

U. S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

APR 13-1917
JUN 25 1917

43 1 abd
3 abd
440
444
450

FIELD NOTES

OF

HOMESTEAD ENTRY SURVEY NO. 431

SITUATED IN THE CROOK NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. 3

In Section 13, unsurveyed, Township 2 N., Range 13 E.

~~In Section 21, unsurveyed, Township 2 N., Range 13 E.~~

of the

Gila and Salt River Base and Meridian.

State of

ARIZONA

Applicant for listing Pedro Moraga, ✓

Residence Miami, Arizona

Application No. 187 ✓, dated June 11, 1911 ✓

List No. 3-1662 ✓, dated December 26, 1911 ✓

Applicant for survey Pedro Moraga, ✓

Residence Miami, Arizona

H. E. No. 023015 ✓, dated July 28, 1913 ✓

Office
Land District Phoenix, Arizona

Survey executed by Walter G. Turley, Surveyor - Forest Service
[Forest Service Title.]

Under special instructions dated December 2, 1915 ✓

Survey commenced February 21, 1916

Survey completed February 21, 1916

Under Acts of June 11, 1906 and March 4, 1915 ✓

OATH OF ASSISTANTS

We hereby certify that we assisted **Walter G. Turley,**
Surveyor - Forest Service in surveying all those
[Forest Service Title.]

parts or portions of Homestead Entry Survey No. **431**, 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 estab-
lished, according to the instructions furnished by the United States
Surveyor General for **Arizona.**

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

Charles H. Baecht, Chairman

Ferry D. Lewis, Chairman

Subscribed and sworn to before me this *twenty eighth* day of
March, 19*16*.

Walter G. Turley
Surveyor Forest Service

OATH OF SURVEYOR

I, **Walter G. Turley,** **Surveyor - Forest Service**
[Forest Service Title.]

do solemnly swear that, in strict conformity with the special instruc-
tions of the United States Surveyor General for **Arizona**, dated
December 2, 19**15**, 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. **3-1662**, dated **December 26**, 19**11**, for
the same to be known as Homestead Entry Survey No. **431**,
situated within the **CROOK** National Forest, in
un surveyed Section **13**, Township **2 N.**, Range **13 E.**, and
~~un~~ surveyed Section ~~24~~, Township ~~2 N.~~, Range ~~13 E.~~

of the **G. and S. R. B. and** 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.

Walter G. Turley
Surveyor Forest Service
[Forest Service Title.]

Subscribed and sworn to before me this *8th* day of

April, 19*16*

Elaine C. Mayers
Notary Public



8-2349

CROOK NATIONAL FOREST

STATE OF ARIZONA

Chains Applicant for listing, Pedro Moraga; Application No. 187, dated June 11, 1911; List No. 3-1662, dated December 26, 1911; Homestead Entry No. 023015, made in the Phoenix Land Office on July 28, 1913 by Pedro Moraga, whose post office address is Miami, Arizona.

Surveyed under the Acts of June 11, 1906 and March 4, 1915, together with special instructions from the Surveyor General for Arizona, dated December 2, 1915, and designated as Homestead Entry Survey No. 431.

Situated in what will probably be, when surveyed, Section 13, T. 2 N., R. 13 E., Gila and Salt River Base and Meridian, within the Crook National Forest, Arizona.

Survey commenced February 21, 1916, and executed with a

W. and L. E. Gurley light mountain transit No. 12953, provided with prism eye piece, stadia wires, vertical circle and Burt solar attachment. The horizontal limb of the transit has two double verniers placed opposite each other and graduated to single minutes of arc, which is also the graduation upon the verniers of the latitude and declination arcs.

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

All distances are horizontal, and were reduced from measurements made directly on the slope with a 500 link steel tape graduated to links and tenths. The slope angles were determined with a clinometer, the vernier of which reads to degrees.

February 21, 1916.

I set up my transit over cor. H-1 of List 3-1662, which

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is a dacite stone 10 x 6 x 10 ins. above ground, marked and witnessed as described by the Forest Service, and, with telescope direct, I observe Polaris in accordance with instructions at 6h. 55m. a.m., l.m.t., and mark the direction thus determined with a tack in a stake set firmly in the ground 5.00 chs. N. of my station, in Lat. $33^{\circ} 30' 06''$ N., and Long. $110^{\circ} 59' 44''$ W., from special instructions from the Surveyor General.

