of Tarida ranch, on W. side of rd., at Y-junction of rd. NW. to Sarita well; iron post stamped "Prim Trav Sta No 8 1919" and "L 1920 19"-----	18. 894
Tarida ranch, 1.3 mi. S. of, 700 ft. S. of Y-junction of rd. to Campo Verde ranch, near top of ridge, on W. side of rd.; iron post stamped "Prim Trav Sta No 9 1919" and "L 1920 26"-----	25. 658
Tarida ranch; 0.6 mi. S. of, on W. side of rd. at right-angle turn, in notch in mesquite tree; copper nail and washer-----	19. 73
Tarida ranch, 1.8 mi. N. of, on W. side of rd. at curve; iron post stamped "Prim Trav Sta No 10 1919" and "L 1920 27"-----	27. 293

²³ It has been reported that the tablet is loose in the cement.

	Feet
Tarida ranch, 2.7 mi. N. of, on E. side of rd., in mesquite tree; copper nail and washer-----	30. 71
Tarida ranch, 3.5 mi. N. of, 3.0 mi. S. of San Jose ranch house, on S. side of rd., in large blazed oak tree; 40-penny nail-----	30. 28
San Jose ranch house, 2.1 mi. S. of, 100 ft. E. of rd., in mesquite tree; copper nail and washer-----	32. 41
San Jose ranch house, 1.8 mi. S. of, on E. side of rd., 23 ft. SW. of blazed oak tree; iron post stamped "Prim Trav Sta No 11 1919" and "L 1920 31"-----	31. 068
San Jose ranch house, 1.4 mi. S. of, on W. side of rd., at top of ridge, in trunk of blazed oak tree; 40-penny nail-----	32. 65

TARPLEY QUADRANGLE

[Latitude 29°30'-29°45'; longitude 99°15'-99°30']

BANDERA, MEDINA, AND UVALDE COUNTIES

From Sabinal No. 2 quadrangle northeast along old Bandera-Sabinal road to Bandera-Hondo road, thence northwest to Bandera-Utopia road, thence east into Bandera quadrangle (by J. A. Hinman in 1898; double-rodded line)

Sabinal, 14.4 mi. NE. of, 45 ft. W. of rd., 300 ft. N. of junction of Seco and Little Seco Creeks; iron post stamped "1168 SA"-----	1, 161. 329
Sabinal, 21.0 mi. NE. of, at junction of rd. to Anton Ney; iron post stamped "1338 SA"-----	1, 331. 225
Sabinal, 27.9 mi. NE. of, about 23 mi. N. of Hondo, in SW. corner of intersection of Bandera-Hondo rd., 500 ft. E. of Hondo River; iron post stamped "1227 SA"-----	1, 219. 750
Sabinal, 35.2 mi. NE. of, about 12 mi. SW. of Bandera County courthouse at Bandera, in NE. angle of junction of Bandera-Utopia rd., 150 ft. W. of milepost 12, 400 ft. N. of residence of E. A. Brewer, near Commissioners Creek; iron post stamped "1490 SA"-----	1, 482. 791

TILDEN QUADRANGLE

[Latitude 28°15'-28°30'; longitude 98°30'-98°45']

McMULLEN COUNTY

From Simmons quadrangle at point 4.8 miles southeast of Tilden generally northwest and northeast along roads and back into Simmons quadrangle at point just north of Frio River (by H. P. Jones in 1925)

Tilden, 4.4 mi. SE. of, 1.8 mi. S. of W. fence line of Three Rivers Land Co. at crossing of Three Rivers-Tilden rd., 900 ft. NW. of small frame house, 1 ft. W. of fence, in line with fence on S. side of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 31 K 1925 J 41"-----	326. 160
Reference mark, 40 ft. NW. of gate, in root of mesquite tree; copper nail and washer-----	324. 49
Tilden, 3.4 mi. SE. of, on SW. side of second-class rd., in root of mesquite tree; copper nail and washer-----	363. 23
Tilden, 2.5 mi. SE. of, about 0.5 mi. S. of crossing of Calliham-Tilden rd., on W. side of second-class rd., in root of mesquite tree; copper nail and washer-----	303. 26
Tilden, 2.0 mi. SE. of, 20 ft. N. of center line of Calliham-Tilden rd., 22 ft. W. of center line of rd. N. to Horton ranch house, in corner of wire fence, in concrete post; standard tablet stamped "Prim Trav Sta No 30 K 1925 J 42" (recovered by U. S. C. & G. S. in 1933)-----	276. 469

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	Feet
Reference mark, 90 ft. SW. of rd. junction, in root of mesquite tree; copper nail and washer-----	273. 69
Tilden, 2.0 mi. SE., thence 1.3 mi. N. from, 300 ft. E. of Horton ranch house, at lane N., 20 ft. N. of fence corner, in root of 12-in. mesquite tree; copper nail and washer-----	243. 90
Frio River, at private crossing on Horton ranch; surface of water March 25, 1925-----	213. 6
Tilden, about 3 mi. NE. of, 0.8 mi. W. of ranch house of Mrs. J. A. Teal, on N. side of rd., in root of mesquite tree; copper nail and washer-----	242. 54
Teal ranch house, 27 ft. E. of SE. corner of, in SE. corner of front yard fence, in concrete post; standard tablet stamped "Prim Trav Sta No 29 K 1925 J 43"-----	247. 339.
Reference mark, 30 ft. S. of SE. corner of ranch house, in root on E. side of 10-in. mesquite tree; copper nail and washer-----	246. 22
<i>From Franklin Settlement quadrangle southwest along Christine-Tilden road to Tilden, thence southeast and east 2 miles along Calliham road (by H. P. Jones in 1925)</i>	
Tilden, 2.5 mi. NE. of, 75 ft. S. of center of 35-ft. plank bridge over small stream, 25 ft. E. of rd., in concrete post; standard tablet stamped "Prim Trav Sta No 41 K 1925 J 56"-----	252. 231
Tilden, 1.5 mi. NE. of, on E. side of rd., in root of 8-in. mesquite tree; copper nail and washer-----	250. 89
Tilden, 0.8 mi. N. of, 630 ft. N. of highway bridge over Frio River, on W. side of Pearsall-Tilden rd.; opposite and in line with rd. to Christine, 1.5 ft. W. of wire fence, in concrete post; standard tablet stamped "Prim Trav Sta No 42 K 1925 J 57"-----	250. 203
Reference mark, on E. side of rd., 100 ft. N. of rd. junction, in root of 6-in. mesquite tree; copper nail and washer-----	249. 26
Frio River, under bridge; surface of water April 18, 1925-----	218. 5
Tilden, 70 ft. W. of SW. corner of McMullen County courthouse, in root on E. side of 10-in. mesquite tree; copper nail and washer-----	251. 95
Tilden, 0.8 mi. SE. of, 30 ft. SE. of junction of Calliham-Tilden and San Diego-Tilden rds., on sandstone outcrop; bottom of hollow square-----	285. 99
<i>From road junction 0.8 mile north of Tilden northwest 3 miles along Christine-Tilden road into Franklin Settlement quadrangle (by H. P. Jones in 1925)</i>	
Tilden, 1.8 mi. NW. of, on NE. side of rd., in root of 12-in. mesquite tree; copper nail and washer-----	255. 08
Tilden, 2.8 mi. NW. of, on SW. side of rd., in root of 14-in. mesquite tree; copper nail and washer-----	294. 92
<i>From Franklin Settlement quadrangle at point about 7 miles northwest of Tilden south along fence lines and roads by way of Martin ranch to point about 3.2 miles southwest of Lowe ranch, thence east, north, and northeast by way of Lowe ranch to point 1.1 miles southwest of Tilden, thence southeast to point 3.3 miles southeast of McIlroy ranch house, thence northeast about 1 mile into Simmons quadrangle (by H. P. Jones in 1925)</i>	
Tilden, 6.8 mi. NW. along Pearsall-Tilden rd., thence 1.1 mi. S. along fence line from, 30 ft. W. of wire fence, in root of mesquite tree; copper nail and washer-----	275. 00
Tilden, 6.8 mi. NW., thence 2.1 mi. S. from, 1.5 mi. S. and 0.5 mi. W. along fence line from Pearsall-Tilden rd., 40 ft. S. of E.-W. fence line, in root of mesquite tree; copper nail and washer-----	311. 08

Tilden, 6.8 mi. NW., thence 3.6 mi. S. from, 3.2 mi. N. of Martin ranch house, 17 ft. N. of center line of second-class rd. N. from ranch, 2.5 ft. E. of N.-S. fence line of pasture, at wire gate, at T-fence W. to old house, in concrete post; standard tablet stamped "Prim Trav Sta No 45 K 1925 J 60"-----	Feet 334. 646
Martin ranch house, 2.1 mi. N. of, about 0.8 mi. N. and 4.8 mi. W. from Tilden, on W. side of dim second-class rd. N. from Martin ranch, in root of mesquite tree; copper nail and washer-----	312. 46
Martin ranch house, about 1 mi. N. of, about 0.2 mi. S. and 5 mi. W. from Tilden, on E. side of dim second-class rd., in root of 10-in. mesquite tree; copper nail and washer-----	286. 68
Martin ranch house, 0.2 mi. NE. of, about 1.2 mi. S. and 5.2 mi. W. from Tilden, 20 ft. S. of Fowlerton-Tilden N. rd., in SW. angle of intersection of old Laredo trail, 2.5 ft. W. of N.-S. wire fence, at plank gate, in concrete post; standard tablet stamped "Prim Trav Sta No 46 K 1925 J 61"-----	280. 821
Frio River, at private crossing on Martin ranch; surface of water May 2, 1925-----	249. 3
Martin ranch house, 0.8 mi. S. of, about 2.2 mi. S. and 5.2 mi. W. from Tilden, on W. side of second-class rd., in root of mesquite tree; copper nail and washer-----	268. 47
Martin ranch house, 1.8 mi. S. of, about 3.2 mi. S. and 6 mi. W. from Tilden, 0.5 mi. N. of main Fowlerton-Tilden rd., on W. side of second-class rd., in root of mesquite tree; copper nail and washer-----	273. 07
Tilden, about 7.5 mi. SW. of, 2.4 mi. S. of Martin ranch house, 140 ft. NE. of rd. N. to ranch house, 75 ft. N. of main Fowlerton-Tilden rd., in root of large double mesquite tree; copper nail and washer-----	278. 94
Tilden, 6.8 mi. SW. of, about 2 mi. W. of Lowe ranch house, 0.5 mi. E. of junction of rd. S. to Tisdale ranch house, on S. side of Fowlerton-Tilden rd., 30 ft. S. of center post between plank gate and auto pass, in N.-S. fence on E. line of Tisdale ranch, in concrete post; standard tablet stamped "Prim Trav Sta No 47 K 1925 J 62"-----	286. 330
Lowe ranch house, 2.0 mi. W., thence 1.4 mi. S. from, 40 ft. W. of Tisdale E. fence line, in root of mesquite tree; copper nail and washer-----	325. 92
Lowe ranch house, 3.2 mi. SW. of, 2.0 mi. W. of D. C. & C. M. Co. oil wells Nos. 3 and 4, 70 ft. S. and 15 ft. E. from intersection of neighborhood rds. SW. from Lowe ranch house and SE. from Tisdale ranch house, about 0.2 mi. E. of Tisdale E. fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 48 K 1925 J 63"-----	353. 228
Lowe ranch house, 2.5 mi. S. of, 0.5 mi. W. of D. C. & C. M. Co. oil wells Nos. 3 and 4, 100 ft. W. of second-class rd., in root of mesquite tree; copper nail and washer-----	359. 30
Lowe ranch house, 1.3 mi. S. of, on E. side of second-class rd., 250 ft. S. of wire gate, in E.-W. fence line, in root of mesquite tree; copper nail and washer-----	330. 31
Lowe ranch house, 65 ft. SW. of SW. corner of, in SW. corner of yard fence, in concrete post; standard tablet stamped "J 64 1925" (recovered by U. S. C. & G. S. in 1933)-----	284. 110
Reference mark, 120 ft. S. of ranch house, 50 ft. NW. of Fowlerton-Tilden rd.; in root of mesquite tree; copper nail and washer-----	284. 37
Lowe ranch house, 1.2 mi. NE. of, 3.8 mi. SW. of Tilden, on SE. side of rd., at W. end of bridge over small stream, on concrete wing wall; chiseled square-----	265. 28

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	Feet
Tilden, 2.7 mi. SW. of, on SE. side of rd., on S. head wall of concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1933)-----	251. 348
Tilden, 1.1 mi. SW. of, 90 ft. SE. of rd., at bend from S. to SE., in fence corner, in concrete post; standard tablet stamped "J 65 1925" (recovered by U. S. C. & G. S. in 1933)-----	308. 661
Tilden, 1.6 mi. S. of, on E. side of San Diego-Tilden rd., at bridge over small stream, on S. end of concrete wing wall; chiseled square-----	279. 13
Tilden, 2.4 mi. S. of, 1.1 mi. NW. of McIlroy ranch house, on E. side of rd., on S. end of concrete wing wall of bridge; chiseled square-----	348. 51
Tilden, 3.1 mi. S. of, 0.4 mi. NW. of McIlroy ranch house, on E. side of San Diego-Tilden rd., at junction of settlement rd. SE., 150 ft. N. of bend to SW. in main rd., 15 ft. N. of center of rd. at wire gate, 2 ft. E. of wire fence, in concrete post; standard tablet stamped "Prim Trav Sta Nô 50 K 1925 J 66"-----	372. 314
McIlroy ranch house, 0.7 mi. SE. of, on E. side of second-class rd., in root of mesquite tree; copper nail and washer-----	344. 48
McIlroy ranch house, 1.6 mi. SE. of, on NE. side of second-class rd., about 50 ft. N. of small clearing, in root of mesquite tree; copper nail and washer-----	294. 22
McIlroy ranch house, 3.2 mi. SE. of, 3.8 mi. in air line W. of Wentz, 205 ft. W. of dwelling of Pedro Ybanez, 25 ft. S. of center of wire gate at junction of rds. N., NE., and SW., 2 ft. E. of N.-S. fence line along W. side of cultivated field, in concrete post; standard tablet stamped "Prim Trav Sta Nô 51 K 1925 J 67"-----	299. 700
McIlroy ranch house, 3.2 mi. SE., thence 0.4 mi. N.E. from, 0.4 mi. NE. of Ybanez dwelling, 100 ft. SW. of rd. fork, 85 ft. SW. of fence corner, in root of mesquite tree; copper nail and washer-----	305. 73

UVALDE NO. 1 QUADRANGLE

[Latitude $29^{\circ}15'$ — $29^{\circ}30'$; longitude $99^{\circ}30'$ — $99^{\circ}45'$]

UVALDE COUNTY

From Sabinal No. 2 quadrangle west and southwest along Galveston, Harrisburg & San Antonio Railroad ²⁴ into Uvalde No. 3 quadrangle (by J. A. Hinman in 1896; double-rodded line)

Blanco River, at iron bridge over, at N. end of rock pier, in top of coping; copper bolt stamped "942"-----	936.189
Uvalde, 12.0 mi. NE. of, 0.8 mi. E. of Knippa, 20 ft. E. of crossing of Uvalde-Utopia rd., between tenth and eleventh telegraph poles W. of mileboard 290; iron post stamped "987 SA" (recovered by U. S. C. & G. S. in 1917 and designated "S 33") ²⁵ -----	981. 176
Uvalde, 6.5 mi. NE. of, between eighth and ninth telegraph poles E. of mileboard 296, on S. side of track; iron post stamped "965 SA" (recovered by U. S. C. & G. S. in 1917 and designated "O 33") ²⁶ -----	958. 837
From point on Southern Pacific Railroad 12 miles northeast of Uvalde northeast along Uvalde-Utopia road to Sabinal River (by J. A. Hinman in 1896)	

Uvalde, 12.0 mi. along R. R., thence 6.0 mi. along rd. NE. from, 2.3 mi. S. of intersection of Leakey-Sabinal rd., 0.75 mi. NE. of Blanco River, 50 ft. N. of gate; iron post stamped "1016 SA"-----	1, 009. 621
Leakey-Sabinal rd., 1.8 mi. N. of intersection of, 250 ft. NW. of ranch of E. D. Kelley, 20 ft. E. of gate, in house lot; iron post stamped "1103 SA"-----	1, 096. 545

²⁴ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

²⁵ In 1922 a line was cut through the old elevation "987."

