**ORIGINAL** 

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FIELD NOTES

OF THE

DEPENDENT RESURVEY OF A PORTION OF THE WEST BOUNDARY

OF THE LUIS MARIA BACA GRANT, FLOAT NO. 3

AND A PORTION OF THE SUBDIVISIONAL LINES

AND

THE METES-AND-BOUNDS SURVEY OF THE EXTERIOR BOUNDARY

OF THE TUMACACORI NATIONAL HISTORICAL PARK,

TOWNSHIP 21 SOUTH, RANGE 13 EAST,

OF THE GILA AND SALT RIVER MERIDIAN,

IN THE STATE OF ARIZONA.

#### **EXECUTED BY**

#### **Lonnie Bitsoi, Cadastral Surveyor**

Under Special Instructions dated March 10, 2005, approved March 10, 2005, which provided for the surveys included under Group No. 954, and assignment instructions dated March 10, 2005.

Survey commenced March 15, 2005

Survey completed April 26, 2005

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#### T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona

#### CHAINS

The following field notes describe the Dependent Resurvey of a portion of the west boundary of the Luis Maria Baca Grant, Float No. 3 and a portion of the subdivisional lines and the metes-and-bounds survey of the exterior boundary of the Tumacacori National Historical Park, Township 21 South, Range 13 East, Gila and Salt River Meridian, Arizona.

The history of surveys pertaining to this survey is as follows:

Solomon W. Foreman surveyed the west boundary in 1871. Theodore F. White surveyed the subdivisional lines in 1876. Philip Contzen surveyed the Luis Maria Baca Grant, Float No. 3, and resurveyed a portion of the subdivisional lines in 1906. William B. Kimmel resurveyed the west boundary in 1925.

The survey was executed in accordance with the specifications as set forth in the <u>Manual of Instructions for the Survey of the Public Lands of the United States, 1973</u>, and the Special Instructions dated March 10, 2005, for Group No. 954, Arizona.

The true meridian direction and length of all lines were determined by real time kinematic global positioning system observations using Trimble Navigation 4700 model receivers.

Preliminary to the resurvey, the lines of the prior surveys were retraced and search was made for all corners and other calls of record. Identified corners were remonumented in their original positions. Lost corners were reestablished and remonumented at proportionate positions based on the official record. The retracement data were thoroughly verified and only the true line field notes are given herein.

Geodetic control was derived from second order U. S. Geological Survey triangulation station TUMACACORI 1959, as published by the National Geodetic Survey, NAD 83 (1992). The geographic position of the cor. of secs. 19, 20, 29, and 30, is as follows:

Latitude: 31°34'48.99" N. Longitude: 111°02'39.02" W.

The mean magnetic declination is 11° E.

#### Dependent Resurvey of a Portion of the West Boundary of the Luis Maria Baca Grant, Float No. 3, T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona

CHAINS

Restoring the survey executed by Philip Contzen, in 1906

Beginning at the NW cor. of tract 101-11, on the W. bdy. of the Luis Maria Baca Grant, Float No. 3, as described in the Warranty Deed recorded August 11, 1989, in docket 506, page 974, identical with AP 6, sec. 19, monumented with a steel pin, 1/2 in. sq., firmly set, in concrete, 32 ins. below the surface of the ground, with the top of the pin flush with the ground, witnessed by a steel pin, 3/4 in. diam., projecting 3 ins. above ground.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, over the 1/2 in. sq. steel pin, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the 3/4 in. diam. steel pin inside the stainless steel post.

Set a steel fence post near the cor.

The cor. is located at cor. of fences, with fences extending N., E., S. and W.

From this cor., the NW cor. of the Luis Maria Baca Grant, Float No. 3, bears N. 0°01′ E., 158.02 chs. dist., monumented with a sandstone, 10  $\times$  8 ins., firmly set, projecting 3 ins. above ground, mkd. NW COR BF NO 3 on the SE face, and PL on the NW face. Not remonumented.

S. 0°01' W., along a portion of the W. bdy. of the Luis Maria Baca Grant, Float No. 3, on the 15th mile, over near level land.

