

ORIGINAL

U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

219  
JAN 27 1919

MAY 0 1919

MAR 15 1920

MAY 15 1920

FIELD NOTES

OF

HOMESTEAD ENTRY SURVEY NO. 449

SITUATED IN THE TUSAYAN NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. 3

In Section 30 , unsurveyed, Township 30 N., Range 6 E.  
In Section 31 , unsurveyed, Township 30 N., Range 6 E.  
In Section 32 , unsurveyed, Township 30 N., Range 6 E.  
And Establishment of U. S. L. M. No. 449 H. E. S.

of the

Gila and Salt River Base and Meridian.

State of

ARIZONA

*For inspection report  
on this case see  
H.E.S. # 359*

Applicant for listing George Sheley,

Residence Grand Canyon, Arizona

Application No. 169 , dated November 30 , 1910

List No. 3-1501 , dated October 9 , 1911

Applicant for survey George Sheley,

Residence Grand Canyon, Arizona

H. E. No 018409 , dated June 29 , 1912

Office  
Land District Phoenix, Arizona

Survey executed by R. P. A. Johnson, Surveyor - Draftsman  
[Forest Service Title.]

Under special instructions dated February 18 , 1916

Survey commenced October 6 , 1917

Survey completed October 7 , 1917

Under Acts of June 11, 1906 and March 4, 1917



270

OATH OF ASSISTANTS

We hereby certify that we assisted

*R. P. Johnson*  
*Surveyor Craftsman*  
[Forest Service Title.]

in surveying all those

parts or portions of Homestead Entry Survey No. *449*, 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.

*Chas Robinson*, Chairman

*Joe Harrell*, Chairman

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

*R. P. Johnson*  
*Surveyor Craftsman*

OATH OF SURVEYOR

I,

*R. P. Johnson*, *Surveyor Craftsman*  
[Forest Service Title.]

do solemnly swear that, in strict conformity with the special instructions of the United States Surveyor General for *Arizona*, dated *February 18, 1916*, 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*

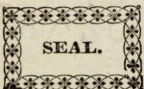
*Tract*, No. *3-1501*, dated *October 9, 1911*, for *patent*, under the Act of *June 11, 1906*, the same to be known as Homestead Entry Survey No. *449*, situated within the *Surveyor* National Forest, in *unsurveyed Section 30*, Township *30N*, Range *6E*, and *unsurveyed Section 31*, Township *30N*, Range *6E*, *unsurveyed Section 32*, Township *30N*, Range *6E*

of the *Grand South 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.

*R. P. Johnson*  
*Surveyor Craftsman*  
[Forest Service Title.]

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

*Ethel M. Gutchall*  
*Notary Public*



8-2349



TUSAYAN NATIONAL FOREST

STATE OF ARIZONA

Chains Applicant for listing, George Sheley; Application No. 169, dated November 30, 1910; List No. 3-1501, dated October 9, 1911; H. E. 018409, made in the Phoenix Land Office on June 29, 1912 by George Sheley.

Surveyed under special instructions from the Surveyor General for Arizona, dated February 18, 1916 and designated as Homestead Entry Survey No. 449.

Situated in what will probably be, when surveyed, Secs. 30, 31 and 32, T. 30 N., R. 6 E., Gila and Salt River Base and Meridian within the Tusayan National Forest, Arizona.

Surveyed under the Acts of June 11, 1906 and March 4, 1917.

Survey commenced October 6, 1917 and executed with a Buff and Buff transit No. 9700-6, 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, hereinafter described. The reading is set at zero on the meridian brought by sustained angulation from meridian established by Polaris observation on October 5, 1917 at cor. No. 1 of H. E. S. 469, and checked by

direct solar observation of October 6 at cor. No. 1 of H. E. S. 511. The sun was observed in the upper left and lower right quadrants of the field. My watch is



TUSAYAN NATIONAL FOREST

STATE OF ARIZONA

Chains  
Lat.  $35^{\circ} 10' 56'' 36''$  N., Long.  $111^{\circ} 47' 20''$  W., from Forest  
Service Base Map and U. S. G. S. San Francisco Mt. sheet.

