U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  

FIELD NOTES  

OF  
HOMESTEAD ENTRY SURVEY NO. 511  
SITUATED IN THE  
TUSAYAN  
NATIONAL FOREST  
ADMINISTRATIVE DISTRICT NO. 3  

In Section 5, unsurveyed, Township 29 N., Range 6 E.  
In Section 6, unsurveyed, Township 29 N., Range 6 E.  
In Section 31, unsurveyed, Township 30 N., Range 6 E.  
In Section 32, unsurveyed, Township 30 N., Range 6 E.  
(2 29 N, 6 E is partly surveyed and accepted)  

of the  
Gila and Salt River Base and Meridian.  

State of  
ARIZONA  

Applicant for listing  
George Wilson,  
Residence  
Grand Canyon, Arizona  
Application No. 515, dated December 15, 1915  
List No., dated, 19  

Applicant for survey  
George Wilson,  
Residence  
Grand Canyon, Arizona  
H. E. No., Office  
Phoenix, Arizona  
Land District  
Phoenix, Arizona  

Survey executed by  
R. P. A. Johnson, Surveyor - Draftsman  
Under special instructions dated March 10, 1917  
Survey commenced October 6, 1917  
Survey completed October 6, 1917  

[OVER]
OATH OF ASSISTANTS

We hereby certify that we assisted F. C. Johnson
Surveyor, Draftsman
in surveying all those
parts or portions of Homestead Entry Survey No. 511, 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 eleventh day of October, 1917.

[Signature]
Surveyor Draftsman

---

OATH OF SURVEYOR

I, F. C. Johnson, Surveyor Draftsman, do solemnly swear that, in strict conformity with the special instructions of the United States Surveyor General for Arizona, dated March 10, 1917, 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 Application No. 515, dated December 15, 1915, for Patent under the Act of June 29, 1902, for the same to be known as Homestead Entry Survey No. 511, situated within the Surveys, National Forest, in unsurveyed Section 31, Township 30 N., Range 6 E., and unsurveyed Section 32, Township 30 N., Range 6 E., of the Gila and Salt River 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.

[Signature]
Surveyor Draftsman

Subscribed and sworn to before me this fifteenth day of February, 1918.

[Signature]
Notary Public

My Commission expires Mar. 17, 1921.
Chains

Applicant for listing, George Wilson; Application No. 519, dated December 15, 1915.

Surveyed under special instructions from the Surveyor General for Arizona, dated March 10, 1917 and designated as Homestead Entry Survey No. 511.

Situated in what will probably be, when surveyed, Secs. 31 and 32, T. 30 N., R. 6 E., and in unsurveyed Secs. 5 and 6, T. 29 N., R. 6 E., (Partly surveyed and accepted), Gila and Salt River Base and Meridian, Tusayan National Forest, Arizona.


Survey commenced October 6, 1917 and executed with a Buff and Buff transit 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.

October 6, 1917.

I observe the altitude of the sun for azimuth at cor. No. 1 of this survey, hereinafter described. The reading is set at zero and the meridian brought by sustained angulation from meridian established by Polaris observations on October 5, 1917 at cor. No. 1 of H. E. S. 469. The sun was observed in the lower left and upper right quadrants of the field. My watch is set for local mean time. Lat. 35° 56' 13" N., Long. 111° 47' 12" W., from Forest Service Base Map and U. S. G. S. San Francisco Mt. sheet.
HOMESTEAD ENTRY SURVEY NO. 511
TUSAYAN NATIONAL FOREST
STATE OF ARIZONA

Chains    Telescope    Time        Horizontal Angle    Vertical Angle
          Direct       6h. 41m. 05s. 55° 36' 00" 31° 12' 00"
          Reversed    6h. 41m. 50s. 56° 02' 00" 30° 47' 00"

The two meridian differ 0° 01' 22" and to the mean of
the two, all the courses of this survey are referred.

BOUNDARIES OF CLAIM

Beginning at cor. No. 1.
Also cor. No. 2 of H. E. S. 469.
Deposit a limestone 4' x 4' x 1' ins. marked with a +, 14
ins. in the ground, over which set a limestone 24' x 16
x 6 ins., chiselled + for the point, 1 - H. E. S 511 on
N.E. face and 2 - H. E. S 469 on E.S.E. face; and raise
a mound of stone 2' ft. base, 1-1/2 ft. high E.S.E. of
cor., whence:

A pinon, 10 ins. dia., bears S. 67° 10' W.,
224 lks. dist., scribed 1 H. E. S 511 + B T.

A pinon, 8 ins. dia., bears S. 9° 35' W.,
203 lks. dist., scribed 1 H. E. S 511 + B T.

A pinon, 10 ins. dia., bears S. 41° 10' W.,
127 lks. dist., scribed 2 H. E. S 469 + B T.