²⁶ In 1922 a line was cut through the old elevation "965."

	Feet
Sabinal-Utopia rd., 1.75 mi. SW. of junction of, 600 ft. N. of Sabinal River, 50 ft. S. of rd., 2 ft. N. of small mesquite tree; iron post stamped "1121 SA"-----	1, 114. 799
From Uvalde No. 4 quadrangle along roads northeast to ranch of W. A. Kelley, thence generally south and back into Uvalde No. 4 quadrangle (by J. A. Hinman in 1898)-----	
Uvalde, 15.6 mi. NE. of, 5.0 mi. W. of Sabinal, 200 ft. S. of ranch house of W. A. Kelley, under small mesquite tree; iron post stamped "931 SA" (recovered in 1930)-----	924. 638
Northeast, north, and northwest along Frio Canyon road (by W. W. Campbell in 1898)-----	
[A jog from Uvalde No. 2 quadrangle]-----	
Uvalde, 12.5 mi. NE. of, 0.5 mi. E. of Chilton ranch, 10 ft. N. of rd. to house, in fence corner; iron post stamped "1116"-----	1, 110. 105
From Uvalde No. 2 quadrangle along roads east to Concan School, thence southeast along Leakey-Sabinal road to intersection of Utopia-Uvalde road (by W. W. Campbell in 1898)-----	
Concan School, 465 ft. NE. of, 4.0 mi. NW. of Florea ranch house, 10 ft. S. of rd., inside fence; iron post stamped "1252"-----	1, 245. 650
Florea ranch house, 0.25 mi. E. of, 3.3 mi. NW. of Hackberry ranch house, 10 ft. SW. of rd. to ranch, in corner of pasture; iron post stamped "1183" (recovered in 1930)-----	1, 176. 600
Hackberry ranch house, 600 ft. NW. of, at junction of Blanco Canyon rd. up Hackberry Creek, 7 ft. E. of large live-oak tree; iron post stamped "1122" (recovered in 1930)-----	1, 115. 720
From Hackberry ranch north along Blanco Canyon road to Enderle ranch (by W. W. Campbell in 1898)-----	
Hackberry ranch house, 4.0 mi. N. of, 500 ft. S. of Enderle ranch house, 20 ft. S. of rd.; iron post stamped "1300"-----	1, 293. 532
From point on Uvalde-Utopia road 16.5 miles northeast of Uvalde along road generally west to Uvalde-Leakey road (by W. W. Campbell in 1898)-----	
Umlong ranch house, 2.25 mi. in air line NW. of, 2.25 mi. W. of Baldwin tank, 300 ft. E. of Frio River, 50 ft. N. of gate on rd.; iron post stamped "1064" (recovered in 1930)-----	1, 057. 673
From W. A. Kelley ranch along roads northwest about 4 miles (by E. E. Harris in 1930; spur line)-----	
W. A. Kelley ranch house, 0.9 mi. NW. of, on N. side of rd., near fence corner, in root on W. side of large mesquite tree; copper nail and washer-----	929. 13
W. A. Kelley ranch, 2.1 mi. NW. of, 650 ft. W. of crossroads, on S. side of rd., in root on S. side of prominent mesquite tree; copper nail and washer-----	909. 76
W. A. Kelley ranch, 3.4 mi. NW. of, 0.5 mi. S. of Illinois Pipe Line Pumping Station, in NE. corner of junction of T-rd. N., in concrete post; standard tablet stamped "H 55 1930"-----	924. 755
Illinois Pipe Line Pumping Station, at well No. 21; SE. corner of concrete block foundation of pump-----	935. 07
From point 0.8 mile east of Knippa along roads east 1.8 miles, thence northeast 9 miles (by E. E. Harris in 1930; spur line)-----	
Knippa, about 1.7 mi. E. of, in SW. corner of junction of T-rd. S., on head wall of concrete culvert; chiseled square-----	978. 97

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	Feet
Knippa, 2.6 mi. E. of, 880 ft. E. of Southern Pacific R. R. milepost 288, in NW. corner of junction of T-rd. N., on head wall of concrete culvert; chiseled square-----	975. 65
Knippa, 2.6 mi. E., then 0.9 mi. NE. from, at jog in rd., 100 ft. N. of rd., near SW. corner of farmhouse, in root on E. side of 12-in. mesquite tree; copper nail and washer-----	989. 48
Knippa, 2.6 mi. E., thence 1.7 mi. NE. from, 26 ft. S. and 24 ft. E. from junction of T-rd. S., in angle in fence line, 4 ft. from each fence, in concrete post; standard tablet stamped "H 56 1930"-----	997. 847
Knippa, 2.6 mi. E., thence 2.5 mi. NE. from, 90 ft. N. of junction of private rd. W., on E. side of rd., in root on W. side of small mesquite tree; copper nail and washer-----	1, 002. 79
Knippa, 2.6 mi. E., thence 3.7 mi. NE. from, at jog in N.-S. rd., 270 ft. S. of junction of T-rd. E., on W. side of rd., in root on SW. side of mesquite tree; copper nail and washer-----	1, 008. 36
Knippa, 2.6 mi. E., thence 4.6 mi. NE. from, 400 ft. W. of Little Blanco River, on N. side of rd., on top of prominent sandstone ledge; chiseled square-----	981. 41
Knippa, 2.6 mi. E., thence 5.8 mi. NE. from, 130 ft. E. of junction of private rd. N., 100 ft. W. of angle in rd. to SE., 26 ft. N. of center line of rd., in concrete post; standard tablet stamped "H 57 1930"-----	1, 023. 730
Reference mark, 255 ft. S.45°E. of tablet, in S. fence line, in root on S. side of mesquite tree; copper nail and washer-----	1, 020. 92
Knippa, 2.6 mi. E., thence 6.7 mi. NE. from, at summit of grade, on N. side of rd., 20 ft. E. of gate, in crotch of mesquite tree; copper nail and washer-----	1, 000. 22
Knippa, 2.6 mi. E., thence 7.7 mi. NE. from, on E. side of rd., 90 ft. N. of T-angle W., in root on E. side of small mesquite tree; copper nail and washer-----	987. 04
Knippa, 2.6 mi. E., thence 8.9 mi. NE. from, about 4 mi. along Leakey rd. NW. of Sabinal, 25 ft. S. and 21 ft. E. from junction of T-rd. S., in angle in fence line, 3.5 ft. from each fence, in concrete post; standard tablet stamped "H 58 1930"-----	1, 004. 079
From point 2.25 miles in air line northwest of Umlong ranch along roads west and southwest into Uvalde No. 2 quadrangle at point 6.5 miles northeast of Uvalde (by E. E. Harris in 1930)	
Umlong ranch, 2.25 mi. NW. and 1.3 mi. SW. from, 1.0 mi. N. and 1.9 mi. E. from Farrish School, 100 ft. W. of dim rd. fork, on S. side of rd., near angle in rd., in root on N. side of 12-in. live-oak tree; copper nail and washer-----	1, 069. 70
Farrish School, 1.0 mi. N. and 1.1 mi. E. from, on N. side of rd., 100 ft. E. of gate, in crotch of large mesquite tree; copper nail and washer-----	1, 074. 02
Farrish School, 1.0 mi. E. of, on E. side of right-angle turn in rd., in line with rd. W., in fence line, in crotch of mesquite tree; copper nail and washer-----	1, 060. 13
Farrish School, 250 ft. SE. of, 17 ft. S. of center line of rd. E., 100 ft. E. of right-angle turn in rd., 3.5 ft. S. of angle post in fence line, in concrete post; standard tablet stamped "H 59 1930"-----	1, 094. 408
Reference mark, 105 ft. E. of tablet, in crotch of small mesquite tree; copper nail and washer-----	1, 092. 94
Farrish School, 1.2 mi. SW. of, 10.7 mi. NE. of Uvalde County courthouse at Uvalde, on W. side of rd., 4 ft. E. of fence line, in root on NE. side of prominent live-oak tree; copper nail and washer-----	1, 074. 44

	Feet
Uvalde, 9.9 mi. NE. of, 60 ft. W. of center of angle in rd., 50 ft. N. of junction of T-rd. E., in root on W. side of mesquite tree; copper nail and washer-----	1, 064. 60
Uvalde, 9.4 mi. along Leakey rd. NE. of, 27 ft. S. and 36 ft. W. from center of junction of T-rd., W., in angle in fence line, 6 ft. from each fence, in concrete post; standard tablet stamped "H 61 1930"-----	1, 055. 075
Uvalde, 8.4 mi. NE. of, 70 ft. N. of dip in rd., on W. side of rd., in fence line, in root on E. side of 24-in. live-oak tree; copper nail and washer-----	1, 019. 14
Uvalde, 7.2 mi. N.E. of, on W. side of rd., 5 ft. W. of fence line, opposite gate in E. fence line, in crotch of large mesquite tree; copper nail and washer-----	1, 011. 48

From Farrish School north along road 3 miles (by E. E. Harris in 1930; spur line)

Farrish School, 0.7 mi. N. of, on W. side of angle in rd., in fence line, in root on NW. side of 12-in. mesquite tree; copper nail and washer-----	1, 105. 05
Farrish School, 1.6 mi. N. of, on E. side of concrete dip in Frio River crossing; chiseled square-----	1, 065. 05
Farrish School, 3.0 mi. N. of, 17 ft. S. of junction of ranch rd. W., 34 ft. W. of center line of rd., 2 ft. W. of fence line, in concrete post; standard tablet stamped "H 60 1930"-----	1, 119. 796
Reference mark, 190 ft. S. 30°E. of tablet, in root on N. side of mesquite tree; copper nail and washer-----	1, 117. 58

UVALDE NO. 2 QUADRANGLE

[Latitude 29°15'-29°30'; longitude 99°45'-100°00']

UVALDE COUNTY

From Uvalde No. 3 quadrangle at point 1.5 miles northwest of Uvalde Station northwest along Nueces Canyon road to Round Mountain (by R. H. Gresham in 1898)

Round Mountain (Benson Knob), at summit of; iron post stamped "1077"-----	1, 070. 790
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From Uvalde No. 3 quadrangle at point about 3 miles north of Uvalde along roads generally north to ranch of J. F. Kelley, thence east into Uvalde No. 1 quadrangle (by W. W. Campbell in 1898)

Uvalde, 6.0 mi. NE. of Uvalde County courthouse at, 20 ft. NW. of gate at fork of Uvalde-Leakey (Frio Canyon) rd.; iron post stamped "1009" (recovered in 1930)-----	1, 002. 391
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[Line jogs into Uvalde No. 1 quadrangle]

Uvalde, 15.8 mi. N. of, 0.25 mi. S. of Davenport S. ranch, 25 ft. E. of gate; iron post stamped "1229"-----	1, 222. 957
Uvalde, 20.75 mi. N. of, 5.0 mi. by rd. W. of Concan School, 200 ft. S. of ranch house of J. F. Kelley, 10 ft. W. of gate; iron post stamped "1356"-----	1, 349. 919

From ranch house of J. F. Kelley generally southwest along Indian Creek road to ranch of T. J. Lewis (by W. W. Campbell in 1898-97)

Kelley ranch house, 4.5 mi. SW. of, 4.0 mi. NE. of Francis Smith & Co. (Molesworth) windmill on Indian Creek, 800 ft. W. of divide between Indian Creek and Dry Frio River, 50 ft. N. of gate on W. side of Davenport pasture; iron post stamped "1609"-----	1, 602. 771
Kelley ranch house, 8.5 mi. SW. of, 8.8 mi. by rd. N. of ranch house of William Lewis, 2.0 mi. N. of Vanhams upper windmill, 0.75 mi. SE. of Francis Smith & Co. (Molesworth) windmill, 40 ft. E. of rd. junction, in small elm grove; iron post stamped "1327"-----	1, 320. 717

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	Feet
William Lewis ranch house, 6.8 mi. N. of, 60 ft. W. of Vanhams upper windmill on Indian Creek, in lot; iron post stamped "1270"-----	1, 264. 142
William Lewis upper ranch, 6.0 mi. in air line NE. of, 25 ft. E. of divide between Indian Creek and Dry Frio River, 10 ft. S. of rd.; iron post stamped "1502" ²⁷ -----	1, 495. 923
William Lewis ranch house, 2.6 mi. NE. of, 8.0 mi. NE. of ranch house of T. J. Lewis, 40 ft. S. of Vanhams lower windmill, in lot; iron post stamped "1164"-----	1, 158. 240
T. J. Lewis ranch house, near junction of Nueces River and Indian Creek, 25 ft. N. of house, inside lot fence; iron post stamped "976"-----	969. 841
From Round Mountain along roads generally northwest to point on Sycamore Creek 4.4 miles northeast of Laguna (by W. W. Campbell in 1896-97; leveled twice)	
Uvalde, 13.0 mi. NW. of courthouse at, 100 ft. W. of gate; iron post stamped "1045" (recovered in 1925)-----	1, 038. 807
Uvalde, 18.6 mi. NW. of, 0.3 mi. SW. of Nueces River crossing, 50 ft. N. of gate on rd. to Francis Smith & Co. (Molesworth) ranch; iron post stamped "1126" (recovered in 1925)-----	1, 119. 921
Francis Smith & Co. (Molesworth) ranch house, 35 ft. S. of, in lot, near fence; iron post stamped "1162" (recovered in 1938; also recovered by U. S. C. & G. S. in 1935; stamped "1156.166" by U. S. C. & G. S. in 1940) ²⁸ -----	1, 156. 166
Laguna, 4.4 mi. NE. of, opposite yellow bank of Sycamore Creek, between rd. and creek; iron post stamped "1269" (recovered in 1923)-----	1, 263. 390
From point 1.5 miles northeast of Laguna northeast along roads to point 4.4 miles northeast of Laguna (by E. E. Harris in 1923)	
Laguna, 2.6 mi. NE. of, on E. side of rd., on S. bank of Sycamore Creek, on rock outcrop; chiseled square-----	1, 164. 69
Laguna, 3.5 mi. NE. of, 40 ft. W. of angle in rd., in clearing, at point where two rds. run close to each other and easternmost rd. crosses Sycamore Creek, on square boulder; chiseled square-----	1, 225. 86
From point 1.5 miles northeast of Laguna northwest along Uvalde & Northern Railway into Turkey Mountain quadrangle (by E. E. Harris in 1923)	
Montell Siding, 6.7 mi. SE. of, in front of Landrum ranch house, 20 ft. E. of track, in root of 66-in. live-oak tree; copper nail and washer (recovered in 1938; also recovered by U. S. C. & G. S. in 1935)-----	1, 169. 158
From Uvalde No. 3 quadrangle at point 3.7 miles northwest of Uvalde northwest along roads to point 1.5 miles northeast of Laguna (by E. E. Harris in 1925; leveled twice)	
Uvalde, 3.9 mi. NW. of, on W. side of rd., 80 ft. NW. of crossing of Uvalde & Northern Ry., in angle in fence line, 2 ft. W. of fence, in concrete post; standard tablet stamped "H 248 1925" (recovered in 1930; also recovered by U. S. C. & G. S. in 1935; stamped "943.026" by U. S. C. & G. S. in 1940)-----	943. 026
Reference mark, 179 ft. S. of tablet, in root on E. side of 10-in. mesquite tree; copper nail and washer-----	940. 08

²⁷ On 2.5-mile spur line northeast from Indian Creek road.

