U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

FIELD NOTES

OF

HOMESTEAD ENTRY SURVEY NO. 510

SITUATED IN THE TUJAYAN NATIONAL FOREST
ADMINISTRATIVE DISTRICT NO. 3

In Section 29, unsurveyed, Township 30 N., Range 5 E.
In Section 30, unsurveyed, Township 30 N., Range 5 E.

Gila and Salt River Base and Meridian.
State of ARIZONA

Applicant for listing: Martin Suggeln
Residence: Grand Canyon, Arizona.
Application No.: 510, dated November 24, 1915.
List No.: 5-3753, dated February 1, 1916.

Applicant for survey: James L. Tucker.
Residence: Grand Canyon, Arizona
H. E. No.: 030603, dated July 5, 1916.
Office: 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 9, 1917.

OATH OF ASSISTANTS

We hereby certify that we assisted

R. A. Johnson

in surveying all those parts or portions of Homestead Entry Survey No. 510, 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.

Chairman

Joe Harwell

Chairman

Subscribed and sworn to before me this tenth day of October, 1917.

R. A. Johnson

Surveyor Draftsman

OATH OF SURVEYOR

I, R. A. Johnson, Surveyor Draftsman,

do solemnly swear that, in strict conformity with the special instructions of the United States Surveyor General for Arizona, dated March 16, 1917, and the laws of the United States, I have well, faithfully, and truly, in my own proper person, surveyed a tract of land in

the same to be known as Homestead Entry Survey No. 510, situated within the Tushar National Forest, in the Surveyed Section 29, Township 30 N., Range 5 E., 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.

R. A. Johnson

Surveyor Draftsman

Subscribed and sworn to before me this twenty-second day of March, 1948.

Ethel M. Mitchell

Notary Public

My Commission expires Mar. 17, 1921.
HOMESTEAD ENTRY SURVEY NO. 510
TUSAYAN NATIONAL FOREST
STATE OF ARIZONA

Chains

Surveyed under special instructions from the Surveyor General for Arizona, dated March 10, 1917, and designated as Homestead Entry Survey No. 510. Situated in unsurveyed T. 30 N., R. 5 E., in what will probably be, when surveyed, sections 29 and 30, Gila and Salt River Base and Meridian, Tusayan National Forest, Arizona.


Survey commenced October 8, 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 8, 1917.

I observe the altitude of the sun for azimuth at Cor. No. 4 hereinafter described. The reading on the reference object is set at zero and the sun was observed in the upper left and lower right quadrants of the field. My watch is set for local mean time.

Lat. 35° 57' 16" N., Long. 111° 51' 13" W., from Forest Service Base Map.
October 9, 1917.

I again observe altitude of sun at Cor. No. 1 hereinafter described. The reading on the meridian brought by sustained angulation from Cor. No. 4 is set at zero and sun was observed in lower left and upper right quadrants of the field.

Lat. 35° 57' 40" N., Long. 111° 53' 17" W. from Forest Service Base Map.

Telescope Time Horizontal Angle Vertical Angle
Direct 9h. 05m. 40s. 49° 45' 00" 23° 52' 00"
Reversed 9h. 06m. 30s. 50° 10' 30" 23° 27' 00"

Difference in meridian 0° 00' 41"

This checks within less than one minute the meridian work previously established and to which the courses of this survey are referred.

October 8, 1917 BOUNDARIES OF CLAIM.

Beginning at cor. No. 1.

Identical with Cor. R-6 of the list survey, marked and witnessed as described by the Forest Service. I destroy all trace of this list. cor. and in its place establish Cor. No. 1 of this survey, as follows:

Deposit a sandstone 6 x 4 x 3 ins., marked with a + and 14 ins. in the ground, over which set a sandstone 24 x 8 x 6 ins.; chiseled + for the point and 1 - H E S 510 on SE. face; raise a mound of stone 3 ft. base, 2 ft. high SE. of cor., whence:
**HOMESETAD ENTRY SURVEY NO. 510**