Telescope	Time	Horizontal Angle	Vertical Angle
Direct	4h. 10m. 40s.	$72^{\circ} 01' 00''$	$15^{\circ} 01' 00''$
Reversed	4h. 11m. 30s.	$71^{\circ} 37' 00''$	$15^{\circ} 21' 00''$

The two meridians differ  $0^{\circ} 01' 07''$ , and to the mean of the two all the courses of this survey are referred.

October 6, 1917.

There being no cor. of the Public Land Survey or U. S. Location Monument within 2 miles of this claim, I establish U. S. L. M. No. 449 H. E. S. On a limestone

boulder in place showing  $36 \times 36 \times 12$  ins. above ground, I chisel a cross for the point, U S L M No 449 H E S on top; and raise a mound of stone 7 ft. base, 5 ft. high, 12 ft. dist. S. of +, whence:

- A pinon, 12 ins. dia., bears N.  $76^{\circ} 25' W.$ , 63 lks. dist., scribed U S L M No 449 H E S + B T.
- A pinon, 8 ins. dia., bears N.  $26^{\circ} 21' E.$ , 74 lks. dist., scribed U S L M No 449 H E S + B T.
- NE. end of cliff on Coconino Point bears S.  $82^{\circ} 11' E.$ , approximately 6 miles dist.

Cor. to secs. 7, 8, 17 and 18, T. 29 N., R. 6 E.,

a limestone  $24 \times 14 \times 8$  ins., surrounded by a mound of stone, marked and witnessed as described by the Surveyor General, bears S.  $6^{\circ} 13' 1\frac{1}{2}'' E.$ , 194.16 chs. dist., by traverse which appears at the end of these notes.

BOUNDARIES OF CLAIM

Beginning at cor. No. 1.

Also cor. No. 3 of H. E. S. 511.



TUSAYAN NATIONAL FOREST

STATE OF ARIZONA

Chains  
 Identical with cor. H-3 of List 3-1501, a limestone  
 15 x 3 x 3 ins., surrounded by a mound of stone, marked  
 and witnessed as described by the Forest Service. I  
 destroy all trace of this list cor. Deposit a lime-  
 stone 4 x 3 x 2 ins. marked with 14 ins. in the  
 ground, over which set a limestone 24 x 10 x 6 ins.,  
 chiseled for the point, 1 - H E S 449 on NE. face  
 and 3 - H E S 511 on SSE. 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° 01' W.,  
 169 lks. dist., scribed 1 H E S 449  
 3 H E S 511 + B T.

A pinon, 8 ins. dia., bears S. 5° 40' W., 601.8  
 lks. dist., scribed 1 H E S 449  
 3 H E S 511 + B T.

U. S. L. M. No. 449 H. E. S., heretofore de-  
 scribed, bears S. 16° 24' W., 2130 lks. dist.  
 Lat. 35° 56' 36" N., Long. 111° 47' 20" W., from Forest  
 Service Base Map and U. S. G. S. San Francisco Mt. sheet.  
 Mag. decl. at 7:00 a.m., 15° 00' E. Mean mag. decl.,  
 14° 58' E.  
 Thence N. 29° 41' W. Asc. 20 ft. over gentle E. slope.  
 9.80 Rim rock, bears N. and S. Enter flat, slopes ENE.  
 20.00 Leave rim rock, bears NW. and SE. Proceed over ENE.  
 40.00 Rim rock, bears S. and NNW. along line.  
 44.20 Leave rim rock, bears NW. Desc. 10 ft. over N. slope.  
 52.20 Enter bottom. Asc. 5 ft. limestone  
 60.29 To cor. No. 2: Identical with cor. H-2 of List 3-1501, a sandstone  
 24 x 4 x 12 ins. above ground, marked and witnessed  
 as described by the Forest Service. I destroy all  
 trace of this list cor. Deposit a sandstone 4 x 4 x 2