The 14 1/2 mile post, identical with AP 5, sec. 19, monumented with a rebar, 1 in. diam., firmly set, flush with the ground, origin unknown, accepted as the best available evidence of the orig. cor.

At the corner point

#### Dependent Resurvey of a Portion of the West Boundary of the Luis Maria Baca Grant, Float No. 3, T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona

#### CHAINS

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar, 31 ins. long, inside the stainless steel post.

The cor. is located 1.5 lks. E. of a fence, bears N. and S.

From this cor., a rebar, 5/8 in. diam., firmly set, flush with the ground, of unknown origin, bears N.  $12^{\circ}$  E., 3 lks. dist.

S. 0°08' W., beginning new measurement.

- 6.98 The closing cor. of secs. 19 and 30, identical with AP 4, sec. 19, also identical with AP 17, sec. 30, hereinafter described.
- The 15th mile post, identical with AP 16, sec. 30, monumented with an open end iron pipe, 1 3/8 ins. diam., firmly set, 10 ins. below the surface, and a rebar, 5/8 in diam., projecting 3 ins. out of the top of the open end iron pipe, with an aluminum cap attached, 1 1/2 ins. diam., with illegible markings, established by persons unknown. This is accepted as the best available evidence of the orig. cor.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, in a collar of stone, with brass cap mkd.

2005

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the local monuments inside the stainless steel post. The cor. is located under a barbed wire fence, bears N. and S.

## Dependent Resurvey of a Portion of the West Boundary of the Luis Maria Baca Grant, Float No. 3, 2 21 S R 13 E Gila and Salt River Meridian, Arizon

	T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona
CHAINS	
	S. 0°14' W., beginning new measurement, on the 16th mile.
20.62	AP 15, sec. 30, hereinafter described.
21.49	The NW cor. of Exhibit A to Donation Deed, Parcel No. 1, as described in the Donation Deed recorded Nov. 11, 1977, in Dock 230, page 436, monumented with an aluminum cap, 1 1/2 ins. diam., set flush in cement, with cap mkd. LS 9084, with an open end iron pipe, 5 ins. diam., 4 ft. high, alongside. Not remonumented.
	Dependent Resurvey of a Portion of the Subdivisional Lines, T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona

Restoring the survey executed by T. F. White, in 1876

From the point for the cor. of secs. 29, 30, 31 and 32, determined at proportionate dist., there is no remaining evidence of the orig. cor. The cor. is located in the bottomlands of the Santa Cruz River, on private land, not remonumented.

From this cor. point, the cor. of secs. 25, 26, 35 and 36, bears N. 89°53' E., 319.89 chs. dist., monumented with an embedded mound of stone, 3 1/2 ft. base, 1 ft. high. The cor. is on private land, not remonumented.

From this same cor. point, the point for the cor. of secs. 5, 6, 31 and 32, Tps. 21 and 22 S., R. 13 E. on the S. bdy. of the Tp., bears S.  $0^{\circ}09^{\circ}$  E., 80.13 chs., dist., determined at proportionate dist., there is no remaining evidence of the original cor. The cor. is on private land, not remonumented.

From this cor. point, the point for the cor. of secs. 1, 2, 35 and 36, Tps. 21 and 22 S., R. 13 E., on the S. bdy. of the Tp., bears N. 89°51' E., 320.00 chs. dist., reestablished by the method of two-point control, there is no remaining evidence of the original cor. The cor. is on private land, not monumented. From which the cor. of secs. 25, 26, 35 and 36, bears N. 0°12' W., 80.00 chs. dist.

From this same cor. point, the cor. of Tps. 21 and 22 S., Rs. 12 and 13 E., bears S.  $89^\circ51^\circ$  W., 80.00 chs. dist., monumented with an iron post, 2 ins. diam., projecting 13 ins. above ground, with brass cap mkd. T21S R12E R13E S36 S31 S1 S6 T22S 1925. Located in a fence cor., with fences extending S. and W. Add the marks 2005 to the brass cap.