Astron. l.m.t. obsn., February 20, 1916, 18h. 55.0m.

Astron. l.m.t., U.C.Pol., Feb. 20, 1916, 3h. 30.8m.

Hour angle Pol. at obsn., 15h. 24.2m.
23h. 56.1m.

Time argument, 8h. 31.9m.

Azimuth Pol. at obsn., $1^{\circ} 03' 30''$ E.

With my transit set up over cor. H-1 of List 3-1662, heretofore described, and with telescope reversed in altitude and azimuth, at 7h. 09m. a.m., l.m.t., on the same date, I again observe Polaris in accordance with instructions, and mark the direction thus determined with a tack in a stake set firmly in the ground 5.00 chs. N. of my station.

Astron. l.m.t. obsn., February 20, 1916, 19h. 09.0m.

Astron. l.m.t. U.C. Pol., Feb. 20, 1916, 3h. 30.8m.

Hour angle Pol. at obsn., 15h. 38.2m.
23h. 56.1m.

Time argument, 8h. 17.9m.

Azimuth of Pol. at obsn., $1^{\circ} 06' 12''$ E.

February 21, 1916.

I turn off $1^{\circ} 03' - 1/2'$, the azimuth of Polaris, to the W. from its direction at 6h. 55m. a.m., l.m.t., February 21, 1916; and mark the line thus determined with a tack

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in a stake set firmly in the ground 5.00 chs. N. of my station.

I also turn off $1^{\circ} 05'$, the azimuth of Polaris, to the W. from its direction at 7h. 09m. a.m., l.m.t., and mark the line thus determined with a tack in a stake set firmly in the ground 5.00 chs. N. of my station. This line falls $0^{\circ} 00' 22''$ of measured arc to the W. of the line previously established.

I mark the mean of these two lines with a tack in a stake set firmly in the ground 5.00 chs. N. of my station; and from the corresponding meridian, all the courses stated in these field notes were deflected and referred by continuous sustained angulation.

Latitude $33^{\circ} 30' 06''$ N. and Longitude $110^{\circ} 59' 44''$ W., at cor. No. 1, H. E. S. 431, by account from values

stated in the special instructions of the Surveyor General. It was not practicable to check the latitude by direct observation upon the sun during the execution of this survey.

My watch is set for Standard 105th. Meridian time, from which I subtract 24m. 00s. for l.m.t.

Observed magnetic declination at cor. No. 1, February 21, at 8h. 00m. a.m., $15^{\circ} 00'$ E. Mean magnetic declination, $14^{\circ} 59'$ E.

There is no public land corner or U. S. Location Monument within two miles of this claim; therefore I establish U. S. L. M. No. 431 H. E. S. in accordance with instructions. Upon a high ridge approximately 18.00 chs. W. of Pinto Creek, I chisel + at the point and

Chains

U S L M No 431 H E S upon the NW. face of an embedded porphyry stone 30 x 24 x 15 ins. above ground; and raise a mound of stone 6 ft. base, 4 ft. high, SE. of cor., from which:

A 7 in. cedar bears N. 45° 40' W., 25 lks.,

blazed and scribed U S L M No 431 H E S + B T.

A 15 in. cedar bears N. 21° 00' W., 110 lks.,

blazed and scribed U S L M No 431 H E S + B T.

A 12 in. cedar bears S. 6° 20' E., 122 lks.,

blazed and scribed U S L M No 431 H E S + B T.

Barnes Peak bears S. 41° 45' E.

Porphyry Mountain bears S. 15° 35' E.

High point bears S. 18° 50' W.

High point bears S. 76° 04' W.

Red Butte bears N. 40° 00' W.

Aztec Peak bears N. 13° 10' E.

Beginning at cor. No. 1.

