I

DEPARTMENT OF THE INTERIOR

BUREAU OF RECLAMATION

YUMA PROJECT ARIZONA - CALIFORNIA.

FIELD NOTES

of

Subdivision of SW 1/4 and

Irregular Survey in NE 1/4 SW 1/4, Sec. 29 in T.9 S., R.23 W.,

G. & S.R.B. & M., in Arizona.

Executed by A. W. Bainbridge, Assistant Engineer, Bureau of Reclamation, under Authority of Departmental Instructions of October 24, 1906.

Survey commenced July 15, 1924.

Survey completed July 19, 1924.

Chains

The corner monuments found on the ground in the survey of Section 29 are in no case the original monuments established in the official surveys of this township. The soil on the Yuma Mesa is of a loose, dry sand, with very little vegetation and the winds in a year's time would completely obliterate all evidence of the corners and its accessories. Engineers and surveyors, residing in this locality for a number of years, state that to their knowledge, Mesquite and Redwood are the only materials ever encountered in the corner monuments found in this vicinity. The SE¼ of Section 29 has been occupied for a number of years by the University of Arizona Experimental Farm and the Redwood posts found in place have been accepted as the true corners.

On July 15, 1924 at 9:04 o'clock P. M. mountain time I set up over the sec. cor. common to sections 28, 29, 32 and 33 a 4 ins. x 4 ins. redwood post 12 ins. below surface of surfaced road, scribed 28 on the northeast, 29 on the northwest, 32 on southwest and 33 on southeast, which was referenced by 2 - 4 ins. x 4 ins. redwood posts 12 ins. above ground lying northwest and southeast on straight line through corner, distant 48.8 feet northwest and 49.0 feet southeast, and observed polaris. I then foresight on a hub that had been previously set 300 feet distant on the line between the afore described sec. cor. and the ¼ cor. common to sections 28 and 29, a 4 ins. x 4 ins. redwood post set 12 ins. above ground, scribed ¼ S. 29 on west face and S 28 on east face. The horizontal angle between the observed position of polaris and the above described hub is 1° 03' 30" west of Polaris. The correction to be applied to Polaris at this time and locality to obtain the true meridian is 46' west of the observed position of Polaris as found from tables of the Azimuths of Polaris. Thus the true bearing of the south half of the east side of sec. 29, heretofore described is determined to be N 0° 18' W.

The survey commenced at the sec. cor. common to sections 29, 30, 31 and 32 a 4 ins. x 4 ins. redwood post, set in the ground, scribed 29 on the northeast, 30 on the northwest, 31 on the southwest and 32 on the southeast, replace with iron pipe 1-½ ins. in diam., 24 ins. long set 24 ins. in ground, with brass cap marked

T9S::R23W
S30::S29
S31::S32
1924

thence on true line between sections 29 and 30 bearing N 0° 18' E.

20.00 Set temporary hub for the 16/4 cor. of sec. 29

40.56 Intersect ¼ cor. common to Secs. 29 and 30, a 4 ins. x 4 ins. redwood post set in ground, scribed ¼ S 30 on west face and S 29 on east face, replace with Iron pipe 1½ ins. in diam., 24 ins. long, set 12 ins. below road surface with brass cap marked