²⁸ The Francis Smith & Co. ranch house no longer exists. The revised description of this bench mark reads: "Laguna, 1.5 mi. NE. of, 7.5 mi. S. of Montell Siding, about 450 ft. S. of milepost 19, 40 ft. W. of Uvalde & Northern Ry. track, 180 ft. S. of R. R. trestle over Sycamore Creek; iron post stamped '1162' (recovered in 1938; also recovered by U. S. C. & G. S. in 1935; stamped '1156.166' by U. S. C. & G. S. in 1940)."

	Feet
Uvalde, 4.8 mi. NW. of, on W. side of rd., opposite dip, 40 ft. W. of fence line, in root on S. side of leaning mesquite tree; copper nail and washer-----	958. 10
Uvalde, 5.8 mi. NW. of, on W. side of rd., 150 ft. S. of cross lane, 15 ft. W. of fence line, in crotch of mesquite tree; copper nail and washer (recovered in 1930)-----	987. 17
Uvalde, 6.3 mi. NW. of, on E. side of rd., 5 ft. E. of fence line, in root on W. side of prominent mesquite tree; copper nail and washer-----	992. 48
Uvalde, 7.3 mi. NW. of, in SE. angle of intersection of lane, in right angle in fence line, 2 ft. from each fence, in concrete post; standard tablet stamped "H 247 1925" (recovered in 1930)-----	1, 015. 001
Reference mark, 154 ft. N. 30°W. of tablet, in root on W. side of 8-in. mesquite tree; copper nail and washer-----	1, 015. 37
Uvalde, 7.9 mi. NW. of, on W. side of rd., on NW. corner of concrete dip; chiseled square-----	1, 017. 06
Uvalde, 8.8 mi. NW. of, on E. side of rd., opposite gate in W. fence line, in root on W. side of small mesquite tree; copper nail and washer (recovered in 1930)-----	1, 034. 79
Uvalde, 9.4 mi. NW. of, on W. side of rd., 80 ft. S. of junction of rd. W. through gate, 30 ft. W. of fence line, in root on E. side of 4-in. mesquite tree; copper nail and washer-----	1, 022. 60
Uvalde, 9.9 mi. NW. of, 4.5 mi. SE. of Chalk Bluff School, 35 ft. S. of junction of private rd. W. through gate to ranch house of W. B. Anthony, on W. side of rd., 2 ft. W. of fence line, in concrete post; standard tablet stamped "H 246 1925" (recovered by U. S. C. & G. S. in 1935; stamped "1020.693 by U. S. C. & G. S. in 1940)-----	1, 020. 693
Chalk Bluff School, 3.6 mi. SE. of, in fork of private rd. NW. through gate, in root on E. side of small hackberry tree; copper nail and washer-----	1, 060. 81
Chalk Bluff School, 2.7 mi. SE. of, on W. side of rd., in root on N. side of 8-in. mesquite tree; copper nail and washer-----	1, 045. 39
Chalk Bluff School, 1.0 mi. SE. of, 230 ft. S. of overhead crossing of Uvalde & Northern Ry., 20 ft. E. of fence line, in root on W. side of 30-in. pecan tree; copper nail and washer-----	1, 020. 61
Chalk Bluff School, 200 ft. SE. of, on W. side of rd., 20 ft. N. of fence line, in crotch of mesquite tree; copper nail and washer-----	1, 054. 02
Chalk Bluff School, 1.3 mi. NW. of, at summit of grade, 30 ft. S. of junction of private rd. W. through gate to ranch house of W. F. Dentison, on W. side of rd., 10 ft. W. of fence line, in sandstone boulder; standard tablet stamped "H 245 1925"-----	1, 080. 044
Chalk Bluff School, 2.2 mi. NW. of, on E. side of rd., 100 ft. N. of gate in W. fence line, 1 ft. E. of fence line, in root on N. side of 8-in. mesquite tree; copper nail and washer-----	1, 088. 78
Chalk Bluff School, 3.1 mi. NW. of, 0.7 mi. N. of R. R. crossing, 200 ft. N. of angle in rd., on W. side of rd., 10 ft. E. of fence line, in root on N. side of 18-in. live-oak tree; copper nail and washer-----	1, 100. 89
Chalk Bluff School, 4.6 mi. NW. of, 150 ft. W. of R. R. crossing, on S. side of dirt rd., 10 ft. N. of fence line, in root on N. side of 24-in. pecan tree; copper nail and washer-----	1, 117. 47
Chalk Bluff School, 5.8 mi. NW. of, 1.5 mi. NE., thence 1.1 mi. S. from Laguna, 500 ft. N. of Uvalde & Northern Ry. milepost 18, on W. side of track, on top of limestone ledge, near N. end; chiseled square-----	1, 173. 95

760 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

From Uvalde No. 1 quadrangle at point 6.5 miles northeast of Uvalde southwest along road to point 5.2 miles northeast of Uvalde (by E. E. Harris in 1930; spur line)	Feet
Uvalde, 6.0 mi. NE. of, 157 ft. N. 10° E. of tablet, in crotch of mesquite tree; copper nail and washer ²⁹	1,001. 63
Uvalde, 5.2 mi. NE. of, on W. side of highway, in front of house, in root on E. side of mesquite tree; copper nail and washer	990. 62
From point 7.5 miles south of Montell southwest along road into Turkey Mountain quadrangle at point 0.6 mile northeast of Laguna (by G. N. Tex in 1937)	
U. S. C. & G. S. standard disk stamped "N 482 1935"	1,165. 004
Laguna, 0.9 mi. NE. of schoolhouse at, on W. bank of East Nueces River, 20 ft. S. and 14 ft. E. from SE. corner of concrete water gage, in rock outcrop; standard tablet stamped "Gaging station" (set by water-resources branch of Geological Survey)	1,127. 896
From Uvalde No. 3 quadrangle at point near Obi generally northeast along road to point 13 miles northwest of Uvalde, thence southeast 0.5 mile along Uvalde & Northern Railroad (by G. N. Tex in 1938)	
Obi, 0.3 mi. SE., thence 2.1 mi. N. from, about 100 ft. NE. of house of John Rosenow, 50 ft. W. of rd., in crotch of triple mesquite tree; copper nail and washer	1,017. 60
Obi, 2.3 mi. by rd. N. of, at ranch pens of John Rosenow, on S. bank of West Nueces River, 158 ft. E. of center of windmill, 36 ft. N. and 23 ft. E. from NE. corner of concrete water trough, in concrete post; standard tablet stamped "T T 6 C 1937 1006"	1,006. 219
Obi, 0.3 mi. SE., thence 3.2 mi. N. and E. along rd. to ranch of F. H. Woods, about 0.25 mi. S. of West Nueces River, about 100 ft. W. of rd. crossing drain, 70 ft. E. of corner fence post, 35 ft. S. of center line of rd., in root on SE. side of 6-in. mesquite tree; copper nail and washer	993. 05
Obi, 0.3 mi. SE., thence 3.8 mi. N. and E. from, about 1,000 ft. S. of West Nueces River, about 250 ft. SE. of W. ranch house of F. H. Woods, 70 ft. N. of gate, 24 ft. W. of junction of private rd., in root on W. side of 18-in. mesquite tree; copper nail and washer	995. 46
Obi, 0.3 mi. SE., thence 4.8 mi. NE. from, 12.0 mi. in air line NW. of Uvalde, 1.0 mi. W. of confluence of East Nueces and West Nueces Rivers, about 1,200 ft. E. of rd., at N. bank of West Nueces River, 15 ft. S. of junction of dim rd. E., on W. side of 5-in. mesquite tree; copper nail and washer	978. 02
Obi, 0.3 mi. SE., thence 5.4 mi. NE. from, 11.5 mi. in air line NW. of Uvalde, 0.5 mi. W. of confluence of East Nueces and West Nueces Rivers, 90 ft. W. of rd. fork, 9 ft. S. of center of rd., in crotch of twin mesquite tree; copper nail and washer	981. 78
Obi, 2.3 mi. N. and 3.5 mi. E. from, at confluence of East Nueces and West Nueces Rivers, on W. bank of East Nueces River, 130 ft. N. of N. bank of West Nueces River, 112 ft. E. of 12-in. mesquite tree with triangular blaze, 13 ft. W. of 48-in. live-oak tree with triangular blazes on E. and W. sides, in concrete post; standard tablet stamped "T T 7 C 1937 975"	974. 567
Reference mark, 200 ft. N. of N. bank of West Nueces River, in root on W. side of 42-in. live-oak tree with triangular blaze; copper nail and washer	972. 11

²⁹ Established as a reference mark to standard iron post stamped "1009" and previously described.

Uvalde, 12.0 mi. in air line NW. of, 1.1 mi. N. of confluence of Nueces River, about 800 ft. NW. of drain E., about 50 ft. W. of high-water mark on W. bank of East Nueces River, 9 ft. W. of fence line, in root on E. side of 27-in. live-oak tree with triangular blaze; copper nail and washer-----	Feet
	978. 15
Uvalde, 12.5 mi. in air line NW. of, 2.2 mi. N. of confluence of Nueces River, near point of bend in East Nueces River, 30 ft. E. of high-water mark on E. bank, in fence line, in root on N. side of 15-in. live-oak tree with triangular blaze; copper nail and washer-----	998. 66
Uvalde, 13.0 mi. in air line NW. of, about 1,000 ft. NW. of ranch house of R. C. Patterson, 150 ft. E. of E. edge of East Nueces River, at edge of high-water mark, 50 ft. SE. of rd., in root on E. side of 20-in. pecan tree; copper nail and washer-----	1,002. 71
U. S. C. & G. S. standard disk stamped "S 482 1935"-----	1,060. 878

UVALDE NO. 3 QUADRANGLE

[Latitude 29°00'-29°15'; longitude 99°45'-100°00']

UVALDE AND ZAVALA COUNTIES

From Uvalde No. 1 quadrangle southwest along Galveston, Harrisburg & San Antonio Railroad to Uvalde Station, thence southeast along road to Uvalde (by J. A. Hinman in 1898; double-rodded line)

Leona River, at bridge over, at N. end of E. rock pier, in top of coping; copper bolt stamped "937"-----	931. 144
Uvalde, in front of sta.; top of tie-----	930. 7
Uvalde, 30 ft. E. of courthouse; iron post stamped "910 SA" (recovered in 1925)-----	904. 026
Uvalde, at courthouse, in rock at E. side of N. entrance; standard tablet stamped "913 SA" (recovered in 1925; also recovered by U. S. C. & G. S. in 1917 and designated "J 33") ³⁰ -----	907. 167

From Uvalde southeast along Batesville road into Uvalde No. 4 quadrangle (by R. H. Gresham in 1898)

Uvalde, 4.2 mi. S. of, 10 ft. E. of gate; iron post stamped "890"-----	883. 973
From Uvalde south along Carrizo Springs road into Loma Vista No. 2 quadrangle (by R. H. Gresham in 1898)	
Uvalde, 8.0 mi. S. of, 1.5 mi. N. of Pulliam windmill and water hole, on high ridge, 10 ft. W. of rd., under small mesquite tree; iron post stamped "930"-----	924. 154

From Uvalde west along Fort Clark (Brackettville) road 8.2 miles, thence southwest along Asphalt (Carbonville) road 4.3 miles (by R. H. Gresham in 1898)

Uvalde, 3.8 mi. W. of, at rd. junction, 20 ft. S. of rd., in fence corner, near gate; iron post stamped "935"-----	929. 566
Uvalde, 8.2 mi. W. of, 50 ft. E. of asphalt mine, on N. side of rd., under catclaw tree; iron post stamped "919" (recovered in 1930)-----	913. 316
Uvalde, 12.5 mi. W. of, 3.3 mi. E. of Carbonville asphalt mine, on saddle between two hills, 30 ft. S. of rd., near small mesquite tree; iron post stamped "955"-----	949. 390

³⁰ In 1922 a line was cut through the old elevation "913."

From point on Fort Clark road 7.5 miles west of Uvalde along roads alternately south and southwest to road junction 3 miles south of Nunn and Smythe ranch, thence northeast along Eagle Pass road to Uvalde (by R. H. Gresham in 1896)

Uvalde, 9.5 mi. SW. of, 1.75 mi. SW. of old Tom Nunn ranch, 5.5 mi. NE. of Nunn and Smythe ranch house, 18 ft. W. of gate between Tom Nunn and Nunn and Smythe pastures; iron post stamped "864"-----

Uvalde, 15.0 mi. SW. of, at Nunn and Smythe ranch house on Turkey Creek, in lot, 40 ft. W. of large gate; iron post stamped "848" (recovered in 1938 and restamped "842")³¹-----

Nunn and Smythe ranch house, 3.0 mi. S., thence 3.4 mi. NE. from, 12.5 mi. SW. of Uvalde, 3.5 mi. W. of Nueces River, on divide between Mustang Creek and Windmill (Elm) Creek, 30 ft. N. of rd., near cluster of mesquite bushes; iron post stamped "889"-----

Uvalde, 5.75 mi. SW. of, at junction of rd. W. to ranch of Mrs. Bates on Nueces River, 20 ft. SE. of gate, under wire fence; iron post stamped "977"-----

From point on Eagle Pass road 8.5 miles southwest of Uvalde along roads alternately south and southwest to Turks ranch, thence northeast by way of McDaniel ranch to point on Carrizo Springs road 10.5 miles south of Uvalde (by R. H. Gresham in 1896)

Uvalde, 8.5 mi. SW., thence 3.2 mi. S. from, in corner of lot, 20 ft. W. of Piper and West ranch house; iron post stamped "807" (recovered in 1930)-----

Piper and West ranch house, 4.7 mi. SW. of, 3.2 mi. N. of Turks ranch house, at Hurd windmill, in NE. corner of house lot; iron post stamped "792"-----

Turks ranch, 0.75 mi. NE. of, on E. end of Sand Hill, in large rock; standard tablet stamped "868"-----

Turks ranch house, 3.6 mi. NE. of, 3.0 mi. SW. of McDaniel ranch house, 3.0 mi. SW. of Habey ranch, 60 ft. W. of rd. junction, 10 ft. N. of rd.; iron post stamped "806"-----

Uvalde, 10.5 mi. S., thence 2.2 mi. SW. from, at McDaniel ranch house, in SE. corner of house lot; iron post stamped "767"-----

From Uvalde northwest along roads 3.7 miles into Uvalde No. 2 quadrangle (by E. E. Harris in 1925; leveled twice)

Uvalde, 1.1 mi. NW. of Uvalde County courthouse at, in SW. corner of rd. junction, on N. end of top of parapet of concrete culvert; chiseled square-----

North Uvalde, in front of Southern Pacific R. R. sta.; top of rail-----

Uvalde, 1.9 mi. NW. of, 400 ft. NW. of Southern Pacific R. R. sta. at North Uvalde, in SE. corner of rd. junction, in root on N. side of 15-in. mesquite tree; copper nail and washer-----

Uvalde, 2.7 mi. NW. of, on W. side of rd., at NW. corner of concrete bridge over Cooks Slough, in center of top of concrete wing wall; chiseled square (recovered in 1930)-----

From Loma Vista No. 2 quadrangle northwest along State Highway 89 to Piper and West ranch (by E. E. Harris in 1930)

La Pryor, 4.6 mi. N. of high school at, 25 ft. S. and 160 ft. W. from center of crossroads, in crotch of mesquite tree; copper nail and washer-----

Feet
858. 286
842. 323
883. 013
971. 590

801. 519
•
785. 906
862. 117
799. 881
761. 087

922. 02
931. 5
928. 24
923. 46

784. 76

³¹ Revised description reads: "J. G. Smythe ranch house, 200 ft. SW. of, near Turkey Creek, in N. edge near center of corral, 18 ft. W. of 20-in. mesquite tree, 7 ft. SE. of corner fence post; iron post stamped '842'."

