Brewster COUNTY ROLLED SKETCH NO. 125

Reports of Special Surveys in Southern Brewster County

SURVEYED 1889 to 1910 BY Ammerman, Dodd & Wilcoxen

FILED 3-1-76

counter 4341

MISCELLANEOUS FILE UNDER STAIR

(3)

BREWSTER COUNTY

SURVEYORS' REPORTS

No. 15.....J. B. Ammerman Report
No. 17.....B. I. Willcoxen Report
Nos. 29-18-22-24-38-42-45-47.....R. S. Dodd Report

MISCELLANEOUS 3

J.B. AMMERMAN REPORT

BREWSTER CO.
NO.15

counter 43142

SOUTHERN PACIFIC COMPANY.

Office of the.....

.....188...

The State of Texas } This is to Certify that I J. B. Ann=
County of Brewster } merman, State Surveyor, engaged in
Resurveying the Lands of the G. H. & S. A. Ry Co. and School lands
alternating therewith, & in Block No. 9. in the Counties of
Brewster & Jeff Davis, did make the following connections
therewith, to wit.

1st. Beginning at a R. M. the N.W. Cor. of No. 27. of od. Block,
Thence N 52 W. 650 m to a R.M. the N.E. Cor. of 533 of Bl. 8. both
of said cors. established by me.

2nd. Beginning at R.M. on eastside of a branch from which Bishop's
Mitre bs S 89°55' E (Compass set at Va. 10°38 E). - pointed out & me
by R.J. Walbridge as the W. Cor. of No. 385. T. W. N. E. Ry Co. Thence
S 66°30' E 683 m to a pt. Thence N 51°01' E 16 1/3 m to a pt.
Thence N 46°57' E 514 m to a pt. Thence N 35°55' E 188 m. to a pt.
Thence N 2 1/4 W. 30 m to our pt. as the S. W. Cor. of the N W 1/4 of
Sec 10. Bl. 9.

3rd. Beginning at a R. m. on N. Slope of Mtn, made by one for the
N. E. Cor. of 45. Bl. 9. Thence N. 63° E. 1900 m to a pt. Thence S 39° E
72 m. to a R. M. from which R. M. a 3 pronged L. O. growing
among boulders mkd X bs N 48°34' W (by needle N 50°10' W) 2 1/6 m
Same being the N. E. Cor. of Sec. 1 Bl. W. T. E. 10.

4th. Beginning at a R. M. made by one on S. W. Slope of Polk's Peak
for. N. E. Cor. of 223 Bl. 9. Thence N 2 1/2 W. 2513 m. Thence S 18 W.
12. m. to a R. M. the N. W. Cor of Sec. 12 Bl. W. T. E 10. (bearing of sam
Cedar mkd X as described in field notes thereof)

counter 73143

SOUTHERN PACIFIC COMPANY.

Office of the .....

..... 188..

Certificate of Connection Page 2.

5th Beginning at a R.M. in valley made by me for NE Cor of 203 of Bl. 9. Thence N 85°02' E. 389 m. to Ea. Md. orig SW Cor of 1 Bl 10 G.H. & S.A. Ry.

6th Beginning at NE Cor of 203 of Bl. 9. Thence N 85°23' E 194 varas to a small R.M. supposed by one to be the N.W. Cor. of the J.C. Lyster survey

7th Beginning at a R.M. on E. Side of the R.R. made by me for the S.E. cor. of 174 of Bl. 9. Thence S 63 W. 1338 m. Thence S 27° E. 56 m. Thence S. 24°02' E 701 m to a R.M. of White Rock on west side of Wagon Road one Rock mkd "2A" the N.W. Cor. of 54 Block 300.

8th Beginning at a R.M. near large boulder made by me for the S.E. Cor. of 109 of Bl. 9. Thence S 27 E 56 m. Thence S 63 W. 80 m. Thence South 1689 m. Thence S 56°10 E. 245 m to a R.M. on a hill, top rock set on end, the same being the N.E. Cor of No. 8 " Mrs. E. J. L. Davidson, with 5 ngs Cedar & Oak as called for in field notes thereof.

9th Beg. at a R.M. made by me for S.E. Cor of 34 Bl. 9. Thence S 27 E 56 m. Thence S 53°30' E 1652 m. Thence S 22°30' E 437 m to a R.M. 3 ft high at foot of hill Whence a Dbl oak not mkd bears N 34°20' E abt. 200 m (orig. f.n. S 41 E 110). Oak in bed of branch [top now cut off] mkd X bears N 37°10' E 475 m. (orig. f. n. N 37 E 310). I take this to be a Cor. of the W.H. Johnson survey. (Act which see f.n. of same). and that the distances to the bearings were originally guessed at.

Witness my official signature this 16th day of April 1889.

J.B. Ammerman

State Surveyor.

counter 43144

OFFICE OF

LAND COMMISSIONER,

HOUSTON, TEXAS JUNE, 13TH. 1889

HON. R. M. HALL

AUSTIN, TEXAS,

DEAR SIR;

I SEND WITH THIS CORRECTED NOTES OF SURVEYS FROM 1 TO 224 G. H. & S. A. RY. CO. BLK. 9, IN BREWSTER AND JEFF DAVIS COUNTIES, ALSO SKETCH OF THE BLOCK AS RESURVEYED BY MR. J. S. AMMERMAN, STATE SURVEYOR, AND ALSO NOTES OF CONNECTING LINE.

PLEASE HAVE THEM EXAMINED AND THE COMPANY SURVEYS PATENTED.

YOURS RESPECTFULLY

W. V. Wilcott

CHEIF DEPT. SURVEY,

Rec'd June 15/89

counter 43145

MISCELLANEOUS 3

B.I. WILLCOXEN REPORT
BREWSTER COUNTY
NO. 17

counter 43146

H. KEMPNER,
COTTON AND BANKING.
Galveston, Texas.

(1)

4607

Galveston Texas Nov 19th 1903.

Hon John J. Terrell
Commissioner of the Genl Land Office
Austin, Texas.

Dear Sir,

Acting under your appointment to run certain connections in Brewster County, to determine the position of certain Blocks of Land, with reference to each other, I have to report that I went upon the ground on Feby 28th 1903, and commenced work at the N.W. corner of Section N° 1, Block N° 21, on Maravillas Creek.

I took the Meridian as follows:

Elongation West, Azimuth	1° 26'
North end of needle on the East, angle	11° 48'
The difference is the variation	10° 22'.

I found the rock monument, the N.W. corner of Sur N° 1 Block 21 on S.W. bank of Maravillas Creek, large water hole S. 39 E. 40 varas, and East end of Sierra Santiago bears S 39 3/4 W. about 7 miles, and the largest of three cotton woods bears N. 5 3/4 W. and a peculiar shaped peak in range of mountains East of Santiago Peak, bears S 9 1/4 W.

Thence S 45 E. crossing Maravillas Creek 2687 varas to a rock mound, the S.E. corner of said Section 1 Blk 21.

HK 1

counter 43147

H. KEMPNER,
COTTON AND BANKING,
Galveston, Texas.

(NOTE. Running on the true meridian I fell to the left of said cor, and making the correction, I found that the vernier would have to be set on 10° 13' East, to follow the footsteps of the locating Surveyor.)
Thence S 45 E. 5391 varas to a rock mound, the N.W. corner of Sec 2 Bellamy, and the S.E. cor of Section 30 Block N° 21. Thence South 1954 varas to a rock mound, cap rock mkd F, the N.W. cor of Survey N° 1 Block 225 Thence South 1923 varas to a rock mound, cap rock marked F1. for S.W. cor Sec 1 Block 225. Thence South at 1240 varas cross Boquillas Road, 1914 varas a rock mound, cap rock mkd F11. the N.W. cor of Sec 13 in Block 225. from which the East end of Sierra Santiago bs S. 83 W. Thence South at 520 varas cross Maravillas Creek, at 1920 varas a rock mound in said Creek bottom, cap rock marked F111, the N.W. corner of Sec 24. Thence East at 200 varas the West bank of Maravillas Creek, at 1060 varas Boquillas Road, at 1900 varas the N.E. corner of said Sec 24 in Block 225. Thence S. 45 E 10748 varas to the N.E. corner of Sec 10 in Block 231. Thence South 1900 varas to stone mound, cap rock marked K, for N.W. cor of Sur 14 in Block 231. Thence East 15 200 varas to point for N.E. cor Sec 13 in Blk 230. Thence N 45 E. 5374

HK2

counter 43148

H. KEMPNER.
COTTON AND BANKING.
Galveston, Texas.

varas to point for N. E. corner of Sec 5 in Block 229 and S. E. cor of Sec 32 in Block 228. Thence East 1900 varas to point for N. E. corner Sec 4 Blk 229 and S. E. cor Sec 33 Block 228. Thence N 45 E. 5374 varas to point for N. E. cor Sec 26 Block 228. Thence East 1900 varas to point for the S. W. cor of Block G 15. Thence East 24700 varas, or 13 miles to point in valley, for S. E. cor of Blk G 15. (This point as well as several others along the line I marked with small stone mounds, not as permanent corners, but for reference) Thence North 5700 varas, point for the S. E. corner Sec 40 Block G 15, put up a small rock mound to designate the place.

Took the meridian at S. W. cor G 15, or the point reached by me for said corner, as follows:

Elongation West, Azimuth	1° 26'
North end of Needle on the East, angle	11° 46'
The difference is the variation	10° 20'.

I ran the above connections, however, at the variation of 10° 13' E. as this connected all the original corners I found on Marrillus Creek.

This completed the work done by me on this trip. Previous to this time, I ran the following connections which I adopt as a part of this report.

HK 3

counter 43149

H. KEMPNER,
COTTON AND BANKING,
Galveston, Texas.

4

Beginning at a rock mound on the N.W. bank of the Rio Grande, on a high bluff above the mouth of San Francisco Creek, the N.E. corner of Sec 95 in Block G 18. Thence West at 1114 varas cut South bank of San Francisco Creek, at 9509 varas the mouth of Maxon Creek where it empties into San Francisco Creek bes N. 27 W. at 15940 varas built a rock mound 185 varas North of Section line in Block G 18. Thence South 13741 varas to point on the North bank of the Rio Grande. Variation 10° 20' East.

Acting further under your letter of Sept 3rd 1903, I returned to Brewster County, and finished the connection from Maravillas Creek to the mouth of San Francisco Creek, as follows: Beginning at the rock mound built by me 15940 varas West of the mouth of San Francisco Creek. Thence West 4425 varas to a point from which a rock monument, the cap rock marked ⊛, star with circle bes S 88 W. about 150 varas. (old corner) Thence N 60° 10' W. at 900 varas pass a little South of where San Francisco Creek enters a deep narrow box canyon through the mountains, at 1800 varas a point in bed of said Creek. Thence up the bed of said Creek as follows: N 75½ W. 576 varas; North 80° 45' W. 1647 varas; N. 63° 30' W. 650 varas; North 75° 05' W. 715 varas; S. 76 W. 300 varas; S 33 W. 372 varas; S 81° 30' W 935 varas

H K 4

counter 43150

S. 80° 15' W. 425 varas; S 55 W. 310 varas; North 64° 30' W. 478 varas; N 38° 40' W. 280 varas; S. 61° 30' W. 452 varas; N. 64 W. 774 varas; S. 85° 15' W. 432 varas; S 74° 30' W. 135 varas; N 89 W. 175 varas; N 53° 45' W. 320 varas. Thence N 21 E. (gain bed of creek at this point) 151 varas to point near Mr Horns Ranch House. Thence N. 14° 30' W. at 90 varas center of Corral, at 551 varas a point; Thence along road through Ravine, N 47° 45' W. 610 varas; N 23 W. 121 varas; N 24 W. 851 varas; N 62° W. 661 varas; N 45 W. 525 varas; N 64 W. 640 varas; N 42° 30' W. 634 varas; N 66° 45' W. 370 varas; N 52 W. 486 varas; N 73° 40' W. 528 varas; N 60° 30' W. 639 varas; N 25° 30' W. 335 varas; N 59 W 578 varas; N 70 W. over level land 6156 varas; N. 81° W. 627 varas; S 88 W. over very rough ground, at 1080 varas re enter the bed of San Francisco Creek, in all 1294 varas point in bed of said Creek. Thence up said Creek as follows: N 73 W. 816 varas; N 41 W. 547 varas; N 74 W. 286 varas; S 70 W. 775 varas; N. 77° 30' W. 182 varas; N 56° 15' W. 480 varas (From this point near Martins camp, a rock corner brs S 36 W. 362 varas, but there are no marks to designate it) S 88° 45' W. 504 varas; S 63 W. 155 varas; S 31 W 1121 varas; S 36° 30' W. 721 varas (Here the Creek turns abruptly around the point of a mountain in a North Westerly direction

towards Haymond on the S. P. R. R. near which town the creek heads. Thence West leaving the bed of the creek 393 varas to a point North of the Stone pile I erected, as hereinbefore ~~started~~ at the point for S. E. cor of Sec 40 Blk G 15. Thence South at 8322 varas pass said rock pile, at 8557 varas intersect the South line of Block G 18. I had previously flagged a direct line through from the rock pile built by me 15940 varas West of the mouth of San Francisco Creek to point of mountain West of East line of Blk G 15, and in closing my traverse line there was a very slight discrepancy, but close indeed when considering the rough country over which I ran the Traverse line, in fact, in chaining South from the extreme Western end of the traverse line, I had to go over a mountain, which in my opinion, caused the slight variance Now, according to the State Map, Block G 18 is 25 miles + 3080 varas, or 50580 varas long West from the mouth of San Francisco Creek. Add together my Westings from the mouth of said Creek 15940 + 4425 + 27251 varas, and we have a difference of 2964 varas. I have prepared and hereto attach a map in accordance with the above field notes. We made search for the rock corners called for in the field notes of Sec 40 Blk G 15, in the vicinity of where said Section would fall from the connection

HKG

counter 43152

on Maravillas Creek, and where the connection from the mouth of San Francisco Creek places Sec No 1 Blk G 18, which calls for said Sec 40 Blk G 15, also for the rock mounds called for in the field notes of Sur 20 Blk 334, Sur 19 Blk 334 Sur 1 Blk 336 and Sur No 2 Blk 336 and failed to find any of them. In our search last mentioned, several small piles or collections of rocks, apparently artificial and of some age, resembling corners, were found near our line, but nothing we felt safe in pronouncing a land corner indisputably, besides the one above noted near Martins camp. In running from the N.W. cor of Sur 1 Block 21 to East line of Block G 15, I selected the course through the valleys to avoid chaining over the mountains, also the Traverse line going up San Francisco Creek. (Variation used 10° 20' East)
In my survey down Maravillas Creek in Feby 1903, I was accompanied by W.M. Harmon County Surveyor of Brewsterlee, with M. Harrison and Robert Fuller as chainmen
In my previous work on the San Francisco Creek in January 1902, Al Burke and W. Gains acted as chainmen and Tom Stirman as flagman.
On my last survey connecting these lines in Sept 1903 Earle Green & A.G. Anderson acted as chainmen and B.R.A. Scott as flagman

HK7 counter 73153

H. KEMPNER.
COTTON AND BANKING.
Galveston, Texas.

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Mr B. R. A. Scott an attorney of San Antonio, who represents some of the owners of a part of Block A 21 in Brewster Co, Texas, was with me on both of the surveys on the San Francisco Creek.
I have also prepared and hereto attach a copy of my calculation of the Latitudes and Departures of the Traverse lines run by me up San Francisco Creek in Sept last, herein recorded, and make same a part of this, my report. All of which is respectively submitted.

B. J. Willcoxon

The State of Texas } I, B. J. Willcoxon, acting under
County of Galveston } an appointment of Hon John J. Terrell Commissioner of the General Land of the State of Texas, as a special State Surveyor, do hereby certify that the field notes herein contained are true and correct, and that all measurements were made upon the ground, and that all corners found upon the ground, are as called for in said field notes.

Given under my hand in the City of Galveston, Texas, this November 19th 1903

B. J. Willcoxon
Special Surveyor for the State of Texas

H K 8

counter 93154

H. KEMPNER.
COTTON AND BANKING.
Galveston, Texas.

Latitudes and Departures of Traverse Line.

COURSE	Distance	NORTH	SOUTH	EAST	WEST
N 60° 10' W	1800	895			1561
N 75° 30' W.	576	144			557
N 80° 45' W.	1647	264			1625
N 63° 30' W.	650	290			581
N 75° 05' W	715	184			690
S 76° W.	300		72		291
S 33° W.	372		311		202
S 81° 30' W.	935		138		924
S 80° 15' W	425		71		418
S 55° W.	310		177		253
N 64° 30' W.	478	208			431
N 38° 40' W.	280	218			174
S 61° 30' W	452		215		397
N 64° W.	774	339			695
S 85° 15' W.	432		35		430
S 74° 30' W.	135		36		130
N 89° W.	175	3			174
N 53° 45' W.	320	189			258
N 21° E.	151	140		54	
N 14° 30' W	551	533			137
N 47° 45' W.	610	410			451
N 23° W.	121	111			47
N 24° W	851	777			346
N 62° W.	661	310			583
N 45° W.	525	371			371
N 64° W.	640	280			575
N 42° 30' W.	634	467			428
N 66° 45' W.	370	146			339
N 52° W	486	299			382
N 73° 40' W	528	148			506
N 60° 30' W	639	314			556
N 25° 30' W.	335	302			144
N 59° W	578	297			495
N 70° W.	6156	2105			5784
N 81° W.	627	98			619
S 88° W.	1294		45		1293
N 73° W.	816	238			780
N 41° W	547	412			358
N 74° W	286	78			274
S 70° W	775		265		728
	HK 9	10567	1365	54 counter 43155	24987

H. KEMPNER.
COTTON AND BANKING.
Galveston, Texas.

COURSE	Distance	NORTH	SOUTH	EAST	WEST.
Forward		10567	1365	54	24987
N 77° 30' W	182	39			177
N 56° 15' W	480	266			399
S 88° 45' W.	504		10		503
S 63° W	155		70		138
S 31° W	1121		960		577
S 36° 30' W	221		177		131
WEST	393				393
		10872	2582	54	27305

Statement

Gross Northings	10872,	Gross Westings	27305
" Southings	2582	" Eastings	54
Net Northings	8290 varas.	Net Westings	27251 "

HK 10

counter 43156

MISCELLANEOUS 3

R. S. DODD REPORT
BREWSTER CO.
NO. 29-18
22-24-38-42-45-47

counter 43157

Bearing [illegible] on this [illegible]ur

NE 216 [illegible] edge Chisos
SE 215 brs [illegible]
NW 197 Monm[illegible] Willow Mt. brs N 12 05' E
SW 198 Sawmill Mt.brs N [illegible] 30'W

NE 197 Monmnt Maverick Mt.brs S21 15'W
SE 198 " Emory brs S 63 E
NW 177 Joe Black Sp.brs N 40 E 210 vrs
SW 178 Bench Mrk(2661)brs N 30 12' W

NE 178
SE 177 Mesquite 4" dia.brsN 39 E 13vrs
NW 159
SW 160

NW 140 Eight varas west of corner,
SW 139 Emory brs S 59 45'E
NE 159 W.edge of bluff on Tule Mt.
SE 160 brs S 4 05'W

SE 139 Seven varas south of corner,
NE 140 Emory brs S 56 E
SW 122 W edge of bluff on Tule Mt.
NW 121 brs S 16 15'W

SE 122 small pile of stones west 50vrsra
NE 121 from wh.Gov.monmnt brs S 85 E
NW 102 " " Emory brs S 52 50'E
SW 101

NE 215 Sharp Peak in Mexico brs
SE 214 S [illegible] W
NW 198 Maverick Mt.brs S 1[illegible] E
SW 199

NE 214 Emory brs S 58 E
SE 213 Maverick Mt.S 13 E
NW 199
SW 200

SW 201 High Point Bee Mt.brsS 25 30'W
NW 200 White streak on west face of
SE 212 Willow Mt.brs S 33 E
NE 213

NW 201 Rock mnd on edge of bluff brs
SW 202 S 15 15'W 46vrs
NE 212
SE 211

NE 202 Red Peak brs N 52 E
SE 203 Hen Egg Mt.brs N 44 W
NW 173
SW 172

SE 171 Capote bush X brs N 45 E 1vra
NE 172 X on rock brs S 71 E 2 1/2vrs
SW 166 Hen Egg Mt.brs N 55 30'W
NW 165 [illegible]
SW 138 Nick in [illegible] knob on a hill
NE 134 brs S 85 W
SE 133

NE 127 A Spring brs S 73 W 207vrs
SE 128 Monument on ChristmassMt is
NW 96 Nopth 790vrs
SW 95 East 105 vrs

counter43158

Looking at the map ,the square surveys cover a reasonably easy country.The river can be followed fairly well from the S.W.corner of 33 to the S.E.cor.39.Here the rough ,steep bluffs begin and though the resurvey followed the river to the S.E.cor.46,it was with great difficulty.The bluffs were almost impassible in places and at one point a horse fell over backwards trying to climb the trail.Fortunately the man riding was not hurt.

From S.E.corner 46 it is impossible to follow the river.The Mesa musst be reached before the lines can be run.This Mesa extends along the Grand Canon and stretches north for some six miles.There are but two possible places to get up on the mesa,one near Pajitas,on survey 39,the other,only practicable on foot,is on survey 79.

A line drawn from the S.E.cor.56 to the middle of the S.E.line of 61 would define the east edge of the Mesa,and the bluff would run from 1300 to 1600 feet in height.

a line due west from this point would about define the north edge of this mesa.

It is impossible to carry a line from the lower to the higher level except by triangulation.

Mr.McGuirk of Lajitas,reported that Mr.Thomson ,the original signer of the field notes of Blk.341,told him that he,Thompson,had not himself run the river meanders ,but had had Mr.J.T.Gano do the work and Mr.Gano had put in the corners on sur.46,and that he ,Thompson had never seen them.

Taking all this into consideration ,we would expec to find some conflict between the two parts of the survey lying in such peculiar positions that aline can not be run from one to the other.

Beside the lines and triangles we made ourselves to locate the various points in the block,we had the advantage of the U.S.monuments at the mouth of the canyon,on the Mesa ,near the corner of shr.20 Blk.17,and several in the lower part of G 12.with all of which we made connection directly or by triangles,and checked our work.

Lines run and points established.

We ran the south line of G 12 ,which is called for as the north line of Blk.341,from the original corner at Agua Frio Spring.placing the corners as shown on sketch.

The position of surveys 69 & 70 in relation to G 12,and the call for the S.W.corner 58 would seem sufficient warrant for holding these surveys in the position shown on the map.

We ran from S.W.corner 70 to the north line of sur.62.and on to connect with Blk.17. This connection showed that Blk.17 was 577 varas east of the position called for by field notes of 341.

The lines of Blk.17 had been run by me,from the Grand Canyon,and the corners had been checked on later in rerunning Blk 4,and no error found.But it had develloped that Blk 17 was on the ground east of the position on the county map.

Going into Blk.17 we checked on several of the corners and made a reading on the monument on the Mesa near the point above the mouth of the Canon,and connected the corner of 20 in 17 with B.M.2516,finding it 621.9 west and 163 north.

We then ran from the S.E.corner 63 west two miles ,to the foot of the mountains,north one mile and west three miles to S.E.98. Thence south and west to the river near Lajitas ,as shown on sketch"B".

The river was then run from the original S.E.corner 32 to original S W.COR 46,and S.E.46.identified by its fieldnotes.This run showed that the S.E.cor of 46 was 11867.4 varas south of the south line of 83,as run,and 11914.4 south of the S.W.cor 33 as above identified.That the same corner was 11704.4 east of the S.W.cor.33.

Showing an excess in northing between S.E.46 and s.b.l.83 of 637.4 vrs.
" a shortage of 645.6 in easting from S.W 33.

The run through Blk 17 from the mouth of the Grand Canyon connected with the run south from N.W.70 this Blk.showed that there was a distance of 11024.3 east and west between S.E.46 and S.E.56 ,or an excess of 167.3 varas.And a nouthing of 2709 varas,very close to the original calls.

The run west from S.W.63 and the south line of G 12,show that there is an excess of 65 varas in northing between the location of n.b.l.33 and the s.b.l.104.over the distance called for in original field notes.