223



TUSAYAN NATIONAL FOREST

STATE OF ARIZONA

Chains 20 ins., marked with a +, 20 ins. in the ground, over which  
 set a sandstone 30 x 16 x 5 ins., chiseled + for the  
 point and 2 - H E S 449 on SE. face; and raise a mound  
 of stone 2 ft. base, 1-1/2 ft. high SE. of cor., whence:  
 A pinon, 6 ins. dia., bears N. 77° 20' W.,  
 28 lks. dist., scribed 2 H E S 449 + B T.  
 A pinon, 10 ins. dia., bears S. 18° 30' E.,  
 124 lks. dist., scribed 2 H E S 449 + B T.

Thence S. 97° 27' E. . . . .

Over bottom land . . . . .

- 0.20 Arroyo, 10 lks. wide, 1 ft. deep, course SE.
- 3.10 Foot of SW. slope, bears NW. and SE. Asc. 40 ft.
- 7.55 Top of ridge bears N. and S., slopes S. Desc. 45 ft.  
over E. slope.
- 12.50 Bottom of descent in Arroyo, 5 lks. wide, 1 ft. deep,  
course S. W. Asc. 5 ft. over gentle SW. slope.
- 15.00 Point of low ridge bears N. and S., slopes S. Desc.  
10 ft. over E. slope.
- 20.00 Arroyo, 10 lks. wide, 1 ft. deep, course S.
- 25.00 Asc. 10 ft. over gentle W. slope.
- 34.80 Enter S. slope of small ridge.
- 38.06 To cor. No. 3.

Identical with cor. H-1 of List 3-1501, a limestone  
 8 x 6 x 10 ins. above ground, marked and witnessed as  
 described by the Forest Service. I destroy all trace  
 of this list cor. Deposit a limestone 5 x 3 x 1 ins.  
 marked with a + 24 ins. in the ground, over which set  
 a limestone 40 x 12 x 6 ins., chiseled + for the point  
 and 3 - H E S 449 on SW. face; and raise a mound of  
 stone 30 ft. base, 2 ft. high SW. of cor., whence:  
 A pinon, 10 ins. dia., bears N. 65° 30' E.,  
 73 lks. dist., scribed 3 H E S 449 + B T.  
 Deposit a limestone 4 x 4 x 4 ins. . . . .



TUSAYAN NATIONAL FOREST

STATE OF ARIZONA

Chains	<p>No other witnesses available. Pits impracticable.</p> <hr/> <p>Thence S. 23° 26' E.</p> <p>Asc. 10 ft. through scattering pinon and juniper on gentle W. slope.</p> <p>25.00 Desc. 30 ft. over gentle SW. slope. Leave pinon and juniper. Enter sagebrush.</p> <p>55.30 To cor. No. 4.</p> <p>Also cor. No. 4 of H. E. S. 511.</p> <p>Identical with cor. H-4 of List 3-1501, a limestone 6 x 3 x 8 ins. above ground, marked and witnessed as described by the Forest Service. I destroy all trace of this list cor. 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 stone available); 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:</p> <p>A pinon, 10 ins. dia., bears S. 53° 30' E., 230 lks. dist., scribed 4 H E S 449 + B T.</p> <p>A pinon, 12 ins. dia., bears N. 32° 29' E., 164 lks. dist., scribed 4 H E S 449 + B T.</p> <p>A pinon, 6 ins. dia., bears N. 32° 01' E., 165 lks. dist., scribed 4 H E S 511 + B T.</p> <p>A pinon, 12 ins. dia., bears S. 41° 26' E., 296 lks. dist., scribed 4 H E S 511 + B T.</p> <hr/> <p>Thence N. 78° 26' W.</p> <p>Over sagebrush flat. Desc. 10 ft. to arroyo over gentle S. slope.</p> <p>4.05 Arroyo, 15 lks. wide, 1 ft. deep, course SE. Asc. 5 ft.</p>
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TUSAYAN NATIONAL FOREST

STATE OF ARIZONA

Chains	No other witnesses available.	Chains
26.82	Road bears NW. and SE.	
29.97	To cor. No. 1, and the place of beginning.	