## Dependent Resurvey of a Portion of the Subdivisional Lines, T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona

CHAINS	1. 21 5., R. 15 E., GIIA AND BAIL RIVEL MELICIAN, ALIZONA
	The preceding control lines were fully retraced and careful search was made for evidence of intervening cors., none of which were recovered or monumented.
	S. 89°38' W., bet. secs. 30 and 31.
5.70	Point for AP 6, sec. 30, identical with AP 1A, sec. 31, at intersection with the E. bdy. of the Tumacacori National Historical Park, not monumented.
30.97	Point for AP 7, sec. 30, identical with AP 15, sec. 31, at intersection with the W. bdy. of the Tumacacori National Historical Park, not monumented.
39.87	Point for the 1/4 sec. cor. of secs. 30 and 31, at proportionate distance, there is no remaining evidence of the orig. cor. Not remonumented.
79.63	The cor. of secs. 25, 30, 31 and 36. Tps. 21 S., Rs. 12 and 13 E., on the W. bdy. of the Tp., monumented with an iron post, 2 ins. diam., firmly set, projecting 13 ins. above ground, in a supporting mound of stone, 3 ft. base, to top, with brass cap mkd. T21S R12E R13E S25 S30 S36 S31 1925. Add the marks 2005 to the brass cap.
	From the point for the cor. secs. 29, 30, 31 and 32.
	N. 0°10' W., bet. secs. 29 and 30, over the Santa Cruz River bottomlands with a thick stand of cottonwoods and dense undergrowth.
11.41	Point for AP 8, sec. 29, identical with AP 1, sec. 30, at intersection with the metes-and-bounds survey of the boundary of the Tumacacori National Historical Park, not monumented.
	Enter Tumacacori National Historical Park.
23.35	Point for AP 1, sec. 29, determined at record dist.
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.
	T 21 S R 13 E
·	S 30 S 29 AP 1
	AP 1
	2005
	Deposit a magnet in a white plastic case at the base of the stainless steel post.

#### Dependent Resurvey of a Portion of the Subdivisional Lines, T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona

#### CHAINS

Set a steel fence post near the cor.

From this cor. point, a rebar, 1/2 in. diam., firmly set, projecting 2 ins. above ground, with brass washer wired to and mkd. RLS 15933, bears N.  $89^{\circ}04'$  W., 23 lks. dist

Thence along the Tumacacori National Historical Park boundary.

80.13

The cor. of secs. 19, 20, 29 and 30, monumented with an open end iron pipe, 2 ins. diam., firmly set, 24 ins. below ground, set by T. N. Stevens as shown on an unrecorded plat, dated July, 1944. This has long been used by local surveyors and private landowners, is harmoniously related to nearby orig. cors. and is accepted as the best available evidence of the orig. cor. This position was witnessed with a rebar, 1/2 in. diam., 18 ins. long, set on top of the open end iron pipe, with a brass washer, 3/4 in. diam., wired to and mkd. RLS 15933. A T-post is set near the cor.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

2005

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar inside of and the open end iron pipe, 32 ins. long, alongside of the stainless steel post.

Cor. is located 47 lks. N. of a fence cor., with fences extending E., S. and W.

N. 89°46' W., bet. secs. 19 and 30, across the Santa Cruz River bottomlands, through a thick stand of cottonwoods and dense undergrowth, along a portion of the bdy. of the Tumacacori National Historical Park.

7.58

Point for AP 3, sec. 19, determined at record dist.

#### Dependent Resurvey of a Portion of the Subdivisional Lines, T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona

CHAINS

T 21 S R 13 E

AP 3 S 19

S 30

2005

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Set a steel fence post near the cor.

Thence through the Tumacacori National Historical Park.

33.78

The closing cor. of secs. 19 and 30, at intersection with the W. bdy. of the Luis Maria Baca Grant, Float No. 3, identical with AP 4, sec. 19, also identical with AP 17, sec. 30, monumented with a steel pin, 1 in. diam., firmly set, flush with the ground. This corner was reestablished by persons unknown and is accepted as the best available evidence of the orig. cor.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

2005

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Bury the steel pin, 45 ins. long, alongside the stainless steel post.