1 counter 43159

The most serious errors were the 577 varas difference in easting between the square surveys and the River surveys on the east ,increased by shortage in river run to 1055 varas at S.E.cor 104.

And the 637 varas error in northing at S.E.46,reduced to zero on the east end and to 65 on the west end of the run.

In order to show the exact relation of the fieldnotes for the river meanders as compared with the actual position of the river as develloped by our survey,I have platted these on a scale of 200 varas to the inch on Plat A. and on the same plat placed a tracing of Mr.Marsh's Sketch of the run made.

An examination of Plat"A" will show that from S.W.33 to S.W.40,the original fieldnotes must have been made on the ground and the curves of the river are so peculiar as to ~~make~~ give them the value of natural objects in the calls,and hence,we think,will hold these surveys full ~~varas~~ 950 wide,and give each east line it's distance as called for and let the west line run till it reaches the river.The sketch shows what lengths actual survey will give each line of surveys 33.34.35.36.37.38.39.

Between 39 and 46,the meanders of the field notes are seriously in error and several places were found where it was evident that wrong calls had been made .It was found after numerous trials that these meanders could not be forced to fit the river as it is,also we had the shortage between 39 and 46 to account for.

From 46 to 56 the field notes as given will not fit exactly but by taking the difference in northing and southing given by the side lines and giving a proportion of the excess to each survey,the original calls will nearly fit the actual river,as shown by the U.S.Top.Map.as shown on sketch"C".

Correction of Surveys.

The above facts were partially presented to the Hon.Commissioner of the Gen.Land Office verbally and in accordance with his instructions the corrections shown in sketch "C" were platted.

The general rule was that all square surveys should hold their place as run out from G 12.

That the River surveys should hold to the original corners as found,and to any well defined and identified curves or points on the river called for in the field notes.That where the meanders did not definitely and correctly hold the surveys,that the shortage should be prorated between identified points or corners,or the excess distributed.

That the calls for Block 17,stating from the Cor of Sur.1 in Blk.16 should be maintained,as well as the connections with other surveys in this block where possible.

That the irregular surveys between the older river surveys and the square surveys,should be put in as nearly as possible in the position shown on the map relative to surrounding surveys and the calls in their own field notes, and the excess or shortage resulting from errors in the original calls prorated among the surveys affected.

In accordance with the above instructions ,the square surveys are platted from G12.

The surveys 57.58.59.60.61.62.66.67.hold their calls for Blk 17.and run out to the the river surveys and square surveys on the west.One main reason for holding to the square surveys in this connection is,that on account of the character of the surface it is possible that they were surveyed as call-for,while the irregular surveys and the north line of river surveys could not have been run continuously on the ground.

The river surveys from 33 to 39 inclusive maintain their position as given in the original field notes and hold their full 950 from the fact that the original field notes conform to the actual river round the peculiar bends shown. Each survey is run from the corner of the preceding survey ,east 950 varas according to the resurvey of the river,then north the distance called for in the field notes,then west 950 to the beginning ,the distance given to close.This makes some little difference in the position of the north line of these surveys,but fits the river on the south.

The shortage from 39 to original corner 46 is prorated and gives each survey 841 varas in width.These are platted on the river from actual survey and the east line given full distance called for.

From S.W.46 to S.E.46 survey shows an excess of 8.3 varas between original corners.From SE 46 to S.E.56 the excess is divided giving each of the long narrow surveys 15.5 varas and the shorter survey 28 varas,to equalise the acreage addition.

These surveys take their north lines from the original field notes and their distances on side lines as platted show that they will fall close to the river.The east and west points are fixed on the ground. counter 73160

counter 73162

Survey 78 lies between 61 and 80 and is so put in, taking excess south
Survey 77 is run from sur 60 to east line 47.
Survey 79 is given its distance on north line and takes exces south.
Up to this point there is no shortage east and west or north and south,
and each survey is placed as nearly as possible in the position shown on
the original map of the block.

From the west line of survey 79 to the east line of survey 41 is an en
closed space and is divided between 90 and 91. It did not seem possible to
run past the east line of 41 to get full acreage for these two surveys, nor
would it do to cut them down to an average for all the irregular surveys
beyond, as that would cut a survey in two part here part there.

In the same way, there is an enclosed space between west line 93 and east
line 36 and this is divided between the four surveys 92.97.100.101.

Survey 103 and 104 are given full acreage.

Two of the square surveys lose by intrusion of the older river surveys,
as shown. 93 loses 17 acres. 102 loses 41 1/4 acres.

The beginning calls of almost all the surveys are preserved and
in general they lie adjacent to the same surveys they show to touch on the
original map.

I think th above, together with the sketches will present the facts,
and sketch "C" will show my suggestion for the correction of surveys shown
to be in error, and enable you to suggest such changes as you may deem best.

Respectfully

R L Dodd
State Lur

Alpine. Jan 7th 1911

P.S. I attach copy of working sketch sent me.

counter 43161

ROBERT S. DOD
SPECIAL STATE SURVEYOR.

ALPINE, TEXAS, March 30 1910

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

Dear Sir,

The attached map is a Map of the resurvey of G.4.We have gone over it very carefully and I believe it is correct.

It gives the course and distance of each line either directly or on simillar adjacent or paralell lines,shows ,or states the relative position of bordering blocks or surveys,and gives the field notes of the corners in G 4 made on this survey,and corners on adjacent put in by me as State Sur. or put in by Mr.Spiller as State surveyor and identified by me on the ground also the connections with the adjacent U.S.Bench marks as found near the corners shown.

No corners distances or marks of any kind are placed on this map except as actually found on the ground,except the calls for distance of those surveys not run out but dependent on surveys actually run,in such cases the distances are calculated in accordance with the facts and field notes and plotted from known points.This is done only when a sufficient number of points had been fixed to definitely determine such distances and eliminate any possibility of conflict or error.

The area of surveys is omitted as not properly belonging to a map,and to avoid overcrowding the space,certficate numbers are omitted for the same reason.Sufficient data are given n which to base a calculation of area in every case.

I also omitted the triangles from corners to monuments by which we checked and closed our survey,as these had been reported and were part of the work but not of the result,and would have crowded the map.

The Bench marks are put in as bearings as they are permanent marks and easily found,being more prominent than a rock mound,a three inch iron pipe sticking up out of the ground some two feet is ,in the G 4 country,so unusual and unexpected an object as to readily attract attention.Each of the B.M.s has its own number and this eliminates the possibility of confusing them ormistaking one for the other.

The Map gives in dotted lines the position of G 4 surveys as shown on the county map,so as to direct attention to the change in area or relative position

It is possible ,of course that some error may have been made in copying the various distances and courses and bearings marked on the map,although it has been chacked over and none appear,any errors found will of course be corrected and any changes you may suggest can be made.

The only survey changed in any way without the approval of your office is survey 327 and its dependent survey 328.

These surveys depend on T&NORR No.4,this depends on the Reams corner and our recently completed survey shows the T&NORR No.4 to be 628 varas south and 155 ~~48 West~~ East of the position shown on the County map,leaving a strip 628 varas wide north of 328,~~and cutting~~ a little strip 155 wide on ~~off from~~ the east line of 317.

This map represents the completed survey and if you will kindly examine it and notify me of any changes to be made or of your approval if found correct,I will complete the writing up of the field notes of the individual sections in

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ROBERT S. DOD
SPECIAL STATE SURVEYOR

ALPINE, TEXAS.

accordance with it and send them in.

I would like to have two coppies(blue prints)of the map when approved to attach to the two sets of field notes when completed.

I have placed the name of my able assistant Mr.Marsh on the Map as its completion is due to his valuable assistance.

I have not burdened you with what seemed unnecessary detail in the progress of the survey,and it is possible that in doing this I may have omitted some facts necessary to the complete understanding of certain changes in some lines and surveys ,if there is anything lacking to a complete presentation of the facts ,kindly let me know and I will gladly supply the data needed.

Respectfully

R S Dod
State Sur

counter 43163

ROBERT S. DOD
SPECIAL STATE SURVEYOR.

ALPINE. TEXAS. March 30 1910

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

Dear Sir,

I attach a sketch of the Run from the Moth of the Grand Canyon to the corner of the Reams survey 554 in Brewster Co.Texas.

The point taken for a start was the U.S.Bench mark in the toe of the lime stone bluff forming the west side of the mouth of the Canyon,which point was connected with the common corner of sur 1 Blk 17 and sur 1 Blk 16,which had previously been connected with the G 4 corners.

The bed of the Rio Grande after leaving the Canyon is indefinite to limit of a quarter to a half a mile,due to the change in channel due to the floods.

The old bed is full of brush and cane and almost impassible,hence the run was made practically along the present water course.This necessitated a number of short runs and numerous turns,giving rise to increased liability to error, but it enabled us to search for and connect with some of the original Block 16 corners,and was more accurate and rapid than an attempt to cut through the brush on the upper level.At many places ,where the bluffs reach the river on either side ,the river bed has been unchanged for a long time ,no material change being possible.Several of the Corwin corners in Blk.16 were found and will be noted in the report now in preparation on the river survey.

The corner of 1 Blk 16 has field notes calling for the canyon and for the High Point of the Chisos ,and for west bank of Terlingua creek.The Canyon is absolutely definite within a limit of fifty varas,but by taking various points on the bluff the corner might be moved fifty varas one way or another.The creek has moved some 100 varas up and down since I have noted it ,some five years.

The call for the Chisos reads within 10' of that given,when you read to the monument on Emory ,but the monument was not there when the original survey was made,and you can get the exact call by shifting on th top of the Mt.

As reported in resurvey of Block 17,I found an old rock mound within a few varas of the exact position for the N.E.corner of Sur 1 in Blk 16,and S.cor.1 in 17.This was then,and has been since then recognized as the original corner and has been so accepted on the ground by myself and other surveyors and included in report of resurvey of 17 approved by your Office.

This gave a definite starting point.

On reaching the Reed place on the Rio Grande,we ran north from B.M. as shown on the sketch and found the corner of the Reams survey,a large rock mound,the calls for this corner are a large cotton wood on the river bank.There is a ~~la~~ large cottonwood on the river bank west of the Bench mark but no signs of its being marked,although the bark has been stripped from it and marks might be in the wood, grown over.it will not fit the calls exactly.The willow is not there.This corner was the starting corner for the surveys in the suit between Ed Lindsay and the Dallas people over the mine on 33.G 3.One survey was made by Mr.R.M.Hunnicutt and he accepted this rock mound as the original corner of the Reams survey.Three other surveyors were on the ground and all accepted this rock mound.There is some evidence that the trees did stand on the river bank at one time.

Running east from this rock mound atv3702 varas we reached anothe rock mound ,and 306 varas south of it another rock mound identified by its bearings as S.W.corner sur.26 G.3.these corners were also included in the mine

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ROBERT S. DOD
SPECIAL STATE SURVEYOR.

ALPINE, TEXAS.

contest and accepted by all the surveyors.

These rock mounds show the proper age,are reasonably near the true position called for in the field notes,have been known to the few people in the neighborhood for many years,have been accepted by various surveyors from evidence on the ground and corroborating runs from other points,and accepted by the resident land interests ,and so far as I know have never been questioned.So although the courses and distances are not exact I believe that these are the rock mounds originally set by the surveyors for the respective corners.The N.W. corner of ~~XX~~ 26 is well identified by the two rocks called for as bearings,both in place and both marked.I did not introduce this corner in this report as we did not run to it,but Mr.Hunnicutt described the corner to me during the trial of the mining suit some 5 years ago,and Mr.Miller repeated the same description later.

Unfortunately there was no decision by the court on the matter at issue in the suit as it was taken out of court and compromised.

In order to check on the meander line along the river,the line was rerun from the bench mark at the old Reed place south of the Reams corner,up the river to the corner of Sur 1 Blk.16.,making the U.S.Bench marks along the old river road the points of turning .

This enabled us to check the run on the U.S.map as indicated by the yellow triangles shown on the map.

The position of surveys in the T& NORR block depend by course and distance on the surveys in the BBB&CRR block this depends by course and distance on the Reams corner,as does the S.P.R.R.block.Hence according to their field notes,the footsteps of the original surveyor as marked on the ground for all these sets of surveys,began and ended with the rock mound at the Reams corner.

Figuring the triangles resulting from the runs above described shows that there is a strip 628 varas wide between the south line of sur 318.319.320 and the north line of the T&NO.blk as shown on the sketch.and I have placed 327&328 on the map in accordance with these facts.

As a matter of interest I have transferred to this sketch the Rio Grande as shown on the county map.The result speaks for itself.A comparison of the river as shown by our survey and that shown by the U.S.Map will show substantial agreement,except in one place where the river has cut a new channel recently.

Respectfully

R L Dod
Hatcher.

counter 43165

Austin, Texas, January 26, 1909.

John J. Terrell, State Surveyor,

Alpine, Texas.

Sir:-

Having appointed you on the 12th inst. a State Surveyor by virtue of authority vested in me by Chapter CXLVII of the Acts of the 30th Legislature, for the purpose of resurveying and definitely establishing upon the ground the school land surveys included in Block No. G-4, situated between the Pecos River and the Rio Grande River in the southwestern part of Brewster County, I hereby submit to you for your observance the following directions and plan of procedure to be carried out as nearly as may be found practicable.

You will identify, if possible, the original northwestern corners of sections Nos. 254 and 255. Measure the connection between those two corners, and from one of them produce a traverse line eastwar d to the northeastern corner of Section No. 1. Prepare field notes of the traverse line and submit them to me for inspection. I will then give you further directions in regard to the construction that must be given the surveys that intervene between north-south lines passing through the two extreme original corners heretofore mentioned. While awaiting further directions you may employ your time by working east and south according to course and distance calls given on working sketch, from the northeast corner of No. I. According to a report of R. S. Dod, dated May 10, 1906, filed in this office, you will find the north-east corner of No. 1, in a position 652 varas south from the southwest corner of Section No. 83, Block No. 9, H. & T. C. Ry. Co., as re-surveyed by Geo. Spiller. Consequently there will be a vacant strip 652 varas wide, not shown on working sketch between the south line of Block No. 9 and north lines of sections 2 to 8 inclusive, of Block No. G-4. There will be a corresponding conflict between sections 5 to 8 inclusive, Block No. G-4, and Block No. 10, H. & T.

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C. R. R. Co., as re-surveyed by Dod. Block G-4 must yield to Block No. 10.

You may also work in the northwestern part of Block G-4 by measuring course and distance north and west from the northwest corner of section No. 255. From that original corner the western line and northern line of the block may be established and corners on the line running north from the northwest corner of No. 255.

In the event you should not be able to identify the northwestern corners of Nos. 254 and 255, or either of them, you will have to construct the entire block by course and distance from the northeast corner of No. 1.

When you shall have completed your field work you will bring with you to this office your field data and prepare to be filed a report, plat, and correct field notes in deplicate.

For your use and guidance I am sending under a separate cover by mail a copy of the original file covering the larger portion of Block G-4, a blue print working sketch made up from original field notes, a blue print plat of Dod's re-survey of Block No. 10, showing connection with the northeast corner of Section No. 1, Block G-4 (Gana's Spring), and a blue print map of south half of Brewster County. You will notice upon the working sketch that sections Nos. 1, 65, 254 and 255, are all that have corners described by field notes. You might possible identify the southeast corner of No. 65 by the bearing on the rock monument called for in field notes. It would be well to search for it. Should you identify it, it should be included in the connecting line you are to report. Corners should not be established farther apart than three miles; you may find that the topography of the ground and other circumstances may require them closer in some instances.

Yours truly,

Hunnicutt/Nolen Commissioner.

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Rec'd-GLO. 11/23/21 - Clark

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Report on a Resurvey

of certain sections in Blks 218,219,332,233,240
T.& S.L.Ry.Co.& Block 332 T.C.Ry.Co.Brewster Co.
and connecting lines run between original
corners found and identified.
by R.S.Dod,
Licensed Land Surveyor.

See Report filed 9-26-21

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

Dear Sir,

Following the suggestions in your favor of Oct.20,1921,I went on the ground with Mr.W.M.Harman County Surveyor ,and made the following survey.

We went to a rock mound on the south side of a draw,in a grease wood flat,one large rock on the mound was marked "M",as called for at the S.W.cor sur 14 in Blk 240 T.& S.L.Ry.Co.in Mr.Thompsons original field notes.

The draw is full of white brush which runs from 10'to 20' high and is so thick as to be almost impenetrable.We came to it from the north and managed to worm our way through sometimes crwling,but it would be impossible to set up an instrument or to chain across the draw,except at certain points where the brush narrowed owing to the gravel hills approaching on either side.

To attempt to cut through the brush for 1/2 mile would be a days work. Consequently we ran a traverse around the brush to points where we could xx cross. This brush extends all the way up the Chalk Valley for 15 miles and more. This will account for the apparently erratic course of our survey.

Judging from what old settlers tell me,there was very little of the white brush or grease wood at the time Mr.Thompson made his original survey,and Chalk Valley was a wide level valley running from above San Diego Peak in a south easterl direction toward the Rosillas,then spreading out eastward toward Bone Spring.

Mr.Thompson has a base line,some 2 miles long,through Blk 218 on the south foot of San Diego.He has a meridian line of corners running south by Persimmon Gap and Bone Spring,and then turning west to the Rosillas and up Chalk Valley N.W.to the San Diego Base line.

It was this line of corners from the Rosillas up the Valley to the base line that we were attempting to find.

Starting then at this "M"corner from which Black Peak (U.S.Top.) or Table Land Peak (Mr.Thompson) bore N 35° 30'W,reading on a sharp pinacle on the east edge of the Table Top,at a variation of 11°45'E. At the S.E.cor of sur 24,diagonally opposite the "M"corner Mr.Thompson calls for Table Pk. N 36° 15'W,corroborating the original location of the above described "M" cor.

We ran a traverse to a point 1384 varas east and 396 north of "M" and tied on to U.S.B.M.2850,which was found 81.5 north and 383 west of this point.

The "L" cor ,S.W.14,has washed away,but in a recent survey we located it S 15° 30'W 525 varas from B.M.2850.which would place this location 28 varas south and 47 west of course and distance from "M".

From this point on our traverse,396 N.& 1384 W.of "M",we ran North 3404 and west 516 vrs west and made a rock mound for N.W.11 Blk 240,

Thence we ran North 1900 and found the "K"corner N 12° 30'W 115.5 vrs.This "K"cor S.W.35 Blk 333 was close to a dagger in some brush and apparently had not been disturbed since it was first made.

From "K"we ran north 1875 varas and reached the "X"corner,N.W.35,with the rock monument as bearing,standing as called for.Black Peak bears N45° 55'W

The next corner north calls for a stake and a Hackberry bearing.It is in the brush,so we turned N.xx 45°W and ran 2688 vrs and made mound forN.E.27, On N 45°W 2688 made mnd for N.W.cor 21.fr wh Black Pk bears N 45° 45'W(needle)

Thence North 1856 varas and east 55 varas to a gravel mound for N.W.16 This mound is on a gravel ridge,no large rocks anywhere near,and has every appearance of age,and the Pinacle on Table Pk.stands N 54°W,Middle of top of peak N 54° 15'W.

From this N.W.cor 16 we ran N 45°W 2669 vrs and S 36° 2 27 varas to an old rock mound on north slope of an iron hill for the N.W.cor sur 8 Blk 233.

Mr.Harmon had been to this mound some 18 years ago and recognized it as an old mound then and occupying the same position on the hill now that it did then.

From this rock mound we set a course N 45°W which ran between Mr.Rixons house and the windmill east of the house,and hit close to the projecting angle of the 200'bluff that borders the valley on the west.

We had to run a traverse to keep out of the brush,but set a flag on line near the corner and ran N 45°W 472 vrs to a point in the flat,on reversing at this station the needle read N 45° 25'W.

Our traverse ,given on the Plat,reached a point 42 north and 26 west of the N.W.cor of sur 6 Blk 233.We ran south 42 vrs and east 54 X varas to a small gravel hill at the edge of the brush and it took 2 hours to cut out the re-

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maining 84 varas through the brush. The original call is for an earth mound with one rock marked "XII", This rock has been searched for several times but has never been found. Near our point at the edge of the brush we found a small mound which Mr. Harmon had placed there some 18 years ago.

Under the brush at this point the ground is cut by water drains some two feet deep, and in other places the earth is banked up round the brush a foot or more. It would be impossible to make any satisfactory search in the brush except for a few feet on either side of where one stood. We did search at various points where an error in chaining or in course might have thrown the corner, but unsuccessfully. We set a 4' iron pipe by course and distance from the rock mound at S.W.6 or N.W.8 and another pipe and rock mound on the small hill 42 varas west of the corner.

Later we went to the N.W. cor sur 8 and ran east, at 917 varas we passed 53 varas north of B.M.3123, on 1900 to a point near a drain. The old corner mound had disappeared but the bearing on the mouth of Raven Canyon fit the original call, and Black Pk. bore N 64° 30' W.

We now went to the "H 11" corner N.W.14 Blk 218. Mr. Harmon had been to this corner before, and showed us the rock mound on the west bank of a small draw or canyon, with the old "H11" rock. A fence has been built over this corner, running north and south. This corner is one mile south of the "H 10" corner N.W. cor sur 11 Blk. 218, which is one of the corners in the San Diego base line with bearing on the Peak.

I had run through on this base line some years ago and found the corners as described, but irregular as to both course and distance. The last corner marked is N.W.11, but we ran on two miles east and reached within a few varas of a rock mound said to have been set by Mr. Moss for the S.E. cor 1, and then ran north a mile to look for the rock mound called for at N.E.1. This distance took us up on one of the spurs of the Peak amid rocks and boulders of all shapes and sizes but we found no rock mound.

See Rolled Sheet #5

As Mr. Harmon had run from "H10" to "H11" before we did not make this connection again, his recognition of the location of the mound, and its appearance and the old marked rock identified it.

B.M.3478 is 187.6 vrs south and 1.7 vrs east of this "H11" corner but on checking its position on the Top. Map with the "YE" peak and other topographic marks it seems to have been placed on the map some 180 varas too far north.

We wanted to run a SE course from the "H11" corner but had to dodge the brush. Our traverse is given on the map.

When we reached a point 804 varas west and 746 varas north of S.E.1 Blk 219 we ran east 804 to the Block line ran south 746 and made mnd for S.E.1 returned to line monument and ran north 1154 varas and made mnd for N.E.1, on north 1900 varas made mound for N.W.23. While running this line north we could see where the fence which runs over Moss's S.E.12 hits the spur of San Diego Peak where the N.E. cor 1 Blk 218 should be and our line closed nicely on my former run to that point.

We took bearings on the "YE" Peak, a small sharp peak, the most northerly on the east edge of the "YE" mesa and on Black Peak from the various points which check fairly well on drafting and on the Top. Map.

We ran two miles east from the S.E.1 Blk 219 and set mound for the N.E. cor 30 Blk 332 T.C. Thence south 624 varas and made mound for S.W.26, on 1276 varas made mound for S.W.30. This line missed the three wells to the west by only a few feet and our S.E.30 was within about 2 varas of a small mound set for this corner by Mr. Harmon years ago.

From S.E.30 we ran south 780 and placed a rock mound for the S.W.31. From this S.W.31 or N.W.32 we attempted to run a diagonal S 40° 30' E but found that on the latter part of the line a front reding of 40 1/2° gave a back reading between same points of 46 1/2° so we returned to the flag set 42 varas west of N.W.6 Blk 233 and ran a traverse one mile north for N.W.31 Blk 232, ran west 1756, returned to our N.W.32 Blk 332 and ran south to this line reaching it at 1772 varas, which places the N.W. cor sur 31 B.22 652 varas south of the S.W. cor sur 33 Blk 332, and 284 varas north of the SE cor sur 32 Blk 332.

The calls of the field notes place S.E. cor sur 59 Blk 332, 27474 varas south of "H11", This survey measures the distance from "H11" south to a point 220 varas south of "M" as 27478 varas.

Our measured distance from "M" north to N.W.6 Blk 233 is 17106 varas north, and 9465 varas west, a shortage of 35 varas.

The connection between "M" and B.M.2850 and the connection formerly made between the approximate location of "L" and the same B.M. shows that the N.E. cor 1 Blk 335 as located in a former survey from supposed location of "L" is by course and distance from "M" 28 varas too far south and 38 1/2 varas too far west. and by the call for S.E.59 Blk 332 it is 35 1/2 too far west and 4 varas too far south.

