FIELD NOTES
OF
HOMESTEAD ENTRY SURVEY NO. 591
SITUATED IN THE TONTO NATIONAL FOREST
ADMINISTRATIVE DISTRICT NO. 3.

In Section 19, unsurveyed, Township 10 N., Range 14 E.
In Section 20, unsurveyed, Township 10 N., Range 14 E.

and

ESTABLISHMENT OF U.S.L.M. NO. 591 H.R.S.
of the
GILA AND SALT RIVER BASE & MERIDIAN.
State of
ARIZONA

Applicant for listing: Henry Mott,
Residence: Young, Arizona.
Application No.: 583, dated August 12, 1915.
List No.: 3-3994, dated September 30, 1916.

Applicant for survey: Robert J. Cook,
Residence: Young, Arizona.
H. R. No.: 036200, dated September 1, 1917.

Land Office: Phoenix, Arizona.

Survey executed by Frank D. Yost, Surveyor - Forest Service.
Under special instructions dated March 12, 1919.
Survey commenced June 6, 1919.
Survey completed June 6, 1919.

We hereby certify that we assisted
Surveyor - Forest Service,
Frank D. Yost,
in surveying all those
parts or portions of Homestead Entry Survey No. 591, in the State of ARIZONA, which are represented in the following field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for ARIZONA.

Note: It would have been very expensive and inconvenient to appear before an officer to administer oaths to Assistants; hence, they were taken by the Surveyor.

Subscribed and sworn to before me this
August 1929,
Frank D. Yost,
Surveyor - Forest Service.

OATH OF SURVEYOR

I, Frank D. Yost, Surveyor - Forest Service,
do solemnly swear that, in strict conformity with the special instructions of the United States Surveyor General for ARIZONA, dated March 12, 1919, and the laws of the United States, I have well, faithfully, and truly, in my own proper person, surveyed a tract of land embraced in

List Patent No. 2-3894, dated September 30, 1916, for
the same to be known as Homestead Entry Survey No. 591, situated within the
sown Section 19, Township 10 N., Range 14 E., and
unsown Section 20, Township 10 N., Range 14 E.,
of the GILA AND SALT RIVER BASE & meridian, ARIZONA, and the related retracements and resurveys and section subdivisions, which are represented in the following field notes as having been surveyed by me; and I further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the stated special instructions, and in the specific manner described in the field notes, and that the following are the original field notes of such survey.

Subscribed and sworn to before me this
November 19, 1929,
Notary Public.

My Commission expires March 17, 1921.
HOMESTEAD ENTRY SURVEY NO. 591
TOMO NATIONAL FOREST
STATE OF ARIZONA

Chains

Surveyed under special instructions from the Surveyor General for Arizona, dated March 12, 1919, and designated as Homestead Entry Survey No. 591.

Situated in what will probably be when surveyed, Sect. 19 and 20, T. 10 N., R. 14 E., Gila and Salt River Base and Meridian, Tomo National Forest, Arizona.

Surveyed under the Acts of June 11, 1908 and October 1, 1912.

Survey commenced June 6, 1919, and executed with a Buff and Buff transit No. 10019, equipped with Smith solar attachment.

I test the adjustments of the transit and make necessary corrections.

All distances are horizontal, and were reduced from measurements made directly on the slope with a 500 link steel tape. The slope angles were determined with a clinometer.

June 6, 1919.

At Cor. No. 2 of this survey, hereinafter described, I observe the altitude of the sun for azimuth. The reading on the reference mark was set at zero and the sun was observed in the upper right and lower left quadrants of the field. My watch is set for local mean time.

Lat. 34° 11' 29" N., Long. 116° 56' 16" W., from Special Instructions from the Surveyor General and later verified.
Telescope Pos.  l.m.z.  Horizontal  Vertical
sun   p.m.    Angle   Angle
Direct  \  5h 24m 31s  103° 29' 30"  20° 07' 30"
Reversed  5h 24m 18s  105° 09' 00"  19° 27' 56"

Bearing of Reference Mark is N. 28° 23' 42" E.

At the same station I again observe the altitude of the
sun for azimuth. The reading on the reference mark is
set at zero and the sun was observed in the upper left
and lower right quadrants of the field.