Cor. is located 4.5 lks. N. of a cor. of fences, with fences extending N., S. and W.

Metes-and-Bounds Survey in Sections 19, 29, 30 and 31, T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona

In Sec. 19

From the NW cor. of tract 101-11, on the W. bdy. of the Luis Maria Baca Grant, Float No. 3, identical with AP 6, sec. 19, hereinbefore described.

	T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona
CHAINS	
	S. 89°34' E., on line 6-1, sec. 19.
14.27	Point for AP 1, sec. 19, reestablished by grant boundary adjustment, there is no remaining evidence of the local cor.
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 25 ins. in the ground, with brass cap mkd.
	T 21 S R 13 E
	AP 1 \ S 19
	2005
	Deposit a magnet in a white plastic case at the base of the stainless steel post.
	Set a steel fence post near the cor.
	S. 21°07' E., on line 1-2, sec. 19.
3.77	Point for AP 2, sec. 19, reestablished by grant boundary adjustment, there is no remaining evidence of the local cor.
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 25 ins. in the ground, with brass cap mkd.
	T 21 S R 13 E
	AP 2 S 19
	2005
	Deposit a magnet in a white plastic case at the base of the stainless steel post.
	Set a fence post near the cor.
	S. 47°31' E., on line 2-3, sec. 19.
14.32	AP 3, sec. 19, on line bet. secs. 19 and 30, hereinbefore described.
	In Sec. 29
·	From AP 1, sec. 29, on line bet. secs. 29 and 30, hereinbefore described.
	S. 40°42' E., on line 1-2, sec. 29.

#### CHAINS

0.45 Point for AP 2, sec. 29, reestablished by grant boundary adjustment, there is no remaining evidence of the local cor.

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

T 21 S R 13 E
$$AP 2 S 29$$

2005

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Set a steel fence post near the cor.

From this cor. point, a rebar, 1/2 in. diam., firmly set, projecting 1 in. above ground, with brass washer mkd. RLS 15933, bears S. 89°06' W., 22 lks. dist., shown as point 17 on a survey plat titled, Record of Survey, Being a Portion of Baca Float No. 3, Also Known as Being a Portion of Sections 19-29 and 30, T 21 S; R 13 E, G.& S. R. B. & M, Santa Cruz County, Arizona, as surveyed by Gilbert Noice, RLS 9084, and filed on May 22, 1975 at the Santa Cruz County Courthouse in Book 1-Land Surveys, page 4. This cor. was not utilized in the course of this survey.

S. 15°28' E., on line 2-3, sec. 29.

3.08

AP 3, sec. 29, monumented with a rebar, 1/2 in. diam., firmly set, 1 in. below ground, with a small washer attached mkd. RLS 25086.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

2005

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar., 18 ins. long, inside the stainless steel post.

#### CHAINS

Cor. is located 3 lks. E. of a barbed wire fence, bears N. and S.

This cor. is accepted as the SE cor. of tract 101-11, identical with the NE cor. of tract 101-12.

From this cor. point, an aluminum cap, 1 1/2 ins. diam., firmly set, projecting 2 ins. above ground, with illegible marks, bears N.  $89^{\circ}41'$  W., 23.63 chs. dist. Cor. is located in a cor. of fences, with fences extending N., E. and W., and on the bdy. bet. tracts 101-11 and 101-12.

From this same cor. point, an iron pipe, 1 1/2 ins. diam., firmly set, projecting 2 ins. above ground, with a lead cap, 2 ins. diam., mkd. SS, bears N. 89°41' W., 26.13 chs. dist., Cor. is located in a cor. of fences, with fences extending E. and S., at the NE cor. of the orig. Tumacacori National Monument site, as described on an unrecorded survey plat by T. N. Stevens, engineer, dated Nov. 1936 and July 1937.