	Feet
La Pryor, 5.5 mi. NW. of, 3.2 mi. SE. of A. B. Junction on Missouri Pacific R. R., on NE. side of highway, on top of SE. wing wall of small concrete culvert; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	766. 514
A. B. Junction, 2.1 mi. SE. of, on NE. side of highway, 2 ft. SW. of fence line, in concrete post; standard tablet stamped "H 39 1930" (recovered by U. S. C. & G. S. in 1934)-----	806. 550
Reference mark, 344 ft. S. 20°W. of tablet, in root on N. side of 12-in. mesquite tree; copper nail and washer-----	791. 50
A. B. Junction, 1.1 mi. SE. of, 1.8 mi. SE. of highway bridge over Neuces River, 60 ft. SW. of center line of highway, 80 ft. SE. of dim crossroads, at target switch of Missouri Pacific R. R., in crotch of mesquite tree; copper nail and washer-----	816. 70
A. B. Junction, 80 ft. S. of R. R. house at, 0.7 mi. SE. of Nueces River bridge, 140 ft. W. of highway, in root on SE. side of 10-in. mesquite tree; copper nail and washer-----	819. 45
A. B. Junction, 0.7 mi. NW. of, 0.7 mi. SE. of Piper and West ranch house, at new highway bridge over Nueces River, on SE. corner, at base of parapet; chiseled square (recovered by U. S. C. & G. S. in 1934)-----	800. 290
From Uvalde northeast along road 2.5 miles (by E. E. Harris in 1930; spur line)	
U. S. C. & G. S. standard disk stamped "K 33 1917 909.98"-----	910. 110
Uvalde, 1.0 mi. NE. of post office at, on N. side of paved rd., at junction of old San Antonio rd., in root on N. side of 12-in. mesquite tree; copper nail and washer-----	916. 62
Uvalde, 1.75 mi. NE. of, on S. side of paved rd., on SE. wing wall of concrete bridge over wash; chiseled square-----	917. 90
Uvalde, 2.5 mi. NE. of, 40 ft. W. of private rd. S. through gate, on S. side of paved rd., in root on E. side of forked mesquite tree; copper nail and washer-----	943. 59
From point near Hacienda east along Southern Pacific Railroad 1.7 miles (by E. E. Harris in 1930; spur line)	
U. S. C. & G. S. standard disk stamped "D 33 1917 934.00"-----	934. 132
Hacienda, 0.4 mi. E. of, 100 ft. N. of rd., 100 ft. E. of milepost 307, on SE. corner of foundation of semaphore 3070; chiseled square-----	936. 77
Hacienda, 1.25 mi. E. of, on N. side of rd., N. of track, on W. side of private rd. to ranch house, in SE. corner of yard, in root of cottonwood tree; nail-----	966. 39
From point 3.1 miles east of Hacienda along roads south 3.4 miles, thence west to point 8.2 miles west of Uvalde (by E. E. Harris in 1930)	
U. S. C. & G. S. standard disk stamped "F 33 1917 948.47"-----	948. 607
Hacienda, 3.1 mi. E., thence 1.1 mi. S. from, 0.5 mi. S. of Franklin windmill, on E. side of rd., 30 ft. N. of gate, in crotch of small mesquite tree; copper nail and washer-----	952. 28
Franklin windmill, 1.8 mi. S. of, on S. side of jog in rd., 40 ft. W. of rd. S., in crotch of mesquite tree; copper nail and washer-----	935. 40
Franklin windmill, 2.8 mi. S. of, 3.5 mi. along Del Rio rd. W. of Uvalde, 41 ft. N. and 45 ft. W. from center of junction of T-rd. N., in concrete post; standard tablet stamped "H 53 1930"-----	921. 234
Reference mark 63 ft. N. 30°E. of tablet, in root on NW. side of mesquite tree; copper nail and washer-----	921. 04
Uvalde, 4.7 mi. W. of, on N. side of rd., 10 ft. N. and 250 ft. W. from fence corner, in root on N. side of leaning mesquite tree; copper nail and washer-----	937. 75

764 SPIRIT LEVELING IN TEXAS—PART 5. SOUTH-CENTRAL TEXAS

	Feet
Uvalde, 5.8 mi. W. of, on S. side of rd., on E. side of rd. S., on head wall of concrete culvert; chiseled square-----	932. 41
Uvalde, 6.7 mi. W. of, on N. side of rd., on head wall of concrete culvert; chiseled square-----	921. 68
Uvalde, 7.5 mi. W. of, on N. edge of concrete dip in (dry) Nueces River, 140 ft. from W. end; chiseled square-----	878. 40
From Uvalde southwest along highway 2.9 miles (by E. E. Harris in 1930; spur line)	
Uvalde, 0.5 mi. SW. of post office at, on W. side of South Main Street, 150 ft. from junction of Uvalde-Batesville rd. and La Pryor rd., on head wall of concrete culvert; chiseled square-----	906. 62
Uvalde, 1.3 mi. SW. of, in NE. corner of crossroads, on head wall of concrete culvert; chiseled square-----	900. 22
Uvalde, 2.1 mi. SW. of, on SW. wing wall of concrete bridge; chiseled square (recovered by U. S. C. & G. S. in 1935)-----	891. 835
Uvalde, 2.9 mi. along La Pryor rd. SW. of, on W. side of highway, in center of base of parapet of concrete bridge; standard tablet stamped "H 54 1930" (recovered by U. S. C. & G. S. in 1934)-----	906. 753
From point 1.3 miles southwest of Uvalde along road northeast to Uvalde (by E. E. Harris in 1930; spur line)	
Uvalde, at SE. corner of intersection of West Main and South Evans Streets, on head wall of concrete culvert; chiseled square-----	910. 81
From Uvalde along road south 1.4 miles (by E. E. Harris in 1930; spur line)	
Uvalde, 1.4 mi. S. of post office at, in NE. corner of junction of Pear- sall and Batesville rds., in fence line, in root on S. side of corner mesquite tree; copper nail and washer-----	898. 82
From Turkey Mountain quadrangle ²² southeast and east along Southern Pacific Railroad to point 1.3 miles east of Obi (by G. N. Tex in 1938)	
Obi flag sta., about 50 ft. W. of, about 70 ft. W. of center line of track, 5 ft. SW. of fence line, in root on NE. side of 20-in. mesquite tree; copper nail and washer-----	1, 044. 63
Obi, 0.3 mi. SE. of, about 70 ft. S. of rd. crossing main track, 40 ft. E. of center of bumper gate, in root on W. side of 8-in. mesquite tree; copper nail and washer-----	1, 036. 37
U. S. C. & G. S. standard disk stamped "A 33 1917 986.284"-----	986. 284
From point 0.3 mile southeast of Obi along road north into Uvalde No. 2 quadrangle (by G. N. Tex in 1938)	
Obi, 0.3 mi. SE., thence 0.7 mi. N. from, along rd. to ranch of John Rosenow, about 200 ft. S. of junction of old and new rights-of-way of rd., in root on W. side of 10-in. mesquite tree; copper nail and washer-----	1, 068. 27
From Obi southeast along Southern Pacific Railroad 0.3 mile, thence south and southwest along road into Cline quadrangle at point about 4 miles northeast of Blewett (by G. N. Tex in 1938)	
Obi, 0.3 mi. SE., thence 0.6 mi. along Rosenow ranch rd. S. from, 82 ft. SW. of center line of rd. at pipe-line crossing, 55 ft. SW. of center of gate, in crotch of triple mesquite tree; copper nail and washer-----	1, 038. 63
Obi, 0.3 mi. SE., thence 1.4 mi. S. from, 5.5 mi. E. of Cline, 60 ft. S. of intersection of U. S. Highway 90 and Rosenow ranch rd., 12 ft. S. of fence line, in root on N. side of twin mesquite tree; copper nail and washer-----	1, 026. 75

²² This line crosses the southeast corner of Uvalde No. 2 quadrangle but no bench marks were established along that portion of the line.

Cline, 5.8 mi. along U. S. Highway 90 E. of, 900 ft. E. of junction of T-rd. N. to Obi, 12 ft. N. and 6 ft. E. from center line of double box culvert, in E. end of N. head wall; standard tablet stamped "T T 5 C 1937 1020"-----	Feet 1,020. 023
From Cline quadrangle near ranch house of J. G. Smythe south and southwest along road and back into Cline quadrangle at point 3.5 miles, west of Smythe (by G. N. Tex in 1938)-----	
Smythe ranch house, 0.7 mi. SE. of, 130 ft. SE. of center line of rd. at gate, 20 ft. W. of center line of ranch rd., in SW. side of twin mesquite tree; copper nail and washer-----	873. 32
Smythe ranch house, 1.8 mi. along ranch rd. SE. of, 1.7 mi. NW. of Uvalde-Eagle Pass rd., on top of prominent ridge, at cattle salt lick, 55 ft. SW. of rd. fork, in root on NE. side of twin mesquite tree; copper nail and washer-----	875. 48
Smythe ranch house, 2.4 mi. SE. of, 2.3 mi. W., thence 1.1 mi. NW. from Smythe, 1.1 mi. NW. of Uvalde-Eagle Pass rd., about 120 ft. SE. of drain crossing rd., 27 ft. N. of junction of rd. E., in root on E. side of 4-in. mesquite tree; copper nail and washer-----	868. 24
Smythe, 2.3 mi. W. of, at junction of old Uvalde-Eagle Pass rd., 60 ft. SE. of junction of rd. NW., on N. side of 8-in. mesquite tree; copper nail and washer-----	832. 87
Smythe, 3.3 mi. W. of, 700 ft. E. of Turkey Creek, 50 ft. N. and 32 ft. W. from center of junction of T-rd. N., 155 ft. N. and 133 ft. E. from center of cattle guard, in concrete post; standard tablet stamped "T T 36 C 1938 814"-----	814. 173
Reference mark, 50 ft. SE. of center of junction of T-rd. N., in crotch of twin mesquite tree; copper nail and washer-----	813. 65

UVALDE NO. 4 QUADRANGLE

[Latitude 29°00'-29°15'; longitude 99°30'-99°45']

UVALDE AND ZAVALA COUNTIES

From Uvalde No. 3 quadrangle southeast along Batesville road to point 16 miles southeast of Uvalde, thence along roads east to Leona River crossing, thence northwest by way of Bennett ranch and back into Uvalde No. 3 quadrangle (by R. H. Gresham in 1898)

Uvalde, 8.8 mi. SE. of, 10 ft. E. of rd., under large mesquite tree; iron post stamped "864"-----	858. 083
Uvalde, 13.0 mi. SE. of, 1.8 mi. N. of Piper and Ellis ranch house, 10 ft. E. of gate in fence between Piper and Ellis ranch and 7 D ranch; iron post stamped "833" (recovered in 1930)-----	827. 107
Uvalde, 13.0 mi. SE., thence 2.0 mi. SW. from, 2.0 mi. SW. of gate on Uvalde-Batesville rd., at summit of Batesville hill, in NW. corner of Piper and Ellis pasture; iron post stamped "964"-----	958. 543
Uvalde, 16.0 mi. SE. of, 1.2 mi. S. of Piper and Ellis ranch house, near corner of fence, 55 ft. E. of gate; iron post stamped "763"-----	757. 364
Uvalde, 13.0 mi. SE., thence 2.8 mi. E. from, 7.6 mi. S. of ranch of S. C. Bennett, 10 ft. N. of Leona Creek crossing, under tree; iron post stamped "753"-----	747. 082
Bennett ranch, 5 ft. E. of gate at Baylorsville settlement, 10.5 mi. SE. of Uvalde; iron post stamped "826" (recovered in 1930)-----	819. 908
Uvalde, 5.5 mi. SE. of, 50 ft. E. of gate; iron post stamped "885" (recovered in 1930)-----	879. 028

From Uvalde No. 3 quadrangle northeast along roads by way of Moore ranch into Uvalde No. 1 quadrangle (by J. A. Hinman in 1896)	Feet
Uvalde, 3.0 mi. NE. of, 375 ft. E. of junction of Uvalde-Sabinal rd., near large mesquite tree; iron post stamped "958" -----	951. 621
Uvalde, 6.8 mi. NE. of, at old Moore ranch, 300 ft. E. of Frio River, 100 ft. NE. of house; iron post stamped "917" -----	909. 326
From Uvalde No. 1 quadrangle along roads generally south to Bates ranch, thence west to point on Leona River 7.6 miles southeast of Bennett ranch (by J. A. Hinman in 1896)	
Kelley ranch house, 4.75 mi. SW. of, 6.0 mi. N. of Lewis ranch on Frio River, 3.5 mi. S. of Dr. Wish ranch on Uvalde-Sabinal rd., 40 ft. N. of rd. junction; iron post stamped "873" -----	867. 255
Kelley ranch house, 6.8 mi. SW., thence 3.0 mi. E. from, 4.0 mi. NE. of Lewis ranch, 7.0 mi. E. of Englemann ranch house, 60 ft. N. of intersection of Uvalde-Friotown-Pearsall rd.; iron post stamped "812" -----	805. 925
Lewis ranch, on S. side of Frio River, at crossing, in NW. corner of E. house lot; iron post stamped "793" -----	787. 242
Lewis ranch, 3.8 mi. S. of, 6.75 mi. N. of Bates ranch, 17.5 mi. SE. of Uvalde, 1.25 mi. NW. of Lewis windmill, 225 ft. W. of Lewis ranch rd., 100 ft. N. of rd., under small mesquite tree; iron post stamped "891" (recovered in 1930) -----	884. 385
Bates ranch, in NW. corner of house lot at, 7.6 mi. S., thence 3.8 mi. E. from Bennett ranch house, 2.5 mi. SW. of ranch house of Burt Hollingsworth, on Liveoak Creek; iron post stamped "748" -----	741. 824
From Uvalde No. 3 quadrangle generally east along road to crossroads 4 miles north of Lewis ranch (by J. A. Hinman in 1896)	
Uvalde, 2.0 mi. SE., thence 9.2 mi. E. from, 0.5 mi. N. of Englemann ranch house, 25 ft. N. of small house on N. bank of Frio River; iron post stamped "864" -----	857. 977
From point 3.8 miles south of Lewis ranch on Frio River southeast about 1.8 miles (by E. E. Harris in 1930; spur line)	
Lewis ranch house, 4.6 mi. SE. of, 18.3 mi. along Friotown rd. SE. of Uvalde, on W. side of rd., in draw, in root on NW. side of small mesquite tree; copper nail and washer -----	851. 52
From Bennett ranch northwest along road 5 miles to point 5.5 miles southeast of Uvalde (by E. E. Harris in 1930)	
Uvalde, 9.7 mi. SE. of, 0.8 mi. NW. of Bennett ranch house, on W. side of rd., 1,200 ft. N. of abandoned church, in root on NE. side of small mesquite tree; copper nail and washer -----	824. 31
Uvalde, 8.7 mi. SE. of, on E. side of rd., in front of dwelling, in root on SW. side of 18-in. live-oak tree; copper nail and washer -----	828. 91
Uvalde, 7.8 mi. SE. of, in NE. angle of rd., in root on E. side of leaning mesquite tree; copper nail and washer -----	834. 92
Uvalde, 6.9 mi. SE. of, about 800 ft. E. of Leona School, in NW. angle of ranch rd. crossing, in crotch of large mesquite tree; copper nail and washer -----	843. 23
Uvalde, 6.3 mi. SE. of, 250 ft. N. of windmill, on W. side of rd., in root on E. side of 18-in. mesquite tree; copper nail and washer -----	853. 88