Telescope Pos.  l.m.z.  Horizontal  Vertical
sun   p.m.    Angle   Angle
Direct  \  5h 24m 50s  103° 29' 00"  19° 52' 04"
Reversed  5h 25m 30s  103° 58' 30"  19° 13' 00"

The bearing of reference mark is N. 28° 22' 20" E.

The two obens give a mean bearing of reference mark
as N. 28° 25' 07" E. I accept bearing of reference
mark as N. 28° 25' E. and to the corresponding meridian
all the courses of this survey were referred by sus-
tained angulation.

Note: The lines of this survey were run on an assumed
azimuth which was subsequently corrected to the meridi-
ian as above determined.

ESTABLISHMENT OF U.S.L.M. 591 H.E.S.
June 6, 1919.

There being no public land corner or U. S. Location
Monument within two miles of this claim, I therefore
establish U.S.L.M. 591 H.E.S. as follows:
On an open South slope forming the first rise of the
Nogollon rim, I select a limestone boulder in place
showing 6 x 5 x 3 ft. above ground, which is plainly
visible from East, South and West. I chisel boulder
+ on top for the point and U S L M 591 H E S 2 lbs.
N. of the + on sloping N. face; raise a mound of stone
6 ft. base, 5 ft. high, N. of U. S. L. M., whence:
Chains

A juniper 40 ins. dia., brs. N. 85° 09' W., 521 lfs. dist.

An oak 12 ins. dia., brs. N. 14° 07' W., 377 lfs. dist.

Each blazed and scribed U.S.L.M. 591 H.E.S and 1 H.E.S. 591 + 3 T.

No other bearing trees available.

NE. cor. of Robert J. Cook's house brs. S. 62° 02' W., 313 lfs. dist.

Brown's Peak brs. S. 31° 46' W.

Mazatzal Peak brs. S. 72° 43' W.

North Peak brs. S. 84° 01' W.

Cor. to Secs. 4, 5, 22 and 32, Ts. 9 and 10 N., R. 14 E., a granite porphyry stone 10 x 8 x 8 ins. above ground, marked and witnessed as described by the Surveyor General, brs. S. 14° 41' 30" E., 230.27 chs. distant by traverse which appears at the end of these notes.

Note: U. S. L. M. No. 591 H. E. S. is also Cor. No. 1 of this survey, as is hereinafter described.

BOUNDARIES OF CLAIM

June 6, 1919.

Beginning at Cor. No. 1, which is also U. S. L. M. 591 H. E. S. previously described.

Identical with Cor. H-1 of the list survey, which is a sandstone 14 x 6 x 6 ins. set on top of the limestone boulder in place showing 6 x 5 x 3 ft above ground, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. The + chiseled on top of the limestone boulder for U. S. L. M. 591 H. E. S. is also point for Cor. No. 1, of this survey,
and on the sloping SW. face of the boulder 2 lks. SW. of + I chisel 1 H E S 591; raise a mound of stone 3 ft. base, 2 ft. high, SW. of cor., whence:

A juniper 40 ins. dia., brs. N. 85° 09' W.,

521 lks. dist.

An oak 12 ins. dia., brs. N. 14° 07' W.,

.377 lks. dist.

. Each blazed and scribed 1 H E S 591 and

U S L M 591 H E S + B T.

Lat. 34° 11' 53" N., Long. 110° 56' 13" W., from

Special Instructions from the Surveyor General and

later verified.

Magnetic declination at 8 a.m. 14° 30' E. Mean

Magnetic declination, 14° 26' E.

Thence S. 2° 16' W.,

. Descend 40 ft. over open S. slope.

26.21 Enter heavy brush, Descend 20 ft. over steep S. slope.

39.89 To Cor. No. 2.

Identical with Cor. H-2 of the list survey, which is

a sandstone 24 x 10 x 8 ins. above ground, marked and

witnessed as described by the Forest Service. I

destroy all trace of this list cor.

Deposit a sandstone 3 x 2 x 2 ins. marked with a + 20

ins. in the ground, over which set a sandstone 54 x 12

x.6 ins. chiseled + for the point and 2 H E S 591 on

NW. face; raise a mound of stone 2 ft. base, 2 ft. high,

NW. of cor., whence:

An oak 10 ins. dia., brs. S. 32° 00' W.,

4 lks. dist.