**TUSAYAN NATIONAL FOREST**

**STATE OF ARIZONA**

<table>
<thead>
<tr>
<th>Chains</th>
</tr>
</thead>
<tbody>
<tr>
<td>A pinon, 10 ins. dia., bears S. 40° 12' W., 82 lks. dist., scribed 1 - H E S 510 + B T.</td>
</tr>
<tr>
<td>A pinon, 16 ins. dia., bears N. 38° 48' W., 77 lks. dist., scribed 1 - H E S 510 + B T.</td>
</tr>
<tr>
<td>1/4 sec. cor. bet. secs. 25 and 30, T. 30 N., Rs. 4 and 5 E.; also Cor. No. 1 of H. E. S. 396, which is a limestone 12 x 10 x 6 ins. above ground, marked and witnessed as described by Surveyor General bears S. 87° 28' W., 75.79 chs. dist., by traverse which appears at the end of these notes.</td>
</tr>
</tbody>
</table>

Mag. Va. at Sh. a.m., 14° 45' E. - Mean Mag. Va. 14° 42' E.

Lat. 35° 57' 40" N. Long. 111° 55' 37" W., from Forest Service Base Map.

Thence S. 87° 20' E. Descend East slope 30 ft. in timber to flat.

1.60 Foot descent. Leave timber, enter open flat.

8.60 Road, bears N. 72° E. and S. 72° W.

12.80 Road, bears N. 75° 30' E. and S. 75° 30' W.
13.85 Fence, bears N. 75° 30' E. and S. 75° 30' W. Enter cultivated land.

28.00 Fence, bears N. 15° W. and S. 15° E.

28.75 Road, bears N. 15° W. and S. 15° E.

30.21 Cor. H-7 of the list survey, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. and in its place I establish Cor. No. 2 of this survey as follows:

Deposit a sandstone 5 x 5 x 2 ins., marked with a + 14 ins. in the ground, over which set a sandstone 24 x 9 x 4 ins., chiseled + for the point and 2-H E S 510 on E. face; raise a mound of stone 3 ft. base, 2 ft. high SE. of cor., whence:

A yellow pine, 16 ins. dia., bears S. 41° 00'
HOMESTEAD ENTRY SURVEY NO. 810
TUSAYAN NATIONAL FOREST
STATE OF ARIZONA

Chains, W., 24 lks. dist., scribed 2 - H E S 810 + B T.
A pinon, 10 ins. dia., bears S. 33° 45' E., 8 lks. dist., scribed 2 - H E S 810 + B T.

Thence, S. 43° 15' E.
Descend 10 ft. in timber to draw.

9.00
Draw, 2 chs. wide, course SE. Ascend 10 ft. in timber.

18.20
Road, bears N. 60° W. and S. 60° E. Leave timber. Descend 10 ft. in open.

19.00
Fence, bears N. 60° W. and S. 60° E.

24.20
Arroyo, 20 lks. wide, 5 ft. high, course SE. Continue along arroyo.

29.20
Leave arroyo.

47.50
Fence, bears N. 30° W. and S. 20° E.

49.10
Road, bears N. 30° W. and S. 20° E. Leave open and ascend 15 ft. in timber to cor.

55.07
Cor. H-8 of the list survey, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. and in its place establish cor. No. 3 of this survey; as follows:
Deposit broken glass 14 ins. in the ground, over which set a sandstone 24 x 18 x 8 ins., chiseled + for the point and 3 - H E S 810 on NW. face; raise a mound of stone 5 ft. base, 1 ft. high NW. of cor., whence:
A yellow pine, 20 ins. dia., bears S. 14° 55' E., 42 lks. dist., scribed 3 - H E S 810 + B T.
A yellow pine, 22 ins. dia., bears S. 38° 57' W., 120 lks. dist., scribed 3 - H E S 810 + B T.

Thence N. 87° 43' W.
Descend 15 ft. to arroyo in timber.