VALLEY WELLS QUADRANGLE

767

From point near Leona School northwest along road 2.3 miles (by E. E. Harris in 1930; spur line)

Leona School, 0.9 mi. NW. of, 200 ft. N. of rd. at ford across Leona River, 70 ft. E. of river, in root on NW. side of 36-in. live-oak tree; copper nail and washer-----
 Leona School, 1.8 mi. NW. of, 25 ft. S. of rd.; 20 ft. W. of gate, in root on N. side of forked mesquite tree; copper nail and washer-----
 Leona School, 2.5 mi. NW. of, 70 ft. N. of rd., 80 ft. W. of house, in root on W. side of leaning mesquite tree; copper nail and washer-----

Feet
 832. 72
 861. 34
 869. 44

VALLEY WELLS QUADRANGLE

[Latitude 28°15'-28°30'; longitude 99°30'-99°45']

DIMMIT COUNTY

From Bart quadrangle northwest along Big Wells road to crossroads 1 mile northeast of Valley Wells, thence along roads generally southwest to point 3.2 miles northeast of Catarina (by A. P. Meade and E. E. Harris in 1924)

Valley Wells, at post office (description illegible in field book; probably iron pipe)-----
 Valley Wells, 1.5 mi. in air line SW. of, 25 ft. N. of steel bridge over Nueces River, 10 ft. NW. of rd., 5 ft. W. of big mesquite tree, in concrete post; standard tablet stamped "Prim Trav Sta No 143 M 1924"-----
 Valley Wells, 3.6 mi. by rd. SW. of, 3 ft. N. of N. fence, 1 ft. above ground, in easternmost of three branches of mesquite tree; copper nail and washer-----
 Valley Wells, 4.7 mi. SW. of, on W. side of rd., 20 ft. W. of fence line, in E. branch of small mesquite tree; copper nail and washer-----
 Valley Wells, 5.8 mi. SW. of 5.7 mi. NE. of Catarina, at summit of long grade, on W. side of rd., 2 ft. W. of fence line, in concrete post; standard tablet stamped "Prim Trav Sta No 12 1924 H 116"-----
 Reference mark, 106 ft. N. 40°E. of tablet, in root on S. side of small mesquite tree; copper nail and washer-----
 Catarina, 5.1 mi. NE. of, at E. side of angle in rd., 15 ft. S. of fence line crossing rd., in root on W. side of small mesquite tree; copper nail and washer-----
 Catarina, 4.2 mi. NE. of, 20 ft. S. of bend in rd. around windmill, in root on S. side of 8-in. mesquite tree; copper nail and washer (recovered in 1930)-----
 Catarina, 3.2 mi. NE. of, 6.0 mi. SW. of Valley Wells, in NE. corner of rd. fork, in angle in fence line, 4 ft. from each fence, 40 ft. W. of deserted house, in concrete post; standard tablet stamped "Prim Trav Sta No 13 T 1924 H 117" (recovered in 1930)-----
 Reference mark, 52.7 ft. N. of tablet, in root on N. side of small mesquite tree; copper nail and washer-----

458. 845
 447. 532
 483. 45
 492. 20
 525. 987
 523. 78
 520. 95
 513. 68
 520. 219
 519. 12

From point 3 miles northeast of Catarina southwest along road to Catarina, thence east along Asherton & Gulf Railway into Bart quadrangle (by T. G. Smith in 1924)

Catarina, 1.2 mi. N. of, 10 ft. SW. of galvanized culvert, on W. side of rd., in mesquite tree; copper nail-----
 Catarina, 1,500 ft. SW. of sta., 27 ft. N. of rd. junction, in concrete post; standard tablet stamped "Prim Trav Sta No 14 T 1924"-----
 Reference mark, 600 ft. NE. of tablet, in lone mesquite tree; copper nail-----

506. 12
 529. 467
 518. 30

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	Feet
Catarina, 3.2 mi. E. of, at R. R. bridge over drain, 70 ft. N. of Kings Highway bridge, in top of S. end of W. concrete pillar; standard tablet-----	454. 511
Catarina, 4.2 mi. E. of, 5.8 mi. W. of Light, 1.1 mi. W. of old R. R. coach used as flag sta., at rd. crossing R. R., 50 ft. S. of track, 20 ft. E. of rd., in mesquite tree; copper nail (recovered in 1929)-----	459. 55
Light, 5.0 mi. W. of, 75 ft. E. of old railway coach used as flag sta., on S. side of track, near edge of right-of-way, in concrete post; standard tablet stamped "Prim Trav Sta No 31 1924"-----	496. 338
From Loma Vista No. 4 quadrangle southwest along Brundage-Asherton road into San Roque Lake quadrangle No. 2 (by E. E. Harris in 1929)	
Asherton, 5.4 mi. NE. of, 60 ft. NW. of center line of rd., in drain, in root on S. side of 10-in. mesquite tree; copper nail and washer-----	520. 10
Asherton, 4.5 mi. NE. of, just SW. of summit of grade, on NW. side of rd., in root on NW. side of lone mesquite tree; copper nail and washer-----	532. 43
Asherton, 3.8 mi. NE. of, 29 ft. SE. of center line of rd., 23 ft. N. of rd. E. through gate, 6 ft. SW. of fence line, in concrete post; standard tablet stamped "H 18 1929"-----	554. 507
Asherton, 1.3 mi. NE. of, on NW. side of rd., on top of 36-in. drain pipe; chiseled square-----	528. 58
Asherton, 0.3 mi. NE. of, in NW. corner of junction of Asherton-Catarina highway and rd. NE. to Brundage, in center of head wall of concrete culvert; chiseled square-----	540. 08
From point 0.3 mile northeast of Asherton along road southeast to Catarina (by E. E. Harris in 1929)	
Asherton, 0.3 mi. NE., thence 1.0 mi. SE. from, in NW. corner of junction of private rd. N., in center of top of head wall of concrete culvert; chiseled square-----	583. 53
Asherton 0.3 mi. NE., thence 1.9 mi. SE. from, on SW. side of highway, in center of top of head wall of concrete culvert; chiseled square-----	611. 98
Asherton, 0.3 mi. NE., thence 2.3 mi. SE. from, 38 ft. NE. of center line of highway, 35 ft. SE. of junction of private rd. N., 2.5 ft. SW. of center of fence line, in concrete post; standard tablet stamped "H 19 1929"-----	636. 994
Asherton, 0.3 mi. NE., thence 3.2 mi. SE. from, on SW. side of highway, 340 ft. NW. of crossroads, on head wall of concrete culvert; chiseled square-----	611. 77
Asherton, 0.3 mi. NE., thence 4.4 mi. SE. from, on NE. side of rd., 185 ft. SE. of crossroads, on head wall of concrete culvert; chiseled square-----	605. 81
Asherton, 0.3 mi. NE., thence 5.4 mi. SE. from, 5.1 mi. NW. of Asherton & Gulf Ry. sta. at Catarina, 36 ft. NE. and 40 ft. SE. from crossroads, in concrete post; standard tablet stamped "H 20 1929"-----	570. 137
Catarina, 4.1 mi. NW. of, on N. side of rd., just W. of angle to SE., in center of head wall of concrete bridge; chiseled square-----	533. 36
Catarina, 3.1 mi. NW. of, in NW. corner of crossroads, in root on E. side of small mesquite tree; copper nail and washer (recovered by U. S. C. & G. S. in 1929)-----	565. 19
Catarina, 2.1 mi. NW. of, 25 ft. NE. and 9.5 ft. NW. from center of crossroads, in center of top of head wall of concrete culvert; standard tablet stamped "H 21 1929"-----	533. 281

	<i>Feet</i>
Reference mark, 662 ft. S. 55° E. of tablet, on S. side of highway, on head wall of concrete culvert; chiseled square	529. 82
Catarina, 1.2 mi. NW. of, on S. side of rd., just W. of angle to E., on SE. wing wall of concrete bridge; chiseled square	516. 47
Catarina, 0.6 mi. NW. of, on N. side of rd., on head wall of concrete culvert; chiseled square	509. 75
From point 3.1 miles northwest of Catarina northeast along road 0.8 mile (by E. E. Harris in 1929; spur line)	
Catarina, 3.1 mi. NW., thence 0.8 mi. NE. from, in NE. angle of junction of T-rd. SE., 1,000 ft. SW. of cattle guard, in root on NW. side of 10-in. mesquite tree; copper nail and washer	595. 12

WEBB NO. 3 QUADRANGLE

[Latitude 27°30'-27°45'; longitude 99°15'-99°30']

WEBB COUNTY

From Laredo northeast and southeast along Texas Mexican Railway into Becerra Creek quadrangle (by S. L. Parker in 1919)

Laredo triangulation sta., in suburbs of Laredo, on top of hill at S. end of group of knobs, about 50 ft. S. of rd. passing over hill, about 650 ft. W. of windmill, on range with Mexican Presbyterian Church and point midway between wireless masts, in drill hole in bedrock; U. S. C. & G. S. standard triangulation disk stamped "Laredo 1917" and designated "V 62" (reported destroyed)	498. 149
Laredo, 350 ft. W. of Laredo Electric Light & Car Co. power plant, 22 ft. N. of R. R. track, 15 ft. E. of rd., 4 in. from end of culvert, on top of concrete receptor; chiseled square ³³	416. 75
Laredo, 3.9 mi. E. of, 100 ft. NW. of crossing of Corpus Christi-Laredo rd., on R. R. property line, projecting 1 ft. above ground; top of section of rail set vertically (recovered in 1923)	430. 99

From Becerra Creek quadrangle northeast along Texas Mexican Railway into Aguilete Creek quadrangle (by S. L. Parker in 1919; leveled by J. H. Wilke in 1923)

Pescadito, 50 ft. N. and 200 ft. E. from section house, 90 ft. SW. of rd. crossing, in line with telegraph poles; iron post stamped "1919 557" (recovered in 1923; recovered also by U. S. C. & G. S. in 1933)	556. 941
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From Laredo northeast and southeast along Texas Mexican Railway into Becerra Creek quadrangle (by J. H. Wilke in 1923)

U. S. C. & G. S. standard disk stamped "L 39 1917 419.62"	419. 750
Laredo, at overhead R. R. crossing, on NW. corner of concrete bridge; chiseled square	408. 95
Laredo, about 250 ft. SW. of new water tank on hill; top of section of rail set vertically and marked "NE 227"	496. 28
Laredo, about 60 ft. W. of site of Laredo triangulation sta., on rock ledge, flush with ground; chiseled mark	497. 00

³³ In 1923 it was reported that this bench mark had been destroyed, the end of the concrete being chipped off.

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WEST SAN ANTONIO QUADRANGLE

[Latitude 29°15'-29°30'; longitude 98°30'-98°45']

BEXAR COUNTY

From East San Antonio quadrangle southwest and west along Galveston, Harrisburg & San Antonio Railroad ^{as} into Lacoste quadrangle (by J. A. Hinman in 1898-97; double-rodded line)	Feet
San Antonio, 4.0 mi. W. of, about 3.5 mi. NE. of Leon, midway between mileposts 216 and 217, at San Antonio-Frio rd. crossing, 40 ft. S. of track, near corner of right-of-way fence; iron post stamped "681 SA"-----	673. 697
Leon, 0.5 mi. SW. of, midway between mileposts 220 and 221, at SW. corner of fence around section house 87, 40 ft. N. of track; iron post stamped "636 SA" (recovered in 1901; also recovered by U. S. C. & G. S. in 1917 and designated "D 36") ³⁵ -----	628. 745
Leon, 4.8 mi. SW. of, 2.7 mi. E. of Macdona, 1.6 mi. E. of Medina River, midway between mileposts 224 and 225, at crossing of San Antonio-Frio rd., 50 ft. N. of track, in corner of right-of-way fence; iron post stamped "627 SA"-----	619. 751
Macdona, 0.7 mi. E. of, at Medina River bridge, in N. end of W. pier (high-water channel); copper bolt stamped "616 SA" (recovered in 1901; also recovered by U. S. C. & G. S. in 1917 and designated "X 35")-----	609. 290
From Leon Springs quadrangle south along San Antonio & Aransas Pass Railroad ^{as} to San Antonio (by J. A. Hinman in 1897; double-rodded line)	
San Antonio, 5.0 mi. N. of, halfway between mileposts 244 and 245, 100 ft. N. of trestle 542, 50 ft. E. of track, in large rock; copper bolt stamped "776" (recovered in 1901)-----	766. 901
U. S. C. & G. S. standard disk stamped "A 83 1931" ³⁷ -----	780. 491
From East San Antonio quadrangle southwest along International-Great Northern Railroad to station in San Antonio (by J. A. Hinman in 1897)	
San Antonio, in front of I. G. N. R. R. passenger sta.; center of track-----	675. 4
From point on San Antonio & Aransas Pass Railroad 5 miles north of San Antonio generally southwest across country and along roads to point on Galveston, Harrisburg & San Antonio Railroad 0.4 mile west of Macdona (by M. S. Bright in 1901)	
San Antonio, 5.2 mi. NW. of City Hall at, 1.1 mi. along upper Castroville (Culebra) rd. W. of city limits, about 0.3 mi. S. of St. Louis College (St. Mary's University), on N. side of rd., 10 ft. E. of avenue; iron post stamped "722 SA"-----	714. 070
San Antonio, 7.0 mi. along Culebra rd. NW. of, 0.3 mi. E. of Salsamora Creek, on S. side of rd., 3 ft. E. of gate entrance to pasture; iron post stamped "746 SA"-----	738. 086
San Antonio, about 7 mi. along Castroville rd. W. of, 140 ft. W. of bridge over Leon Creek, on S. side of rd.; iron post stamped "689 SA"-----	680. 845
San Antonio, 10.0 mi. SW. of, 0.9 mi. E. of Medio Creek, at summit of hill, on S. side of Castroville rd., 2 ft. E. of milepost 10, near wire fence; iron post stamped "813 SA"-----	805. 678

^{as} This bench mark is described by the U. S. Coast & Geodetic Survey as "18 telegraph poles west of milepost 219."