Identical with cor. H-1 of List 3-1662, which is a dacite stone 10 x 6 x 10 ins. above ground, marked and

witnessed as described by the Forest Service. I destroy cor. H-1 and its witnesses; and, for cor. No. 1 of this survey, I chisel (+) on a stone 4 x 3 x 2 ins., and deposit it 16 ins. in the ground, over which I set a diorite stone 26 x 12 x 7 ins., 16 ins. in the ground; chiseled (+) at the point and 1 - H E S 431 on

the NE. face; and raise a mound of stone 2 ft. base, 1-1/2 ft. high, NE. of cor., from which:

A 5 in. catclaw bears S. 43° 37' W., 30 lks.,

blazed and scribed 1 H E S 431 + B T.

A 28 in. juniper bears N. 59° 30' W., 119 lks.,

blazed and scribed 1 H E S 431 + B T.

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U. S. L. M. No. 431 H. E. S., heretofore described, bears S. 84° 48' W., 10.18 chs., by direct measurement.

Thence N. 15° 18' W.

Asc. rolling brushy E. slope 10 ft.

13.55 Cease ascending and desc. NW. slope 20 ft.

20.30 Arroyo, 60 lks. wide, banks 2 ft. high, course East.

Asc. E. slope 10 ft.

39.02 To cor. No. 2.

Identical with cor. H-4 of List 3-1662, which is a dacite stone 10 x 10 x 7 ins. above ground, marked and

witnessed as described by the Forest Service. I de-

stroy cor. H-4 and its witnesses; and, for cor. No. 2

of this survey, I chisel (+) on a stone 4 x 4 x 3 ins.,

and deposit it 14 ins. in the ground, over which I set

a diorite stone 24 x 10 x 10 ins., 14 ins. in the

ground, chiseled (+) at the point and 2 - H E S 431 on

the SE. face; and raise a mound of stone 2 ft. base;

1-1/2 ft. high, SE. of cor., from which:

A 5 in. mesquit bears S. 25° 06' W., 39 lks.,

blazed and scribed 2 H E S 431 + B T.

A 16 in. juniper bears N. 55° 16' E., 26 lks.,

blazed and scribed 2 H E S 431 + B T.

Thence N. 66° 58' E.

Desc. NE. slope 20 ft.

1.01 Fence bears N. and S. Enter cultivated land.

2.15 Fence bears N. and S. Leave cultivated land.

2.30 Pinto Creek, 205 lks. wide, banks 2 ft. high, course NNW.

6.32 Pole fence bears N. and S.

8.33 To cor. No. 3.

Chains

Identical with cor. H-3 of List No. 3-1662, which is a 9 in. ash tree marked and witnessed as described by the Forest Service. I destroy cor. H-3 and its witnesses, and for cor. No. 3 of this survey, I scribe + at the point and 3 - H E S 431 in a blaze on the S.

side of the same tree; and raise a mound of stone 2 ft. base, 1-1/2 ft. high S. of cor., from which:

A 10 in. ash bears N. 11° 00' W., 6 lks.,
blazed and scribed 3 H E S 431 + B T.

A 9 in. ash bears N. 54° 00' W., 45 lks.,
blazed and scribed 3 H E S 431 + B T.

Thence S. 14° 56' E.

Over bottom in grove of ash.

3.70 Pole fence bears N. and S. Leave ash grove. Asc.
NW. slope 20 ft.

14.10 Cease ascending and desc. S. slope 5 ft.

17.40 Arroyo, 30 lks. wide, banks 2 ft. high, course WSW.
Asc. NW. slope 30 ft.

28.95 Ridge bears NE. and SW. Desc. SW. slope 45 ft.

33.85 Right bank Pinto Creek, 4 ft. high, course NW. Enter
creek bed, 200 lks. wide.

37.75 Left bank Pinto Creek, 4 ft. high, course NW. Continue
over open bottom.

39.68 To cor. No. 4.

Identical with cor. H-2 of List No. 3-1662, which is a 24 in. sycamore tree marked and witnessed as described by the Forest Service. I destroy cor. H-2 and its witnesses and for cor. No. 4 of this survey, I scribe + at the point and 4 - H E S 431 on the NW. face of the same tree; and raise a mound of stone 2 ft. base, 1-1/2

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ft. high NW. of cor., from which:

A 10 in. juniper bears S. 56° 50' W., 223 lks.,
blazed and scribed 4 H E S 431 + B T.