In the run from "M" through Blk 240 and Blk 233 up to N.W.21 no local shifting of the needle was noted, up to this point there are few hills in the valley. North of sur 16 the igneous dykes and intrusions are continually increasing, and the country rock is badly shatered and convoluted, and the

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shifting of the needle was frequent and serious.On the west line of 16 it shifted some 2° to 3° in places,particularly near a red hill about half way on the line. On the hill of black rock ~~xxxx~~ at S.E.6 Blk 233 the ~~x~~ needle shifted at every fresh setting. And on the hill near middle of 32 Blk 332 it shifted 5°.The average reading of the needle north of Blk233 would be a degree less than the reading on the same course in Blk 240 and lower part of 233.

We used the chain in measuring distance,and checked by placing flags on lines and corners and using Black Pk. and "YE"Pk for triangulation points.

The courses and distances check out nicely on the U.S.Nine Points Quad. When you pass to the San Diego Quadrangle,you at once run into the magnetic change and the San Diego base line plats nearly a degree less variation than the lines on the nine point map.

This would seem to imply that the course of the west line of Blks 218,219,220,221,would ~~as~~ based on the San Diego base,diverge to the west running south,as compared with the course of the west lines of Blocks 240,233,232 as based on the corners in those Blocks.

We had no opportunity to take an observation of the north star on this survey,but on the survey recently made to locate sur 1 Blk 335 on Sep 20 the Solar Meridian was 1°35'to the right of our line between corners on which our needle read from 11°45'to 11°48'E.

The average mag.var. given on the topographic sheets are ,I think,calculated and not actual readings through the quadrangle mapped,as they do not fit the sudden shiftings and reversions of the needle in this country.

The following are the details of the various traverses run:

From "M"

S 69°20'W 645,N 51°W 202.2 ,N 73°05'W ~~175~~ 311.5,N69°15'W 180.4, (needle reading back to flag on "M"S 87°15'E) N 39°30'W 175,N 12°W 217, (to B.M.2850 S78°W 392) North 1504,North 1900,West 516 to N.W.11 Blk 240.

From S.E.6 Blk 233,N45°25'W 472,West 306,N 46°30'W 430,N 49°45'W 1372, North 425,South 42,East 96,to N.W.6.

From "Hill", S 45°E 367,N 86°E 96,S 69°E 120,S 48°E 259,S 40°E 204,S37°E 480, S 38°E 416,S 41°30'E 395,S 45°30'E 1206,S 43°30'E 796,East 804,South 746 to S.E.1 Blk 219.

From N.W.6 Blk 233, West 42,N 62°W 235,N17°30'E 168,N 15°30'E 158,N 18°30'E 156,N 21°E 98,N22°W 159,N 11°E 848, North 260.4,West 29 ,to N.W.31 B.232.

The following bearings were taken at the various corners reached on the survey.

From "M",S.E.cor 14.Blk 240,South Bluff Nine Points Mt N 75°15'W W
Pinacle on Table Land(or Black)Peak,N 35°15'

N.W.cor sur 11,Blk 240,
Sharp Boulder on peak N 8°45'W,
Monument ~~at~~ Persimmon Gap N 62°05'E,

N.W.35 Blk 233 (X corner) Sharp Boulder on peak N 10°10'W
Pinacle on Table Land Pk.N~~x~~ 45°55'W.
Mon.at Persimmon Gap N 78°E,

N.W.27,Blk 233, Mon.at Persimmon Gap N 87°25'E
Sharp boulder on ridge N 3°15'W,
Pinacle on Black Pk N 45°45'W (Needle reading)

N.E.17 Blk 233 (old corner) Table Land Peak (middle of flat top) N 54°15'W
Pinacle on " " " N 54°W,

N.W.6 Blk 233,an iron pipe from which another pipe with rock mound round it,on low gravell knoll,bears west 42 varas,from which latter pipe
Pt of hanging rock in middle of cave in bluff bears S 84°W
East edge ledge on east slope Butter Bowl Pk.bear S 0°45'W.
Mon.Persimmon Gap bears S 70°30'E.

N.E.30 Blk 332,Tree on little round hill on "YE"Mesa bears N 15°E
Flat boulder on slope of ridge N 84°E

S.E.30 Blk 332,Base of large Boulder marked "X" bears S 9°W 23.5 varas.

N.W.32 Blk 332,Boulder N 0°15'W ,Pinacle Black Peak S 54°W,
S.W.30 Blk 232,Pinacle on Black Pk.S 88°45'W,East rim ButterBowl S 3°25'W.
S.E.30 " Yellow point bears East,Small sharp peak bears South.

counter 13120

S.E.1 Blk 219, a rock mound at foot of hill.
N.E.1 " " , Rock mound on ridge, Middle of conical hill bears North
"YE" Peak brs N 66° 45'E

N.W.23 Blk 332 , rock mnd on slope from which "YE" Peak brs N 84° 30'E
Table Land Pk. S 9° 45'E.

All which is respectfully submitted for your consideration.

R L Dodd

Licensed Land Surveyor

Alpine Tex Nov 18. 1921

counter #3171

(22)

Report on Resurvey of Block G3
Brester Co,Texas
by R.S.Dod ,State Sur.

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

Dear Sir,

I am forwarding herewith a sketch showing the position of survey lines in Blocks G3 & G2 as determined by the resurvey,in order to submit for your decision the question as to the proper position of these surveys under the facts as develloped by our resurvey.

In order that the matter be properly presented as a whole I will include certain matters already referred to you in reports of progress.

The object,method and authority ,of the survey have been already stated.

Course. The only point not definitely settled in the earlier reports,was that of course.

We find the original S.E.& N.W.corners of survey 27,G3,well identified on the ground.A solar meridian at this point,showed that the line between these two corners was originally run 1°08' west of the true north, which reads at prsent,10°22'E,giving a present variation of 11°30'E for the original work in Block G3.This variation fitted the line between the two corners and also the bearings given at S.W.corner sur.27.

These being the only well defined trees which we could find of the original work seemed to settle the question of Course and the work of the resurvey was put in at 11°30'E.

We found considerable local differences in needle readings at various points in the Block,but stated our Transit lines by the solar and carried the same variation through the block,noting divergence of needle from the normal,where observed.

Note. The bearings at the corners are given as read at time of observation in order that they may be checked on by anyone from the corners without having to make any calculation as to local changes.Hence these bearings are not reliable as angular measurements.

Starting Point. (This has already been referred to your decision in Report of progress,but the facts are repeated here as they have a direct bearing on the other questions to follow).

The N.W.corner of Sur.1,in Blk.G3,calls for a rock mound.
Mozart Spring,in bunch of willows
N.W.Cor.Sur.555,McN.Harris.

The field notes of adjacent blocks show that the older surveys on the ground are Reams 554,McN.Harris 555,S.Dunman 556.made by same surveyor at same time.Except that Dunman field notes are called a resurvey and these date later than the original.

We find the S.E.&S.W.corners of 554 on the ground and the original corners of 27 G3,as tied to them by Mr.Gano.

We find S.W.Cor.556 on the ground as called for on line of Blk.10 by Mr. Spiller,and where Mr.Gano ties sur 69 G3.

We could find no existing trace of the N.W.Cor.555 to which Mr.Gano ties sur 1 G3.

We ran Course and distance called for at Dunman corner for the N.W. corner 555,found nothing. 966 varas on south and 475 varas west is a point near Glen Spring ,about 200 varas SE of which point witnesses stated they had seen a marked cottonwood tree,since seen it has been washed away.We found 4 otwds near this point,none marked.Four dead trunks lay on the ground,found no mark on them.The size of standing trees is too small now to have measured as call gives them at time of survey.Witness atated that he had seen a rock set in the ground near this point.No rock was found.We found three rock mounds,north of this point 60 to 150 varas.One of them was recent ,marked B,and made by Mr.Bird.The other two appeared to be triangulation monuments and witness stated he had seen them and they were ~~xxxxxx~~ made long after survey of 555.

The other bearing at N.W.555,is for "San Vincente",presumably the old Fort plainly visible on the Mexican side of the Rio Grande and used as a bearing at Cor.of 1,Blk 18.The reading of the needle on the course from the point above described to the Fort,shows that the point is much further west than it should be to fit this call.

counter #3172

As shown above this point by the marked cottonwood does not fit the call given by their common surveyor for the corner of 556,nor does it fit the original corner of sur.1,G2,which fits the Dunman,nor does it fit the old Cor ner of the Willow Springs survey which is the oldest corner on the ground and connects with Dunman and Cor.1 G2,nor does it fit,by half a mile the corner of Sur.50 in G 17,identified by the sulphur spring below the mouth of the Tornilla on the bank of the Rio Grande,with which Mr. Gano connects S.E.corner 54 G2,and as Mr.Gano ties G2 & G3 to the mcNara Harris N.W.555,

The only evidence in favor of this corner is the testimony of credible witnesses that they had seen a marked cottonwood tree near Glen Spring. They state that they did not know at the time that it was a bearing tree, nor had it ever been pointed out to them as a bearing tree.But when search was being made for a marked cottonwood they simply stated what they had seen.Glen Springs was an old cow camp and there is no evidence as to who marked the tree nor where it actually stood,stump and all is gone.

We could find no traces of this N.W.Cor 555,on the ground and we could not reach the cottonwood point from any of the original corners we did find.

Hence we abandoned any attempt to locate Sur 1 G3 by the call for N. W.555.

The other call at N.W.sur.1 G3 is for a rock mound with bearing on Mozark spring.

We saw a number of old settlers familliar with this part of the country and also those now resident there.None of them could identify a spring by that name.Had never heard of it except in connection with these field notes.The principal springs near there had local names,'the Roost','Glen Spring','Juniper','Fresnal','Sopressa',etc.

We were shown a rock mound consisting of five rocks on the edge of a draw,which had been shown to Messrs Hunnicut and Miller about five years ago by a Mexican,who stated that it had been shown to him by a surveyor, but long after the original survey was made.

We found this rock mound proper course and distance from a small sprin but there were no willows at this spring,though it was in a bunch of brush This spring had no local name.About half a mile NE was a small spring with some willows,and SW anther small spring.

This rock mound was not at all like the other Gano corners and was 429 varas too far north to connect with the original corners of 27,and the connecting calls for the S.P.block on the west.

We searched carefully for the original Gano rock mound set for N.W.1 G3 at a point course and distance from the Dunman corner, course and distance from the point at marked cottonwood at Glen Spring, course and distance from the Reams survey and corners of 27,but found no trace of it.

This corner is called for on the bank of anarroyo,so we searched the banks of all arroyos within the circumference of half a mile but found nothing except a rock mound put up by Mr.Hayes some 5 or 6 years ago.

Hence we had to abandon the attempt to locate the N.W.corner of Sur.1 G3 from the original calls as we could not identify them on the ground.

(This matter was reported more in detail in report of progress).

Note:We were furnished ,by the Ge.Land Office with a copy of Mr.Gano's field notes of a connecting line between N.W.cor.555 and S.E.cor.554.

We checked on this line hoping to reach corner of 1 G3,but the line does not reach that corner and is apparently purely a preliminary line.

The meanders of this line when traced on the ground fits the draws and hills if stated about where course and distance would place the N.W.cor 555 but if started at the cottonwood point would run over an almost impassible bluff instead of through a pass to the north where a plain trail runs.

It fits the surface nicely south and west near the Reams corner.

In view of the facts above stated we adopted as our starting point the well identified corners of survey 26 G3.

These corners are identified by the bearings given at S.W.26,and the con nection with the Reams corner. They have been examined and accepted by several surveyors and by parties to a suit over boundary in G3,and have never as far as I know,been called in question.

From this point we put in the surveys in G3 by course and distance.

In order to check on our base line I ran with my instrument from the S.W.Cor.33 to S.W.cor.27.Meandering round the rocky ridge on 29 & 30, I then had my Assistant ,Mr.Marsh run with his instrument and other rodmen, from the S.W.27 to S.W.33 and put in corners.In running this line we found a row of corners a little north which had been put upand marked. they had been run from about the same point on the east and the first two miles agreed with our measurement,but when they reached the rocky and broken country they began to fall behind with their surface chaining and were 21 varas short at S.E.27.

counter 43173

Other rock mounds and marks found were reported in detail in report of progress.

On this base line we had three prominent monuments in sight which gave good triangles with survey lines as bases. And as these monuments were also in sight from other corners they gave good checks on the work, as shown in field notes. We also had the advantage of the U.S. Bench Marks in this part of the block, with which we connected adjacent survey corners. As these B.Ms. are on the roads they are easily found and from them our corners can readily be reached.

We then ran a meridian through the block from the S.W.Cor. 59 to the N.W.cor. 69, and on along the west line of sur 7 in Blk. S.P.1, on to connect with the S.E.Cor. 6 Blk 10 as established by me as state surveyor and reported to the Gen. Land Office.

We found the N.W.Cor 7 S.P. to be 674 varas west and 390 varas south of the S.E.cor Blk 10, instead of in conflict as shown on Co. Map. This meridian was found to pass 1900 varas east of the pile of 5 rocks described above as shown by Mexican, but our corners are 429 varas south.

As noted we had run from the Dunman corner East to N.E. 119 G2, thence south along E.B.L. surs 11 & 22 G2, and on to Glen Spring. I now went to S.E. 22 as thus located and ran west and south to the 5 rock pile. I then had Mr. Marsh run with a change of men and instruments from the point at marked cottonwood to the N.E.cor Sur 1 G3, and connect with my line as a check on distance as the position and area of surveys on east line of G3 depended on the accuracy of these measurements.

The position and acreage of these surveys are the main points requiring settlement to which I would draw your attention, as all other surveys simply take their 1900 varas square course and distance. But surveys 69.70.71, 72.73.74. are irregular and under the conditions existing their calls are contradictory and can not all be satisfied.

The facts are as follows.

Sur. 69.

Calls to begin at N.E.7 S.P.1, & run west to E.B.L. Blk. 10, but ~~xxxxxxx~~ the cor S.P.1 is actually soth of Blk. 10 and a west course will not reach it. To accomodate these calls I ran west until south of the S.E.cor blk 10. Thence north to Dunman cor, east to 119, south and east wit 119, all as called for. Thence south- if we give this survey its call on the west, soth from the cor S.P.1 then on the east we must run south 3855 1/2 varas so that a west course will reach that point, and if we are to run over to the line of G.2. as called for then it is west 674 varas instead of 480 varas.

I did not see how I could break the calls for adjacent surveys when I could reach them without intruding on other surveys, so I preserved these cross calls where possible, and preserved the courses of lines and sacrificed distance. This will put 1078.4 acres in this tract.

Please let me know whether you approve of this construction, and if you find it incorrect please let me know how it should be run, and I will make out the field notes accordingly.

Sur. 70,

I have followed the same construction with survey 70 as with 69, giving it ~~xxx~~ the distance called for on the west in its own block and making distance give way to course and the connecting calls for G2. This puts 1086.4 acres in this survey. Not far from a balance with 69.

Surs. 71 & 72.

I have again given these surveys their distance on the west and ran them over to G2. putting 693 1/2 acres in each.

Sur. 73,

I have given this survey its distance along contact with its own block G3, and overrun to reach calls for G2. Putting 746 1/4 acres in the tract.

Sur 74. I have indicated the two positions of this survey. The one giving it its 2603 varas on the south and stopping it before it reaches G2 on a call for distace at 1387 varas, but in accordance with my understanding of your ruling in simillar cases, we can not break a plain call for connection and must run on to the south line of G2, 957 vars further. Putting 1080 3/4 acres in the survey.

If you will kindly over the above statement and instruct me as to how these surveys are to be constructed I will make out the field notes accordingly.

There are as far as I know, no corners fences or signs of residence or appropriation of land, or designation of boundary on any of these lines.

There is a pasture fence running approximately east and west through sur 69, but it is simply a division fence for stock purposes and is not near, or claimed to be on any survey line. It is owned by Mr. Walker, who stated to me that he did not intend it to define boundary.

The only claim to have established boundary in the block, of which I know anything, was an attempt to settle the line between 33 & 34, This was taken into District Court, but was compromised later out of court. The line

counter 4317

between these surveys as run by us from the original corners on the west is within a few varas of the compromise line between the parties.The claimant of mining title on 34 has since abandoned his claims.

The only other point of importance was the location of the west line of sur 66,relative to the Spring at the Roost.If the point at the marked cottonwood were taken as the true N.W.cor 555,and the call from it were held good,the Roost spring would be just over the line on 65,but the house and a part of the running water would be on 66.Mr.Walker had a line run showing this and was occupying the house as on his State land 66.But the line run either from the 5 rock pile,or as we ran it fro m the corners of 26,will p put spring and house and part of the little garden on 65.We ran the line through the field and put in the N.W.Corner of 66 to settle this matter. Mr.Walker accepted this line,or at least made no protest.

I had intended running from the corner of 59 to the river,and from the cor of 62 to the River to show its position relative to the south line of G3,but it was too hot to work on the river.We made some triangles and checked on the Topographic map with sufficient accuracy to show that there is plenty of land for the surveys between G3 and the river as shown by the out line of river on the sketch.

The River from the point south of Sur 62 G3 runs on the ground far south of the position shown on the County Map,between that point and the Reams survey.I make a separate report on this.

Respectfully submitted

R L Dod

State Surveyor.

Alpine,Texas
July 15 1910

counter 13175

Report on a Resurvey of Block 10, Brewster Co. Texas, Originally granted to the H & T. C. Ry. Co.

(18)

Object of the Survey. To mark the boundaries of the surveys in Block 10, H & T. C. Ry. Co., as defined by the original grant.

Authority. This survey was made by me, (R. S. Dod) as State Surveyor appointed Jan. 18, 1905, as provided Title LXXXIX Chapter 1, Revised Civil Statutes of 1895, Article 4261.

Notice of approval of bond and letter of instructions from the Hon. Commissioner of the General Land office dated Feb. 7, 1905.

Field-Notes: The original survey of Block 10 was made in March, 1878, by C. E. Miner; a re-survey of this block was made by Mr. Geo. Spiller, Jan. 1889. According to Mr. Spiller's field notes, he marked the corners on the east side of the block only. These corners I find in place with one exception, the S. E. corner of sur. 6. This corner is described as a "stone mound on the 2nd bed of a branch." This branch has washed out and widened of late years, and the rock mound marking the corner had disappeared, probably washed away, but the bearings given, with course and distance from N. E. cor. 6, made it easy to replace the rock mound in its original position.

The lines and corners other than those on the east line of the block, have no marks given in the field notes, but call for course and distance, connecting with one another and with the marked corners on the east.

Starting Point: The original Miner survey of Block no. 10 calls to begin at the N.W. cor. Sur. 38 of Blk. 19, G H & S. A. Ry. Co., the S. W. cor. Sur. 37, same block, and the S. E. cor. Sur. 22 Blk. 9, H & T. R. R. Co. The original field notes of Blk. 19, G H & S. A. Ry Co. do not give any marks at the N. W. cor., Sur. 38, but the block calls to build up by course and distance from Sur. 1, one corner of which is described by certain marks, natural and artifical.

Mr. Spiller re-surveyed Blk. 19, and the field notes of

counter 43176

this re-survey describe the beginning corner of Blk. 19 by identically the same marks given by the original surveyor. Mr. Spiller's field notes recite that he then, from this original beginning corner, built up the block on the ground by course and distance, marking certain corners, among others the N.W. corner of sur. 38 and S.W. cor. of sur. 37; and he also resurveyed Blk. 9, H&T.C.R.R.Co. and his plats and field-notes show that he also made the S.E. cor. of 22, Blk. 9 to coincide with the N.W. cor. Sur. 38, Blk. 19, as did the original surveyor. This common corner I find on the ground as placed by Mr. Spiller, and identified by the marks given in his field notes "a stone mound in a cañon at the foot of a hill," and further identified by finding one mile north of it the corner described by Mr. Spiller as the N.E. cor. Sur. 22, Blk. 9, where I find the old rock mound and both the bearings called for in his field notes.

These marks identified the rock mound in the cañon as the N.W. cor. 38 and S.W. cor. 39, Blk. 19, and S.E. cor. 22, Blk. 9 and N.E. cor. Blk. 10, according to Mr. Spiller's resurvey, and his field notes identify it as the point called for by the original survey of Blk. 10 for its beginning corner and hence was the starting point for my work.

Course. The East line of the block having been marked and being an extension of the East line of Blk. 9, the question of course was very simple. The country being smoother and more open along the east line of Blk. 9, I ran from the N.E. cor. sur. 4, Blk. 9, to the S.E. cor. 22; found all the corners but one and found the line to run at a variation of 11° 27' East, Mr. Spiller's field notes called for 11° in 1889, C.E. Miner for 11° 15' in 1878. I find very little local attraction in Block 10. I found the average reading on true north to be 10° 18' E.

Distance. Owing to the broken and mountainous character

of the surface of Block 10, the problem of measurement was a difficult one. Precipitous bluffs from 500 to 1500 feet high and deep ravines, impassable except at certain places, made continuous lines for more than 1 or 2 miles in the same direction impossible. Bases could be found for small triangles to cover 500 to 1500 varas distance but larger triangles could not be used from the fact that long bases could not be measured with accuracy, and the points of peaks visible at one end of even a short base, were frequently hidden by other peaks from the other end of the base. Also the peaks were so high above the bases that opportunity for error in reading the angles from failure to exactly level the instrument, was very great.

The broken surface not only prevented continuous lines, but prevented closing in the usual way, hence extra care and exactness were required as it was difficult to check one measurement from another and so detect error.

There is only one place where it is possible to run across the block. This is from North line 24 to South line 18.

The mountains are impassable from east to west.

The topographical maps attached to this report will show the conditions.

I used stadia measurement, checked by the chain where possible and by some triangles and readings on prominent peaks and monuments. I used two rods, double target rod in front, self-reading rod as back sight.

I had the rods held perpendicular to the horizon and read the angles of depression or elevation at the instrument, making deduction for the angle of rod and inclination of surface. The wires were set to read 1 in 100 from centre of instrument and all distances under 50 varas measured with chain. Instrument and rods were checked frequently

on stakes set 200 varas apart at camp.

I began work at the N.E. cor. Sur. 1 as above described and ran the north line of the block putting in corners every mile.

I ran this line twice. I then went to the S.E. cor. of 41, Blk. 9, where there is a corner marked by three witness trees, and ran South Two miles and 81 varas and reached the North line of Block 10, at 140 varas west of the N.W. cor. of 13, failing to close on Blk. 9 work by 140 varas E & W. and 81 N & S. I then ran 1 mile north from N.W. cor. of 34, Blk. 10, (the N.W. corner of the block) and 6007 varas West, reaching a point 36 varas South of the S.W. cor. of 83, Blk. 9, failing to close by 307 varas E & W and 36 N & S.

To check on this I ran across Block 9 on Spiller's line of corners, as follows:

I ran North 1920 to N.W. 83 found it on

East 1912 to a point

East 1921 to a point 47 varas S. of S.W. 64, found cor. O.K.

On this line at 2601 varas East of N.W. 83 needle read 8° to the west of north. I could see N.W. 83 from this point, and my line was straight.

N 45 E. find cor. N. 1883 East 1969

from N.E. 64. I could see the ravine in which I had made N.W. cor. Blk. 10. It was S 2°20' E or 235 varas E of a due South line, where it should have been to close.

I ran on East 1937 varas found corner O.K.

" " 1933 " " "

" " 1925 " " ". From this corner I could see Pulliams house and the line from S.E. cor. 41 which I had run south. This was nearly due South.

I ran on E. 1932 varas and found corner O.K.

" " 1952 " " " "

" " 1943 " " " " with Mesquite bearings.

counter 43179

Total excess across Block 9 by this measurement was 324 varas.
The excess between N.W. Blk. 10 and S.W. Blk. 9 was 307 a difference of 17 varas in 9 miles.

The run across Block 9 is over comparatively level ground, only one high hill to cross, although there are many ravines which would bother the chainmen, and much cactus and low brush.

I ran south from the mesquite corner, N.E. 2 Blk. 9, 1922 varas to N.E. cor. Sur. 1 Blk. 9, 1945 varas to N.E. 22 and 1916 to S.E. 22 Blk. 9, and N.E. cor. Blk. 10, an excess of 83 varas.