³⁵ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

³⁷ The tie between this mark and the bench mark stamped "776" was made in 1936.

	Feet
San Antonio, 13.8 mi. SW. of, 1.2 mi. W., thence 3.8 mi. N. from Macdona, 1.9 mi. N. of Medina River, in SE. angle of junction of Cagnon rd. S., near fence corner; iron post stamped "762 SA"-----	754. 563
From junction of Castroville and Cagnon roads north along Cagnon and other roads to Culebra road, thence southeast and east to point 7 miles northwest of San Antonio (by M. S. Bright in 1901)	
San Antonio, about 15 mi. W. of City Hall at, at junction of Cagnon and upper Castroville (Potranca) rds., on E. side of Caracol Creek, at SE. fence corner; iron post stamped "812 SA"-----	804. 347
San Antonio, about 14.5 mi. NW. of, on S. side of Culebra rd., on N. side of Culebra Creek, 4.7 mi. NW. of Leon Creek crossing, near wire fence; iron post stamped "857 SA"-----	849. 570
San Antonio, 11.5 mi. NW. of, 0.7 mi. along rd. SE. of Culebra Creek, 1.6 mi. NW. of Leon Creek crossing, on W. side of rd., at angle, near wire fence; iron post stamped "815 SA"-----	807. 534
From East San Antonio quadrangle west and northwest along Mission and other roads and across country to point on Galveston, Harrisburg & San Antonio Railroad 0.5 mile southwest of Leon (by M. S. Bright in 1901)	
Hellemans, about 4 mi. SW. of, 4.2 mi. NW. of Earle, 5.8 mi. SE. of Leon, at intersection of San Antonio-Pleasanton rd., at NE. fence corner; iron post stamped "618 SA"-----	611. 200
Leon, 2.7 mi. SE. of, on N. side of Mission rd., 6 ft. E. of Applewhite-San Antonio rd., at NE. fence corner; iron post stamped "617 SA"-----	610. 098
From Poteet quadrangle northeast along San Antonio-Amphion road to point 2.7 miles southeast of Leon (by M. S. Bright in 1901)	
Leon, 2.7 mi. SE., thence 3.5 mi. SW. from, about 11.5 mi. SW. of City Hall at San Antonio, on divide between Medina River and Leon Creek, on W. side of rd., near wire fence, 12 ft. N. of fence corner; iron post stamped "611 SA"-----	603. 948
From point 0.7 mile east of Macdona south along road into Poteet quadrangle at point 1.7 miles north of Bexar (by M. S. Bright in 1901)	
Macdona, 3.8 mi. S. of, 2.5 mi. W. of Vonormy, about 4.5 mi. N. of Bexar, 100 ft. N. of crossing of International-Great Northern R. R., on N. side of Bexar-San Antonio rd., near wire fence; iron post stamped "653 SA"-----	646. 199
U. S. C. & G. S. B. M. designated "V 36 1917" ³⁸ -----	651. 652

WHITSETT QUADRANGLE

[Latitude 28°30'-28°45'; longitude 98°15'-98°30']

ATASCOSA, LIVE OAK, AND McMULLEN COUNTIES

From Simons quadrangle at point about 1 mile north of Byrne ranch generally northeast along old Crowther road to point 2.5 miles north of Crowther, thence west into Franklin Settlement quadrangle at point near Burmeister ranch (by H. P. Jones in 1925)	
Byrne ranch house, 1.8 mi. NE. of, 7.7 mi. SW. of Crowther, 1.1 mi. SW. of crossing of Frio River, on NW. side of rd., in root on S. side of mesquite tree; copper nail and washer-----	210. 00
Crowther, 6.7 mi. SW. of, 400 ft. W. of Frio River, 24 ft. SE. of small house of Mexican tenant, about 400 ft. SE. of oil well, 150 ft. S. of NE. corner of cultivated field, in NE.-SW. fence line, 6 ft. N.E. of gate, in concrete post; standard tablet stamped "Prim Trav Sta No 24 K 1925 J 47"-----	209. 105

³⁸ The tie between this mark and the bench mark stamped "653 SA" was made in 1936.

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	Feet
Crowther, 5.3 mi. SW. of, on SW. side of rd., 25 ft. S. of wire fence, in root of mesquite tree; copper nail and washer-----	210. 36
Crowther, 4.4 mi. SW. of, 0.5 mi. SE. of junction of rd. SW., on W. side of rd., in root of mesquite tree; copper nail and washer-----	238. 52
Crowther, 3.6 mi. SW. of, on Opossum Hill or ridge between Opossum and Elm Creeks, 18 ft. NW. of rd., in line with rd. SE. to Byrne ranch, in concrete post; standard tablet stamped "Prim Trav Sta No 23 K 1925 J 48"-----	283. 017
Crowther, 2.8 mi. SW. of, on NW. side of rd., in root of mesquite tree; copper nail and washer-----	267. 05
Crowther, 1.6 mi. SW. of, 0.2 mi. SW. of corral on J. P. Martin ranch, on N. side of rd., in root of mesquite tree; copper nail and washer-----	256. 31
Crowther, 0.9 mi. W. of, at SE. corner of cross street, 13 ft. NW. of NW. corner of old hotel building, on top of concrete curb; chiseled square-----	319. 89
Crowther, 60 ft. SE. of SE. corner of old hotel building, 20 ft. SE. of crossroads, 25 ft. S. and 54 ft. W. from junction of rd. NW., 3 ft. SE. of corner post of wire fence, in concrete post; standard tablet stamped "Prim Trav Sta No 22 K 1925 J 49"-----	354. 770
Crowther, 0.8 mi. N. of, 1.6 mi. S. of ranch house of R. H. Brown, 12 ft. E. of junction of rd. NW., in root of mesquite tree; copper nail and washer-----	342. 64
Brown ranch house, 0.8 mi. S. of, on E. side of rd., in root on W. side of 11-in. mesquite tree; copper nail and washer-----	391. 24
Brown ranch house, 250 ft. S. of, in SE. corner of front yard fence, 55 ft. SE. of SE. corner of small dwelling, in concrete post; standard tablet stamped "Prim Trav Sta No 35 K 1925 J 50"-----	415. 621
Reference mark, 25 ft. E. of SE. corner of small dwelling, in root of 12-in. mesquite tree; copper nail and washer-----	414. 76
Brown ranch house, 1.0 mi. W. of, on N. side of rd. to Burmeister ranch, in root of 10-in. mesquite tree; copper nail and washer-----	333. 80
Brown ranch house, 1.8 mi. W. of, at Brown tank, on W. side of concrete spillway wall; chiseled square-----	310. 76
Brown ranch house, 3.4 mi. W. of, 5.5 mi. E. of Burmeister ranch house, 170 ft. N. of crossing of old N.-S. rd., 940 ft. W. of plank gate, in SW. corner of pasture fence, in concrete post; standard tablet stamped "Prim Trav Sta No 36 K 1925 J 51"-----	330. 617
Burmeister ranch house, 4.5 mi. E. of, on N. side of rd., in root of mesquite tree; copper nail and washer-----	371. 45
Burmeister ranch house, 3.7 mi. E. of, on S. side of rd., in NW. corner of pasture, inside fence, in root of mesquite tree; copper nail and washer-----	365. 00
Burmeister ranch house, 2.8 mi. E. of, on N. side of rd., in root of mesquite tree; copper nail and washer-----	339. 55
Burmeister ranch house, 1.9 mi. E. of, 30 ft. N. and 10 ft. W. from junction of old T-rd. N. along fence, at SE. corner of cleared field, in fence corner, in concrete post; standard tablet stamped "Prim Trav Sta No 37 K 1925 J 52"-----	336. 281
Burmeister ranch house, 1.0 mi. E. of, 75 ft. W. of NE. corner of pasture fence, 6 ft. S. of fence line, in root of mesquite tree; copper nail and washer-----	340. 67

WOODSBORO QUADRANGLE

[Latitude 28°00'-28°15'; longitude 97°15'-97°30']

ARANSAS, BEE, REFUGIO, AND SAN PATRICIO COUNTIES

From Corpus Christi quadrangle northwest along San Antonio & Aransas Pass Railroad ²⁹ into Sinton quadrangle (by C. R. Fisher in 1922)

Taft, 4.0 mi. NW. of, 3.8 mi. SE. of Sinton, 7 ft. N. of milepost 242, in concrete post; standard tablet stamped "F 6 Texas 1922 53" (recovered by U. S. C. & G. S. in 1935)-----	Feet
Sinton, 2.3 mi. SE. of, opposite R. R. culvert 240.5, at concrete culvert; top of E. end of N. wall-----	52. 940
Sinton, 1.4 mi. SE. of, 50 ft. N. of track, 25 ft. E. of rd. S., in base of telegraph pole; rail spike-----	49. 71
From Corpus Christi quadrangle at point 4.1 miles north of Sodville School north along road to San Antonio & Aransas Pass Railroad (by C. R. Fisher in 1922)-----	50. 78
Sodville School, 5.0 mi. N. of, in NE. angle of junction of rd. SE., 2 ft. from post; top of iron pipe-----	54. 82

WOODWARD QUADRANGLE

[Latitude 28°30'-28°45'; longitude 99°15'-99°30']

DIMMIT, FRIO, LA SALLE, AND ZAVALA COUNTIES

From Loma Vista No. 4 quadrangle northeast along State Highway 85 into Dilley quadrangle (by E. E. Harris in 1929)

Big Wells, 6.0 mi. NE. of, 3.1 mi. SW. of El Cid ranch headquarters, 36 ft. SE. of center line of highway, 21 ft. SW. of ranch rd. S., in concrete post; standard tablet stamped "H 10 1929"-----	575. 312
Reference mark, 1,880 ft. N. 50°E. of tablet, on NE. wing wall of small concrete bridge; chiseled square-----	556. 28
El Cid ranch headquarters, 2.0 mi. SW. of, on S. side of highway, in center of top of head wall of concrete culvert; chiseled square-----	539. 32
El Cid ranch headquarters, about 0.7 mi. SW. of, on S. side of highway, 350 ft. E. of dim cross rd., in center of top of head wall of concrete culvert; chiseled square-----	585. 90
El Cid ranch headquarters, 43 ft. S. of, 53 ft. N. of center line of highway, 14 ft. W. of walk, near center of garden, in concrete post; standard tablet stamped "H 11 1929"-----	609. 134
Reference mark, 1,500 ft. S. 50°W. of tablet, in center of S. head wall of concrete culvert; chiseled square-----	597. 11
El Cid ranch headquarters, 1.2 mi. NE. of, on S. side of highway, 350 ft. W. of prominent angle N. in rd., in center of top of head wall of concrete culvert; chiseled square-----	616. 30
El Cid ranch headquarters, 3.4 mi. NE. of, 3.8 mi. W. of Covey, 1.2 mi. E. of Dimmit-La Salle county line, 38 ft. S. of center line of highway, 250 ft. E. of concrete culvert, 3 ft. S. of fence line, in concrete post; standard tablet stamped "H 12 1929"-----	577. 117
Reference mark, 255 ft. S. 70°W. of tablet, in center of top of S. head wall of concrete culvert; chiseled square-----	579. 60
Covey, 3.0 mi. W. of, on S. side of highway, in center of top of head wall of concrete culvert; chiseled square-----	560. 35
Covey, 2.5 mi. W. of, on S. side of highway, 475 ft. W. of crossing of ranch rd., on S. end of E. abutment of concrete bridge; chiseled square-----	557. 22

²⁹ Now part of the Texas & New Orleans Division of the Southern Pacific Co.

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	Feet
Covey, 1.4 mi. W. of, on S. side of highway, in center of top of head wall of concrete culvert; chiseled square-----	571. 46
Covey, 0.6 mi. W. of, on N. side of highway, at point of curve to E., in large cultivated field, 1.5 ft. N. of fence line, in root on W. side of 12-in. mesquite tree; copper nail and washer-----	595. 76
Covey, 40 ft. S. of center line of highway, 20 ft. W. of center line of rd. S. to church, at junction of T-rd. N., in angle in fence line, in concrete post; standard tablet stamped "H 13 1929"-----	576. 575
Reference mark, 1,130 ft. W. of tablet, in center of top of S. head wall of concrete culvert; chiseled square-----	584. 44
Covey, 0.9 mi. E. of, on N. side of highway, at small concrete bridge, on base near E. end of N. parapet; chiseled square-----	551. 48
Covey, 1.6 mi. E. of, in NW. corner of junction of private rd. N. to ranch house, in center of head wall of concrete culvert; chiseled square-----	567. 49
Covey, 2.6 mi. E. of, 7.2 mi. W. of Dilley, 38 ft. N. of center line of highway, 130 ft. E. of junction of rd. N., about 800 ft. S. of schoolhouse, 2 ft. N. of fence line, in concrete post; standard tablet stamped "H 14 1929"-----	582. 071
Reference mark, 135 ft. W. of tablet, on head wall of concrete culvert; chiseled square-----	583. 76
Dilley, 6.1 mi. W. of, on S. side of highway, about 700 ft. E. of crossing of power line, at small concrete bridge, on NW. corner of S. wall; chiseled square-----	536. 05
Dilley, 5.0 mi. W. of, on S. side of highway, on head wall of concrete culvert; chiseled square-----	551. 04
From Bart quadrangle at point about 2.3 miles southeast of Woodward north-west along road to Woodward (by E. E. Harris in 1930)	
Woodward, 1.3 mi. SE. of, on E. side of rd., on SW. corner of concrete foundation of well; chiseled square-----	457. 03
Woodward, E. of sta., at crossing; top of rail-----	500. 4
Woodward, 860 ft. N. of R. R. crossing, 150 ft. W. of rd., at SW. corner of store formerly occupied by Woodward Vichy Water Co., in root on W. side of 15-in. mesquite tree; copper nail and washer-----	496. 33
U. S. C. & G. S. standard disk stamped "V 215 1934" ⁴⁰ -----	495. 475

YANCEY QUADRANGLE

[Latitude 29°00'-29°15'; longitude 99°00'-99°15']

FRIO AND MEDINA COUNTIES

From Pearsall quadrangle generally northeast along Frio-Town-Moore and Tehuacana roads to Moore (by J. A. Hinman in 1897; leveled twice from point 4.3 miles west of Moore)

Moore, 4.3 mi. W. of, at intersection of Frio-Town-Henson ranch-Moore and Moore-Tehuacana rds; iron post stamped "710 SA"-----	703. 470
Moore, in front of sta., 25 ft. S. of main track; iron post stamped "660 SA" (recovered in 1930; also recovered by U. S. C. & G. S. in 1917, restamped "653.2 SA," and designated "A 37")-----	653. 417
From point 4.3 miles west of Moore along road west 2.9 miles, thence north along Pearsall-Hondo road into New Fountain quadrangle (by J. A. Hinman in 1897)	

Moore, 7.2 mi. W. of, 0.8 mi. W. of iron bridge over Hondo River, at junction of Moore-Tehuacana and Pearsall-Hondo rds.; iron post stamped "626 SA"-----	619. 442
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⁴⁰ The tie between this mark and the bench mark with an elevation of 496.33 feet was made in 1936.