2.86
Road, bears N. 20° W. and S. 20° E. Leave timber.
Enter open.

3.02
Fence, bears N. 20° W. and S. 20° E.
<table>
<thead>
<tr>
<th>Chains</th>
<th>4.51</th>
<th>Arroyo, 20 lks. wide, banks 5 ft. high, course S. 35° E. Ascend 15 ft. to bench.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11.60</td>
<td>Top bench, bears NW. and SE. Thence over level land in scattering timber.</td>
</tr>
<tr>
<td></td>
<td>39.27</td>
<td>Cor. H-9 of the list survey, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. and in its place establish cor. No. 4 of this survey as follows: Deposit broken glass 14 ins. in the ground, over which set a sandstone 24 x 8 x 6 ins., chiseled + for the point and 4 - H E S 510 on NNE. face; and dig pits 24 x 24 x 12 ins. crosswise on claim lines, 7 ft. dist., and raise a mound of earth 4 ft. base, 2 ft. high NNE. of cor., whence: A juniper, 16 ins. dia., bears S. 11° 33' W. 249 lks. dist., scribed 4 H E S 510 + B T. A juniper, 10 ins. dia., bears N. 1° 53' W., 248 lks. dist., scribed 4 - H E S 510 + B T.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thence N. 42° 50' W. Over level land in open.</td>
</tr>
<tr>
<td></td>
<td>21.00</td>
<td>Leave open, enter timber.</td>
</tr>
<tr>
<td></td>
<td>26.00</td>
<td>Leave bench and descend 15 ft. to cor.</td>
</tr>
</tbody>
</table>
|        | 27.86| Cor. H-10 of the list survey, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. and in its place establish cor. No. 5 of this survey as follows: Deposit broken glass 14 ins. in the ground, over which set a sandstone 24 x 10 x 10 ins. chiseled + for the point and 5 - H E S 510 on NNE. face; and raise a mound of stone 3 ft. base, 2 ft. high NNE. of cor., whence:
Chains

A pinon, 6 ins. dia., bears S. 19° 36' W., 176
1 lbs. dist., scribed 6 H E S 510 + B T.
A pinon, 6 ins. dia., bears S. 65° 17' W., 189
1 lbs. dist., scribed 5 H E S 510 + B T.

Thence N. 69° 21' W.
Across open level draw.

2.52 Fence, bears NW. and SSE.

7.43 Arroyo, 5 lbs. wide, banks 1 ft. high, course N. 83° E.

9.60 Cor. H-1 of the list survey, marked and witnessed as
described by the Forest Service. I destroy all trace
of this list cor. and in its place establish Cor. No.
6 of this survey as follows:

Deposit a sandstone 5 x 4 x 2 ins. marked with a +
14 ins. in the ground, over which set a sandstone
24 x 8 x 5 ins., chiseled for the point and 6
H E S 510 on NE. face; raise a mound of stone 3 ft.
base, 2 ft. high NE. of cor., whence:

A pinon, 10 ins. dia., bears S. 8° 49' E., 179
1 lbs. dist., scribed 6 H E S 510 + B T.

A pinon, 14 ins. dia., bears N. 69° 57' W., 173
1 lbs. dist., scribed 6 H E S 510 + B T.

October 8, 1917.

October 9, 1917.

Thence N. 1° 06' E.

Ascend 15 ft. in scattered timber to bench.

5.00 Top ascent. Descend 15 ft. to cor.

9.10 Fence, bears N. 66° W. and S. 66° E.

9.41 Cor. H-2 of the list survey, marked and witnessed as
described by the Forest Service. I destroy all trace
of this list cor. and in its place establish cor. No. 7 of this survey as follows:

Deposit a sandstone $3 \times 2 \times 2$ ins. marked with a + 14 ins. in the ground, over which set a sandstone $24 \times 16 \times 8$ ins., chiseled + for the point and 7 - H E S 510 on SE. face; and raise a mound of stone 3 ft. base, 2 ft. high SE. of cor., whence:

A yellow pine, 7 ins. dia., bears S. 7° 45' E.,

210 lks. dist., scribed 7 - H E S 510 + B T.

A juniper, 10 ins. dia., bears N. 86° 30' E.,

340 lks. dist., scribed 7 - H E S 510 + B T.