A 20 in. sycamore bears N. 85° 31' W., 190 lks.,
blazed and scribed 4 H E S 431 + B T.

Thence S. 71° 30' W.

Over bottom.

2.20 Leave bottom bears NW. and SE. and asc. NE. slope 10 ft.

2.24 Irrigating ditch, 3 lks. wide, banks 1 ft. high, course NW.

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

AREA

Total Area - - - - - 31.90 acres

IMPROVEMENTS

A stone dwelling, 24 x 14 ft., the long side extending
E. and W. and the SE. cor. of which bears N. 74° 10' W.,
270 lks. from cor. No. 4 of this survey.

Estimated Value ----- \$100.00

A log dwelling, 18 x 12 ft., the long side extending N.
and S. and the SE. cor. of which bears N. 74° 00' W.,
310 lks. from cor. No. 4 of this survey.

Estimated Value ----- \$100.00

A frame dwelling, 20 x 12 ft., the long side extending
N. and S. and the NW. cor. of which bears S. 23° 30' E.,
18.78 chs. from cor. No. 2 of this survey.

Estimated Value ----- \$100.00

Approximately 3/4 mile of fencing.

Estimated Value ----- \$ 75.00

Approximately 1/2 mile of irrigating ditch.

Estimated Value ----- \$ 50.00

Approximately 4 acres of cultivated land.

HOMESTEAD ENTRY SURVEY NO. 431.

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DESCRIPTION

This claim is located on Pinto Creek, a tributary to Salt River, and is chiefly valuable for intensive farming and stock raising.

There is no timber in this section. Ash and sycamore grow along Pinto Creek.

Water flows in Pinto Creek sufficient for all purposes.

The soil is a sandy loam and produces the ordinary crops of the temperate zone. Good crops of garden have been raised.

This section is not known to be mineralized, and no

townsites, mining, coal or oil claims are known to have been located in this vicinity. There is evidence of some placer workings on a small scale that have been abandoned many years.

There are no conflicts or adjoining claims.

Miami post office and railway station is 12 miles by wagon road in a Southeasterly direction.

TRAVERSE

Cor.	Course	Dist.	N	S	E	W.
1-2	N. 15° 18' W.	39.02	37.64			10.30
2-3	N. 66° 58' E.	8.33	3.26		7.67	
3-4	S. 14° 56' E.	39.68		38.34	10.23	
4-1	S. 71° 30' W.	7.97		2.53		7.56
		95.00	40.90	40.87	17.90	17.86
			40.87		17.86	
	Error in Lat. and Dep.		.03		.04	

Closing error, 1:1900.

Survey completed February 21, 1916.

Walter G. Tinsley

Surveyor - Forest Service

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, but put below them the corrected footing in red ink.

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. L. 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. 431, STATE OF ARIZONA, Pedro Moraga, Crook

CORNERS.	BEARING.	DISTANCE.	LATITUDES.		DEPARTURES.		DOUBLE M. D.	N. AREAS.	S. AREAS.
			NORTH.	SOUTH.	EAST.	WEST.			
1-2	N. 15° 18' W.	39.02	37 64 ³			10 30 ²	10 32	388 34 [✓]	
2-3	N. 66° 58' E.	8.33	3 26 ⁵		7 67		7 67	24 93	
3-4	S. 14° 56' E.	39.68		38 34 ⁵	10 23		25 55		979 84
4-1	S. 71° 30' W.	7.97		2 53		7 56	28 20		71 35 [✓]
		95.00	40 90	40 87	17 90	17 86		413 27	1051 19
			40 88	40 88	17 88	17 88			413 27
									637 92
Closing error, 1:1900									31 90
									Acres

EMH.

APPROVAL

Office of the United States Surveyor General,

Phoenix, Arizona, August 3 , 1917

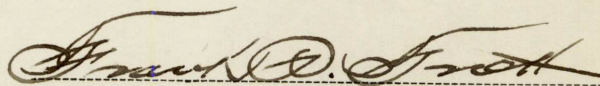
The foregoing field notes of Homestead Entry Survey No.

431

executed by Walter G. Turley, Surveyor, .

[Forest Service Title.]

under his special instructions, dated December 2 , 1915, 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.