	Feet
Moore, 7.2 mi. W., thence 1.5 mi. N. from, at junction of rd. to Friotown, near schoolhouse, in large boulder embedded in ground; copper bolt stamped "630 SA" -----	623. 364
Moore, 7.2 mi. W., thence 5.5 mi. N. from, 15.5 mi. S. of Medina County courthouse at Hondo, 0.7 mi. S. of Yancey, 40 ft. S. of gate where old Friotown-Castroville rd. enters Newton pasture, on W. side of rd., 3 ft. from fence in lane; iron post stamped "656 SA" (recovered in 1930) -----	649. 208
Hondo, 9.7 mi. S. of, about 0.75 mi. NE. of Buck Hill, 500 ft. S. of East Fork of Tehuacana Creek, on E. side of rd., at angle in fence; iron post stamped "761 SA" -----	754. 150
From Lacoste quadrangle ⁴¹ generally southwest along old Friotown-Castroville road, third-class road, and Hondo-Friotown road into Sabinal No. 3 quadrangle (by J. A. Hinman in 1897) -----	
Dunlay, 8.3 mi. SW. of, at intersection of Quihi-Devine rd.; iron post stamped "816 SA" -----	809. 210
Dunlay, 11.0 mi. SW. of, 3.9 mi. E. of old Readus Crossing of Hondo River, at junction of ranch rd., 125 ft. N. of gate; iron post stamped "775 SA" -----	768. 407
Readus Crossing, 15.5 mi. S., thence 5.7 mi. E. from Hondo, on W. bank of Hondo River, 10 ft. E. of rd., 20 ft. NE. of gate; iron post stamped "704 SA" -----	697. 344
Hondo, 15.5 mi. S., thence 2.6 mi. SW. from, 2.1 mi. NE. of Seco Creek crossing, at junction of ranch rd., 75 ft. NE. of old fence with gate-posts but no gate; iron post stamped "697 SA" -----	690. 049
Seco Creek crossing, 3.0 mi. W. of, 7.2 mi. NE. of Blackaller ranch house, at junction of settlement rd. and Friotown-Hondo county rd.; iron post stamped "678 SA" ⁴² -----	670. 934
From New Fountain quadrangle southeast along D' Hanis-Fohn ranch road to Hondo-Friotown road, thence southwest to ranch road, thence generally west by way of Smith ranch into Sabinal No. 3 quadrangle (by J. A. Hinman in 1897) -----	
D' Hanis, about 11 mi. SE. of, about 9 mi. SW. of Hondo, 0.25 mi. NW. of junction of Hondo-Friotown rd., in SE. angle of Moore ranch rd.; iron post stamped "848 SA" -----	841. 576
Smith ranch, 2.9 mi. W. of Hondo-Friotown rd., 2.4 mi. E. of Seco Creek Crossing, 50 ft. from SE. corner of residence of Capt. J. D. Smith, 50 ft. N. of rd., 65 ft. NW. of 20-in. mesquite tree; iron post stamped "777 SA" -----	771. 004
Seco Creek crossing, 2.1 mi. W. of, 0.5 mi. NW. of summit of high hill, 25 ft. S. of rd., 25 ft. W. of branch; iron post stamped "789 SA" -----	782. 748
From Moore west and northwest along highway to point 0.7 mile south of Yancey (by E. E. Harris in 1930) -----	
Moore, 1.1 mi. W. of, on N. side of rd., 650 ft. W. of ranch rd. N. through gate, on head wall of concrete culvert; chiseled square -----	688. 97
Moore, 2.0 mi. W. of, on N. side of rd., 1,100 ft. E. of rd. junction, on head wall of concrete culvert; chiseled square -----	754. 02
Moore, 2.2 mi. W., thence 0.5 mi. NW. from, 27 ft. W. of center line of rd., 100 ft. N. of concrete dip in rd., 3 ft. W. of fence line, in sandstone ledge; standard tablet stamped "H 70 1930" -----	779. 846

⁴¹ This line crosses the southeast corner of New Fountain quadrangle but no permanent bench marks were established along that portion of the line.

⁴² Described in Sabinal No. 3 quadrangle also.

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	Feet
Reference mark, 1,063 ft. N. of tablet, on E. head wall of concrete culvert; chiseled square-----	752. 23
Moore, 2.2 mi. W., thence 1.5 mi. NW. from, on E. side of rd., on head wall of large concrete culvert; chiseled square-----	680. 27
Moore, 2.2 mi. W., thence 2.5 mi. NE. from, on N. side of right-angle turn in rd., in root on NE. side of leaning mesquite tree; copper nail and washer-----	657. 55
Moore, 2.2 mi. W., thence 3.6 mi. NW. from, 6.0 mi. SE. of Yancey, 0.8 mi. SE. of steel bridge over Hondo River, 330 ft. NW. of angle in rd., 33 ft. SW. of center line of rd., at T-angle in fence line, in concrete post; standard tablet stamped "H 69 1930"-----	640. 884
Reference mark, 360 ft. S.65°E. of tablet, in root on NW. side of mesquite tree; copper nail and washer-----	642. 30
Yancey, 5.2 mi. SE. of, on SE. wing wall of steel bridge over Hondo River; chiseled square-----	643. 22
Yancey, 4.2 mi. SE. of, 180 ft. W. of angle in rd., 80 ft. N. of center line of rd., 70 ft. SE. of shack, in root on N. side of large mesquite tree; copper nail and washer-----	675. 64
Yancey, 3.7 mi. SE. of, 81 ft. N. and 32 ft. E. from junction of T-rd. N., 11 ft. N. and 2 ft. E. from angle in fence line, in concrete post; standard tablet stamped "H 68 1930"-----	641. 053
Yancey, 2.4 mi. SE. of, on W. edge of rd. fork, 8 ft. E. of fence line, in root on W. side of leaning mesquite tree; copper nail and washer-----	631. 09
Yancey, 0.4 mi. S., thence 1.0 mi. E. from, in SE. corner of T-rd. S., in root on SE. side of mesquite tree; copper nail and washer-----	665. 06
Yancey, 0.4 mi. S. of, at jog in N.-S. rd., on S. side of rd., in line with rd. N., 10 ft. N. of fence line, in root on SW. side of 10-in. mesquite tree; copper nail and washer-----	668. 80
From point 0.4 mile south and 1 mile east from Yancey east along road 2.6 miles (by E. E. Harris in 1930; single spur line)	
Yancey, 0.4 mi. S., thence 1.8 mi. E. from, at creek crossing, on SE. corner of concrete dip; chiseled square-----	648. 57
Yancey, 0.4 mi. S., thence 2.7 mi. E. from, on N. side of rd., 15 ft. N. and 50 ft. W. from fence line, in root on NE. side of 30-in. live-oak tree; copper nail and washer-----	682. 31
Yancey, 0.4 mi. S., thence 3.6 mi. E. from, on S. side of rd., on E. bank of small creek, in fence line, in root on SW. side of small mesquite tree; copper nail and washer-----	707. 36
From point 0.4 miles south of Yancey along roads north to Yancey, thence west 1 mile, thence south 1.1 miles (by E. E. Harris in 1930; single spur line)	
Yancey, in SW. angle of junction of T-rd. W., at service sta., on NE. corner of concrete base of gasoline pump; chiseled square-----	665. 77
Yancey, about 0.4 mi. W. of post office, in SW. angle of junction of N.-S. rd., 4 ft. E. of fence line, in root on SE. side of small mesquite tree; copper nail and washer-----	664. 20
Yancey, 0.4 mi. W., thence 1.1 mi. S. from, at end of ranch rd., in front of dwelling, in root on NW. side of live-oak tree; copper nail and washer-----	688. 77
From Sabinal No. 3 quadrangle northeast along road to point 10.2 miles northeast of Friotown (by E. E. Harris in 1930; single spur line)	
Friotown, 5.6 mi. NE. of, 24 ft. NW. of center line of rd., at gate, 2 ft. S. of fence, in concrete post; standard tablet stamped "H 66 1930"-----	697. 911

	Feet
Reference mark, 268 ft. S. 60° E. of tablet, in root on S. side of live-oak tree; copper nail and washer-----	693. 94
Friotown, 6.6 mi. NE. of, on SE. side of rd., at gate, in root on N. side of mesquite tree; copper nail and washer-----	692. 62
Friotown, 7.4 mi. NE. of, at windmill, on N. side of rd., in root on N. side of mesquite tree; copper nail and washer-----	717. 98
Friotown, 8.4 mi. NE. of, on S. side of rd., 70 ft. W. of summit of grade, in root on SW. side of 10-in. oak tree; copper nail and washer-----	694. 37
Friotown, 9.5 mi. NE. of, 23 ft. E. of center line of N.-S. rd., in line with fence on N. side of T-rd. W., 400 ft. S. of ranch house, 2.5 ft. E. of fence line, in concrete post; standard tablet stamped "H 67 1930"-----	649. 401
Reference mark, 345 ft. W. of tablet, in field, in root on SE. side of large oak tree; copper nail and washer-----	641. 44
Friotown, 10.2 mi. NE. of, on E. side of angle in rd., 60 ft. SW. of shack, in root on NE. side of 24-in. live-oak tree; copper nail and washer-----	669. 02
From Moore south and east along roads about 2.5 miles into Natalia quadrangle (by E. E. Harris in 1930; single spur line)	
Moore, 1.6 mi. S. and 0.4 mi. E. from, on N. side of right-angle turn in rd., opposite house, in root on N. side of mesquite tree; copper nail and washer-----	618. 80

SUPPLEMENTAL ELEVATIONS IN SOUTH-CENTRAL TEXAS

The table below shows altitudes of well-known features in south-central Texas, such as summits and tops of rails at railroad stations, as assembled from records and topographic maps of the Geological Survey and from other sources.⁴³

These altitudes, with the exception of rail heights, which were determined by spirit leveling along the railroads, were obtained by barometric and vertical-angle measurements. The figures given are in accord with the latest information, but they are only approximate and should not be used for accurate work.

Supplemental elevations

Location	Quadrangle	County	Elevation (feet)
Agua Dulce, T. M. Ry.	Banquete	Nueces	128
Aguilares, T. M. Ry.	San Ignacio No. 1	Webb	598
Alazan, S. P. Co.	West San Antonio	Bexar	668
Ale Δ (U. S. C. & G. S.)	Zapata No. 1	Zapata	425
Alice, T. M. Ry.	Ben Bolt	Jim Wells	206
Alice East Base Δ (U. S. C. & G. S.)	Kingsville	Jim Wells	139
Alice Δ (U. S. C. & G. S.)	Ben Bolt	Jim Wells	206
Alice West Base Δ (U. S. C. & G. S.)	Ben Bolt	Jim Wells	170
Allen Δ (U. S. C. & G. S.)	Uvalde No. 3	Uvalde	1,294
Armstrong Δ (U. S. C. & G. S.)	Armstrong	Kenedy	33
Bald Δ (U. S. C. & G. S.)	Utopia	Uvalde	1,874
Banchez Δ (U. S. C. & G. S.)	El Sauz	Starr	457
Banquete, T. M. Ry.	Banquete	Nueces	84
Bateman, M. K. T. R. R.	Lockhart	Bastrop	473
Bear Δ (U. S. C. & G. S.)	Hunter	Comal	1,196
Beckmann, T. & N. O. R. R.	Leon Springs	Bexar	1,036
Beeville, S. A. & A. P. R. R.	Beeville	Bee	213
Beeville Δ (U. S. C. & G. S.)	Cadiz	Bee	331
Benavides, T. M. Ry.	Benavides	Duval	376
Benz, M. K. T. R. R.	East San Antonio	Bexar	664
Big Head Mtn.	Smithson Valley	Comal	1,465
Big Mtn.	Uvalde No. 1	Uvalde	1,155
Big Δ (U. S. C. & G. S.)	San Roque Lake No. 3	Webb	858
Bishop, S. L. B. & M. Ry.	Kingsville	Nueces	62
Black Hill	Dilley	La Salle	503
Black Hill	West San Antonio	Bexar	765
Black Mtn.	Uvalde No. 1	Uvalde	1,177
Blanks, M. K. T. R. R.	Lockhart	Caldwell	562
Blue Mtn.	Uvalde No. 1	Uvalde	1,277
Blue Δ (U. S. C. & G. S.)	Uvalde No. 1	Uvalde	1,268
Boerne, T. & N. O. R. R.	Boerne	Kendall	1,406
Borroum Δ (U. S. C. & G. S.)	Pettus	Bee	485
Brewster Δ (U. S. C. & G. S.)	San Roque Lake No. 4	Webb	796
Brownsville, S. L. B. & M. Ry.	Brownsville	Cameron	33
Bryde Δ (U. S. C. & G. S.)	Pettus	Karnes	523

⁴³ Avers, H. G., Precise leveling in Texas: U. S. Coast and Geodetic Survey Special Pub. 77, 1929; Mitchell, Hugh C., First-order triangulation in Texas: U. S. Coast and Geodetic Survey Special Pub. 189, 1935.

Supplemental elevations—Continued

Location	Quadrangle	County	Elevation (feet)
Bulverde Δ (U. S. C. & G. S.)	Bracken	Bexar	1,393
Burros Δ (U. S. C. & G. S.)	Zapata No. 4	Starr	550
Byram, T. M. Ry.	Benavides	Duval	446
Calf Hill	East San Antonio	Bexar	760
Carlow Δ (U. S. C. & G. S.)	San Roque Lake No. 2	Dimmit	831
Carrizo Springs, S. A. U. & G. R. R.	Loma Vista No. 3	Dimmit	585
Casbeer Δ (U. S. C. & G. S.)	Webb No. 3	Webb	674
Cat Δ (U. S. C. & G. S.)	San Roque Lake No. 2	Dimmit	723
Center Point, T. & N. O. R. R.	Center Point	Kerr	1,510
Central Δ (U. S. C. & G. S.)	New Braunfels	Guadalupe	660
Chinges Δ (U. S. C. & G. S.)	El Sauz	Starr	472
Choate Δ (U. S. C. & G. S.)	Bereclair	Karnes	416
Clear Fork, M. K. T. R. R.	Lockhart	Caldwell	568
Coleman Δ (U. S. C. & G. S.)	Las Tieñdas	Webb	666
Comal, M. K. T. R. R.	New Braunfels	Comal	710
Comfort, T. & N. O. R. R.	Comfort	Kendall	1,428
Corpus Δ (U. S. C. & G. S.)	Sam Fordyce No. 2	Starr	334
Cowgill Δ (U. S. C. & G. S.)	San Benito	Cameron	33
Crane Δ (U. S. C. & G. S.)	Tarpley	Uvalde	1,955
Crystal City, S. A. U. & G. R. R.	Loma Vista No. 3	Zavala	568
Culebra Hill	West San Antonio	Bexar	1,146
Cup Δ (U. S. C. & G. S.)	San Roque Lake No. 3	Webb	800
Cycamore Δ (U. S. C. & G. S.)	Uvalde No. 2	Uvalde	1,957
Dale, M. K. T. R. R.	Lockhart	Caldwell	520
Dan Δ (U. S. C. & G. S.)	San Ignacio No. 3	Zapata	566
Davis Δ (U. S. C. & G. S.)	Webb No. 2	Webb	773
Dentonio Δ (U. S. C. & G. S.)	San Roque Lake No. 2	Dimmit	822
D' Hanis, S. P. Co.	Sabinal No. 2	Medina	882
Dolores Δ (U. S. C. & G. S.)	Becerra Creek	Zapata	521
Donna Δ (U. S. C. & G. S.)	San Juan	Hidalgo	98
Dunlay, S. P. Co.	Lacoste	Medina	904
Elliff Δ (U. S. C. & G. S.)	Banquete	Nueces	102
Elmendorf, S. A. & A. P. R. R.	East San Antonio	Bexar	504
Eltoro Δ (U. S. C. & G. S.)	Sam Fordyce No. 1	Starr	311
Evanito Δ (U. S. C. & G. S.)	Zapata No. 1	Zapata	492
Falls City, S. A. & A. P. R. R.	Falls City	Karnes	308
Feora Δ (U. S. C. & G. S.)	Zapata No. 2	Zapata	456
Fieldings Δ (U. S. C. & G. S.)	Fort McIntosh No. 4	Webb	668
Fleming Δ (U. S. C. & G. S.)	Cadiz	Bee	437
Flores Δ (U. S. C. & G. S.)	Zapata No. 4	Starr	534
Floresville, S. A. & A. P. R. R.	Floresville	Wilson	389
Fohn Δ	New Fountain	Medina	1,018
Fordyce Δ (U. S. C. & G. S.)	Sam Fordyce No. 1	Starr	236
Fort Δ (U. S. C. & G. S.)	Becerra Creek	Webb	663
Fratt, M. K. T. R. R.	Bracken	Bexar	751
Fredericksburg Junction, T. & N. O. R. R.	Comfort	Kendall	1,384
Gallagher Δ	Medina Lake	Medina	1,746
Galvan Δ (U. S. C. & G. S.)	San Roque Lake No. 4	Webb	836
Garcena Δ (U. S. C. & G. S.)	Sam Fordyce No. 2	Starr	396
Garcia Δ (U. S. C. & G. S.)	Sam Fordyce No. 1	Starr	238
George Δ (U. S. C. & G. S.)	Becerra Creek	Webb	498
Goodwin, I. G. N. R. R.	New Braunfels	Comal	691
Gorgora Δ (U. S. C. & G. S.)	Mier	Starr	331
Grande Δ (U. S. C. & G. S.)	Sam Fordyce No. 2	Starr	267
Green, S. A. & A. P. R. R.	Pettus	Karnes	485
Gus Δ (U. S. C. & G. S.)	Hunter	Comal	1,059