Thence S. 89° 45' E.

In open over level land.

3.70 Fence, bears N. 33° W. and S. 33° E. Enter scattering

timber and ascend 10 ft. to cor.

8.98 Fence, bears S. 44° W. and N. 44° E.

10.46 Cor. H-3 of the list survey, marked and witnessed as

described by the Forest Service. I destroy all trace

of this list cor. and in its place establish cor.

No. 8 of this survey as follows:

Deposit broken glass 14 ins. in the ground, over which

set a sandstone $24 \times 16 \times 4$ ins. chiseled + for the

point and 8 - H E S 510 on SE. face; and raise a

mound of stone 3 ft. base, 2 ft. high SE. of cor.,

whence:

A pinon, 18 ins. dia., bears N. 76° 33' W., 37

lks. dist., scribed 8 H E S 510 + B T.

A pinon, 14 ins. dia., bears S. 4° 05' E., 12

lks. dist., scribed 8 H E S 510 + B T.

Thence N. 2° 39' E.

Over level land in timber.
<table>
<thead>
<tr>
<th>Chains</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.59  Fence, bears N. 44° E. and S. 44° W.</td>
</tr>
<tr>
<td>3.87  South end dam, bears N. 50° W.</td>
</tr>
<tr>
<td>4.50  Fence, bears N. 54° W. and S. 54° E. Leave timber. Descend 5 ft. to cor.</td>
</tr>
<tr>
<td>5.06  Cor. H-4 of the list survey, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. and in its place establish cor. No. 9 of this survey as follows: Deposit a sandstone 5 x 5 x 4 ins., marked with a + 14 ins. in the ground, over which set a sandstone 24 x 12 x 8 ins., chiseled + for the point and 9 - H E S 510 on NE. face; and raise a mound of stone 3 ft. base, 2 ft. high NE. of cor., whence:</td>
</tr>
<tr>
<td>9° 52' W.</td>
</tr>
<tr>
<td>1.96  Fence, bears N. 54° W. and S. 54° E.</td>
</tr>
<tr>
<td>10.00 Fence, bears S. 30° E. and N. 30° W.</td>
</tr>
<tr>
<td>11.00 Cor. H-5 of the list survey, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. and in its place establish cor. No. 10 of this survey as follows: Deposit broken glass 16 ins. in the ground, over which set a sandstone 26 x 6 x 6 ins., chiseled + for the point and 10 - H E S 510 on NE. face; and raise a mound of stone 3 ft. base; 8 ft. high NE. of cor., whence:</td>
</tr>
<tr>
<td>A pinon, 8 ins. dia., bears N. 20° 20' W., 139 lks. dist., scribed 10 - H E S 510 + B T.</td>
</tr>
</tbody>
</table>
HOMESTEAD ENTRY SURVEY NO. 510
TUSAYAN NATIONAL FOREST
STATE OF ARIZONA.

Chains
A pinon, 6 ins. dia., bears N. 54° 56' E., 130 lks. dist., scribed 10- & E S 510 + E T.

Thence N. 0° 18' E.

Over open level land.

1.01 Fence, bears N. 75° E. and S. 75° W.

1.27 Road, bears N. 75° 30' E. and S. 75° 30' W.

1.41 Leave open and ascend 50 ft. in timber to cor.

4.97 Cor. No. 1, the place of beginning.

AREA
Total Area — — — — — — — — — — — — — — — — — — 146.31 acres

IMPROVEMENTS

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

A frame dwelling 20 x 12 ft., the long side of which bears NE. and SW. and W. cor. of which bears S. 86° 40' E., 57 lks. dist. from cor. No. 8.

Value — — — — — — — — — — — — — — — — — — — — $150.00

A frame barn 25 x 15 ft., the long side of which bears NW. and SE., and W. cor. of which bears S. 51° 33' E.

Value — — — — — — — — — — — — — — — — — — — — $125.00

There is approximately three miles of wire fence, the greater portion of which is off the claim.