A pinon, 6 ins. dia., bears S. 28° 42' W.,
80 lks. dist., scribed 2 H. E. S 469 + B T.

Cor. for secs. 7, 8, 17 and 18, (Accepted),
T. 29 N., R. 6 E., which is a limestone 24' x 14
x 8 ins. in mound of stone, marked and wit-
messed as described by the Surveyor General,
bears S. 4° 10' 17" E.; 143.80 ins. dist., by
traverse which appears at the end of these
notes.

Lat. 35° 56' 13" N., Long. 111° 47' 12" W.; from Forest
Service Base Map and U. S. G. S. San Francisco Mt. sheet.
HOMESTEAD ENTRY SURVEY NO. 511
TUSAYAN NATIONAL FOREST
STATE OF ARIZONA

Chains
Mag. decl. at 8:00 a.m., 15° 00' E. Mean mag. decl.,

\[ \text{decl. at 8:00 a.m.} = 15° 00' \text{E.} \]
\[ \text{Mean mag. decl.} \]

Thence N. 39° 58' W. by direct course.

Ascend 25 ft. along foot of NE. alone in timber and

\[ \text{sagebrush, and foot x 01' x 06' easily ni} \]

To cor. No. 2. 5d. by N. 2d. by W. + bala

At cor. of fence, fence bears N. 38° E. and S. 60° E.

Deposit a sandstone 2 x 2 x 1 ft. marked with a +, 14
ins. in the ground, over which set a sandstone 24 x 10
x 8 ins., chiseled + for the point and 2 = H E S 511 on
E. face; and raise a mound of stone 3 ft. base, 2 ft.
high E. of cor., whence;

\[ \text{A pinon, 16 ins. dia., bears S. 28° 00' W.} \]

58 lbs. dist., scribed 2 H E S 511 + B T.

A pinon, 20 ins. dia., bears S. 60° 59' W.

63 lbs. dist., scribed 2 H E S 511 + B T.

Along fence, in open. bee seasonal con. x of x

Arroyo, 10 lbs. wide, ban 1 ft. high, course SE.

Ascend 30 ft. to ridge in scattered timber.

Fence cor., fence bears S. 60° E. Leave fence.

Topp of ridge, bears NW., and SE. Descend 45 ft. to
cor. in scattered timber.

To cor. No. 3. 3d. and 3d. mony A

Also cor. No. 1 of E. E. S. 449.

Deposit a limestone 4 x 3 x 3 ins. marked with a +, 14
ins. in the ground, over which set a limestone 24 x 10
x 6 ins., chiseled + for the point, 3 = H E S 449 on SE.
face and 1 = H E S 449 on NE. face; and raise a mound
of stone 3 ft. base, 2 ft. high NE. of cor., whence:

A pinon, 8 ins. dia., bears N. 9° 00' W.

169 lbs. dist.; scribed 1 H E S 449 3 H E S
A pinon, 6 ins. dia., bears S. 5° 40' W., 60 lks. dist., scribed 1 H E S 449, 3 H E S 511 + B T.

U. S. L. M. No. 449, which is a limestone boulder in place 26 x 26 x 12 ins. above ground, chiseled + U S L M No. 449 H E S on top, with mound of stone 7 ft. base, 5 ft. high; bears S. 16° 24' W., 1.30 chs. dist.

Thence S. 78° 26' E.

Descend 5 ft. across sagebrush flat to arroyo.

3.15 Road bears NNW. and SSE.

25.92 Arroyo, 15 lks. wide; banks 1 ft. high; course S.

Ascend 10 ft. to cor. 20 + 50. extd

29.97 To cor. No. 4.

Also cor. No. 4 of H E S. 449.

Deposit a limestone 6 x 4 x 4 ins. marked with a +, 14 ins. in the ground, over which set a limestone 22 x 12 x 10 ins. (no longer used); chiseled + for the point, 4 - H E S 449 on NW. face and 4 - H E S 511 on SW. face; and raise a mound of stone 3 ft. base, 2 ft. high NW. of cor. whence:

A pinon, 6 ins. dia., bears N. 32° 01' E., 165. 1 lks. dist., scribed 4 H E S 511 + B T.

A pinon, 12 ins. dia., bears S. 41° 26' E., 295. 8 lks. dist., scribed 4 H E S 511 + B T.

A pinon, 10 ins. dia., bears S. 53° 30' E., 250 lks. dist., scribed 4 H E S 449 + B T.

A pinon, 12 ins. dia., bears N. 32° 29' E., 164 lks. dist., scribed 4 H E S 449 + B T.

Thence S. 12° 04' E...