¼
S30::S29
1924

Chains	
	Retracing S 0° 18' W.
20.28	Set 16/4 cor. sec. 29, an iron pipe 1-½ ins. in diam. 24 ins. long, set 24 ins. in ground with brass cap marked 16/7 :: 16/4 S30 :: S29 1924 witnessed by 2 - 4 ins. x 4 ins. redwood posts placed east and west on straight line through corner at .5 chs. dist., scribed 16/4 S 29 on E. face and WC .50 on W. face; 16/7 S 30 on W face and WC .50 on E face, respectively.
40.56	Cor. common to sections 29, 30, 31 and 32, heretofore described, from which point run on true line between Secs. 29 and 32, N. 89° 15' E.
20.00	Set temporary hub for 16/5 cor., Sec. 29.
40.34	Intersect ¼ sec. cor. common to secs. 29 and 32, a 4 ins. x 4 ins., redwood post, 12 ins. above ground, scribed ¼ S 29on N face and sec. S 32 on S face, replace same with iron pipe 1-½ ins. in diam., 24 ins. long, set 24 ins.in the ground with brass cap marked ¼ S29 S32 1924 witnessed by 4 ins. x 4 ins. redwood posts at N. 0°14'W, .50 chs., scribed ¼ S on W face, S 29 on N face, S 32, W. C., .50 on S face, witness corner at N 30° E., .53 chs. scribed ¼ S. on N.W. face and W.C., .53 on SW face: witness corner at S. 30° W., .98 chs., scribed ¼ S on NW face and WC .98 on .NE face.
	Retracing S 89°15' W.
20.17	Temp. 16/5 corner set a 1-½ ins. iron pipe, 24 ins. long, 24 ins. in ground marked 16/5 S29 / 16/2 S32 1924 witnessed by 2 - 4 ins. x 4 ins. redwood posts placed north and south on straight line through corner each .50 chs. out, scribed 16/5 S29 on north face, WC .50 on south face; 16/2 S 32 on south face and WC .50 on north face,respectively. From the ¼ sec. cor., common to sections 29 and 32 heretofore described, run North on random line on north and south mid-section line, sec. 29.
20.00	Set temp. hub for 16/16 cor.
40.00	Set temp. hub for 16/13 cor., on south bank of East Main Canal.
80.35	A point on section line, 33 links east of ¼ sec. cor., common to secs. 29 and 20, a 4 ins. x 4 ins. redwood post set 9 ins. above ground, scribed ¼ S 20 on north face and S 29 on south face replace same with iron pipe 1-½ ins. in diam., 36 ins. long, set 30 ins. in ground with a brass cap marked ¼ S20 S29 1924

chains	
	Retracing S. 0°14' E.
40.18	Move temp. 16/13 cor. to this point. From ¼ sec. cor., common to sections 29 and 30, run East on random line along east and west mid-section line, sec. 29.
20.00	Set temp. hub for 16/12 cor.
39.95	Intersect true north and south mid-section line heretofore described.
80.25	Intersect east section line, sec. 29, 63 links south of ¼ sec. cor., common to secs. 28 and 29, heretofore described, replace same with iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in ground, with brass cap marked ¼ S 29::S 28 :: 1924
	Retracing S. 89° 33' W.
40.30	Intersect true north and south mid-section line 18 links north of previous temp. 16/13 cor., true point falls near center of East Main canal, set witness corners, 2 iron pipes 36 ins. long, set 30 ins. in ground on true north and south mid-section line, 76 links N.0°14' W. and 50 links S.0°14' E. of true point for 16/13 cor., with brass caps, the north W.C. cor., marked 16/13 S.29 W.C. 76 the south W. C. cor., marked W.C. 50 16/13 S.29
60.28	temp. 16/12 cor., heretofore described, set iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in ground with brass cap marked 16/12 S.29 1924
80.25	¼ sec. cor., common to secs. 29 and 30 heretofore described. From the W.C. 16/13, bearing S. 0°14' E. 50 links dist., from the true point for the 16/13 cor. run S. 0° 14' E.
19.68	Temp. 16/16 cor., heretofore described, set iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in ground with brass cap marked 16/16::S.29 1924
39.86	¼ sec. cor., secs. 29 and 32, heretofore described. From 16/16 cor., heretofore described, run S. 89°26' W.,

chains	on east and west mid-quarter-section line of S½ of Sec. 29.
20.00	Set hub for temp. 16/17 cor.
40.15	Intersect 16/4 cor. sec. 29, heretofore described. From 16/5 cor., sec. 29, heretofore described, run N. 0° 02' W. on north and south mid-quarter section line of SW¼ sec. 29.
20.23	Intersect point on line 8 links west of temp. 16/17 cor. Sec. 29, set iron pipe 1½ ins. in diam. 36 ins. long, set 30 ins. in ground with brass cap marked 16/17 S 29 1924
40.46	Intersect 16/12 cor., heretofore described.