Value — — — — — — — — — — — — — — — — — — — — $500.00

DESCRIPTION

This claim is approximately 4 miles S. of rim of Grand Canyon and lies along a long open draw and extends upon low bench in the western portion. The
general slope is to SE. and elevation is approximately 6,900 ft.
Timber consists of mixed stand of pine, juniper, and yellow pine and occurs in patches in west portion and along east line. Only a small portion of it is of any commercial value.
Water for stock and domestic purposes can be obtained from stock tank adjoining claim. There is no water for irrigation.
The soil is a sandy loam of good depth and under favorable conditions will produce good crops. There is approximately 15 acres in cultivation.
I saw no indications of mineral upon this claim.

CONFLICTS AND ADJOINING CLAIMS
There are no conflicting or adjoining claims. E. E. S. No. 398 of Ralph J. Berry lies west, approximately 3/4 of a mile. Grand Canyon, the nearest post office and railroad center is 15 miles distant by good road.

TRAVERSE

<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>S. 87° 20' E.</td>
<td>30.21</td>
<td>1.41</td>
<td>20.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-3</td>
<td>S. 43° 15' E.</td>
<td>55.07</td>
<td>40.11</td>
<td>27.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-4</td>
<td>N. 87° 43' W.</td>
<td>39.27</td>
<td>1.56</td>
<td>39.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-5</td>
<td>N. 42° 50' W.</td>
<td>27.86</td>
<td>20.43</td>
<td>18.94</td>
<td></td>
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<tr>
<td>5-6</td>
<td>N. 89° 21' W.</td>
<td>9.60</td>
<td>.11</td>
<td>9.60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6-7</td>
<td>N. 1° 05' E.</td>
<td>9.41</td>
<td>9.41</td>
<td>.18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-8</td>
<td>S. 89° 46' E.</td>
<td>10.46</td>
<td>.05</td>
<td>10.46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-9</td>
<td>N. 2° 39' E.</td>
<td>5.05</td>
<td>5.04</td>
<td>.23</td>
<td></td>
<td></td>
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<tr>
<td>9-10</td>
<td>N. 89° 52' W.</td>
<td>11.00</td>
<td>.03</td>
<td>11.00</td>
<td></td>
<td></td>
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<tr>
<td>10-1</td>
<td>N. 0° 12' E.</td>
<td>4.97</td>
<td>4.97</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Error in lat. and dep.
Closing error 1:7174


<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>1-10</td>
<td>S. 0° 12' W.</td>
<td>4.97</td>
<td>.97</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-Tp</td>
<td>N. 89° 05' W.</td>
<td>9.63</td>
<td>.15</td>
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<td>9.63</td>
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<tr>
<td>Tp-Tp</td>
<td>N. 73° 29' W.</td>
<td>2.33</td>
<td>.66</td>
<td></td>
<td></td>
<td>2.26</td>
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<tr>
<td>Tp-Tp</td>
<td>S. 79° 15' W.</td>
<td>2.14</td>
<td>.40</td>
<td></td>
<td></td>
<td>2.10</td>
</tr>
<tr>
<td>Tp-Tp</td>
<td>N. 87° 29' W.</td>
<td>11.76</td>
<td>.52</td>
<td></td>
<td>11.76</td>
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<tr>
<td>Tp-Tp</td>
<td>N. 84° 35' W.</td>
<td>4.69</td>
<td>.45</td>
<td></td>
<td>4.78</td>
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<tr>
<td>Tp-Tp</td>
<td>S. 80° 14' W.</td>
<td>3.61</td>
<td>.60</td>
<td></td>
<td>3.46</td>
<td></td>
</tr>
<tr>
<td>Tp-Tp</td>
<td>N. 84° 38' W.</td>
<td>36.89</td>
<td>3.45</td>
<td></td>
<td>35.73</td>
<td></td>
</tr>
<tr>
<td>Tp-1/4</td>
<td>48° 08' W.</td>
<td>3.57</td>
<td></td>
<td></td>
<td>3.66</td>
<td></td>
</tr>
</tbody>
</table>

S. 87° 28' W.

Log 75.72 = 1.8792106
Log 3.35 = 10.5250448
Log tan 87° 28' = 1.3541558

Log 75.73 = 1.8792106
Log sin 87° 28' = 9.9996563
Log 75.794 = 1.8796353

Survey completed October 9, 1917.