Descend 25 ft. in open...
TUSAYAN NATIONAL FOREST

STATE OF ARIZONA

187

Form 88
Sheet No. 2

HOMESTEAD ENTRY SURVEY NO. 511

Chains: 27.00
Trail bears NW. and SE.
40.42
To cor. No. 5.
On line 2-3 of H. E. S. 469.
Deposit a sandstone 4 x 3 x 2 ins. marked with a +, 14
ins. in the ground, over which set a sandstone 24 x 12
x 5 ins., chiseled + for the point and 5 - H E S 511 on
NW. face. No witnesses available, therefore dig pits
24 x 24 x 12 ins. crosswise on claim lines 8 ft. dist.;
and raise a mound of earth 4 ft. base, 2 ft. high, 3-1/2
ft. dist. NW. of cor.

Cor. No. 3 of H. E. S. 469, which is a limestone
12 x 6 x 10 ins. above ground, marked + on
top and 3 - H E S 469 on SW. face, bears S. 89°
36' E., 17.74 cds. dist., by direct measurement.

Thence N. 89° 36' W.
Along line 2-3 of H. E. S. 469.
10.00
Arrroyo, 15 lks. wide, banks 2 ft. high, course SE.
17.45
A road bears NW. and SE.

24.70
Arrroyo, 15 lks. wide, banks 2 ft. high, course SE.

28.00
To cor. No. 1, the place of beginning.

AREA

Total Area - - - - - - - - - - - - - - - - - - - - 168.40 acres

IMPROVEMENTS

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

A one-room frame house, 12 x 9 ft., the long side of which
bears N. and S. and the SW. cor. of which bears N. 83°
17' E., 5.00 cds. dist. from cor. No. 2.

Value - - - - - - - - - - - - - - - - - - - - $ 75.00

A mud and stone house, 20 x 15 ft., in bad condition
and not habitable, the SW. cor. of which bears N. 80°
30' E., 4.40 chs. dist. from cor. No. 2.

Value --------------------- $ 25.00

Approximately 1/4 mile of wire fence in poor condition.

Value --------------------- $ 15.00

**DESCRIPTION**

This claim lies near the center of Sheb Park in the
Gunlock Basin at an elevation of approximately 7000
ft. The tract is open park with low timber ridge in
the NW. portion and low timber ridges to the E. and W.
The soil is a clay loam of good depth and capable of
producing good crops.

There is no water for irrigation or domestic use.

The timber consists of approximately 10 acres of scattered

pinon and cedar along line 2-3, of value for fire wood

only.

There is no cultivation.

I saw no indications of mineral upon this claim.

**CONFLICTS AND ADJOINING CLAIMS**

There are no conflicts. H. E. S. 449 of George Shelley

joins this claim on the North and H. E. S. 469 of David

Vance on the South.

Grand Canyon, Arizona, the nearest railroad point, post

office and market, lies 20 miles in a Westerly direc-

tion and is reached by good wagon road.
<table>
<thead>
<tr>
<th>Cor.</th>
<th>Course</th>
<th>Dist.</th>
<th>N</th>
<th>S</th>
<th>E</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>N. 39° 58' W.</td>
<td>36.56</td>
<td>28.02</td>
<td>23.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-3</td>
<td>N. 36° 15' E.</td>
<td>22.08</td>
<td>17.34</td>
<td>18.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-4</td>
<td>S. 78° 25' E.</td>
<td>29.97</td>
<td>6.01</td>
<td>29.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-5</td>
<td>S. 12° 04' E.</td>
<td>40.42</td>
<td>29.53</td>
<td>8.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-1</td>
<td>N. 69° 36' W.</td>
<td>28.00</td>
<td>0.20</td>
<td>28.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>157.03</td>
<td>45.56</td>
<td>45.54</td>
<td>51.48</td>
<td>51.48</td>
</tr>
<tr>
<td>Error in Lat. and Dep.</td>
<td></td>
<td>45.56</td>
<td>61.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closing Error, 1:7852</td>
<td></td>
<td>0.02</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TIE FROM COR. NO. 1 TO COR. OF SEGS. 7, 8, 17 and 18, T. 29 N., R. 5 and 6 E.

<table>
<thead>
<tr>
<th>Course</th>
<th>Dist.</th>
<th>N</th>
<th>S</th>
<th>E</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>S. 29° 04' E.</td>
<td>39.96</td>
<td>54.93</td>
<td>19.41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. 39° 41' E.</td>
<td>45.63</td>
<td>0.25</td>
<td>45.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. 26° 44' W.</td>
<td>120.54</td>
<td>107.66</td>
<td>54.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S. 1° 30' W.</td>
<td>6.06</td>
<td>6.06</td>
<td>0.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>148.90</td>
<td>65.24</td>
<td>65.28</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>54.38</td>
<td>10.85</td>
<td></td>
</tr>
</tbody>
</table>

Tie is S. 4° 10' 17" E., 149.30 chs. dist.