Irregular Survey in NE¼SW¼ Sec. 29, T. 9 S., R. 23 W., G. & S.R.B. & M., under supervision of A. W. Bainbridge on July 16, 1924.

At a point 4.08 chains N. 0° 14' W. from the 16/16 cor. sec. 29 and on the north and south mid-section line of said sec. 29 and at the top of the north edge of the Yuma Mesa I set a 1-1/2 ins. iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground, with brass cap marked I for the point of beginning of the irregular survey, thence westerly along the top of the north edge of the Yuma Mesa, S. 86° 21' W.

1.76	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 2, thence N. 69° 46' W.
2.29	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 3, thence S. 85° 13' W.
3.19	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 4, thence N. 33° 16' W.
3.31	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 5, thence S. 87° 43' W.
2.17	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap, marked 6, thence S. 6° 42' W.
4.23	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 7, thence N. 86° 37' W.
1.03	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 8, thence N. 36° 00' W.
2.14	Set an iron pipe 1½ ins. in diam., 36 ins. long, set

chains	30 ins. in the ground with brass cap marked 9, thence N. 18° 45' E.
2.09	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 10, thence N. 76° 48' W.
1.73	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 11, thence N. 49° 35' W.
2.39	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 12, thence S. 23° 44' W.
2.57	Set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 13, thence N. 53° 37' W.
2.91	To a point on line between the 16/12 cor. and the 16/17 cor. of sec. 29, from which the 16/17 cor. bears S. 0° 02' E., 8.27 chains distant, set an iron pipe 1½ ins. in diam., 36 ins. long, set 30 ins. in the ground with brass cap marked 14 for the end of the irregular survey.

The above described meander line follows along the top of the escarpment between the Mesa and Valley and is the boundary line between the irrigable and non-irrigable land; This meander line divides the NE¼SW¼ of Sec. 29 into two (2) irregular tracts and are designated as Lot 1 and Lot 2 and contain 28.75 and 11.66 acres, respectively, as shown on the accompanying plat.

I, A. W. Bainbridge, Assistant Engineer, Bureau of Reclamation, do solemnly swear that, in pursuance of departmental instructions bearing date of October 24, 1906, that the surveys heretofore described have been faithfully and truly performed by Assistant Engineers and others in responsible charge, in strict conformity with the instructions furnished, the Manual of Surveying Instructions, and the laws of the United States, subdivided the SW 1/4 of Sec. 29, in T.9 S., R.23 W., G. & S. R. B. & M., in the state of Arizona, which is represented in the foregoing field notes as having been surveyed.

I further solemnly swear that the irregular survey in the NE 1/4 of the SW 1/4 of above described section was surveyed under my direction and supervision in accordance with the above named instructions; and also that all the corners of said surveys have been perpetuated in strict accordance with the Manual of Surveying Instructions, and in the specific manner described in the field notes, and that the foregoing are the original field notes of such surveys.

A. W. Bainbridge,
Assistant Engineer, U.S.B.R.

Subscribed by said A. W. Bainbridge, and sworn to before me this 29 day of November, 1924.

A. H. McClure
United States Commissioner.

APPROVAL.

Bureau of Reclamation,
Washington, D. C., December 11, 1924.

The foregoing field notes of the subdivision of the SW 1/4, and irregular survey in the NE 1/4 SW 1/4, Sec.29, T.9 S., R.23 W., G. & S. R. B. & M., in the State of Arizona, executed by A. W. Bainbridge, Assistant Engineer, Bureau of Reclamation, in accordance with departmental instructions of Oct. 24, 1906, having been examined and found to conform with said instruction, are hereby approved.

Edward Wood
Commissioner.

Department of the Interior
General Land Office,
Washington, D.C., January 10, 1924.

The foregoing field notes of the subdivision of the SW 1/4 and irregular survey in the NE 1/4 SW 1/4 Sec. 29, T.9 S., R.23 W., G. & S. R. B. & M., in the State of Arizona, having been examined and found to conform with the requirements of this office, the said field notes and surveys they describe are hereby accepted.

William Spry
Commissioner.