[Signature]

Surveyor - Draftsman
**Homestead Entry Survey No. 510**

**Tusayan National Forest**

**State of Arizona**

<table>
<thead>
<tr>
<th>Chains</th>
<th>Direct Solar at Cor. No. 4, October 8, 1917.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lat.</td>
<td>36° 57' 14&quot; N., Long.</td>
</tr>
<tr>
<td>Telescope Time</td>
<td>Horizontal Angle</td>
</tr>
<tr>
<td>Direct</td>
<td>3h.57m.20s. 69°28'00&quot;</td>
</tr>
<tr>
<td>Reverse</td>
<td>3h.58m.00s. 69°05'00&quot;</td>
</tr>
<tr>
<td>Mean</td>
<td>3h.57m.10s. 69°16'30&quot;</td>
</tr>
</tbody>
</table>

**Decl. 5° 56' 50" S.**

\[
\cos Q = - \tan 35^\circ 57' 14" x \tan 16^\circ 37' 43" \\
\cos 35^\circ 57' 14" x \cos 16^\circ 37' 43"
\]

\[
\log \sin 5° 56' 50" = -9.0154114 \\
\log \cos 35° 57' 14" = +9.9082114 \\
\log \cos 16° 37' 43" = +9.9614470 \\
\frac{9.1257530}{9.1257530} = \log .13358 \\
\log \tan 35° 57' 14" = 9.8605258 \\
\log \tan 16° 37' 43" = 9.4751723 \\
\frac{9.3356981}{9.3356981} = \log .21662
\]

\[
\cos Q = .35020 \\
Q = 69^\circ 30' 02" N.
\]

Bearing of reference object N. 0° 13' 32" E.

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**Direct Solar at Cor. No. 1, October 9, 1917.**

| Lat. | 35° 57' 40" N., Long. | 111° 53' 37" W. Elevation 6900 ft. |
| Telescope Time | Horizontal Angle | Vertical Angle | Pos. of sun |
| Direct | 9h.06m.40s. 49°45'00" | 33°52'00" | # |
| Reverse | 9h.06m.30s. 50°10'30" | 33°27'00" | + |
| Mean | 9h.06m.05s. 49°57'45" | 33°39'30" | Refr. 1'10" |

**Decl. 6° 15' S.**
Homestead Entry Survey No. 1010
Tusayan National Forest
State of Arizona

Chains

\[ \cos Q = \frac{\tan 35^\circ 57' 40" \times \tan 33^\circ 38' 20"}{\cos 35^\circ 57' 40" \times \cos 33^\circ 38' 20"} \]

\[ \log \sin 6^\circ 13' = -9.0345825 \]

\[ \log \cos 35^\circ 57' 40" = 9.9061717 \]

\[ \log \cos 33^\circ 38' 20" = 9.9200179 \]

\[ \log \tan 35^\circ 57' 40" = 9.8806410 \]

\[ \log \tan 33^\circ 38' 20" = 9.8236799 \]

\[ \log 9.6837089 = \log 49^\circ 57' 04" \]

Difference in meridian 6° 13' 3".

128

Direct: 6° 13' 3"

179

Reverse: 6° 13' 3"

Distance on Reference 9000 ft.

180

Time Recorded: 10:50 a.m.

181

Entry No. 3000 ft.

182

R. W. Smith, Deputy Commissioner

184
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<th>CORNERS</th>
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<th>LATITUDES</th>
<th>DEPARTURES</th>
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Closing error: 1:7174

Acres
APPROVAL

Office of the United States Surveyor General,

Phoenix, Arizona, April 30, 1919

The foregoing field notes of Homestead Entry Survey No. 510

executed by R.F.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.

[U.S. Surveyor General's Signature]

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.