Survey completed October 6, 1917.

Surveyor - Draftsman
<table>
<thead>
<tr>
<th>Chains</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1</td>
<td>1.00</td>
</tr>
<tr>
<td>1-2</td>
<td>1.50</td>
</tr>
<tr>
<td>1-3</td>
<td>2.00</td>
</tr>
<tr>
<td>1-4</td>
<td>2.50</td>
</tr>
<tr>
<td>1-5</td>
<td>3.00</td>
</tr>
<tr>
<td>1-6</td>
<td>3.50</td>
</tr>
<tr>
<td>1-7</td>
<td>4.00</td>
</tr>
<tr>
<td>1-8</td>
<td>4.50</td>
</tr>
<tr>
<td>1-9</td>
<td>5.00</td>
</tr>
</tbody>
</table>

Total: 19.00 acres
### Direct Solar At Cor. No. 1,

**October 6, 1917.**

Lat. 35° 56' 13" N., Long. 111° 47' 12" W.,

Elevation 7,000 ft.

<table>
<thead>
<tr>
<th>Telescope</th>
<th>Time</th>
<th>Horizontal Angle</th>
<th>Vertical Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>8h 41m 05s</td>
<td>55° 36' 00&quot;</td>
<td>31° 12' 00&quot;</td>
</tr>
<tr>
<td>Reversed</td>
<td>8h 41m 50s</td>
<td>55° 02' 00&quot;</td>
<td>30° 47' 00&quot;</td>
</tr>
<tr>
<td>Mean</td>
<td>8h 41m 27s</td>
<td>55° 49' 00&quot;</td>
<td>30° 59' 30&quot;</td>
</tr>
</tbody>
</table>

**Corr. for refr.**

| Decl. 5° 03' 50" S. |

\[
\cos Q = \frac{\sin 5° 03' 50"}{\cos 35° 56' 13" \times \cos 30° 56' 14"} - \tan 35° 56' 13"
\]

\[
x \tan 30° 58' 14"
\]

\[
\log \sin 5° 03' 50" = 8.9457960
\]

\[
\log \cos 35° 56' 13" = 9.9085045
\]

\[
\log \cos 30° 56' 14" = 9.9331996
\]

\[
9.1042319 = .12714
\]

\[
\log \tan 35° 56' 13" = 9.8602586
\]

\[
\log \tan 30° 56' 14" = 9.7782261
\]

\[
9.636237 = .43503
\]

\[
\cos Q = .56217
\]

\[
Q = 55° 47' 38"
\]

**Diff. in obsn.** 0° 01' 22"
<table>
<thead>
<tr>
<th>CORNERS</th>
<th>BEARING</th>
<th>DISTANCE</th>
<th>LATITUDES</th>
<th>DEPARTURES</th>
<th>DOUBLE M. D.</th>
<th>N. AREAS</th>
<th>S. AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>NORTH</td>
<td>SOUTH</td>
<td>EAST</td>
<td>WEST</td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>N. 39° 50'W.</td>
<td>26.56</td>
<td>20.02</td>
<td>23.43</td>
<td>23.48</td>
<td>657.67</td>
<td></td>
</tr>
<tr>
<td>2-3</td>
<td>N. 36° 16'E.</td>
<td>22.08</td>
<td>17.54</td>
<td>13.67</td>
<td>13.67</td>
<td>237.04</td>
<td></td>
</tr>
<tr>
<td>3-4</td>
<td>S. 78° 25'E.</td>
<td>29.97</td>
<td>36.91</td>
<td>29.36</td>
<td>36.70</td>
<td>340.77</td>
<td>0.00</td>
</tr>
<tr>
<td>4-5</td>
<td>S. 12° 06'E.</td>
<td>40.45</td>
<td>36.53</td>
<td>8.45</td>
<td>94.51</td>
<td>375.95</td>
<td>0.00</td>
</tr>
<tr>
<td>5-1</td>
<td>N. 89° 36'W.</td>
<td>28.00</td>
<td>28.00</td>
<td>74.96</td>
<td>14.99</td>
<td></td>
<td>0.00</td>
</tr>
</tbody>
</table>

Closing Error: l.7652

168.40 Acres
APPROVAL

Office of the United States Surveyor General,

Phoenix, Arizona, March 17, 1920

The foregoing field notes of Homestead Entry Survey No. 511

executed by R.P.A. Johnson, Surveyor Draftsman
under his special instructions, dated March 10, 1917, having
been critically examined, and the necessary corrections and explanations
made, the said field notes, and the surveys they describe, are hereby
approved.

[Signature]
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.

[Signature]
FRANK P. TROTT
U. S. Surveyor General.