Having carefully tested my measurements I was satisfied that I was correct and that we had properly located the North line of Block 10 by course and distance from the starting point and that the measurements in Blk. 9 were excessive.

I next tried to run the west line of Blk. 10, or locate some corners on it. It was inaccessible from the north or west.

In Oak cañon there is a perpendicular bluff 300 feet high and you cannot pass over or around it on foot or any other way. I therefore ran the east line of 25 and tried to reach the S.W. cor. of 26, but could get only within 280 varas of it. The place where the corner should be is on an inaccessible peak some 600 feet above the line. I placed a rock mound on the South boundary line of 26, 280 varas east of the S.W. cor. and marked it as a witness mound.

I ran a traverse up the cañon to a ridge near the middle of sur. 27 and marked a tree as standing 750 varas North of a point in the South line of 27, which point is 960 varas West of the S.E. cor. of 27.

I returned to a point on this traverse from which I could run West and placed a witness mound on the west line of sur. 27, 607 varas South of the N.W. cor. of 27. I ran on West and put in the N.W. cor. of sur. 32 on the block line. This was in what is called "green gulch", a basin some 1½ miles in

counter #3150

diameter, emptying into Oak Cañon, with no exit except where we came in. I could see the monument on Mt. Emory from this point, and made several readings to locate it with reference to block line and section corners. It was very easy to locate it S & W. It stands 217 varas west of the block line, but the exact distance South was more difficult to ascertain. I placed it 363 varas south of the N.W. cor. of sur. 30, which checks out with measurements made later from other points. These readings are given on sketch.

We tried to get south from here but could not. We went around and climbed Mt. Emory only to find that the peak was so precipitous that we could not stand where the line crossed and could make no measurements. But we got readings here on Rummel Peak, Pulliam's house and Lost Mine Peak. I now went to the East line and located the Spiller corners, From S.E. cor. 3, I ran west two miles; and north one mile, and ran one mile South from S.W. cor. 4, putting in corners. I tried to get to a corner near Lost Mine Peak but spent two days without accomplishing anything satisfactory.

Running South from N.E. cor. of 6, I readily found the place in the branch where the Spiller corner had been, and replaced it.

I then ran west four miles, putting in the corners on the South line. I then ran from S.W. cor. 7 to N.W. 7, then West to N.W. cor. 18. I tried to get to N.W. 19, but it was impracticable. I then ran a traverse up the cañon to North line of 20, put in N.E. cor. 29. I ran on up the cañon and placed a rock mound 167 varas North of the middle point of N. line 28 and ran on to the tree mentioned above as marked to stand 750 north and 10 varas west of Middle of South line of sur. 27. I came out 27 varas too far east and 20 varas too far north. As this error is to be distributed over the long

traverse through the block, some 7 to 8 miles, I considered it within the limits of closing and did not rerun the lines.

I attach sketch showing lines run and corners made and connections with Blk. 9, and location of Spiller corners; also the location of certain easily identified peaks and permanent water. This, with the field notes, will, I think, enable anyone to readily find the section lines at least with sufficient accuracy to determine location of timber, grass, water, etc.

As far as I have seen or heard reliably, the Chisos Mountains contain no valuable mineral, at least not on the surface, or in quantity. I have seen no specimens of valuable ore brought from the Chisos.

I attach to this report as a part of it, the U. S. Geological Survey Topographical Map of the Chisos quadrangle, on which I have platted Blk. 10 according to the survey just made. This topography will better explain the conditions under which the survey was made and the difficulty of getting about over the lines, than any verbal description.

I find this map very correct, at least it fits my measurements and triangles nicely. I would respectfully call your attention to certain points wherein the topography of this U. S. Map coincides with the same points in my sketch.

(1). Points on the meridian through east side of block. Of course, the variation I found the old lines required, throws the lines of the block west of true north as the difference between 11°27' and 10°18', so the block does not run with the map meridian.

At Nevil's Spring I found 278 varas South of N. E. cor. 4, Blk. 9, that the "B. M. X" at the forks of the road was N86½° E 61 varas. The bearing of the high point on Lone Mt. from N. E. cor. Blk. 10 is N4¾° W. Rock Spring is N69¾° E

counter 43182

1900 varas from S.E. cor. Sur. 3. Spiller calls to cross a mountain (Hayes Ridge) 800 varas South of S.E. cor. 4. If you will examine these points on the U.S. Map you will find them all as called for.

(2.) Pummel Peak, the most southerly of the three dots, stands east of the west line of Sur. 2, as shown by my sketch, though it is further north.

(3.) Panther Peak corresponds in both.

(4.) The S.W. cor. 27 comes out exactly right as do N.E. 25 N.W. 25, N.W. 24.

(5.) The Bench mark at Gano Spring is N30°E56 varas from the Spring. Extend the North line of Block 10 and it corresponds with the position reached by the survey, although as I show later on we found the spring 652 varas South of where the Gano field-notes would put it relative to Blk. 9.

(6.) The N.W. cor. 32 falls in the branch or ravine in Green Gulch as it does on the ground.

(7.) And Emory Peak occupies the same relative position in the map and in the sketch of the survey.

In other words, the east line can be fixed on the U.S. Map by Nevill Spring B.M. Leonard Spring (Rock Spring) and Pummel Peak, the west line by Mt. Emory and the distance of six miles across the block, as I measure it on the ground, fits exactly the measurement between the same points made by the U.S. Topographers.

I think, under the circumstances, this is strong confirmation of the correctness of my measurements, in spite of their differing from the distances marked by the corners in Block 9.

Block G4.

In making connection between Blocks 10 and 9, I looked for the Gano corner of sur. no. 1, G4. On running

out from Gano Spring course and distance called for by the field notes of Sur. 1, G4, we reach an old rock monument with a rock marked BCG4, but this is 652 varas south of the S.W. cor. of 83, Blk. 9, where it calls to be.

Running from this Gano rock mound two miles west and one mile north, we find a recent rock mound and 250 varas north and 210 varas West of this recent mound we find an old rock mound and running course and distance called for N.W. we reach an old Indian(?) monument or grave on north side of a hill. Some one had pulled it down and dug in it. This corresponds to the Gano corner of 65 G4 and would seem to confirm the corner at the Spring.

If this be the original corner of G4 then surveys 5, 6, 7 and 8, G4 will conflict with Blk. 10. But Block 10 being the older survey, I gave the matter no further attention.

On the East, the Dunman S.W. cor. is on the ground and conflicts 3 varas, according to Mr. Spiller, with Block 10.

On the South the S.P. Block shows on the County map to conflict with Block 10. But on the ground I think there is plenty of room.

The distance of the Reams Cor. from the river is 5418 varas. This corner is on the ground and a few years ago the bearings were still standing. 5418

Length of Reams survey 3494 varas

S.P. Block from Reams Sur. north to Blk 10, 15200 "

Total distance from River, 24112 varas

or 12 miles and 1312 varas.

Taking the nearest point of the River at the Reed place the U.S. Map shows very nearly 13 miles from River to Block 10.

There is a prominent rock or mound on Talley Mt. which I could see from S.W. cor. 6, Block 10, and from a point 66 varas east of the N.W. cor. 18. This gave a distance

counter 73184

counter 73208

of six miles and 570 vares South, and 2 miles and 1400 varas east, from S.W. cor: 6 to Talley Mt. The mountain is 2 1/4 miles north of the bench mark which is at the corner of one of the buildings of the camps at the mine on Survey 33, and this stands near the middle of the N 1/2 of 33. The north line of 33 was located from original corners of 26 and 27 and the S.E. cor: of Reams survey is on the ground north of the corner of 27. This checks out with the map of the Geological survey and confirms the other map measure showing plenty of room for the Southern Pacific R.R. Block between Reams survey and Block 10.

The S.P.R.R. Co. Block being the junior location I did not examine further into the matter.

Respectfully submitted

Alpine. Texas, (signed) Robert L. Dod

May 19th 1906. State Surveyor.

Correct, October 24/1906.

(signed) E. von Rosenberg

Examining draftsman

Approved, October 25/1906.

(signed) John J. Terrell

Commissioner

counter 43185

The Texas Telegraph and Telephone Co.

SUPERINTENDENT'S OFFICE

SUBJECT_____

LLANO, TEXAS 4/3/09

Mr. E. von Rosenberg

Dear Sir

I enclose a copy of the two sheets on which the work I did for the S.P. land Dept. is shown. and some other work done for J. B. Watkins and others.

I think you will find the connecting blocks interesting - I have packed all my books & can not get at the date of the Lee county 4-3-1860

ney of Blk 10. but it can be added later if necessary.

It is an interesting fact that the U.S. topography is so good that it shows plainly the 600 odd vara discrepancy between Jno. Springer cor 1.G4. & S.W. cor H+TC. 9.

and later I measured on these maps the distance between East line Blk 15 g H+GA & West line G.4 by scale & then found I had a number of triangles in 15. with ten-Egg as apex & some triangles in 94 " " " as apex & the scale reading agreed reasonably with the triangular measurement

Yours truly R.S.Dod

Brwester County Rolled Sk. 18

Re-survey of Blk. 10

By R.S Dod

Filed 10-24-06

BREWSTER CO.

counter 43187

Dodd's Report

Resurvey of Block G.4.

counter 73188

Report on Resurvey
of certain Sections of Land in Block G 4 Brewster County ,Texas,by R.S.Dod.

Object of Survey.

To determine the location and mark on the ground the corners and boundaries of Sections 89.95.125.127.129.133.137.139.161.163.165.173.175 177.199.201 and the alternate,even numbered setions of State School Land,in Block G 4.

Authority for the Survey.

Appointment as Special State Surveyor for this work by the Commissioner of the General Land Office of Texas,at the request of the J.B.Watkins Land and Mortgage Co.for the owners.

Data for the Survey.

Field notes of the original survey of Block G 4 by J.T.Gano in 1881, were obtained from the Office of the Couty Surveyor of Brewster County, at Alpine.

Certified Copies of the field notes of certain Sections were furnished by the Gen.Land Office.

Copy of the field notes of a connecting line run by Gano from the Agua Frio Spring in Blk 15 GH&SARyCo.to Sulphur Spring and Gano Spring in Blk G 4,from the records of the Gen.Land Office.

Notes of a previous survey made by me in G 4 in July 1906.

Course.

The field notes of original survey state that these lines were run by Gano in 1881 at a Variation of 11 30'E in June and July.

To find the present variation required to retrace his lines so run,we went to the S E Corner of survey 284,identified on the ground by an old rock mound at the corner and by its bearing,"a rock mound on a knob in the valley" N 66 W 994 varas".The variation required to give the above reading between the old rock mound at the corner and the mound in the valley was found to be,in July 1906 ,11 44'E ,and in May 1909 11 49'E.

One mile north the field notes call for a rock mnd and cottonwood bearing trees.Running one mile north at 11 49'E,we found an old rock mnd,but the cottonwoods had been probably washed away by erosion of the creek bank.There are cottonwoods growing alog the creek in the valley.

Two miles east of S E cor.284 is a rock mound set near a Spanish Dagger with four stems or trunks coming from the one root.Some years ago when there was a boundary suit in court in Brewster Co.involving the Gano lines in G 12,I am told that a negro who had been with Gano when he originally surveyed these lands,was brought back to identify some of the marks of the survey.The field notes make no mention of the four daggers at this rock mnd,but the negro described the corner and the dagger and then went to it and showed it to the parties interested and pointed it out as an original corner of the Gano survey.We found the line between the S E Cor 284 and the corner above described,to run at a variation of 11 49'E.in May 1909.

This variation also tallies with the variation of Gano work in Blk 15 GH&SARyCo.where Gano began his connecting line for the G 4 Blk.

Hence a variation of 11 49'E was adopted for the resurvey of lines in Blk G4,as being the variation required to retrace the footsteps of the original Surveyor.

True north by Solar meridian May 1909 at Joe Black Spring 10 17'E.

Distance.

Stadia measurement was used ,double target rod in front read by the rodman,self-reading rod behind read at the instrument,giving two readings for each distance between sets.Angles of elevation were measured at the instrument and correction made to horizontal distances.

Instrument.

A Gurley transit was used with 5 1/2" needle,engineers limb,with level vertical circle and solar attachment .

Stadia wires and other adjustments frequently tested on stakes set at camp.

Beginning Point for this Survey.

A line was run from the 'Cigar Spring Corner(orig.SEcor 284) two miles east to the NEcor.247 reaching the rock mnd identified by the negro,as above related.Thence south 1900 varas to a point on the steep north bank of the creek,thence east 1900 varas to a recent rock mnd set for SEcor 230.

Another line was run from rck mnd at NE 247 ~~xxxxxx~~ S 45 E to this rck mnd found at SEcor 230.Thence east 1900 varas to the NE cor 216 where the survey of the lands in question was begun.

county 43189

county 43190

In order to be sure that there was no conflict or shortage on the east this line was continued east from the NEcor 216,eight miles to the SE cor 65.Here we found a rock mound on the west side of a grvelly hill and from this rck mnd N 52 30'W on the north slope of a lime hill we found at 745 varas the remains of a large indian monumentset in a circle of stone.The mound had been pulled down and some one had dug a hole where it had stood.We have found several old corners pulled down in the same way and in some instances were able to learn definitely that it had been done by mexicans in search for buried treasure.This may have been the case here,at any rate the rocks had evidently been at one time piled up in the centre of the circle and later pulled down and a hole dug.

This rock mound and monument correspont to the calls of the original survey at this point,except in distance.We measured 745 varas between mound and monument,while the field notes call for 764.But the ~~xx~~ call for a 'monument' is peculiar and I do not find it elsewhere in Ganos field notes as applied to an ordinary rock mound,it seems to imply some special peculiarity ,which is accounted for by this 'Indian monument'as distinguished from a surveyors rock mound.The difference in distance inclines me to think that the corner is the original mnd, for it was easy to make a misstake of 20 varas ,whereas if the rock mound had been placed by a resurvey it would have been carefully set at the distance called for in the field notes.

Another proof of this being Ganos corner is the location of'sulphur spring' on Ganos connecting line,and the peculiar curve in his meander line at that point,as compared with the topographic features of the country. The sketch here given illustrates this.

Gano ran his line south of hill A,
and north of hill B,along the creek
to a spring of strong alkali water.
This spring would make a lasting impression
on anyone,for it is in a rock basin
and looks cool and beautifully clear,
but when you taste it it nearly takes the skin off your lips.

When we ran through in search of the corner we ran north of hill A and when you compare the rest of our course (which up to the last course was along the line of least resistance) with Ganos,you see that it is practically the same line.And on comparing with the dotted creek line on the U.S.Topographic sheet you will note the bend which both Ganos line and our line followed.I did not know when I was on the ground that Gano called for the sulphur spring or I would have tied to it.It lies a short distance north and east of the indian monument,in the creek bed.

All these points seem to me to satisfactorily prove the rock moun reached at eight miles from the NEcor 216 to be the original Gano Cor. SE cor 65.

Our first run through came out 53 varas north and some 25 varas short of the cor.But on rerunning the line we found an error of 44vrs in distance where I had stopped at one rock mnd and stated at another 44vrs east by misstake.We also found an error of 26 varas in northing in going round Dogie Mt.Where I had unexpectedly lost my long back sight and had run into an iron formation that made a divergence of the needle of over two degrees. allpwing for these errors and correcting them the line run between these old corners 12 miles apart closes fairly well.

To further satisfy the original calls we ran from SECor 65 to the NE corner of survey 1 at Gano Spring.We found an excess of 210 varas N&S. and 250 E & W.The corner here is marked by a large rock mnd and identified by the call for Gano spring S 54 3/4 W 1735 vrs,which fits fairly well.At the spring we found a U.S.Benchmark N 30 E 56vrs mrkd 3492 ft above sealevel.

This corner calls to be at the SW cor.sur.83 H&TCRyCp.Blk 9.But we found the corner of 83 620 varas north.The two corners are on the same meridian so there will be no conflict along the east line of G 4

Taking into consideration the rough surface to be measured I do not think that ~~xxxxx~~ absolutely correct measure would show any excess in dis tance between the old corners 12 miles apart east and west,so that there will be no shortage in the surveys between the meridians passing through these corners.The excess between 65 and 1 does not pertain to the object of this survey.

We began the survey of the sections enumerated above at the NE cor. ~~x~~ 216 as above located,and set a rock mound with rock marked N E 216 SE 215, From which the Government monument on Willpw Mt.brsN 12 05'E
Sawmill Mt.brs N 65 30'W
North edge of bluff at north end of Chisos
brs S 81 35'E

coiuntes 43190

nal survey but were unable to

Thence east over a flat ,cross point of mesa,along mesa and down on east side into Rough Run 1900 vrs in all to a rock mound with rock marked N E 197,S W 177,from which
Maverick Mt.brs S 21 15' W
Emory brs S 63 3
Joe Black Spring brs N 40 E 210vrs
U.S.Bench mrk brs N 30.12'W 409vrs mrkd 2661 ft above sealevel
Thence east along Rough Run & 1900 vrs to a point on the steep slope on north side of the creek for S E Cor.177,from which
a mesquite 4"in dia.mrkd X,brs N 39 E 13vrs.
Thence east along a mesa 1900 vrs to a rock mnd with rock mrkd SW 139
From a point 8vrs west Emory brs S 58 45' E
West edge of bluff on Tule Mt.brs S 4 05'W
Thence east across a draw,at
845 vrs an iron dyke on Dogie Mt.on down a draw on east side
1463 vrs to foot of Mt.
1900vrs to a rock mnd with rock mrkd SE 139,from point 7vrs S
Emory brs S 56 E
Perp.bluff on west side Tule Mt.brs S 16 15'W
Thence east at
480 vrs across Rough Run,at
596 vrs top of big black dyke,
1900vrs to a rock mnd in a deep draw,from which a small pile of stones brs west 50 vrs,from which
Gov.Monmnt on a hill brs S 85 E
Emory bears S 52 20' E

From this corner we attempted to run north to Christmas but had to abandon the attempt as the line crossed an almost impassable country.
We then returned to the beginning point N E Corner 216,
Thence north,at
359 varas point of yellow hill,at
750 vrs top of red bute,about 60 vrs west of knob.In this bute there are three prospect holes with some cinabar.
1900 vrs to a rock mnd at foot of the mesa with rock mkd NE215
Sharp Peak in Mexico brs S 11 25' W
Maverick Mt.brs S 19 E
Thence north,at
50 vrs edge of mesa,
1900 vrs to a rock mnd with rock mrkd NE 214,NW 199 from wh.
Emory brs S 58 E
Maverick Mt.brs S 13 E

From this point we ran east to determine location of Willow Spring,at 1049 vrs ran through an old house,5 feet south of north-east corner,at 1075 find the spring six varas south of the line.Returning to NE 214,
Thence north,at
296 a little yellow pointed hill at the edge of mesa,on acros a clay flat badly cut up by drains,
1900 vrs to a rck mnd with rock mrkdSW 201,NW 200,from wh.
High point Bee Mt.brs S 25 30' W
White Streak on west face of Willow Mt.brsS 33 E
Thence north,at
1847vrs edge of deep draw
1900vrs to a rock mnd in the draw,with rck mkd NW 201 fr.wh.
Rock mound on edge of draw brs S 15 15' W 46vrs.
Thence N 45 E 2687 varas to a rock mnd with rck mrkd N E 202 from which a Red Peak brs N 52 E about 500 vrs
Hen Egg brs N 44 W.
Thence N 45 E,at
900 vrs top of one of a series of high ridges running out from Wild Horse Mt.Here the line was so steep and rough we had to drop down to the valley and meander round the base,at
2687 vrs a rock mound on a rough rocky spur of Wild Horse Mt about two thirds the way up the north slope,from which
Capote bush brs N45 E 1 vara
X on a rock brs S 31 E02W1/2 vrs
Hen Egg brs N 55 30'W
Thence east,at
500 vrs reach the flat on east side of spur,on over the Christmas valley
1900vrs to a rock mound with rck mrkd N E 165 from which a
Sharp peak in Mexico brs S 16 45'W
High point of Christmas brs N 78 25' E.

We now returned to the S E Cor.139 and ran a meander line as nearly north as possible to connect with the line just run,the course of this meander line is shown by dotted line on the map accompanying this report.

coventer 13191

nal survey but were unable to do so.under

(24)

At 3800 varas north of the S E cor 139,we reached a point 97 vars east and 30 varas south of the N W Cor 123,here we made a rock mnd as it was as near as we could get to the corner,from this rock mnd
a small red peak brs N 74 W about 500 vrs
Emory brs S 47 30'E

We continued this line winding through the mountains,climbing the yellow hills and crossing and recrossing deep drains 3800 varas north where we made a rock mound for N W Cor. 125 with a rock mrkd N E 125.Part of this line was run twice a little of it three times.

Thence north 1900 vrs to a rock mound in a bush in a draw,with rock mrkd N E 135,from which
Hi h point of Christmas brs N 36 30'E
Hen Egg brs N 57 30' W

Thence north 1900 varas to rock mnd with rock mrkd NW 127,from which
Maverick Mt.brs S 26 30'W
Nick in a knob on a hill brs S 85 W

This corner was set 1900 vrs east of NE 165 as above located.
We missed it on the first run by some 17 varas and reset.

From N W Cor.127 we ran east,at 966 varas find an old shaft south 66 varas.
On around the edge of the Mt.we find the N.E.Cor 127 to be on the precipitous side of a canon,from which point
a spring brs S 73 W 207 varas
The monument on Christmas is 790 vrs north and 105 east.

Having ,as we thought,placed sufficient corners on the ground to enable any one to locate any of the surveys enumerated above,we here stopped the survey.

The accompanying map is intended to show the section lines and corners as found or established on this survey and their relation to certain prominent natural and artificial objects and the U.S. monuments and Bench marks.A number of onservations were made from points on the lines to these GoVernment monuments so that the work might be checked by calculating the resultant triangles,the courses are given on the map.

The topography was sketched in from observations made during the survey and is approximately correct,and is intended to give a general idea of the location of the principal mountains and their relation to adjacent surveys.

A correct and detailed topography will be found on the U.S.Chisos sheet. There is no realy smooth or level land at all embraced in these surveys,it is all mountainous,hilly or cut by deep draws and ravines with steep ,almost perpendicular sides.The run off is from north to south,the draws and canons empty into Rough Run.

The permanent water is noted on the map and I think shows all there is on the lands surveyed.Rough Run holds water for some time after a rain but the wate is too strogly alkaline to use.

Cinabar was found on the dump at the old shaft shown near the middle of the north line of 127.This shaft ,I am told went down some 80 feet.It went through a good vein of calcite which carried considerable cinabar.It was abandoned because it was found to be on individual and not state land.

At the point marked prospect on the south half of survey 95 is an outcrop of calcite carrying cinnabar,this vein runs toward the old shaft and may be continuous to that pointand beyond.

The indications of the presence of cinabar on surveys 127.128.95.96 & 133 are ,in my opinion very favorable,and would well pay further investigation by a competent Mineralogist.

Surveys 201.202.171.172.where crossed by our survey,both on the west of the draw and along the foot of Wild Horse Mt.showed veins of Quarz and calcite and large rusty dykes ,piercing,crossing and recrossing the country rock. This condition is of course favorable for the presence of mineral values,and I think it would be advisable to make a further examination of this part of the land surveyed.

I have been told by reliable parties that washings of cinabar have been had south from 127 as far as little Christmas.

Respectfully submitted

R L Dod

Special State Sur.

counter #3192

and the [illegible] nal survey but were unable to do so.Under these [illegible]

Brewster County Rolled Sk. 24
Dods Report & Correspondence
Re-survey of Blk. 64
(Dods letter)

counter 13193

nal survey but were unable to do

September 6, 1919.

Messrs Foster & Foster,
Suite A, Foster Bldg.,
Del Rio, Texas.

Gentlemen:

This Office is in receipt of your letter of the 2nd inst. in reference to a number of surveys in blocks 231, 234, 237 and 239, T. & St. L. Ry. Co., in Brewster County, desiring to know why these surveys appear to be short in their calls E & W as shown by the official map of Brewster County, and why the reduction in certain surveys, leaving other surveys in same block with their full acreage, etc.

In reply, beg to advise that the compilation of the present official map of Brewster County with regard to these blocks was constructed according to a re-survey of same in 1908 by R. S. Hunnicutt, State Surveyor.