A juniper 24 ins. dia., brs. S. 66° 02' E.,

.68 lks. dist.

. Each blazed and scribed 2 H E S 591 + B T.
Chains

Cor. No. 3 of H.E.S. 590, a sandstone 14 x 5 x 4 ins. above ground, marked + on top, and 3 H.E.S. 590 on SE. face, set in a mound of stone 4 ft. base, 2 ft. high, brs. S. 41° 13' 40" E.,

45.17 cts. dist. by traverse which appears at the end of these notes.

A dry wash 50 lbs. wide, 3 ft. deep, course S. 10° W., passes 50 lbs. to the E. of this corner.

Thence S. 89° 47' W.

Ascend 40 ft. over steep rocky east slope, thru heavy brush.

3.61

Top of ascent, thence along open grassy south slope, thru scattering juniper.

39.23

To: Cor. No. 5.

Identical with Cor. 4-3 of the list survey, which is a sandstone 9 x 5 x 2 ins. above ground, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor.

Deposit a sandstone 2 x 2 x 1 ins. marked with a + 26 ins. in the ground, over which set an iron post 36 ins. long, 2 ins. dia., with brass cap marked 1919 on South rim and 3 H.E.S. 591 in NS. quadrant; raise a mound of stone 3 ft. base, 2 ft. high, NS. of cor., whence:

A juniper 30 ins. dia., brs. S. 44° 00' E.,

154 lbs. dist.

A juniper 10 ins. dia., brs. S. 59° 02' W.,

83 lbs. dist.

Each blazed and scribed 3 H.E.S. 591 + B.T.

Thence N. 0° 07' E.

Descend 30 ft., over steep rocky NW. slope, thru heavy
HOMESTEAD ENTRY SURVEY NO. 591
TOMTO NATIONAL FOREST
STATE OF ARIZONA

Chains
3.91 Wash, 40 lns. wide, banks 3 ft. high, (dry) course SW.
Ascend 35 ft., over steep rocky SE. slope, thru heavy brush.

8.41 Top of steep ascent; thence ascend 50 ft., over gradual South slope, thru scattering juniper and oak.

39.98 To Cor. No. 4.
Identical with Cor. H-4 of the list survey, which is a sandstone 9 x 3 x 3 ins. above ground, marked and wit- nessed as described by the Forest Service. I destroy all trace of this list cor.
Deposited a sandstone 4 x 3 x 2 ins. marked with a + 26 ins. in the ground, over which set an iron post 36 ins.
long, 2 ins. dia., with brass cap marked 1919 on S. rim, and 4 H E S 591 in SE. quadrant; raise a mound of stone
3 ft. base, 2 ft. high, SE. of cor., whence:
A juniper 15 ins. dia., brs. S. 31° 58' E.,
22 lns. dist.
A juniper 56 ins. dia., brs. S. 71° 55' W.,
210 lns. dist.
Each blazed and scribed 4 H E S 591 + B T

Thence N. 89° 49' E.,
Along gentle south slope, thru scattering juniper and oak.

40.71 To Cor. No. 1, the place of beginning.

AREA
Area, - - - - - - - - - - - - - - - - - - - - - - - - 169.65 Acres.
HOMESTEAD ENTRY SURVEY NO. 591

TONTO NATIONAL FOREST

STATE OF ARIZONA

IMPROVEMENTS

The improvements made upon and for the benefit of this claim and belonging to the claimant herein, consist of the following:

A frame house 14 x 20 ft., the long sides extending E. and W., and the NE. cor. of which bears S. 62° 02' W., 3.13 chs. dist. from Cor. No. 1.

Value: $200.00

Approximately 1 mile of wire fence,

Value: $175.00

DESCRIPTION

This claim consists mainly of a wide flat grassy ridge, with a southern exposure. The soil is a good deep loam, usually gravelly on the surface but free of rock beneath.

Approximately 85 percent of the area is suitable for farming, of which 16 acres were under cultivation at the time of survey.

The rainfall is depended upon to grow crops.

Water for domestic use is obtained from a spring about 1/4 mile NE. of the house.

There is no timber of commercial value on the claim. I saw no indications of mineral on the claim.

CONFLICTS AND ADJOINING CLAIMS

There are no conflicts or adjoining claims.