Supplemental elevations—Continued

Location	Quadrangle	County	Elevation (feet)
Hacienda, S. P. Co.	Uvalde No. 3	Uvalde	939
Hackberry Δ (U. S. C. & G. S.)	Tarpley	Medina	1,977
Handy Δ (U. S. C. & G. S.)	San Juan	Hidalgo	88
Harlingen Δ (U. S. C. & G. S.)	Mercedes	Cameron	56
Hebron Δ (U. S. C. & G. S.)	Sam Fordyce No. 2	Starr	384
Hemkins, M. K. T. R. R.	Flatonia No. 2	Bastrop	439
Herndon Δ (U. S. C. & G. S.)	New Braunfels	Guadalupe	703
Hickley Δ (U. S. C. & G. S.)	Mission	Hidalgo	105
Hidalgo Δ (U. S. C. & G. S.)	Lyford	Hidalgo	53
Hillcrest Δ (U. S. C. & G. S.)	West San Antonio	Bexar	972
Hobson, S. A. & A. P. R. R.	Karnes City	Karnes	292
Hondo Δ (U. S. C. & G. S.)	New Fountain	Medina	882
Hugo Δ (U. S. C. & G. S.)	Hunter	Hays	1,318
Humaran Δ (U. S. C. & G. S.)	Zapata No. 1	Zapata	454
Hunter, I. G. N. R. R.	Hunter	Comal	628
Idlewild, S. P. Co.	Lacoste	Bexar	681
Iron Mtns.	Luling	Caldwell	665
Kaleta Δ (U. S. C. & G. S.)	Robstown	San Patricio	72
Karnes City, S. A. & A. P. R. R.	Karnes City	Karnes	402
Karnes Δ (U. S. C. & G. S.)	Karnes City	Karnes	461
Katherine Δ (U. S. C. & G. S.)	Armstrong	Kenedy	33
Kenedy, S. A. & A. P. R. R.	Karnes City	Karnes	270
Kenedy Δ (U. S. C. & G. S.)	Sarita	Kenedy	43
Kenilworth, T. & N. O. R. R.	Comfort	Kendall	1,451
Kennedy Δ (U. S. C. & G. S.)	Sabinal No. 3	Uvalde	953
King Δ (U. S. C. & G. S.)	Kingsville	Kleberg	125
Kingsbury, T. & N. O. R. R.	Seguin	Guadalupe	608
Kirtley, M. K. T. R. R.	Flatonia No. 1	Fayette	311
Kleberg Δ (U. S. C. & G. S.)	Ricardo	Kleberg	65
Knippa, S. P. Co.	Uvalde No. 1	Uvalde	985
Knob Δ (U. S. C. & G. S.)	Fort McIntosh No. 4	Webb	508
Koeglar Hill	San Marcos No. 3	Caldwell	670
Krueger Δ (U. S. C. & G. S.)	San Marcos No. 2	Hays	997
Kuhn Hill	Smithson Valley	Comal	1,310
Labra Δ (U. S. C. & G. S.)	Zapata No. 4	Starr	398
Lake Harlingen	San Benito	Cameron	39
Lavernia Δ (U. S. C. & G. S.)	Lavernia	Wilson	780
Legion, T. & N. O. R. R.	Center Point	Kerr	1,594
Leon Springs, T. & N. O. R. R.	Leon Springs	Bexar	1,131
Lockhart, M. K. T. R. R.	Lockhart	Caldwell	518
Loma Δ (U. S. C. & G. S.)	Zapata No. 2	Zapata	502
Lomas, T. & N. O. R. R.	Comfort	Kendall	1,373
Loredo Δ (U. S. C. & G. S.)	Webb No. 3	Webb	498
Luxello, M. K. T. R. R.	Bracken	Comal	771
Lyford, S. L. B. & M. Ry.	Lyford	Cameron	38
McAllen Δ (U. S. C. & G. S.)	San Juan	Hidalgo	122
Mamie Δ (U. S. C. & G. S.)	Mission	Hidalgo	142
Margo Δ (U. S. C. & G. S.)	Zapata No. 4	Starr	499
Mathis, T. & N. O. R. R.	Mathis	San Patricio	162
Mathis Δ (U. S. C. & G. S.)	Mathis	San Patricio	160
Maxwell, M. K. T. R. R.	San Marcos No. 2	Caldwell	605
Medina Δ (U. S. C. & G. S.)	Lacoste	Medina	1,146
Mill Creek Hills	Seguin	Guadalupe	740
Miller Δ (U. S. C. & G. S.)	Bracken	Bexar	1,020
Miller Δ (U. S. C. & G. S.)	Cadiz	Bee	237
Mirando City, T. M. Ry.	San Ignacio No. 1	Webb	753
Mission Δ (U. S. C. & G. S.)	Hidalgo No. 2	Hidalgo	176

SUPPLEMENTAL ELEVATIONS

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Supplemental elevations—Continued

Location	Quadrangle	County	Elevation (feet)
Mission Δ (U. S. C. & G. S.)	New Braunfels	Comal	970
Moleno Δ (U. S. C. & G. S.)	Zapata No. 2	Zapata	512
Monument Δ (U. S. C. & G. S.)	Sam Fordyce No. 2	Starr	244
Noonan, S. P. Co.	Lacoste	Medina	777
Norias Δ (U. S. C. & G. S.)	La Sal Vieja	Kenedy	33
Normanna, S. A. & A. P. R. R.	Pettus	Bee	272
Obi, S. P. Co.	Uvalde No. 3	Uvalde	1,036
Oilton, T. M. Ry.	Hebronville No. 2	Webb	867
Olga, T. & N. O. R. R.	Leon Springs	Bexar	1,040
Olmito Δ (U. S. C. & G. S.)	San Benito	Cameron	30
O'Neill Δ (U. S. C. & G. S.)	Beeville	Bee	191
Orvil Δ (U. S. C. & G. S.)	Webb No. 3	Webb	685
Padrone Hill	West San Antonio	Bexar	940
Palo Δ (U. S. C. & G. S.)	Hidalgo No. 2	Hidalgo	238
Pancho Δ (U. S. C. & G. S.)	San Fordyce No. 1	Starr	372
Papalote, S. A. & A. P. R. R.	Sinton	Bee	90
Peachtree Δ (U. S. C. & G. S.)	Bander	Medina	1,647
Pedro Δ (U. S. C. & G. S.)	Mission	Hidalgo	172
Pescadito, T. M. Ry.	Webb No. 3	Webb	558
Pettus, S. A. & A. P. R. R.	Pettus	Bee	298
Pettus Δ (U. S. C. & G. S.)	Pettus	Bee	446
Poteet, S. A. S. Ry.	Poteet	Atascosa	442
Poth, S. A. & A. P. R. R.	Floresville	Wilson	404
Presa Δ (U. S. C. & G. S.)	Zapata No. 4	Zapata	499
Quihi, S. P. Co.	New Fountain	Medina	834
Rafael Δ (U. S. C. & G. S.)	Zapata No. 1	Zapata	401
Raymondville, S. L. B. & M. Ry.	Lyford	Cameron	33
Red Rock, M. K. T. R. R.	Flatonia No. 2	Bastrop	483
Redoak Hill	West San Antonio	Bexar	700
Reedville, M. K. T. R. R.	San Marcos No. 2	Caldwell	566
Resaca Δ (U. S. C. & G. S.)	Los Cuates	Cameron	24
Reynolds Δ (U. S. C. & G. S.)	Banquete	Jim Wells	188
Ricardo Δ (U. S. C. & G. S.)	Ricardo	Kleberg	103
Ringgold Δ (U. S. C. & G. S.)	Sam Fordyce No. 2	Starr	177
Rio Δ (U. S. C. & G. S.)	Mercedes	Hidalgo	79
Riviera Δ (U. S. C. & G. S.)	Ricardo	Kleberg	77
Robards, T. & N. O. R. R.	Leon Springs	Bexar	816
Robbins Δ (U. S. C. & G. S.)	Rivera Beach	Kleberg	51
Robstown, S. L. B. & M. Ry.	Robstown	Nueces	78
Rogers Δ (U. S. C. & G. S.)	Zapata No. 1	Nueces	63
Roleta Δ (U. S. C. & G. S.)	Zapata	Zapata	406
Roma Δ (U. S. C. & G. S.)	Mier	Starr	434
Rosanky, M. K. T. R. R.	Flatonia No. 2	Bastrop	508
Round Mtn.	Lockhart	Caldwell	700
Roza Δ (U. S. C. & G. S.)	Sarita	Kenedy	79
Ruckman Δ (U. S. C. & G. S.)	Sample	Karnes	483
Russell Hill	Flatonia No. 4	Gonzales	525
Sabinal, T. & N. O. R. R.	Sabinal No. 2	Uvalde	958
St. Paul, S. A. & A. P. R. R.	Sinton	San Patricio	82
San Antonio, S. A. & A. P. R. R.	East San Antonio	Bexar	638
San Antonio, S. P. Co.	East San Antonio	Bexar	663
San Benito, S. L. B. & M. Ry.	San Benito	Cameron	38
San Diego, T. M. Ry.	Benavides	Duval	306
San Juan Δ (U. S. C. & G. S.)	San Juan	Hidalgo	103
San Marcos, I. G. N. R. R.	San Marcos No. 2	Hays	581

Supplemental elevations—Continued

Location	Quadrangle	County	Elevation (feet)
Sansom, S. P. Co.	Uvalde No. 3	Uvalde	931
Sarita, S. L. B. & M. Ry.	Sarita	Willacy	36
Sarita Δ (U. S. C. & G. S.)	Sarita No. 4	Kenedy	77
Saspamco, S. A. & A. P. R. R.	Saspamco	Wilson	479
Schmidt Δ (U. S. C. & G. S.)	New Fountain	Medina	1,039
Sebastian Δ (U. S. C. & G. S.)	Lyford	Willacy	52
Seguin East Base Δ (U. S. C. & G. S.)	Seguin	Guadalupe	597
Serita Δ (U. S. C. & G. S.)	Floresville	Wilson	593
Shavano, T. & N. O. R. R.	Leon Springs	Bexar	938
Sinton, S. A. & A. P. R. R.	Sinton	San Patricio	50
Skelly Δ (U. S. C. & G. S.)	Mathis	Bee	212
Skidmore, S. A. & A. P. R. R.	Beeville	Bee	159
Skidmore, T. & N. O. R. R.	Beeville	Bee	159
Smith Δ (U. S. C. & G. S.)	Leon Springs	Bexar	1,892
Solms, M. K. T. R. R.	New Braunfels	Comal	651
Somerset, S. A. S. Ry.	Poteet	Bexar	646
Southton, S. A. & A. P. R. R.	East San Antonio	Bexar	510
Spanish Pass, T. & N. O. R. R.	Comfort	Kendall	1,632
Stockdale Δ (U. S. C. & G. S.)	Stockdale	Wilson	559
Sulphur Mtn.	Uvalde No. 3	Uvalde	1,124
Sweet Home, T. & N. O. R. R.	Yoakum	Lavaca	285
Tajone Δ (U. S. C. & G. S.)	Webb No. 2	Webb	780
Taylor Δ (U. S. C. & G. S.)	Webb No. 3	Webb	668
Thomas Δ (U. S. C. & G. S.)	Dewville	Guadalupe	746
Thomas Δ (U. S. C. & G. S.)	Las Tiendas	Webb	774
Tieken Δ (U. S. C. & G. S.)	Seguin	Guadalupe	725
Tom Δ (U. S. C. & G. S.)	San Roque Lake No. 3	Dimmit	860
Tomlin, M. K. T. R. R.	Flatonia No. 2	Bastrop	534
Tordillo Δ (U. S. C. & G. S.)	Fort McIntosh No. 4	Webb	611
Tuleta, S. A. & A. P. R. R.	Pettus	Bee	311
Turcotte Δ (U. S. C. & G. S.)	Sarita	Kenedy	71
Twin Δ (U. S. C. & G. S.)	San Roque Lake No. 3	Webb	801
Union Δ (U. S. C. & G. S.)	San Ignacio No. 3	Zapata	531
Urebeno Δ (U. S. C. & G. S.)	Zapata No. 2	Zapata	449
Uvalde, S. A. U. & G. R. R.	Uvalde No. 3	Uvalde	910
Van Raub, T. & N. O. R. R.	Leon Springs	Bexar	1,372
Viva, T. & N. O. R. R.	Leon Springs	Bexar	1,091
Waring, T. & N. O. R. R.	Comfort	Kendall	1,358
Welder Δ (U. S. C. & G. S.)	Sinton	Bee	110
Welfare, T. & N. O. R. R.	Comfort	Kendall	1,389
West Point, M. K. T. R. R.	Flatonia No. 1	Fayette	300
Wiess Δ (U. S. C. & G. S.)	Berclair	Bee	360
Willis Δ (U. S. C. & G. S.)	Las Tiendas	Webb	785
Withers, S. P. Co.	West San Antonio	Bexar	636
Wood Δ (U. S. C. & G. S.)	Kingsville	Jim Wells	133
Ygnacio Δ (U. S. C. & G. S.)	San Ignacio No. 3	Zapata	516
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