The original field notes of section No. 36, block 237, T. & St. L. Ry. calls to be common with the SW corner of survey No. 1 in block G-1, D. & W. Ry. Co. and prior to the Hunnicutt survey all land office maps show these blocks that way. Mr. Hunnicutt in his re-survey shows to have found and identified the SW corner of said block G-1 about one and one-half miles west and nearly two miles north from its old mapped position. He also found and identified a number of original corners in the T. & St. L. blocks, the most eastern one of which was the NW corner of section No. 1, block 234. Comsidering the calls in the T & St L blocks for the west line of block A-1, whichis the older or superior location, it was concluded by this Office that a re-survey of said T. & St. L. blocks should be made to conform to the west line of block G-1, extended north from its identified SW corner and apportion the shortage E & W equally in all surveys westward between the west line

counter 193/194

of said block G-1, and the original NW corner of said survey No. 1, block 234, and Mr. Hunnicutt was instructed accordingly, which plan was followed out as shown by corrected field notes of surveys in said blocks now on fiel in this Office. These corrected field notes show the distance E & W in said surveys to be 1671 varas each.

Mr. Hunnicutt did not complete the resurvey of blocks No. 237, 238 and 239 and furnished corrected field notes for only the north four tiers in same, the south line of which (fourth tier) was based or established on a line projected east through the original identified SW and SE corners of surveys Nos. 19 and 20, block 239.

There being no corrected field notes on file for the two southern tiers of surveys in blocks 237, 238 and 239, same were platted on the map according to their original field notes for full acreage subject to future adjustment which accounts for the irregularities referred to.

Corrected field notes by Mr. Hunnicutt for all the surveys in blocks 231, 234, 237 and 239 mentioned by you, have been filed and approved by this Office and abstracts corrected accordingly as shown in Vol. 32 of Printed Abstracts of Texas Land Titles, a copy of which should be found in any County Tax Assessor's Office.

Yours truly,

Commissioner.

Clarke-FLB
Bexar S | 37509
| 37485-37496
| 37515 to 26
| 37623, 37629-39635

counter 143195

RS counter 43199

1687

Alpine, Texas. May 23 1912

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

Dear Sir,

I completed my report on the retracing of Ganos survey and location of his S.W.Cor.Sur.1 in Blk.G 1. and mailed it to Mr.Greiner the Attorney for Mr.Morrell, and asked him to forward it to you when he had looked it over. I find that by some accident I did not include one sheet of the report, which I enclose herewith. Will you kindly attach it to the report when you receive it.

Yours truly

R L Dod
Dist Sur.

RECEIVED
MAY 27 1912
Referred to Map

counter 143196

RS counter 43199

The position of the McN. Harris survey was [illegible] to find some trace of the origi-

General Land Office.

State of Texas.

Austin.

J.T.ROBISON, COMMISSIONER.
~~CHAS.WALKER, CHIEF CLERK.~~
J. M. MELSON, CHIEF CLERK

October 22, 1914.

Capt. R. S. Dod,
State Surveyor,
Alpine, Texas.
Dear Sir:

Your sketch and report received, and under separate cover we are returning same as per your request. Many thanks for the favor.

We are also sending a sketch showing the location of the S. W. corner of Block G-1, according to Mr. Munnicutt's connection from N. W. corner, Survey No. 1, Block 21, also showing the location of the corner where it would be according to your connection from Sue Peak and Block G-2. As you will observe, there is quite a discrepancy in the two locations. Should Block G-1 slide east and south to corner with S. E. corner of No. 36, Block 237 and close up the gap or space that is now being disclosed on our new map (South part Brewster County) as indicated in yellow on tracing plat under separate cover, this would satisfy all the surveys in Blocks 227, 228, 229, 230, 235, 236, 237 and 238, Texas & St.L.RyCo., for 640 acres each as patented; also releive the supposed conflict to the same extent of the north portion of Blocks G-15 and G18 with Blocks 334, 336 and 343 on waters of San Francisco Creek as represented on the new map of North part Brewster County, a blue print of which was sent you some time since.

If you can give us any information that would assist us in showing the true location of this corner in that section of country, it would be greatly appreciated.

Yourstruly,

Commissioner.

EvonR prw

counter 143197

RS counter 43199

5484 1888 2913 1060 3271 2124 354.6 277. 248.8 24. 1068 261
71.8 24.7 33.8 12.3 32.7 21.2 5.3 4.1 8.3 .8 38.8 9.5
5555.8 19127 2946.8 10723 3304 2145 3599. 281 247.1 25 1107.8 270.5

8 L. O. Form 25 1199-813-2m

Station	Bearing	Distance	LATITUDE North	LATITUDE South	DEPARTURE East	DEPARTURE West	D. M. D.	DOUBLE AREAS North	DOUBLE AREAS South	REMARKS
1	S19°5' E	5876		5556	1913					5303 180. 7
2	E	78			78					
3	S20 E	3136		2947	1072					1243 1007 64.5 52.2 3 2
4	S57 E	3939		2145	3304		1950 63 2330			
5	N89 E	584	10		583					1307 1059
6	E	88			88					
7	N82½ E	300	39		297					
8	N52 E	456	281		360					400.4 226.5 6 3
9	N84½ E	258	25		247					401 227
10	N75 E	78	20		76					
11	S76°10' E	1140		270	1107					1582 623 18.6 7.3
12	S71½ E	560		180	531					1600 630
13	S51 E	1683		1059	1307					
	S60½ E	460		227	401					
	S68½ E	1720		630	1600					
16	N31 W	151		129		78				
17			375	13143	12964					
18				375	78					
19				12768	12886					
20										
21										
22										
23										
24										
25										
26										

Latitude & departure from Millen Bench to S.W. Cor Blk. G1 according to R.S. Yards Connection

counter 43199

counter 43198

RECEIVED
JUL 24 1912
Referred to Map

1890

Alpine Texas, July 22 1912.

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

Dear Sir,

Under your instructions I made a survey last may to determine the location of the original S.W.corner sur.1 Blk.G1, D&W Ry.Co.Brewstr Co.and connected this corner with certain corners made by Mr.R.S.Hunnicutt in 1908.

My report was forwarded to your office showing that the facts on the ground abundantly corroborated the identification of the original Gano corner by Mr.Hunnicutt,and that his adjacent corners were found as described in his field notes.

As the identification of this corner was in my opinion thoroughly established,and as this was the main point at issue,I gave no details of our run from N.W.corner sur 1 in Blk.21 except to show that the Gano traverse was unreliable and contradictory to the facts on the ground.

Later I mailed you a copy of the figures of our traverse,which I find on rechecking was in error in calls 43 & 51 being omitted and calls 55 & 56 being confused.I am sorry these errors should have been allowed to creep into the report,but I did not check the copy as I should have done.

I will ask you to kindly substitute the enclosed field notes as a correction of those already sent in.

At the time of making the survey I had not read Mr.Hunnicutts report. I have recently gone over his report and give in the corrected field notes a comparison between his figures and ours.They seem to be very close together but some allpwance must be made for difference in variation.He calls for 11°20'E ,we used 11°30'E.

I add here the figures given me By Mr T.J.Miller of a run made by him from the N.W.cor.sur & 1 in Blk 21,to the N.W.corner Blk.G 1 connecting there with Mr.Hunnicutts corner.

Miller is	East	3102 varas,	south 1557. varas	
Hunnicutt		2977 "	427. "	short of the mile.
	excess	125	1984.	
			excess 84.	

We know there is an excess ~~xxxx~~ in both southing and easting between N.W.1 in 21 and S.W.36 in 231 from which Point Mr.Hunnicutt makes his measurement,so they are not very far apart,also some allowance for diff, in variation.Millers course was a traverse and there ~~xxxxx~~ might be some allowance for calculation of courses &c.In other words the survey on which local parties were basing their objection to the resurvey of G 1, shows that the resurvey corners are properly placed relative to original Gano corner,and so far corroborates the resurvey.

I could not very well incorporate the above in my report but thought it might be of interest to you as I presume you have had some correspondence with reference to the G1 survey and the above might help to clear matters up.

Respectfully

R L Dod

counter 43199
RS

Received May 24/1912

(42)

Report on Resurvey of certain lines in Brewster Co.Texas, to determine the true position of Block G 1.

(See Copy of Judgment in F. 12198 2 and F. 11 5859, filed 11/27/26 Clerk)

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

Dear Sir,

I would respectfully submit the following report on resurvey recently made in Brewster Co.Texas,under your instruction.

Object of Survey.

To determine the true position on the ground of certain lines and surveys in Blocks ~~14x15~~ G 14 & G 15,as dependent on the lines and corners in Block G 1,which in turn depend upon the true location of the South-west corner of Survey No.1 in said Blk G 1,as originally located on the ground by J.T.Gano the original surveyor ~~in~~ by a survey made by him during May,June & July 1881.

Authority for the survey.

Instructions issued by the Hon.Commissioner of the Gen.Land Office at he request of Mr C.E.Morrell,owner of certain lands in said blocks,in ~~x~~ letters dated Ap.25 & May 1 1912, issued to me as State Surveyor appointed Oct.10,1911 by the Hon.Commissioner of the Gen.Land Office under Article 4261,RevisedCivil Statutes of 1895,Bond and oath of Office being duly filed .

Data for the Resurvey.

~~Fix~~ Copies of original plat & field notes by J.T.Gano of the lines run by him to locate the S.W.corner of sur 1 Blk.G 1 and other surveys.Kindly furnished from the Archives of the General Land Office of Texas.

Copy of the field notes of survey 1 Blk 21 G.H.&S.A.Ry.Co.Brewster Co, from the original survey of said block by C.E.Miner in March 1878,as recorded in the surveyors Office of Brewster Co.Tex.

Copy of the field notes of said sur.1 Blk.21 G.H.&S.A.Ry.Co. by W.S. Maybry,from the resurvey ~~mf~~ of said Block 21 made by him in June 1889, From the records of said resurvey in the surveyors Office of Brewster Co

Copy of a resurvey of Block ~~21~~ G1,by R.S.Hunnicutt,State Surveyor ~~1908~~ May 1908.

Working sketch from the General Land Office of Texas ,showing part of Block 21,G.H.&S.A.Ry.Co.certain intervening blocks of T.& S.L.Ry.Co.land, Block G1 D.& W.Ry. and adjacent Blocks between it and the river.

Copy of the U.S.Topographic Map,"Chisos Quadrangle",showing certain triangulation monuments visible from points between Blks ~~21~~ G2 & G1,and giving latitude and longitude of these points.

Copy of a map of resurvey of part of Blk G 2 D.& W.Ry.Co.Brewster Co.Texas showing position of ~~sfad~~ Blk G 2 in relation to the points marked on the U.S.Top.map.

Method of Survey.

Course. Transit with compass and solar attachment was used.The meridian determined by solar observation and deflection of lines from true meridian measured by transit and checked by needle readings.

Distance. All distances were measured by Stadia .One rod in front with 3 targets set and read by the rod man,one back rod self reading and read at the instrument,giving two independent readings for each distance.The front rod was held perpendicular to the horizon by a double rod level.The back rod by a plumb bob.The rods were graduated in varas and the wires set to read 1 to 100 with a constant of .4 varas.The measurements were checked in the field with a steel 100 ft,standard tape.

All slopes were read on the vertical arc and the rod readings reduced to horizontal.

Angular measurements were made on prominent objects along the line as a check on totals of the days run,and to hold the transit line true to the meridian.

History of the survey.

Magnetic variation of original lines.

Having followed a number of J.T.Ganos lines in Brewster Co.and finding that an increase in 5' would closely follow his given variation in the/80s we adopted a var.of 11°35'East for our trial lines.This is 1°05' west of the average needle reading on the true meridian at present.

No serious local attraction was noted at any point until the neighborhood of Iron Mt.was reached;here we noted an abrupt change of nearly 10° towardthe mountain,this was confined to a small territory.

Owing to the hot days and cold nights the diurnal variation ran as high as 16'.

RS! counter 73200

Beginning Point.

Mr.Gano states that he ran a traverse line from the N.W.Corner sur. 1 in Blk.21 to the S.W.Corner sur 1 Blk.Gl,where he built a corner with certain bearings.

He also made a sketch of this line showing the topography,sketching in the hills he crossed and the hills and mountains adjacent to the line.This sketch proved to be so accurate on comparison with the facts on the ground that it was very helpful in following the original footsteps of the surveyor.

We went to the point now marked as the N.W.corner sur 1 Blk.21 and found a large rock mound on the west bank of Maravillas creek,which fitted the calls given in Maybry's resurvey,1889. His field notes are as follows;

"A rock mound on the S.W.bank of the creek,from which Sierras Santiago bears S 38 1/4° W,about seven miles,Bunch of willows bears 4 3/4° W 126 varas, Largest of three cottonwoods bears N 5 3/4° W 2400 varas,Large water hole in bed of creek bears S 39° E 40 varas,Peculiar shaped Peak ~~bears~~ in range of mountains east of Santiago bears S 9 1/4° W," "Thence east 50 varas to creek,"

The Maravillas has eroded its banks until from a small narrow stream some 15 years ago it is now in places 1/4 mile to even 1/2 mile wide.The bed has changed time and again and water holes have been filled up and new ones dug out.The bank on which the above rock mound was found is perhaps 50 feet high and made of rock and gravel not easily washed.Above this the creek has eaten into the west bank extensively at places,along the creek north are seen several ~~groups~~ groups of large cotton woods.Along the west bank above this corner lay several large willow trunks that had been washed there,and N 7° west at 920 varas found a bunch of willows old enough to have been in existence when Miner was there.

The call for the peculiar peak fits exactly,The call for the cottonwood fits in course by making it N 4 3/4° W,and I should judge them to be over a mile distant,but the call for SanDiego will not fit the mound on the mountain,but hits the foot of the mountain to the east.I note that Mabry does not call for the mountain but for the range.Mr.Maybry was thoroughly reliable and he must have had evidence on the ground at the time he was there to enable him to identify this spot as the original Miner corner,but Miner's call for San Diego is for the mountain and from Mabry's corner the mountain bears S 41 1/4° W.The monument on San Diego has been there a long time.It was there before the topographic corps went through,and has been noted by men who have lived in the country almost as early as the Miner survey.

Gano went to the N.W.cor.1 before Mabry made his corner,and presumably started from the Miner corner .To get the call S 38 1/4° W on the top of San Diego we had to move north some 500 to 600 varas,by going N 5 3/4° W 620 varas we can keep the call for the cotton wood,and get the call for SanDiego.The creek has washed out the bank along this line so that rock mound willows and water hole would have disappeared.

Taking the first call of Gano's run S 23 1/4° E 20080,and starting from the Maybry corner will throw Gano's line over the top of a high rough hill immediately west of a gap .We had to run S 24 1/2° E to get through the gap at the extreme west edge,but if you go north far enough to get the SanDiego call for a start ,then Gano's call S 23 1/4° goes right through the gap as shown in his topographic sketch.

However,as Mr.Mabry had accepted the location of his rock mound as the position of the original N.W.Cor.sur 1,at a time when there probably was evidence on the ground which has since disappeared,we started from the Maybry corner to retrace the Gano traverse.

It was our intention to follow exactly the calls of the traverse,but the brush was so dense in places along Gano's actual line that it would have been impossible to follow it without cutting out the brush,which would have reduced our rate from four or five miles a day to one.As our time was limited we selected a route near enough to Gano's to watch his course and ran down from ours to his at various points ,as shown in the accompanying sketch of the line run.

At the end of his fifth course Gano shows a diverging line which passes through Persimmon gap,and starts on a small round hill. We found a small round hill about 630 varas north and 95 varas east of the point where Gano's fifth course should end.On this hill we counted five indian graves and near the south end we found a large rock mound,different from the flat Indian mounds,which had evidently been built there by hand.From this point a course through Persimmon gap would have the bearing given by Gano for his first diverging course.

The position of this hill relative to Ganos line,the sketch of the hill on his plat and the position of Persimmon gap would seem to identify it as the point where he turned west with his new line,and confirm the idea above stated that he had started from a point some 600 varas north of the Mabry corner.

I have noted on the sketch the position of various houses ,windmills and certain points on our line from which bearings on these objects were taken as

RS 2 counter 43201

The position of the McN.Harris survey was [illegible]

a check on our run.

There were no hills ,cangons or natural objects along the line to indicate any reason for following any particular course down the valley,except the gap a mile from the starting corner and the little round hill,until we reached the seventh course.

Here we could see the draw running south east and it was evident that Gano's course was down this draw as we found it.But ,as shown in the sketch the distance called for would run up on a steep bluff at a point a little more than half way down the course.I have noted a recent rock mound with a flag in it which we could see from our line.It was on top of the bluff,some 150 feet high, and was east of Gano's line.

one point of this hill projected into the draw and we moved 78 varas east to avoid it.From this point on the line ran over one deep canyon after another, easy to run with stadia but almost impossible to chain across.

We ran on however to a point near the mountain about 100 varas north of where Gano's traverse from the Maybry corner would reach,as his calls are given.

The eighth course of Gano's is given as S 51° E.but in order to balance the calls of the traverse with the resultant which he gives from corner to corner as S 38 1/6° E 67657,must be made to read S 57° E instead of S 51° E.

I had two copies (blue prints) of the Gano traverse,one much older than the other.On comparing them I noted that Course 9 was given in the older print as S 61° E 5470 varas,while in the later it is given S 61° E ?70 varas,showing that probably the figures in the original had been blurred.This suggested the idea that the end of the seven in 57 had been blurred and left it 51.

However this may be,it was evident that whatever he ran,Gano figured S 57° E and not S 51° E to reach his point.

I set the S 57° E course and ran about 3900 varas to the top of a pointed hill.This line ran across a valley but butted right into the mountains,while to the left there was an open valley running round the mountains to the east.

Giving full distance to the seventh course throws the eighth course into an absolutely impossible moutain run,crossing one canyon in particular which is impassable for nearly a mile,the sides being perpendicular.

The topography shown by the Gano sketch shows that his line ran east of the mountains,and the general outline fits the country if you move it north far enough to missthe hills.

I had now sufficient evidence to show that there was an error in the Gano traverse,it was seriously in error.Taking the facts as to difference in the two copies noted above,and the absolutely irreconcilable conditions on the ground, it was proven unreliable,as the topography and the figures were contradictory.

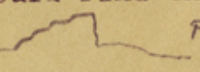
The traverse ,however was only the road to the corner,the corner itself was our objective.

The corner is thus described;"A rock mound on the north east slope of the Rio Grande Range of mountains,from which Stairway Peak,the highest visible point of said Rio Grande Range,bears S 19 1/2° W 950 varas,and the top of Iron Mountain bears N 1 1/2° E about two miles.

Looking on the sketch made by Mr.Gano the Stairway Peak is shown as a long narrow mountain running N.W. with a small high peak on which the bearing was taken, Iron Mountain is also shown,with another mountain north of it,and the contour lines of iron Mountain and the point where the two mile survey line crosses it give very nearly the point where the bearing on it was taken ,and show that there were no mountains between Stairway Peak and Iron Mountain,

When we reached a point west of Miller's ranch we were in full view of a Mountain whose profile at once suggested the name Stairway Peak,and across an open valley we could see the two black Iron mountains shown in Ganos sketch.

So exactly did the Gano topography and description fit the scene that I was pretty sure we would find the corner under this peculiar Peak.The peak shows like this,



I went back to our line where we had come off the mountain and ran S 76° 10' E to get off the slope and then turned S & E to run by the mountain about 1/2 a mile from the top and when we reached a point about 150 varas beyond the call S 19 1/2° W I stopped,and we found a large rock mound recently built up marked S W Gl.The upper part of this mound was new,but some of the foundation rocks had sunk into the ground some distance and seemed to have been in place a long time.Setting on this rock mound we were on the N.E.slope of a Range of mountains,under the highest visible point,which was a peak with an almost perpendicular face for bearing,which point was S 19 1/2° W from the rockmound;and turning north across a valley with no intervening mountains,we could see a mountain corresponding in outline to the sketch Mr.Gano gives of Iron Mountain and its top on a little mound bore N 1 1/2° E from the rock mound.I then made a small triangle to measure the distance from the peak to the rock mound and

RS 3 counter 43202

The position of the MCN.Harris survey was [illegible]

found this distance to be 1140 varas ,pretty close to the estimated 950.
The evidence on the ground was absolutely convincing and I was satisfied that the rock mound above described fitted all the calls given for the S.W.corner sur 1 Blk.G1.

But as there might be another mountain simillar to this,I ran on southeast along the only practicable route,down a draw running parallel with Stairway Pk. as shown in sketch until I crossed the divide and the water shed ran toward the river,not toward the Maravillas,reaching a point about 1500 varas north of where Ganos traverse would end if run according to the field notes from a point 600 north of the Maybry corner.We were in a narrow draw,could not see iron mountain and to run the 1500 varas south would put us up on a rough mountain.The mountains all pointed south east instead of north west as the sketch shows stairway Peak to point.The contour of the edge of the range of hills would not fit Ganos sketc The highest point visible on the mountain in front of us,would be a long backbone with no prominent object for bearing.

There was no way to get out to the Maravillas as Gano states he ~~did~~ ran from the Stairway Peak corner.

I went back to the Stairway Peak corner as described above and ran north one mile to a recent large rock mound fitting the calls given in Mr.R.S.Hunnicutt's field notes.I made readings on Black Gap and found that it fitted exactly the calls given by Mr.Gano for his run from Stairway Peak corner to the Mouth of the Maravillas.I was assured by Mr.Gus Jones ,who had cowhunted all over that country that Black gap was the only outlet to the Maravillas.Later this was confirmed by others.Gano must have gone through Black Gap,a little pass way not over 150 varas wide,and you reach Black Gap from the corner described above,by running the traverse given by Gano.

Later on we ran up to the shut up on the Maravillas,confirming the statemant that one must go through Black Gap,for the shut up makes the creek impassable.

While making the run down we took our latitude sveral times to fix the true meridian.hence we had the approximate lat itude of the corner found under the Peak.From a point near Miller's ranch we could see the triangulation Monument on Sue Peak and another on a Peak a little west and took bearings on Sue Peak.The result is shown on the sketch.Having our latitude,the latitude ~~and~~ of Sue Peak from the topographic Map,and our course from Sue Peak we could readily figure the relative position of these points.Further,when resurveying Blk.G2 Sue Peak was one of our bearings at several corners and I could therefore figure the distance north and east from Block G2 to the corner under Stairway Paak as we found it .This shows that the crner is some 7 1/2 miles north and 1 1/3 miles east of sue Peak.This fits very closely to the position of Blks G1 & G2 as shown on the county map,and their position thereon is given by the ~~two~~ location of the old Willow Springs corner and the Gano ~~xxxxxxxx~~ corner of G1.

The only item of uncertainty in this is our latitude,which could not be taken with precision with our instrument,but I think a limit of error of 1' would be ample.I beleive we were much closer than that,and 1' would make about one mile error.But this is offered simply as corroborative of the position of the rock mound we found.If correct it would show that the error in the Gano traverse was some where between the Indian Hill and the long run No.7 S 27 1/2 east 11200.

I have shown on the sketch that by shortening the distance on this run you reach very nearly the rock mound under the Peak as the end of the Gano traverse,avoid the mountains and take the probable course through the country that would suggest itself to anyone running a line.

Having satisfied myself that the rock mound above described did fit the description of the Gano corner,and finding no other point that would fit all the conditions,it seemed unnecessary to do anything more in the field as Mr.Hunnicutt had already marked corners in G 1,starting from this same rock mound,which I identified as his starting point from the field notes he gives for the corner one mile north,which we found.

All which is respectfully submitted

R L Dod

State Surveyor

RS-4 counter 43203

(Resurvey G1)

Field notes of Traverse run from N.W.cor.Sur.Blk.21
G.H.& S.A.Ry.Co.(Resurvey corner) to S.W.Cor.Sur.1 Blk.G1.