AREA

Total Area - - - - - 154.14 acres

IMPROVEMENTS

The improvements made upon this claim consist of the following:

An adobe house, 18 x 18 ft., the sides extending NW. and SE., and the N. cor. of which bears S. 43° 00' E., 17.91 chs. dist. from cor. No. 2.

Value ----- \$100.00

A stock tank 3 x 3 chs., the dam of which is 8 ft. high, 5 ft. wide on top, 225 ft. long NE. and SW. and the SW. end of which bears S. 47° E., 17.50 chs. from cor. No. 2.

Value ----- \$200.00

A tank and fire box for melting snow, immediately SE. of house.

Value ----- \$ 25.00

Approximately 3/4 mile of wire fence.

Value ----- \$150.00

DESCRIPTION

This claim lies at the head of what is locally known as Shad Park.

The soil is a clay loam of good depth, fertile and capable of producing good crops.

There is a fringe of pinon and juniper timber on the E. and W. sides of the claim. This timber has no commercial value.

There is no living water on the claim and at the time of



TUSAYAN NATIONAL FOREST

STATE OF ARIZONA

Chains

survey the stock tank near the house was dry. checked  
Approximately 18 acres show signs of having been cultivated.

I saw no indications of mineral upon the claim.

CONFLICTS AND ADJOINING CLAIMS

There are no conflicts. H E S 511 of George Wilson joins this claim on the South. The Homestead claim of David L. Vance, H E S 469, lies about 1/2 mile S. of this claim.

Grand Canyon, Arizona, the nearest railroad point and post office, lies in a westerly direction and is reached by 20 miles of good wagon road.

TRAVERSE

Cor.	Course	Dist.	N.	S.	E.	W.	
1-2	N. 29° 41' W.	60.29	52.38			29.86	
2-3	S. 78° 27' E.	38.06		7.62	37.29		
3-4	S. 23° 26' E.	55.30		50.74	21.99		
4-1	N. 78° 26' W.	29.97	6.01			29.36	
			183.62	58.39	58.36	59.28	59.22
				58.36		59.22	
Error in Lat. and Dep.				.03		.06	

Closing Error, 1:2737.

Tie U. S. L. M. No.449 H.E.S. to Cor. of Secs. 7, 8, 17 and 18, T. 30 N., R. 6 E.

Course	Dist.	N.	S.	E.	W.	
N. 16° 24' E.	1.30	1.25		.37		
S. 38° 15' W.	22.08		17.34		13.67	
S. 39° 58' E.	36.56		28.02	23.48		
S. 29° 04' E.	39.96		34.93	19.41		
S. 89° 41' E.	45.83		.25	45.83		
S. 26° 44' W.	120.54		107.66		54.22	
S. 1° 30' W.	6.06		6.06		.16	
		1.25	194.26	89.09	68.05	
			1.25	68.05		

Resultant course S 6°13'16"E.194.16.193.01 21.04

Survey completed October 7, 1917.

*R. P. A. Jensen*  
\_\_\_\_\_  
Surveyor - Draftsman



228

Chains

Survey the stock tank near the house was 577. Approximately 18 acres snow signs of having been cut -

COLLECTED AND ADJOINING CLAIMS  
There was no conflict. H. E. S. III of George Wilson  
owns this claim on the 50th. The homestead claim  
of David I. Vance, H. E. S. 402, lies about 1/2 mile S.  
of this claim.  
Grand Canyon, Arizona, the nearest railroad point and  
post office, lies in a westerly direction and is reach-  
ed by 20 miles of good wagon road.