H. E. S. No. 590 lies about 1/2 mile distant in a South-easterly direction.

Young, Arizona, the nearest settlement and postoffice, lies about 8 miles distant in a southerly direction.
<table>
<thead>
<tr>
<th>Chains</th>
<th>Traverse</th>
<th>Dist.</th>
<th>N.</th>
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The from U.S. E. H. 591 H. E. 8. 30 Cor. to Segs. 4, 5, 32 and 33, 7s. 9 and 10 N., R. 14 E.

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<th>Course</th>
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Resultant Course, S. 14° 40' 30" E., 230.27 chs.

The line from Cor. No. 2, H. E. S. 591 to Cor. No. 3, H. E. S. 590.

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Resultant course, S. 41° 18. 40" E., 435.17 chs.

Survey completed June 6, 1929.

Surveyor - Forest Service.
June 6, 1919.

Direct Solar Obsn. at Cor. No. 2 of H. E. S. 591.

Lat. 34° 11' 29" N., Long. 110° 56' 15" W., from

Special Instructions from the Surveyor General and

later verified. Elevation approximately 6200 ft.

Telescope Pos. I.M.E. Horizontal Vertical

sun p.m. Angle Angle

Direct 5h 25m 50s 105° 39' 30" 20° 07' 30"

Reversed 5h 24m 15s 104° 09' 00" 19° 27' 56"

Means 5h 24m 52s 105° 44' 15" 19° 37' 43"

Corr. for ref. 2° 02'

Decl. 22° 37' 51" N.

Cos. Q. = sin. 22° 37' 51" N. x tan. 34° 11' 29"

x tan. 19° 45' 41"

sin. 22° 37' 51" = 0.3939943

cos. 34° 11' 29" = 0.824407

cos. 19° 45' 41" = 0.9735393

9.365227 = log. 9.3654102

tan. 34° 11' 29" = 0.824407

tan. 19° 45' 41" = 0.9735393

Bearing of Reference mark, N. 28° 23' 43" W.
Chains

Direct Solar Obsn. at Cor. No. 2, H. E. S. 591.
June 6, 1919.

Telescope Pos. 1.m.t. Horizontal Vertical
sun p.m. Angle Angle
Direct 5h 24m 50's 103° 29' 00" 19° 52' 04"
Reversed < 5h 25m 30's 103° 56' 30" 19° 18' 00"
Means 5h 25m 10's 103° 43' 45" 19° 32' 32"

Corr. for refr. 2' 05"

Decl. 22° 37' 52" N.

\[
\cos \theta = \sin 22° 37' 52" \quad \cos 34° 11' 29" \times \cos 19° 30' 29"
\]
\[
\times \tan 19° 30' 29"
\]

\[
\sin 22° 37' 52" = 0.38582312
\]
\[
\cos 34° 11' 29" = 0.9175321
\]
\[
\cos 19° 30' 29" = 0.99549849
\]
\[
9.6933142 = \log \tan 19° 30' 29"
\]
\[
\tan 34° 11' 29" = 0.8321125
\]
\[
\tan 19° 30' 29" = 0.5492427
\]
\[
9.381452 = \log \cos \theta = 0.24063
\]
\[
\cos \theta = 0.905284
\]
\[
\theta = 75° 21' 15"
\]

Bearing of Reference Mark, N. 28° 22' 30" E.
Directions—1. Carry out calculations to two decimals only.
2. In balancing Latitudes and Departures do not obliterate or change the original figures.
3. In calculations of falling take result to nearest link. In calculations of N and S areas drop all after second decimal. Surveyors are required to use the Standard Field Tables issued by the G.L.O.
4. Only three copies of this tabulation are necessary, for the District Office, the Surveyor General, and the Commissioner.

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<th>CORNERS</th>
<th>BEARING</th>
<th>DISTANCE</th>
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Closing Error, 1:1567

Acres.
APPROVAL

Office of the United States Surveyor General,

Phoenix, Arizona, May 18, 1920

The foregoing field notes of Homestead Entry Survey No. 591

executed by Frank O. Yeot, Surveyor under his special instructions, dated March 12, 1911, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described survey in the State of Arizona, has been correctly copied from the original notes on file in this office.

FRANK P. TROTT
U. S. Surveyor General.