S 24 1/2°	E	1858 varas
S 26°	E	315 "
S 24 1/2°	E	1947 "
S 52° 20'	E	266.8 "
S 22° 30'	E	145.0 "
S 21°	E	274.8 "
S 20°	E	1643.8 "
S 29°	E	267.4 "
S 23 1/2°	E	236.8 "
S 77° 20'	E	172.4 "
S 30°	E	1884.0 "
S37° 20'	E	910.6 "
S 20°	E	2265.0 "
S37°	W	57.4 "
South		870.0 "
S 24 1/2°	E	2124.0"
N 81°	E	145.4 "
S 24 1/2°	E	2400.0 "
S 40° 29'	E	643.0 "
S 68°	E	2364.0 "
S 60°	E	2460.0 "
S 10°	E	1317.0 "
S 14°	W	72.4 "
S 16 1/2°	E	489.0 "
S 28°	E	67.4 "
S 35 1/2°	E	146.4 "
S 42 1/2°	E	240.0 "
S 22°	E	794.0 "
S 53 1/2°	E	366.0 "
S 5 1/2°	W	217.0 "
South		309.0 "
S 52 3/4°	E	413.0 "
S 77 1/4°	E	1306.0 "
S 46° 12'	E	1551.8 "
S 54° 54'	E	3324.8 "
S 12°	E	1947.8 "
S 27° 10'	E	1686.0 "
S 63°	E	344.4 "
S 40°	E	1467.4 "
S 22°	E	1323.4 "
S 43° 45'	E	3635.4 "
S 27 1/2°	E	1665.0 "
S 19° 05'	E	5876.0 "
East		78.0 "
S 20°	E	3136.0 "
S 57°	E	3939.0 "
N 89°	E	584.0 "
East		88.0 "
N 82 1/2°	E	300.4 "
N 84 1/2°	E	258.4 "
N 75°	E	78.8 "
S 76° 10'	E	1140.0 "
S 71° 15'	E	2244.0 "
S 60 1/2°	E	460.8 "
S 68 1/2°	E	1720.0 "
N 31°	W	151.0 "

to rock mound as above described.

June May 1912

R R Dodd
State Sur

RSS counter 73204

The position of the McN.Harris survey was [illegible] in the [illegible]. We used every endeavor to find some trace of the origi-

(Resurvey G1,Brewster Co.)

Alpine,Texas, July 22 1912

Corrected field notes of traverse run from N.W.corner sur.# 1 Blk 21 G.H.& S A.Ry.Co.(resurvey corner)to S.W.Corner sur.1 Blk G 1 (original corner).

1	S 24 1/2°	E	1858	varas	19.6
2	S 26°	E	315	"	3.4
3	S 24 1/2°	E	1947	"	21.9
4	S 52° 20'	E	266.8	"	2.8
5	S 22° 30'	E	145.0	"	1.6
6	S 21°	E	274.8	"	3.0
7	S 20°	E	1643.8	"	17.7
8	S 29°	E	267.4	"	2.8
9	S 23 1/2°	E	236.8	"	2.9
10	S 77° 20'	E	172.4	"	1.7
11	S 30°	E	1884.0	"	20.3
12	S 37° 20'	E	910.6	"	9.8
13	S 20°	E	2265.0	"	24.4
14	S 37°	W	57.4	"	.6
15	South		870.0	"	9.9
16	S 24 1/2°	E	2124.0	"	22.9
17	N 81°	E	145.4	"	1.6
18	S 24 1/2°	E	2400.0	"	25.8
19	S 40° 29'	E	643.0	"	6.9
20	S 68°	E	2364.8	"	25.5
21	S 60°	E	2460.0	"	26.4
22	S 10°	E	1317.0	"	14.2
23	S 14°	W	72.4	"	.774
24	S 16° 30'	E	489.0	"	5.25
25	S 28°	E	67.4	"	.724
26	S 35° 30'	E	146.4	"	1.57
27	S 42° 30'	E	240.0	"	2.58
28	S 22°	E	794.0	"	8.52
29	S 53° 30'	E	366.0	"	3.94
30	S 5° 30'	W	217.0	"	2.34
31	South		309.0	"	3.32
32	S 52° 45'	E	413.0	"	4.44
33	S 77° 15'	E	1306.0	"	14.05
34	S 46° 12'	E	1551.8	"	16.68
35	S 54° 54'	E	3324.8	"	35.8
36	S 12°	E	1947.8	"	20.90
37	S 27° 10'	E	1636.0	"	17.6
38	S 63°	E	344.4	"	3.7
39	S 40°	E	1464.4	"	15.76
40	S 22°	E	1323.4	"	14.2
41	S 43° 45'	E	3635.4	"	39.1
42	S 27° 30'	E	1665.0	"	17.9
43	S 27° 30'	E	1907.2	"	20.6
44	S 19° 05'	E	5876.0	"	63.2
45	East		78.0	"	.86
46	S 20°	E	3136.0	"	33.6
47	S 57°	E	3939.0	"	42.3
48	N 89°	E	584.0	"	6.29
49	East		88.0	"	.95
50	N 82° 30'	E	300.4	"	3.27
51	N 52°	E	456.8	"	4.92
52	N 84° 30'	E	258.4	"	2.78
53	N 75°	E	78.8	"	.897
54	S 76° 10'	E	1140.0	"	12.28
55	S 71° 15'	E	560.8	"	6.04
56	S 51°	E	1683.4	"	18.1
57	S 60° 30'	E	460.8	"	4.95
58	S 68° 30'	E	1720.0	"	18.5
59	N 31°	W	151.0	"to rock mound as above described.	

Total South 49709. varas
East 38558. "

Compared with Gano's figures,

Ganos total	South	East	
	53193.	41810.	varas
this sur.	49709.	38558.	"
" short	3484.	3252.	"

This survey reaches N.W.corner sur.24 Blk.231T&SL.
South 13 miles & 190 varas from NW cor 1 Blk21
East 0 " & 274 " " " "

this survey total shortage	South	East
	3484.	3252.
less excess to N.W. 24	190.	274.
shortage from N.W. 24	3294.	2968.
" " " "		
R.S.Hunnicutt field notes	3293.	2979.

This survey locates N.W.24 from three readings on the north one of two windmills,taken from points on course 35 as shown on sketch.

Mr.Hunnicutt's field notes of resurvey of Blk 231 T.& S.L. give the position of this windmill from three adjacent corners.

From these data we figure the position of N.W.24 relative to our traverse.

Mr.Hunnicutt's survey shows an excess in southing between N.W.cor 24 and S.W.36 of 35 varas,westing same for both corners.He gives distances from S.W.36 to S.W. 1 G 1.hence 3 miles & 35 varas are to be added to his southing to reach N.W.24.

R L Dod
State Surv.

RS&E county 43205

The position of the McN.Harris survey was [illegible]
and the facts given.We used every endeavor to find some trace of the origi-

Alpine ,Texas May 18 1912

Judge J.G.Greiner
San Antonio,Texas

Dear Sir,

I forward herewith my report on the work done for Mr.Morrell,will you kindly look over the plat and report and,if satisfactory,forward them to the General Land Office.

If there is any addition or further explanation necessary let me know and I will ~~x~~make the alteration.

You can have a blue print made of the sketch and a copy of the report before forwarding to the Gen.Land Office,or they will make you a copy there if you ask them to do so.

I would make the blue print here but I have no paper myself and do not wish to have others see the report until you have looked it over.

If you have no copy of the original Gano plat and field notes of his traverse,the Land Office will furnish them.The report is hardly intelligible without Gano's plat and sketch,which are part of the land Office records.

I enclose a rough trcing from the County Map of Brewster Co.to show the relative position of G1& G2,and a blue print of some work we did in G 2 which gives the position of the Sue Peak monument.

I do not lay much stress on this,but it is corroborative and good as far as it goes.

I wired you this morhing in reply to your letter as to difference betwen the Morell lands as they now hold them and the Hunnicutt survey.As I unders stand it,Mr.Morrell has been holding under a survey made by Mr.Miller who thought he had found the original Gano Corner and ran from that to locate Morrells land.But I do not know how or where Miller began his survey for Mr.Morrell ,but the only possible place as I see it is to begin at the corner where Hunnicutt began and run north,I started to do this and then came to the conclusion that as Hunnicutt had already done this and placed corners in G 1,all I could do would be to check his measurement of the 20 miles.It would be possible to make an error in that distance of 10varas to the mile as a maximum,but it did not seem worth the cost of survey to determine so small a matter,which would not seriously affect Mr.Morrellin comparison with the very serious difference between the Miller and Hunnicut surveys as I am told they stand on the ground.

I disbanded the outfit and am waiting further instructions. I wish I could talk the matter over with you.

Yours truly

R S Doak

P.S.You need not forward the blue print of G2 or the sketch from the County Map to the Land Office as they already have them.

Received May 24/1912

Mr Geo. C. Morrell
Judge J. G. Greiner
See letter from Greiner enclosing this report 5/23/12
O. Van Rensberg

R 91

counter 43204

The position of the McN.Harris survey was discussed in the report ... endeavor to find some trace of the origi-

Report of Progress of Resurvey
of
Block 341,T.C.Ry.Co.Brewster Co.Tex.

Data for survey.

Working sketch furnished by the Gen.Land Office,
Records of the Sur.Office at Alpine and Marfa.
Field notes of former surveys of adjacent Blocks
G 12,and Blk.17 G.H.& S.A.Ry.Co.Made by R.S.Dod
State Sur.and reported to the Gen Land Office.

Note.

The field notes on the working sketch from the G.L.O.differ in some important points from the records in Alpine.
viz ,they do not give the call in sur 84 for the S.W.corner of sur 58,G 12.which is given in records here.
They do not give the call for the South cor.Sur.1 Blk 16,at the S.E.corner of 56 in this block.Which call is given in rec, here.
They do not give the west line of survey 47 this block,which is given here as 3613 varas.
They do not show any call between sur 89 & 90 of this block, the call for the south line of 89 in 90 is given here.If the records here are in arror at this point it will change the construction of the surveys,as we have to extend the line of 90 some 637.4 varas to reach 89.
The river meanders on sur 33.34.35.have printed so dimly that they could not be compared with the Marfa records so the Marfa records were used,although two serious errors in copying were found in them.
There is no beginning call giveh for sur 104.It was presumed that it began on 103,but a call for the S.W.cor.of 53,or west line of 53 would be of great importance in fixing the survey if it is so given.It was not thought necessary to go to Marfa again for this point ,as sufficient evidence of the easting of these surveys is ,we think found in other calls,but unless 104 does call for 53,it might be pulled back in conflict with 53.
Twp meander calls on 38 are given a different order in working sketch from the order given here.Not important.
The second meander call on 39 is given as N27 1/2° E 304,here it is given N 29 1/2E 304.
The call from N.W.39 south to N.E.38 is given 1811,here it is given as 1611,which fits the other calls.

Note.2

The original field notes are seen to have several patent errors E.G. The east line of sur 55 is given 3721 and the west line of sur 56 is given 2884,and the difference given as 1533,should be 1437.
The difference between west line 55 and east line 54 is given as262 should be 358.
The common line of sur 37 & 38 is given in one sur as 1199,in the other as 1191.
These errors are selfevident.The errors in the meanders are not so apparent,but in the meanders of sur 46,we find both corners on the ground and if we follow the calls in the meanders we fail to reach the lower corner by over 200 varas in northing whereas if we change the call from south to north on the next to last run,we will come within some 7 varas of the corner.
Elsewhere a call to run south will throw the line out in the river.Another place the call south makes the line almost return on itself,whereas to cahange the call to north would be a reasonable course. These errors were probably clerical.
This is mentioned to show that but little reliance can be placed on the figures of the original field notes.

The examination of the field notes together with the conditions found on the ground,hereafter described,would lead one to place more reliance on the map of the original survey than on the individual field notes ,as showing the intention of original grantor and grantee.

General description of surface of the Block.

county 43207

The position of the McN.Harris survey was discussed in the report
and the facts given.We used every endeavor to find some trace of the origi-
nal survey but were unable to do so.Under these conditions we simply put

Report on Resurvey of Block G2,

Brewster County, Texas
by R.S.Dod, State Sur.

A former report made of a resurvey of a portion of Block G2 in May & June 1909 is hereby made a part of this report and a copy of the same is hereto attatched. This former report states the facts as to the object, aythority, fieldnotes and method of survey, also the location of starting point and the variation of lines of original work.

Continuing th e resurvey of this block, we began at the N.E.corner of survey 119, as formerly located from the S.W.corner 556, and ran south 1617 1/2 varas to the S.E.119.

Thence west 265 varas to the N.E.cor 11. Thence south 1900 vars to S.E.11 Thence south 1900 vars, to a point 282 varas west of S.E.22. Here we made a witness mound so marked, as we could not reach the actual corner on the bluff of Chilicotal Mt.

Thence we ran a meander line 2022 1/3 south and 1478 east of the S.E.cor of 22. as called for in the fieldnotes of sur 26. Thence north 274 1/2 vars Thence East 355 varas to the S.E.cor 26 and S.W.cor 25.

Thence we ran south 850 vars and east 162 varas to the N.E.cor. of 27 & N.W.cor 28,

Thence we ran south 1202 varas to the S.W.cor 28.

At each of these corners we made a rocm mound, marked a rock and took bearings.

Thence we ran east 1900 varas to the S.E.corner 28.
Thence east to the S.E.cor 29, 1900 varas.
Thence east 1900 varas to the S.E.cor. 30,
Thence we ran east to the S.E.corner 40, 1900 varas,
Thence we ran east 1900 varas to the S.E.cor 44,
Thence we ran east 1900 varas tc the S.E.cor. 49, marking each corner and taking bearings.
Thence we ran east 5020.3 varas and south 486 varas, to U.S.B.M. 1881,
Thence by ~~xxxxxxxxxxxxx~~ by traverse N 43° E 2391 varas to the East corner of survey 50 Blk G 17.

This corner is easily identified by the call for the Sulphur Spring, which is given in the field notes of the adjoining survey, as N55° E 20 varas from the spring, on the bank of the Rio Grande.

The field notes call for this corner to be 2521 varas south of the S.E. corner of sur 54 G2. We find it to be south 2534 varas, but east 951 varas.

We then returned to the S.E.corner sur 41, and thence ran north 1900 varas to S.E.cor ~~xx~~ 42 .there is a spring on S.~~E~~.quarter of sur. 41

Thence north 1900 varas. to the S.E.cor to the S.E.cor 17, There is a spring called the "Black Seep" on N.E.quarter of sur 41.

Here we got a clear reading on the U.S.monument on the Black knob which corresponded closely with the readings on the same monument on the earlier survey.

From ~~S~~.E.cor 17 we ran north 1900 varas to the SE cor sur 16,

Thence north 1900 varas to S.E.cor.sur.7

Thence north 1900 varas to the S.E.cor sur 6. While running this line we made three readings on the triangulation monument near N.W.cor 7, and closed within 10 varas, ~~of~~ easting of the triangles made from B.M.2469 on earlier survey, and were exactly in agreement in northing.

We marked each of these corners and took bearings.

Thence we ran East 1900 varas to the S.W.cor.64, and marked corner,
Thence we ran East 1900 varas to the S.W.cor.65, and marked corner,
Thence we ran East 1900 varas to the S.W.cor.66, and marked corner about 300 varas west of Tornilla Creek.
Thence we ran N 46° 25' E 1563 varas to the Post Office at Boquillas, and from same S.W.cor 66 ran N 46° 15' E 1628 varas to B.M. 2133.

At S.W.Cor.65 we got a reading on the monument on Roy Peak, located by earlier survey, and again S.W.cor 66, which closed nicely on the former work, fixing our position as due south of corners placed on earlier survey.

All marks and bearings to corners will be given in the sketch attatched to field notes when made up.

We thought that the above corners were sufficient for the open country we were running over as you can see for two or three miles fn any direction from many of the corners put in.

The Creek is sketched in from points noted during the survey compared with the location shown on the Topographic map, and is approximately correct. Questions requiring decision and respectfully referred.

The position of the McN.Harris survey was discussed in the report on G3. and the facts given. We used every endeavor to find some trace of the original survey but were unable to do so. Under these conditions we simply put

counter 13208

in the G2 surveys by course and distance as carefully as possible,from the original corners of the Dunman 556,and the Corners of sur.1 G2 ,and connected with the Gano corner of sur 50 block G 17.This corner close very nearly in northing,as shown,but was 951 varas too far east.This would seem to show that we could not move the surveys in G2 any further south,nor any further west,which would have to be done if we accepted the point located at Glen Spring by the the evidence of the cottonwood which has disappeared.

It does not seem possible that Mr.Gano could have found any corner for the McN.Harris near Glen Spring and have all his other corners so far out of place,whereas the location of G2 surveys by course and distance fit all his G2 corners and fits the G 17 corner in one direction at least.

The field notes of the G2 surveys around the McN.Harris 555,do note call for any bearings at the corner of the McN.Harris though they call for its lines and corners.This looks to me very much as if he had not found any bearings,for elsewhere when he calls for an old corner it is his custom to call for the bearings.

I did not see how I could break the calls for course distance and connection for a corner which I could not find.

There is a Mexican living at Glen Spring and irrigating a little patch of ground but I understand he is simply squating there ,not paying rent to any one.According to our survey all of the water at Glen Spring is on Sur. 27 G2.

There are some rock mounds near where the S.W.and S.E.corners of 555 would come run from Glen spring,but they are recent,that is do not look as old as they should to have been made at the time of the original survey of 555.

Another matter that will require your decision is the survey of lines around Willow Spring.

The Willow spring corner is the older.Around it Mr.Gano grouped four irregular surveys and he starts them at the willow Spring corner,runs 113 varas north and then east 679 varas to the west line of 80.I started at the old Willow spring corner ,identified as described in an earlier survey of part of this block,ran north 113 as called for and then east,but reach the west line of 80 at 617 varas instead of 679,and 1530 varas south of N.W.80 instead of 1360 varas.

The outside lines of these four surveys are definitely fixed from cor. of sur ~~X~~ 1,G2.but the shifting of the position of Willow springs from the position given in the field notes makes it impossible to hold the calls for the inside lines as given in the field notes.There is the full amount of land in there but the effort to follow calls distributes the acreage unequally.Giving these surveys their distances on the outside lines,which are lines in their own block will place them as shown in the sketch and will put in survey 72, 713.7 acres,
in survey 73, 667.6 " ,
in survey 74, 574.5 " ,
in survey 75, 601.6 " ,
We could move the north lines of 75 and 74 so as to distribute the acreage equally if you think we would be warranted in breaking the original calls for distance on the outside lines.

Please instruct me whether you approve the present construction as shown in sketch,or whether you would break these calls.If the latter please instruct me how you would have the lines run and I will make out the field notes accordingly.

Respectfully submitted
R L Dodd
State Sur.

Alpine - Texas
July 15th 1910

counter 73209

Report of a Resurvey
of certain Sections of land in Block G.2
Brewster Co, Texas

Object of Survey. To determine and mark on the ground the location and boundaries of Sections 9.69.77.79.81.83.85.87.89.91.93.95.97.99.101.103 105.109.111.113.115.117.119.121.123.125.127.129.131. and the alternate even numbered sections of School land, also the boundaries of surveys Nos. 556, 557, 558, as connected with and adjacent to the above Sections of land.

Authority for the Survey. Appointment as State Surveyor by the Hon. Commissioner of the General Land Office of Texas March 31 1909, for this work at the request of the J.B. Watkins L.& M.Co. for the owners of the land and represented on the ground during the survey by their agent.

Note. The owners of surveys 556, 557, 558, were duly notified that this survey would be made, and were represented on the ground during the survey by their accredited agent.

Mr. John Rice, purchaser of certain of the State sections included, was duly notified and was present in person while survey was made of lands adjacent to his purchase. As far as known the above were the only parties holding interest in the lands surveyed. The lines as surveyed were accepted and no objection made or protest filed.

Data for the Survey. The field notes of the lands in question were furnished by the General Land Office from their archives.

Additional field notes of adjacent surveys were procured from the records in the Office of the Co. Surveyor of Brewster Co.

A copy of the U.S. Topographic map known as the Chisos Quadrangle was used as a check on distance and angular measurements.

Notes of a prvious survey of lands in Blks 9 & 10 H.& T.C.R.R. made made by me as State surveyor and duly filed with the General Land office, were used for reference.

Courses. Examination of the field-notes of the lands in question shows connecting calls with adjacent surveys in Blocks 9 & 10 H&TCRR, Block 19 GH&SARy. & Surveys 556, 557, 558.

The dates of original survey as given in the field notes is as follows,

Sur. 556	W.J. Glenn,	Jun. 20	1881 (resurvey)
" 557	" "	March 12	1881
" 558	" "	" "	"
Block G.2	J.T. Gano	July	1881
" 10 H&TC	Miner		1878
" 10 "	Spiller		1889 (resurvey)

This gives priority of location to the H&TC Blks, and as the call in the field-notes of 556 connect with this Blk. and calls in G2 connect 556, & Blk 19 GH&SA and this in turn with 9 & 10, and as these mutual calls show plainly the intention of the original grantor and the original surveyor to locate adjacent boundaries of these surveys as common to both surveys, and as the East boundary line of Blks 9 & 10 is well and plainly defined by monuments on the ground from Nevil Spring south for ten miles, and as the south boundary line of Blk. 19 is also well defined by monuments and as this line has a common corner on East boundary line of Blk. 10 and a common corner at N.E. Sur. 1 G2, and as these two well defined lines as resurveyed in 1889, and common to both groups of surveys, run at the same variation, this variation was adopted as the controlling course for lines in this survey.

The variation of these lines was tested by frequent readings of the needle between old corners and comparing with the solar meridian at a number of points on the survey.

It was noted that the needle was very sluggish and uncertain along the south line of sur. 556 and on east for some miles. A difference of two degrees was noted on this line at points where well defined front and back sights could be held by the transit for miles at a time. There was no mineral deposit in sight to account for these vagaries, and the needle was recharged during the work. A diurnal variation of 13' to 17' was observed at times.

Some of the monuments marking the south line of Blk 19 were a little irregular in position, one being 3 9/10 varas north, another 4 vrs south of the line from Cor 1 Blk 10 to Cor 1 G2. It crosses a rolling country with deep draws.

The average variation of these lines calls and bearings was found to be 11 30' East. True north by solar observation was 10 17' E.

For the reasons above stated a variation of 11 30' was used in this survey.

counter 43210

Distance. Distances were measured by the stadia rod, a double target rod in front read and booked by the rodman, a self-reading rod behind read at the instrument. Angles of elevation or depression were read on the vertical arc and correction made to the horizontal. The front rod was set by a folding level perpendicular to the horizon, the back rod was held perpendicular to the line of sight, the difference in reading was a check on the correction for slope.

Where convenient, angular measurements were made on the U.S. topographic monuments, and the corners of certain surveys were tied to the U.S. Bench Marks, as requested by the Hon. Commissioner.

The completed survey was projected on the U.S. Topographic sheet from the above data and was found to close fairly well on the natural and artficial objects shown on the map and noted on the survey.

Note. The topographic sheets being photographic reproductions, the scales printed with the map differ slightly on two separate sheets, hence in checking by scale to detect error, the scale called for should be used and not the scale printed.

Beginning Point.

The large rock monument at the N.E.Cor. 1 G2 and S.E.Cor. 44 Blk 19 was made by J.T. Cano, and recognised and adopted by Spiller for his re survey of Blk 19. We reached it by running the South line of 19. It is surrounded by low hills to the west and south, so that no distant bearings can be seen. The size of the mound, some 5' high, its apparent age, and the description given by bothsurveyors make it easy to recognize, and it is further identified by its connection with the corners in 19 and the Adobe at Willow Springs. This is the beginning corner for G2.

The S.W. Corner 556 in the name of S. Dunman, is called to be 282 1/2 varas south of the N.E.Cor Sur. 6 in Blk. 11 H&TC (error for Blk 10) We reached the N.W.Cor 6 Blk 10 by running south from the Corner at Neville Spring, NW 9. and running south finding and identifying the corners in Blks 9 & 10 till we reached the N.E.Cor of sur 6. This is as described in the field-notes and the bearings given fit the rock mound found. It is set on a very rough steep ridge or backbone, falling rapidly to the south. At 228 varas south of this rock mound we found a large, old rock mound, some 4 1/2 feet high, three varas west of Spillers line. This is identified by Spiller as the S.W Corner of the Dunman survey.