TRAVELER'S

Cor.	Course	Dist.	E.	S.	M.
1-2	N. 22° 41' W.	50.22	33.38		39.88
2-3	S. 76° 27' E.	38.06		7.52	37.29
3-4	S. 23° 28' E.	52.30		50.74	31.99
4-1	N. 78° 26' W.	32.27	6.01		32.36
		182.86	39.39	58.26	32.23
			38.38	57.78	32.23
				0.00	0.00
	Error in Lat. and Dep.				
	Closing Error: 1:2737.				
	The U. S. L. M. No. 442 H. E. S. 402 Cor. of Secs. 7, 8, 14				
	and 18, T. 30 N., R. 6 E.				
Cor.	Course	Dist.	E.	S.	M.
1	N. 19° 24' E.	1.30	1.22		0.27
2	S. 38° 15' W.	23.08		17.34	15.87
3	S. 31° 28' E.	33.38		23.08	23.48
4	S. 29° 04' E.	33.96		24.68	21.41
5	S. 22° 41' E.	44.33		33.48	33.83
6	S. 28° 44' W.	180.24	107.66		138.32
7	N. 30' W.	6.03	6.03		0.13
		1.22	121.35	99.02	97.33
			1.22	99.02	97.33
	Resultant course S 63° 18' E. 154.16 1/2 11.04				
	Survey completed October 7, 1917.				

*[Signature]*  
Surveyor - Dist. Clerk



TUSAYAN NATIONAL FOREST

STATE OF ARIZONA

Chains

DIRECT SOLAR

October 6, 1917, at Cor. No. 1.

Lat. 35° 56' 36" N., Long. 111° 47' 20" W., Elevation,  
7,000 ft.

Telescope	Time	Horizontal Angle	Vertical Angle	Pos. sun
Direct	4h. 10m. 40s.	72° 01' 00"	15° 01' 00"	°+
Reversed	4h. 11m. 30s.	71° 37' 00"	15° 21' 00"	°-
Mean	4h. 11m. 05s.	71° 49' 00"	15° 11' 00"	
Corr. for refr.			02' 46"	
			15° 08' 14"	

Decl. 5° 11' 03" S.,

$$\text{Cos. Q.} = \frac{\sin. 5^\circ 11' 03''}{\cos. 35^\circ 56' 36'' \times \cos. 15^\circ 08' 14''} - \tan. 35^\circ 56' 36'' \times \tan. 15^\circ 08' 14''$$

log. sin. 5° 11' 03" = 8.9559636

log. cos. 35° 56' 36" = 9.9082694

log. cos. 15° 08' 14" = 9.9846637

9.0630295 = .11562

log. tan. 35° 56' 36" = 9.8603574

log. tan. 15° 08' 14" = 9.4321958

9.2925529 = .19613

Cos. Q. = .31175

Q. = 71° 50' 07"

Difference in meridian, 0° 01' 07"







DIRECTIONS.—1. Carry out calculations to two decimals only.

2. In balancing Latitudes and Departures do not obliterate or change the original figures. Put the corrected figure or figures above in red ink. Do not change the footing of the original figures. The corrections for balancing fallings should be proportional to the lengths of the lines.

3. In calculations of fallings 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. I. O.

4. Only three copies of this tabulation are necessary, for the District Office, the Surveyor General, and the Commissioner.

TABLING AND CALCULATIONS OF HOMESTEAD ENTRY SURVEY NO. 449, STATE OF ARIZONA

CORNERS.	BEARING.	DISTANCE.	LATITUDES.			DEPARTURES.		DOUBLE M. D.	N. AREAS.	S. AREAS.
			NORTH.	SOUTH.	EAST.	WEST.				
1-2	N 29° 41' W	60.29	52.37		37.28	29.88	29	1564	284	45
2-3	S 78° 27' E	38.06		7.63	37.28	29.86	37		4898	90
3-4	S 23° 26' E	55.30		6.0	21.99		96			
4-1	N 78° 26' W	29.97	6.01			29.37	89	535		
		183.62	58.38	58.38	59.25	59.22		2100	5183	35
									2100	49
									20/3082	86
									154	14 Acres

231