The field notes of the Dunman further call for a spring N 65 E 585 varas. You can not see east more than 240 varas as the hill runs down east of the corner, so that it would be impossible to read a bearing from the corner at course and distance given, but I ran out to the point called for and reached a smooth sloping hillside with no sign of a spring ever having been there. I then reversed the calls and ran S 65 W 585 vrs. but found no spring. There is a spring on sur 6 about 400 varas N W from the corner but it can not be made to fit either course or distance from the rock mound, and to move the corner to fit the spring would pull it away from its connection with H&TC 6 and the G 2 surveys on the east. This rock mound has been recognized for years as the Dunman corner and the identification of Spillers field notes I think settles the question and I accepted it on the evidence as the original S.W. Corner of the Dunman survey.

Note. There is a little seep spring, now dry, about a half mile north of the Dunman corner and close to the line, but it in no way fit the calls. It has been suggested that this call is a clerical error, & that as Mr. Glenn made field notes for the McNara Harris sur. the Reams sur. and the Lenz Survey, the calls may have got mixed and this spring call belong to one of the other surveys on two of which there are springs.

The third old corner is the one called for at Willow Springs. We found the conditions here very perplexing and perhaps the better way to make the matter plain will be to state just what we did and what we found.

The call from 1 G2 is S 68 1/4 E 3230 = 3000 E & 1197 S to Dob
" " " " is E 3121 & S 1473 to corner.
" " for Cor. E 107 & S 280 add = E 3107 & S 1477 to Cor

We went to the Adobe on the hill and ran S 21 E 306 and on at 323 we found a red rock about 18" high and 12" thick standing on a little point and some loose rock round it and near by. But running 385 S we reached a point in the creek where there had been some willows but there was no spring. There are two springs and the most northerly brs from the red rock above described S 35 E 335 vrs.

Running S 21 E from the Adobe 870 varas we reached a large reddis rock with a row of small rocks or stones all round it. This rock was

counter #3211

some three feet in diameter and two feet thick and the stones had very plainly been piled around it but perhaps not very long ago, they did not look old. From this large rock we ran south 365 vrs and found no spring, passed an old burnt house. Running S 36 E some 306 varas from the large rock we reached the main spring.

This large rock could not have been moved for it would take a large force of men and teams to move it. It is possible to read the field notes I have "the N cor No 1, Willow Spring S 36 E 306" instead of S 365, the 6 looks like an E. Again the call from no I 62 for the adobe reaches exactly the first red rock mentioned. We ran north 365 vrs from each spring but found no large reddish rock at either place.

Taking everything into consideration I decided that the evidence on the ground showed that the large red rock described was the one intended by the field notes for the corner and that the call for the spring should read S 36 E 306 vrs.

Accepting this rock as cor of Willow Spring survey placed it 617 instead of 679 west of east line sur 79, and 1643 south instead of 1473 south of the NE Cor 79. All of which is shown on the plat.

Lines run.

We ran the south line of Blk 19 putting in the corners for the adjoining 62 surveys and putting in the N.E. cor 131 omitted by Spiller. We continued this line on east making the run down to Willow Spring as above noted.

We went to the S.W. 556 and ran east its distance putting in NW 119 We turned north and put in NW 120, & NW 121. & W 557, we ran east along Sbl 557 and put in NE 121 & SE 557. We turned north and put in NW123 NW 124 & SW 558 leaving the Avary house and windmill and tank 151 varas in on the Hereford survey. We ran on north and put in NE 557 & NW 558, we ran on across this strip to the south line of Blk 19. We calculated that we should come out 600 varas south and 192 east of SW 42 Blk 19. We measured 568 1/2 across the strip and were 184 east of the corner, an error of 31 vrs in northing and 8 varas in easting.

But we started 54 1/2 varas short on the Dunman as the corner shld be 282 1/2 south of cor of 8, but is only 228 by actual measurement, the excess in the measuremnt of the two miles south from Rock Spring made up part of this but leaves a shortage of 31 varas along the Nbl of the Dunman sur 556.

We ran west from NE 557 and put in SE 127, SE 128, NW 557, & NE NE 556. We ran across and put in the corner SE 130 with rock and 83 varas north.

We ran east from SE 557 and put in NE 132, thence south and put in SE 122 in Nbl 9, leaving the Chili Coal Spring and Rices house on 122 as shown on plat. We ran on east and put in the NE 9.

We ran the Sbl 556 and put in SE 556 and NE 124 and ran south and put in SE 124.

From SE 86 we ran north after tying to the BM. It was our intention to carry this line on through and come back on one further west but we found it was an impossible line. It would take a day to climb the bluffs on the mountains east and there was no water there and we would have to take a burro train of water kegs to stay long enough to do any work and it would take a week or more to get in any corners and the land was useless up there and not worth the cost of placing the corners. So we ran through the block as shown on the plat locating the waters and putting in corners enough to enable any one to locate any section with a little work.

We tied to the BMs and to what few monuments the U.S. had put in. We figured that we should close on the S.W. Cor. 54 Blk 20 at one mile west and 114 varas south of the NW cor Blk 62. We ran out and found the corner of 54 plainly identified by the iron hill bearings with an error of 17 varas in ~~xxxxxxxxx~~ northing and 23 in easting, as this error was to be distributed over some 14 miles of work, we considered it within the limit of error for the character of the land, there being no close calls for any water or mineral values.

The details of measurement and bearings on monuments and peaks and field notes for corners are all shown on the attached sketch,

All which is respectfully submitted ~~xxxx~~

(Signature blotted by accident) State Surv.

R L Dodd
State Surv

counter 43212

Report of a Resurvey
of certain Sections of land in Block G.2
Brewster Co, Texas

Object of Survey. To determine and mark on the ground the location and boundaries of Sections 9.69.77.79.81.83.85.87.89.91.93.95.97.99.101.103 105.109.111.113.115.117.119.121.123.125.127.129.131. and the alternate even numbered sections of School land, also the boundaries of surveys Nos. 556, 557, 558, as connected with and adjacent to the above Sections of land.

Authority for the Survey. Appointment as State Surveyor by the Hon. Commissioner of the General Land Office of Texas March 31 1909, for this work, at the request of the J.B. Watkins L.& M.Co. for the owners of the land, ~~and~~ represented on the ground during the survey by their agent.

Note. The owners of surveys 556, 557, 558, were duly notified that this survey would be made, and were represented on the ground during the survey by their accredited agent.

Mr. John Rice, purchaser of certain of the State sections included, was duly notified and was present in person while survey was made of lands adjacent to his purchase. As far as known the above were the only parties holding interest in the lands surveyed. The lines as surveyed were accepted and no objection made or protest filed.

Data for the Survey. The field notes of the lands in question were furnished by the General Land Office from their archives.

Additional field notes of adjacent surveys were procured from the records in the Office of the Co. Surveyor of Brewster Co.

A copy of the U.S. Topographic map known as the Chisos Quadrangle was used as a check on distance and angular measurements.

Notes of a previous survey of lands in Blks 9 & 10 H.& T.C.R.R. made made by me as State surveyor and duly filed with the General Land office, were used for reference.

Course. Examination of the field-notes of the lands in question shows connecting calls with adjacent surveys in Blocks 9 & 10 H&TCRR, Block 19 GH&SARy.&Surveys 556, 557, 558.

The dates of original survey as given in the field notes is as follows,

Sur. 556	W.J. Glenn,	Jun. 29	1881 (resurvey)
" 557	" "	March 12	1881
" 558	" "	" "	"
Block G.2	J.T. Gano	July	1881
" 9 & 10	H&TC Miner		1878
" 9 & 10	" Spiller		1889 (resurvey)

This gives priority of location to the H&TC Blks, and as the call in the field-notes of 556 connect with this Blk., and calls in G2 connect 556, & Blk 19 GH&SA and this in turn with 9 & 10, and as these mutual calls show plainly the intention of the original grantor and the original surveyor to locate adjacent boundaries of these surveys as common to both surveys, and as the East boundary line of Blks 9 & 10 is well and plainly defined by monuments on the ground from Nevil Spring south for ten miles, and as the south boundary line of Blk. 19 is also well defined by monuments and as this line has a common corner on East boundary line of Blk. 10 and a common corner at N.E. Sur. 1 G2, and as these two well defined lines as resurveyed in 1889, and common to both groups of surveys, run at the same variation, this variation was adopted as the controlling course for lines in this survey.

The variation of these lines was tested by frequent readings of the needle between old corners and comparing with the solar meridian at a number of points on the survey.

It was noted that the needle was very sluggish and uncertain along the south line of sur. 556 and on east for some miles. A difference of two degrees was noted on this line at points where well defined front and back sights could be held by the transit for miles at a time. There was no mineral deposit in sight to account for these vagaries, and the needle was recharged during the work. A diurnal variation of 13' to 17' was observed at times.

Some of the monuments marking the south line of Blk 19 were a little irregular in position, one being 3 9/10 varas north, another 4 vrs south of the line from Cor 1 Blk 10 to Cor 1 G2. It crosses a rolling country with deep draws.

The average variation of these lines, calls, and bearings was found to be 11° 30' East. True north by solar observation was 10° 17' E.

For the reasons above stated a variation of 11° 30' was used in this survey.

counter 43213

Distance. Distances were measured by the stadia rod, a double target rod in front read and booked by the rodman, a self-reading rod behind read at the instrument. Angles of elevation or depression were read on the vertical arc and correction made to the horizontal. The front rod was set by a folding level perpendicular to the horizon, the back rod was held perpendicular to the line of sight, the difference in reading was a check on the correction for slope.

Where convenient, angular measurements were made on the U.S. topographic monuments, and the corners of certain surveys were tied to the U.S. Bench Marks, as requested by the Hon. Commissioner.

The completed survey was projected on the U.S. Topographic sheet from the above data and was found to close fairly well on the natural and artficial objects shown on the map and noted on the survey.

Note. The topographic sheets being photographic reproductions, the scales printed with the map differ slightly on two separate sheets, hence in checking by scale to detect error, the scale called for should be used and not the scale printed.

Beginning Point.

The large rock monument at the N.E.Cor. 1 G2 and S.E.Cor. 44 Blk 19 was made by J.T.Gano, and recognised and adopted by Spiller for his re survey of Blk 19. We reached it by running the South line of 19. It is surrounded by low hills to the west and south, so that no distant bearings can be seen. The size of the mound, some 5' high, its apparent age, and the description given by both surveyors make it easy to recognize, and it is further identified by its connection with the corners in 19 and the Adobe at Willow Springs. This is the beginning corner for G2.

The S.W. Corner 556 in the name of S. Dunman, is called to be 282 1/2 varas south of the N.E.Cor Sur. 6 in Blk. 11 H&TC (error for Blk 10)

We reached the N.E.Cor 6 Blk 10 by running south from the Corner at Neville Spring, NW 9 Blk 19 and running south, finding and identifying the corners in Blks 9 & 10 till we reached the N.E.Cor of sur 6. This is as described in the field-notes, and the bearings given fit the rock mound found. It is set on a very rough steep ridge or backbone, falling rapidly to the south. At 228 varas south of this rock mound we found a large, old rock mound, some 4 1/2 feet high, three varas west of Spiller's line. This is identified by Spiller as the S.W Corner of the Dunman survey.

The field notes of the Dunman further call for a spring N 65° E 585 varas. You can not see east more than 240 varas as the hill runs down east of the corner, so that it would be impossible to read a bearing from the corner at course and distance given, but I ran out to the point called for and reached a smooth sloping hillside with no sign of a spring ever having been there. I then reversed the calls and ran S 65° W 585 vrs. but found no spring. There is a spring on sur 6 about 200 varas N W from the corner but it can not be made to fit either course or distance from the rock mound, and to move the corner to fit the spring would pull it away from its connection with H&TC 6 and the G 2 surveys on the east. This rock mound has been recognized for years as the Dunman corner and the identification by Spiller's field notes I think settles the question and I accepted it on the evidence as the original S.W. Corner of the Dunman survey.

Note. There is a little seep spring, now dry, about a half mile north of the Dunman corner and close to the line, but it in no way fits the calls. It has been suggested that this call is a clerical error, & that as Mr. Glenn made field notes for the McNara Harris sur. the Reams sur. and the Lenz Survey, the calls may have got mixed and this spring call belong to one of the other surveys on two of which there are springs.

The third old corner is the one called for at Willow Springs. We found the conditions here very perplexing and perhaps the better way to make the matter plain will be to state just what we did and what we found. The cor. calls for a large reddish rock with small rocks round it. to address Field

The call from 1 G2 is S 68 1/4 E 3230 = 3000 E & 1197 S ~~to Dot~~

" " " " is E 3121 & S 1473 to corner.

" " for Cor. from adobe E 107 & S 280 add = E 3107 & S 1477 to Cor.

We went to the Adobe on the hill and ran S 21 E 306 and on at 323 we found a red rock about 18" high and 12" thick standing on a little point and some loose rock round it and near by. But running 365 S we reached a point in the creek where there had been some willows but there was no spring. There are two springs and the most northerly brs from the red rock above described S 35 E 335 vrs.

Running S 21 E from the Adobe 870 varas we reached a large reddis rock with a row of small rocks or stones all round it. This rock was

counter 43214

some three feet in diameter and two feet thick and the stones had very plainly been piled around it but perhaps not very long ago, they did not look old. From this large rock we ran south 365 vrs and found no spring, passed an old burnt house. Running S 36 E some 306 varas from the large rock we reached the main spring.

This large rock could not have been moved for it would take a large force of men and teams to move it. It is possible to read the field notes I have "the N cor No 1, Willow Spring S 36 E 306" instead of S 365, the 5 looks like an E. Again the call from no I G2 for the adobe reaches exactly the first red rock mentioned. We ran north 365 vrs from each spring but found no large reddish rock at either place.

Taking everything into consideration I decided that the evidence on the ground showed that the large red rock described was the one intended by the field notes for the corner and that the call for the spring should read S 36 E 306 vrs.

Accepting this rock as cor of Willow Spring survey placed it 617 instead of 679 west of east line sur 79, and 1643 south instead of 1473 south of the NE Cor 79. All of which is shown on the plat.

Lines run.

We ran the south line of Blk 19 putting in the corners for the adjoining G2 surveys and putting in the N.E.cor 131 omitted by Spiller. We continued this line on east making the run down to Willow Spring as above noted.

We went to the S.W.556 and ran east its distance putting in NW 119 We turned north and put in NW 120, & NW 121. &SW 557, we ran east along Sbl 557 and put in NE 121 & SE 557 . We turned north and put in NW123 NW 124 & SW 558 leaving the Avary house and windmill and tank 151 varas in on the Hereford survey. We ran on north and put in NE 557 & NW 558, we ran on across this str ip to the south line of Blk 19. We calculated that we should come out 600 varas south and 192 east of SW 42 Blk 19. We measured 568 1/2 across the strip and were 184 east of the corner, an error of 31 vrs in northing and 8 varas in easting.

But we started 54 1/2 varas short on the Dunman as the corner shld be 282 1/2 south of cor of 6, but is only 228 by actual measurement, the excess in the measuremnt of the two miles south from Rock Spring made up part of this but leaves a shortage of 31 varas along the Nbl of the Dunman sur 556.

We ran west from NE 557 and put in SE 127, SE 128, NW 557, & NE 556. We ran across and put in the corner SE 130 with rock mnd 83 varas north.

We ran east from SE 557 and put in NE 122, thence south and put in SE 122 in Nbl 9, leaving the ChiliCoal Spring and Rices house on 122 as shown on plat. We ran on east and put in the NE 9.

We ran the Sbl 558 and put in SE 558 and NE 124 and ran south and put in SE 124.

From SE 86 we ran north after tying to the BM. It was our intention to carry this line on through and come back on one further west but we found it was an impossible line. It would take a day to climb the bluffs on the mountains east and there was no water there and we would have to take a burro train of water kegs to stay long enough to do any work and it would take a week or more to get in any corners and the land was useless up there and not worth the cost of placing the corners. So we ran through the block as shown on the plat locating the waters and putting in corners enough to enable any one to locate any section with a little work.

We tied to the BMs and to what few monuments the U.S. had put in. We figured that we should close on the S.W.Cor.54 Blk 20 at one mile west and 114 varas south of the NW cor Blk G2. We ran out and found the corner of 54 plainly identified by the iron hill bearings with an error of 17 varas in northing and 23 in easting, as this error was to be distributed over some 16 miles of work, we considered it within the limit of error for the character of the land, there being no close calls for any water or mineral values.

The details of measurement and bearings on monuments and peaks and field notes for corners are all shown on the attached sketch,

All which is respectfully submitted

R L Dod
Special State Surveyor

Marathon Texas
June 30th 1909

counter 43215

ROBERT S. DOD
SPECIAL STATE SURVEYOR

5-6

ALPINE, TEXAS, May 30 1910

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

Dear Sir,

Your favor of the 26th containing field notes and instructions as to completion of the resurvey of Blk.G 3 Brewster Co,was duly received and the contents carefully noted,and we will put in the work according to your instructions very soon.

I enclose a sketch to show the work done since last writing you,up to date.We put in the corners in the south part of the block by course and dist- from the original corners of 27,and left line marks along the pricipal meridian so that we can put this row of corners in very easily.

I think by running a line along the north line of surveys 10,11,12,13 & 14,and putting in S.E.59 and N.E.67, we will have done all that is needed to enable anyone to find any section or line in the block.

It will be further defined on the east by the work in completing G 2.

I think it will be well to tie the east line of G3 to the original corner of Sur.1 in Blk 18,which was on the ground a few years ago at the mouth of the Little San Vincente Canyon.This will give a nice connection on the River and show the relation of the river surveys to the inner blocks.

In resurveying G2,I think we will run east and west lines from G 3 east across G2 closing on the river.

This will give a fairly good line of connections along the river from the Grand Canyon to the mouth of Tornilla Creek,and a connected line from the east side of G 2 to the west line of Block 15 at Agua Frio,and when we get G12 in ,the line will be complete to the west Co.Line.

The horses and men are worn out but a few days will set them straight and I expect to get to work by the end of the week.

Respectfully

R S Dod
State Lsr.

counter 43216

Hon.T.J.Robison,

Commissioner Gen.Land Office

Austin,Texas

Marathon ,Texas
July 3 1909

Dear Sir,

I enclose report on work done in Block G.2 Brewster Co.for the J.B. Watkins L.& M.Co.which I think fully explains itself,should you wish any further explanation or detail kindly let me know and I will try to supply it.

I intend to go to Mr.Strouds and make a survey to ascertain whether or not the strip of unoccupied land lies between the T&SL Blks and GH&SA 20,for which you kindly sent me field-notes.Then I will be ready to take up the work in Presidio for the Orient,if they put up the funds for expenses.
I will keep you notified as to my movements so that you can instruct me as to the work.

Respectfully

R L Dod

State Surveyor

counter 73217

ROBERT S. DOD
SPECIAL STATE SURVEYOR.

ALPINE, TEXAS, May 12 1910

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

Dear Sir,

I would submit the following report on the prliminary survey of Blk G.3 Brewster Co.Texas.

The object of the survey was to determine the true position on the ground of the marked corners in the Block as called for in the field-notes,and the relative position of surrounding blocks of surveys to determine the question of possible conflict in boundary.

The working sketch furnished me from your Office states that Gleim was the Surveyor of the block,but although he signed the field notes as Presidio Co. surveyor,I believe Mr.J.T.Gano made the survey on the ground.This is of importance because we find all Ganos field work corresponds with his notes,and when he describes marks at a certain corner we are pretty certain to find them,which is not the case with some other surveyors who worked in this country.In other words we can rely on retracing Ganos work allowing for the misstakes due to the difficulties under which he worked.

There should be on file in your office a meander line run by Gano across Block G3,from the McNara Harris corner to the Mozart spring corner and on to the corners of survey number 27.This would be of great service in determining the true position of the corner of 555 which has disappeared.

The only marked corners given in the field-notes of G3 are the N.W.& S.W.corners of survey 27 and the N.W.Corner of survey No.1.

We think that we have found the N.W.cor sur.1 and are certain of the corners of 27.

We find the corner of sur.1 as identified by the call for Mozart Spring to be 529 varas south and 196 west of the position shown on the map relative to the old Dunman corner.

We find the corners of 27 to be ~~one~~ five ~~six~~ miles west and six miles and 429 varas south of the Mozart spring corner.

We find the east line of the BlockG3 by course and distance from Mozart spring corner to be in conflict with the west line of G2 some 163 varas.

In order to find the N.W.Corner of sur.1,G 3,whose field notes call for a rock mound on side of an arroyo (Note .Should ~~a~~ not this be "on east side of an arroyo"?) 361 varas north,and 7563 varas west of N.W.CornerM.Harris survey 555.
16512 N.& 12994 E of S.W.Cor.38 blk 16 G.H&S.A.Ry.Co.
Mozart Spring in a bunch of willows S 51 1/2°E 2047 varas.

We first attempted to locate the N.E.Cor.555. The field notes show that the Reams survey 554,the McN.Harris sur.555,and the S.Dunman sur.556 were put in by the same surveyor at the same date and are the older surveys on the ground. The corners of the Reams are on the ground,large rock mounds.The S.W.corner of the Dunman is on the ground,a rock mound about 5' high and some 4'india,at base.It stands 228 varas south and a little west of the N.E.Corner of survey 6 in Blk 10 H.&T.C. and was recognized and mentioned by Mr.Spiller when he made the corners on east side of Block 10(The Dunman field notes state that it is a resurvey,and I have no way of getting at the original,which might explain the discrepancy stated below.)

counter 13218

The field notes of the Dunman (not given on the working sketch) are,Resur. June 29 1881 W.J.Gleim.var 11 E. Rock mound on a small hill in E.line of sur 6 Blk.10 H&TCRy.283 varas south of its N.E.Corner
25750 varas N.51 W of San Vincente.
Spring brs N 65 E 585 vrs.
Bush N 66 E 585 vrs.
N.W.Cor.553 McN.Harris brs S36 1/2 E 8920 varas.

The call for San Vincente is indefinite as there are the old fort in Mexico,the village on this side the river,and the mouth of the canyon.

There is no spring any where in the direction called for,but there is such a spring near the S.W.corner 554,note the error in the number of the McN.Harris survey,and it is possible that the surveyor got his survey numbers and bearings mixed.

The call 283 varas soth from cor 6.is on the ground 228 which makes the Dunman short on the west up to the Rock Springs corner 54 varas and on run-from this Dunman corner to the originalcor I G2,which is also the S.E.Cor.44 in Blk.19 we find an error of 31 varas shortage in northing.

The call for the N.W.555 gives 7170 varas south and 5306 east.If you check this by distances given in field notes ,there is 122 varas too much easting,in the call. *Maybe an error in record of course.*

We ran as shown on the attached sketch 7170 plus 966 varas south,and some 4830 varas east to reach a point probably close to the original N.W.555 as described below.In making this run we traced the survey lines in G2,which gave us connection as described above with both the Dunman corner and Orig 1 G2.

The calls for the N.W.McN.Harris corner are,as given on the working sketch "Rmd" (the corner described by witnesses is a "rock set in the ground"and a copy of field notes shown me has the same"Rck set in grnd".Please have this looked up as it is an important fact in identification.)No field notes on record in Surveyors office in Alpine for 555).

Rmd 16398 Vs.N58W of San Vincente,from which cottonwood 2'dia.mrkd X,brs S 85 E 251 Vs.do mkd X ,brs S 60 E 280 vrs.SW cor.H.Reams No.554 brs S 62 1/4W 23185 vrs.

Glenn Spring on the McN.=arris survey,breaks out in a small canyon about a half mile further south from the Dunman corner than called for in the field notes.The water from the spring runs S.E.down the canyon which widens rapidly and is lined on both sides by large and small cottonwoods and the roots of older cottonwoods .As shown in sketch the cottonwood the furthest north is not much above this point.We went to the point where course and distance would place the corner from the Dunman and found no cottonwoods,no water and an almost solid rock hillside where no cotton wood could have grown.

None of the trees standing are marked,but some years ago there was a rush of water down the canyon which eroded the bed down to the solid rock carrying off some 4'to 5' of soil in depth and at the head of the draw, and extending far enough down to carry away a number of trees ,the trunks of some of them are still lying where they had fallen.

Mr.Jim Wilson,ranchman and merchant, and Mr.L.Butril tell me that Glen Spring was a favorite camping place when they worked cattle in that country. They both saw two large cottonwoods marked X on the bank of the creek and often hung meat in one of them.There is an old trail leading from the camp up on the Mesa west.This mesa edge is so steep that a horse can get up only at one or two places,hence this present trail,besides the signs of age,must have been the one always used for accessto the mesa grass.Mr.Wilson said that near this trail he had frequently noted a rock set in the ground .

Mr.Butrill said that up to some 12 years ago the cottonwood (marked) was standing and 'the old corner',and that the stump or roots of the old tree were still there a short time ago.He was not with us to puint out this stump.

The fact that these cottonwoods at Glen spring are the only ones in that part of the country,the evidence as to the rock and the marked trees, would seem to establish the fact of the former existence of the N.W.cor 555 somewhere

counter 73219

near the point reached by our survey as described.

To reach the N.W.corner of survey 1,I first ran out the course and dista tance shown by map and field notes from the Dunman,beginning at the S.E.cor of survey 22 G2,and running west 1900,480,1900,S54 W 2356,or west 1894 and South 1387,then west 6 vrs and placed a flag.We reached the west side of an Arroyo,but found no rock mound.Nor could we find any spring to correspond with the call for Mozart Spring,but I would note that a number of springs in this southern part of Brewster county,which some years ago were strong running springs are now dry and have been for years.So it is possible that Mozart spring might have disappeared.

Mr.T.J.Miller who was in the country taking the census,kindly showed me a rock mound which had been shown to him and Mr.Hunnicutt when they were making a survey to determine the line between 33 & 34.This rock mound is 529 south & 194 varas west of the flag placed as above.The mound is old but small ,three large rocks and a few smallones.it stands on east side of an arroyo.The mexican who showed it said he had been shown the mound by an old surveyor, as aland corner.I could not find the Mexican,but he told Miller that ~~XMS~~ he did not know who the surveyor was.It may have been Hayes.Hayes ran out from a spring and ~~a~~ made a large rock mound which is 198 varas south and 168 east of the Mexicans mound.

Mr.Miller stated that he had chained from the Mexicans mound to a spring and found it nearly right in course and distance for the call for Mozart Sp. From the Mexicans mound we ran south some 480 varas and west some X 200 ~~west~~ reaching a point on the side of a large and deep arroyo course and distance from the Glen Spring corner.But we could find no rock mound and no spring for the Mozart call.

We then ran east from the Mexicans corner 1920 varas and south 26 varas to a rock mound set by Mr.Hunnicut.Thence we ran a traverse to a spring which we found lacked 31 varas of being far enough east and was 4 varas too far south to fit exactly the call for Mozart, from the Mexicans Corner.

To try and identify Mozart spring I asked several old residents who had lived in that country,whether they had ever heard of a spring by that name.None of them had, until after the mine suit came up.But on the other hand the name given to the locally wellknown "Rock Spring" in the field notes is "Leonard Sp." and the "Gano" spring is locally known as the "Reed Sp". The spring we reached was known and had been a running spring for years.It is in a canyon well up at the head,and runs out from under a large ledge of rock,the presence of fern beds show that it has long been running,and the marks of water on the rock show it to be old.But the call is for a bunch of willows and there is not a willow near the spring,there is quite a growth of timber and brush of many varieties but no willow.

In order to check on the work done I had Mr.Marsh take his instrument and two different rodmen and run a connecting line from the point at Glen Springs west to the N.E.Corner of Sur.1.This run checked within 11 varas Northing and 5 varas westing of my run from S.E 22 G.2.

In order to get the call for San Vincente from Glen Springs I had to go there three times.the forest fires had so filled the whole atmosphere with smoke that although ordinarily one can see the old fort with the naked eye from Glen Spring,we could not see it with the instrument even though we knew right where it must be.Finally I got a reading from a point some 400 varas east ofthe supposed location of the N.W.Cor.555,but the course was S 58 30' E and from the corner was S 60 E.The call being S58 E.The call is indefinite as it does not say whether the old fort is meant,or the village or the canon.Probably the fort as it was used in Blk.18 at S.W.Corner sur 1.at the mouth of the canyon.

At 63 varas N32 1/2 west from point selected for test of N.W.555 I found a large rock mound marked B,this is Mr.Birds cor.for N.W.555.Again N 33 W 155 vrs I find a large monument and another N39E 175 varas from it.These look like GoV.mnts.for lesser triangles.and were put up after the corner of 555 was in.

counter 43220

as related by Mr. Wilson.

There is nothing definite about this corner and you cant reach it by course and distance from any known point and yet I dont see how we can get away from the evidence as to the original location and the rockset in the ground and the marked trees.It will throw a surplus of a half mile into the G2.surveys and yet four of them call for it and I presume will take their position from it.

From the mexicans corner at Mozart spring we ran east one mile and south six miles and ~~xx~~ 429 varas to a point 88 varas west of a large rock mound with a rock marked S W 33.We ran a traverse from our even six mile point to the B.M. 2385 on survey 33 as shown in sketch and on to another large mound and rock marked N.E 33. These rock mounds are,I understand, the compromise corners put up by the parties to the Lindsay-Barry suit.Mr.Barry and his associates were operating what was known as "The 33 Mine",under a lease from the owners of 33 and Mr.Lindsay was working claims on 34.There was a dispute as to the line between them and surveys were made by Mr.Hunnicutt for Barry,by Mc.Harmon Co. surveyor,by Hayes & Bennet,under order of court,and by Mr.Bird.None of these surveys could (or did)reach the same point.The measurement made by Mr.Hunnicut and by Mr.Harmon were accepted and the difference split.It was 134 varas.Harmon chained from the old corners on the west,and Mr.Hunnicutt with Miller used some method of triangulation.Of course these corners were of value only to the parties to the compromise.I found Mr.Birds corner 270 varas west and about 50 steps ~~west~~ south of the compromise corner.

We made a run as shown in the sketch from our line south from the Mozart spring corner to the S.W.Cor 27 and found it to be exactly six miles.And the distance to the compromise corner six miles and 78 varas.Agreeing very closely with Mr.Harmons chain measurement.

I am having Marsh rerun this and put corner marks at each mile.

The S.W.corner of 27 is a large,old rock pile and has never been in dispute it stands on the edge of the mesa 306 varas south and about 6 varas east of he S.E.Corner of 554.also a large rock pile. The bearings are Most southerly point of the Chisos and a canon in Mexico.At 11° 30' E variation, the bearing gives a line to a knob on the S.Point of the most southerly Mt of the Chisos range,and hits the west side of the canyon in Mexico. The corner of 554 had been reached from the west corner of 554 as before reported,it is long in distance and some 545 varas out of line.

Running north one mile we found the large rock pile called for and the two boulders on the hill side.This corner is in a basin or canyon and we had to get about 150 varas south to see back to the SWcor.reversing between these corners gave a variation of 11° 30'E and on setting a flag under the instrument and retur ning to S.W.Cor.we got the same ,and setting off 90° cut the monument we had on the mountain about half way to 33,set as we ran west.

As an incident showing the necessity of caution in working in this part of the country ,we first set as close to the edge of the corner-canyon as possible and on reversing on the flag at S.W.cornerthe needle pointed a littlemore than a degree to the west .I was rather surprised as I had a line mark on the Mt.ahead of us and did not think we had altered our course on the run.However I stepped out west the 37 steps for the degree set the instrument and foundthe needle read a degree back to the east.But some one had been caught before and had put up a large mound on this line.When we retired from the edge of the canyon ,the needle read true on the line between the old corners.It was too early and too cloudy to take a solar that morning,but our lines were all transit started with the solar and checked with the needle so it was not material.

Our measurements were all made carefully,but the refraction is so great on account of the earth being baked down so deep,that we have to check very carefully and may find some errors,but they will not be serious enough to change any ruling you may make on this report.

I am sending a sketch of the lines run in and about Mozart and Glen springs on a scale of 500 vrs to the inch,and a sketch of the whole work on scale of 2000 varas.

counter 43221

Sketch A 500 vara scale will I think give you all detail measurements and enable you to judge of the facts as to the identification of these corners.

Sketch B is intended to show the result of these measurements on both G2 & G 3.

This last survey connects the original cor 1 G2 with the Gano corner, and I have noted the meaurements by each line of survey on the sketch. I give the details here.

From east line 317 G4, from resurvey plat,

East on G 4 Survey lines 304
10020
3363 covers excess,
942
2049
1365
1344
480
179 strip between
11400 G4& Blk 10
4082 to Dunman S.E.Cor.
35528 vrs.

East on T&NO lines
155 excess in G4
13300 T.&NO
2206 "
3702 Reams actual dist.
9500 to NW 1 G3
7403 Cor N.W 555
36266 less 4830-4082 748
748
35518

From NEcor Sur 4 G4 south
9500 to Nb1Blk 10, 1283
1387 to SWcor 30 9500
10887 on to cor.G4 104
10887

South from SW 30 Blk 10,
from resurvey of G 4, tp SW 27 G3
104
687
2543
1725
2645
236
1358
245 excess found,
9500
45 diff.in var.of Sbl Reams.
306
19394

South from N.E.cor 6, Blk 10
to SW 27 by this survey,
228 to Dunman line
7170
155 to NW 1 966 - (361 & 450)
11400
429
19382

Note. From the SW Corner Dunman to NE corner 1 G.2 is 31varas short in northing and 8 1/2 varas short in easting, as reported in resurvey of G2 for Watkins.

The above figures balance too closely, but as the work was done at various dates and reported separately, there can scarcely be much error, or misstake.

You have all these figures on various plats and reports but I thought I would like you to note the figures and results as they make a nice check on the work all round. We found excess between G 4 & 9 in 1906 and between G4 & 10. Then last spring I checked up on the Dunman and G 2 work. This winter we closed on G 4 showing practically the same conditions from the work in the Block and the run on the river, and found the excess of 618 varas 373 taken up by excess between Cors 65 & 1 G4. Found excess in Sbl Reams, and now we find a XXX 966 vara exces in G 3 in southing and a shortage of 150 to 160 easting, and yet all these independent surveys close, at least within reasonable limits.

This I think proves that there can be no large error in the work, especialy as explained in this report and elsewhere, our check lines are run by a different men and instrument from the body of the work.

Granting that the facts are thus established, then can we identify these corners. I will venture to express my opinion unasked, as the man on the ground

counter 73222

is better able to take facts as a whole than one who has simply a written statement of the same facts.I think that unquestionably the NW corner of the McN.Harris survey was made near the point at Glen springs.And would suggest that I try to get Butril(he is the nearest) to go there and show me where the marked tree stood &c.Of course a mans recollection of an exact spot is not very reliable after ten or twelve years,and the washout has changed appearance of the whole place,but it would be a guide.

If this corner is accepted ,then what about the distribution of excess in G 2.Had it not better be made at once while we are on the ground.Ten days would finish G2.

The original cor 1,and the original Dunman corner will hold and if we could throw all the excess into one strip across the block it would preserve all connections.The Boquillas Post Office and the store and several residences and school house are east of Glen Springs in G 2.

The only value of this corner of 555 in resurvey of G 3 is in locating the Mozart spring corner,which it does not do within 450 varas,and in showing the conflict of some 150 varas between east line G3 from Mozart Sp.and west lineG2 from Glen Sp.

I must confess that the rock mound shown by the Mexican is very disappointing looked at as a Gano corner ,and yet it is so nearly in place from the only spring that can be Mozart,that I am inclined to accept it.It is in place east from the corners of 27,but its position 429 varas too far north makes a conflict with the surveys in the S.P.Block.The S.P.is the older and takes course and distance from the Reams corner.The G3 starts from the same corner but it has this excess,what shall we do with it ? Can we throw it into one strip ? and leave the balance undisturbed,or must it be distributed pro rata.There are several cross calls for the S.P.block.

I have tried to show the cross calls and the general condition of things in sketch B,so that you can get a general idea of the situation .

From the Mozart spring corner east to the G3 line there is a shortage of 150 to 160 varas according to the point selected for the NW cor,555, I suppose the G 3 will lose and that we will run east course and distance till we meet the G 2 line.

The whole situation is complicated and I fear I have not made it very plain If you think I had better come to Austin I can do so.I have left Marsh to check up on the Reams corner,run t rough on that line east across the block,extend the Mozart spring meridian south,and run to the river and chaeck on the B.M.S

I will go on with the copying of the G.4 field notes while waiting your instructions.

Respectfully

R L Dodd

Chief Clerk

P.S. — I would note as to the importance of the resurvey of 93. that there are several holes on both 33 & 34 with good ore in all of them. We found good washings along Chili coital cut. & the geological conditions through the Rock are very favorable for the probable existence of ore deposits

R.S.D.

counter 13223

ROBERT S. DOD
SPECIAL STATE SURVEYOR.

ALPINE, TEXAS, Mar 15 1910

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

Dear Sir,

I am sending you the long delayed plat of G4,showing what work has been done,and corners made.I would have sent it before but wanted to be sure there were no further errors before you finally passed on the work and this has taken longer than I thought it would.The work in G4 was peculiar in this respect that it was impossible to close the work as the surveyor ordinarily does by running back to some previ ously located point.The character of the country is such that all lines seem to lead into a cul-de- sac from which there is but the one outlet and this necessitated closing by angular measurements. This we were able to do and from time to time sent in reports showing these closures.Our work on the west side is checked up on work formerly done in Blk 17 and checks nicely. But as a further and more complete check I have drawn the attached sketch onthe scale of ~~xxxxxxx~~ 1/125000 or the same scale as the U.S. Map. I then put in each bench mark on my sketch by measurement from the corners we had made,and also put in the Christmas monument and the Emory monument. These with the B.M.at the Grand Canon fairly well cover the ground.

The sketch is made very carefully and if allowance is made for the swel ing and shrinking in diferent degrees of dampness ought not to be much out.If you will kindly place the tracing on the Chisos luadrangle sheet so that the B.M. and Tri.mnts correspond you will find I think that at all points they essentially agree ,showing that our measurements agree with the U.S.If you will then place a protractor on our lines you will notice that they run about 1 degree to the west of the true meridian of the map which is what we have used as retracing the original block lines or 1 8' west of solar meridian.

Unfortunately the scales of the two U.S.sheets differ by about 100 varas in six miles so that the scale for the Chisos sheet will not fit the other,I have therefore added a second trcing of the west part of the block made to the scale of the Terlingua sheet,and inserted the B.M.s If you will kindly test this in the same way I think you will find that they correspond fairly well. These tracings are made entirely independent of the U.S.Map from the field notes of our work and the fact that they do correspond so closely shows our work to be fairly correct.

I would have put in a few more corners in the N E corner of the Blk but we were camped at Slick Rock and to have gone round to Small Pox or Box Sp. would have taken at least four days to move and then put in only three corners, and I think any survey can easily be reached from the corners already in.

In the Southeast we left out the Mule Ear country.You will notice on the topographic map that no roads cross this country,that the trails even are very crooked.All the water was gone that we could reach with our camp outfit and to ride six or seven miles before getting to work meant a great waste of time.The land is a simple rough grazing proposition and no mineral as far as known.We will make a connection between the river and the Goat Mt.Corner. and I decided that it was useless to put more time in on the rough land.

Of course if you wish us to do so we can go in there and put in what more corners you may think necessary.

I have omitted measurements and figures from this sketch as I did not wish to make the lines less clear and distinct as that would interfere

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with its use on the topographic map.
I have now in preparation and almost completed a sketch of the work on a scale of 2000 vrs to the inch which will give all the distances and the bearings at all corners .
I am at work on the copies of field notes for the individual sections and will get them ready as soon as possible.
We have just completed the meanders of the Rio Grande to the Reams Survey and Marsh tells me he has identified several river corners.The outfit will come in to refit next week and we will go right down to G3,
There are one or two points as to conflict in surveys which I have noted and forward herewith for your kind attention.
I received today the blue prints for the G 3 work and thank you for them.I think they will be all we shall need.
We will run our connecting lines across the block and report at once how the measurements hold out &c.
Respectfully

R L Dod
State Surv-

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ROBERT S. DOD
SPEC. STATE SURVEYOR

ALPINE, TEXAS, Mar 15 1910

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

Dear Sir,

I attach hereto the sketch of Gano's meander from Sulphur Spring to NEcor 1,and NW co 483.This sketch was kindly furnished me from your office and I have platted on it the various lines run and points reached by surveys made to determine the true relative position of sulphur spring and Gano spring and the cottonwood spring at NWcor 483.Please pardon the rough work in plating, it is accurate but done in camp under adverse conditions and I do not think it worth while to take the time to recopy it as it is simply tom illustrate the methods of making the surveys ,the facts being embodied in the full report.

The SE corner of 65 as located by us by course and distance from Cigar spring corner is shown in sketch a little north and west of the point reached from sulphur spring.From our corner I ran the course called for and at x 620 varas made a witness mound on north side of the hill.from this witness mound the extreme east water of Sulphur is 110 varas N77E. At this point the water seeps out of a wall of rock in a crevasse some 12'deep and 6' wide,this crevasse widens and deepens as it runs west and water seeps out of the walls at various points till near the witness mound it forms a pool of water that extends some little distance.I should consider the pool as the probable point to be called the "Spring",but the alternate droughts and rainy seasons have altered the location and flow of so many of the springs in this country ,that it is uncertain what the actual conditions were at the time of the first survey.But it is certain that this spring has been running for a long time and the yellow deposit on the walls and the white encrustations on the rocks warrant its name.

Selecting the poit furthest east for our starting point we ran as called for and shown by dotted lineS 29 E 1640,here we came very close to a gap in the hills along which the line had run,our next run S 63 E 200 however took us up on a steep rocky point so rough we could only get 190.I have sketched the gap and it looks as though we should have started at the witness mound and we would then have run through the Gap.

On turning S 47 3/4 east we could see the big cotton wood at Gano, but it stood to the south of our course,if we had started at witness mound it would have been pretty close to our line.

On reaching the 2300 varas on this course we were ,as indicated on the sketch 190 varas east and 464 varas north of Reed spring.

Reed spring and Gano are both in deep cuts in the gravelly hills,each has a large cottonwood,each opens to the north west,each has a small ridge to the east.They are so much alike that I went to the Reed spring thinking it was Gano,and hunted for the bench mark and thought for a while that some had removed it.I found a place so exactly simillar to the one I remembered as the location of the bench mark.I emphasize this as it may be the explanation of the error in the original survey.

The Reed spring generally runs a good stream of water and it runs down near to the point reached by the last course and there forms a sort of swampy place where there is usually water,so that the description of this point as near Gano Spring ,would be good if you substitute Reed for Gano.

If we move this point west to where we would come through the gap from the witness mound,then the next run S 20 1/2 E 340 would come right by the sprin

From the end of the 2300 vara run we turned and ran to Gano Spring, S 37 40'E 772 varas,where we found the bench mark.

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From Gano spring we ran N 54 3/4 E 1735 and reached a large,old rock mound. This mound is larger than an ordinary corner and had been built with some pains, running north 853 varas we reached a rock mound identified by its bearings and by connecting it on a former run with other corners,as the SW cor of resurvey of Block 9 H&TCRR.

In order to be sure that this was the only corner made by Gano,we ran NW to the point which would be reached by running call for corner from the point reached on the meander described as near Gano spring, and made a careful search for a corneras shown by circle on sketch.We then ran SW to a point which would be reached by running the calls for the corner from Reed spring ,made search but found nothing.Then noting that the calls from the point near the spring & the calls from the spring were not identical we traced back from the corner to the point shown on sketch ,which was no where near anything.

The Gano spring and the rock mound as described were the only evidence of footsteps of the original surveyor,and seemed to sufficiently identify the rock mound described,as the original NEcorne r Sur 1 G4 and we so accepted it.

It suggested itself to us all that the original surveyor had run down to Reed spring as given in his meanders,had then gone to camp and had either himself returned or sent an assistant to put in the corner at a later date and had started from the wrong spring.

Survey 483 and Cottonwood Spring.

We contiued resurvey of Ganos meanders moving our point to Gano spring We ran S44E 3800 first as a matter of convenience and then S 20 3/4E 340,and then a line S 62 1/2 E 480 which would reach the end of Ganos meanders,or the corner of 483.We had to stop at 480 on the edge of a deep canon.

This point is shown by the red circle on the word'highest' on map. The field notes are given on the map,and it was impossible to see Corazon or any mountain from the bottom of the canon wherethe distance would bring the corner,but up this canyon runs an old fence,and some years ago I was told by Emmet Martin that it was supposed to be somewhere near the line of the survey.But he did not know who had put up the fence.

Oak canyon is shown in red and the lines run to determine location of spring We found three springs,one at head waters,then the water sinks and breaks out at a bold running spring lower down as shown,and there is a third spring near the camp.I believe that almost all the parties who at different times have lived in oak canyon have camped about the same place,near this third spring, but the water runs a steady stream from the middle spring down to the camp.

This camp spring is about 500 varas from the point reached in the fence canyon,but you can not see Corazon,and we could find no rock standing in the ground,and no marked Chapote bush.

Going back on our line we ran N43E to a point which would be reached by the meanders actually followed from Sulphur spring ,and reached a point on bank of a creek or draw with a rock standing in the ground and a Capote bush (not marked)3 varas nearly west and could see Corazon N 19 15'W. but we were 1200 varas from the spring.

I then got on the course from Corazon,this is a sharp pyramidal peak unmistakeable,and ran S 20 W till I reached a very prominent standing rock,it looked like a toombstone,was about 3'high,2' wide,and 8"to 12" through,a very noticeable object,but on a hill not on a creek bank,and the capote bush was N85 W but some 120 varas away,and not marked,and only some 300 varas from the upper spring,but to add to the con fusion ,if you will move Ganos point near Gano spring as shown on original meanders,to the Gano spring and his corner the same distance ,it comes very near this prominent rock.

I then went back to Gano Spring and ran down and put in the SE cor of Sur.21 and SE cor 12,and ran 1526 east,and 197 south and put in the Corner for NW 483,reaching nearly the same point reached before ,shown by the middle red circle.

My reason for thid was that when I looked at the field notes of 483 and

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saw the signature .I have attempted to trace this gentlemens work in the field a number of times in this country and have decided that his imagination is much stronger than his veracity,even to the extent of seeing and marking trees on open plains and finding cottonwoods on top of mountains. I believe that Mr.Gano did just as we did put in days of hard work hunting a fictitious corner and then put the corner in course and distance,and as Gano was thoroughly trustworthy and always did do what he said he did(barring the misstakes we all are apt to make) I consider that his field notes were the only reliable ones.He puts the corner in course and distance from Gano Spring Corner ,which is well defined,and we did the same.If I had looked at the signature of the field notes first I would have saved three days hard work.I had got it in my head that it was Fr.Hoban.

One further fact as to the SE corner of 65.We counted 17 definite rock mounds between sulphur spring and the possible locations of the original corner,some were indian mounds some seemed to be later.

The result of this investigation was to show that Mr.Gano had made an error in getting from the sulphur spring corner to the Gano Spring corner and that there was an excess of 387 varas east and west and 373 varas north & south in this run.

Checking this with the run made at the time of the resurvey of block 10 H&TCRR,I find the total distance between East line 65,and West line Blk 10 is the same but that an error was made in locating the Gano spring corner between these points it is given as 6007 in the Blk.10 plat and should be 5879,and distance or excess to 65 is given as 210 should be 387. Distance north to Cor 83 is given 652 we remeasured it 653.

Respectfully

R L Dodd
Asst Surv

counter 73228

Brewster County

✓	Dodds Report	Blk-G4	R.S.	#24
✓	" "	" 10	"	#18 ✓
✓	" "	" G3	"	#22 ✓
✓	" "	" 218-219-232-233 240 TP SLR Co 352 TC Rpts.	"	#45 ✓
✓	" "	" G1	"	#42 ✓
✓	" "	" G1	"	#38 ✓
	J.T. "	" G + Meyers Co. Terrell Co.		#47 ✓
✓	R.S. "	"341	"	#29 ✓
	B. Wilkerson "	Conn. Various Blks	"	#17
	D.B. Scotts "	" G-1 & M-2	"	#59CC
	D. Scotts "	" M2	"	#59AA
	Dodds "	" G4	"	
	Harold Marsh "	Blk 17-34		#A
	B.V. Hefner "	Blk 21		"#55
	H.R. Ford "	?		"#50
	Von Rosenberg	?		#50
	J.B. Mmmerman "	Blk 9		No 45
	W.L. Rider "	?		#49
	R.S. Hennycutt "	Blk 61 + 231		#21
	Dodds Report 3-17-10	Blk G4		#25

#24

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