S. 0°29' E., on line 3-4, sec. 29.

0.15

AP 4, sec. 29, identical with the SW cor. of the "William Lowe Tract" and the NW cor. of the "Manuel King Tract", monumented with a rebar, 1/2 in. diam., 18 ins. long, firmly set, 1 in. below ground, with a small washer attached mkd. RLS 25086.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar inside the stainless steel post.

Cor. is located 3 lks. E. of a barbed wire fence, bears N. and S.

S. 10°30' E., on line 4-5, sec. 29.

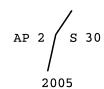
	T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona
CHAINS	
2.88	Point for AP 5, sec. 29, determined by grant boundary adjustment, occupied with an open end steel pipe, 4 1/2 ins. diam., firmly set in concrete, 5 ft. high, for a cor. of fences, with barb wire fences extending N. 12° W. and S. 11°26' W.
	S. 11°26' W., on line 5-6, sec. 29.
2.64	Point for AP 6, sec. 29, reestablished by grant boundary adjustment, occupied with an open end steel pipe, 4 1/2 ins. diam., firmly set in concrete, 5 ft. high, with a washer mkd. RLS 15933, laying loose at the base of the pipe, for a cor. of fences, not remonumented. Barb wire fences extend N. 11°26' E., and S. 19° W.
	S. 19°11' W., on line 6-7, sec. 29.
3.14	AP 7, sec. 29, monumented with a rebar, 1/2 in. diam., 17 ins. long, firmly set, flush with the ground, with a washer attached mkd. RLS 15933.
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 27 ins. in the ground, with brass cap mkd.
	T 21 S R 13 E
	AP 7 /S 29
	2005
	Deposit a magnet in a white plastic case at the base of the stainless steel post.
	Deposit the rebar inside the stainless steel post.
	Cor. is located 1.5 lks. E. of a barb wire fence, with fences bearing N. 19° E. and S. 30° W.
	S. 29°18' W., on line 7-8, sec. 29.
0.11	AP 8, sec. 29, identical with AP 1, sec. 30, hereinbefore described.
	In sec. 30
	S. 29°18' W., on line 1-2, sec. 30.
1.12	AP 2, sec. 30, monumented with a rebar, 1/2 in. diam., firmly set, flush with the ground, with a washer attached, mkd. RLS 15933.

#### CHAINS

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

T 21 S R 13 E



Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar, 18 ins. long, inside the stainless steel post.

S.  $15^{\circ}59'$  W., on line 2-3, sec. 30.

Point for AP 3, sec. 30, reestablished by grant boundary adjustment, occupied with an open end steel pipe, 4 1/2 ins. diam., firmly set in concrete, 5 ft. high, for a cor. of fences, with barbed wire fences extending N. 15° E., S. 32° W. and N. 22° W. Not monumented.

S. 31°51′ W., on line 3-4, sec. 30.

2.72 Point for AP 4, sec. 30, monumented with a rebar, 1/2 in. diam., firmly set, flush with the ground, with a washer attached, mkd. RLS 25086.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

T 21 S R 13 E

2005

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar, 18 ins. long, inside the stainless steel post.

	T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona
CHAINS	
*	Set a steel fence post near the cor.
	S. 30°03' W., on line 4-5, sec. 30.
4.23	AP 5, sec. 30, monumented with a rebar, 1/2 in. diam., firmly set, flush with the ground, with a washer attached, mkd. RLS 25086.
	At the corner point
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, in a collar of stone, with brass cap mkd.
	T 21 S R 13 E
	AP 5 S 30
	2005
	Deposit a magnet in a white plastic case at the base of the stainless steel post.
	Deposit the rebar, 18 ins. long, inside the stainless steel post.
	Set a steel fence post near the cor.
	S. 20°45' W., on line 5-6, sec. 30.
3.20	Point for AP 6, sec. 30, identical with AP 1A, sec. 31, on the line bet. secs. 30 and 31, hereinbefore described.
	From this point, the cor. of secs. 29, 30, 31 and 32, bears N. 89°38' E., 5.70 chs. dist, hereinbefore described.
	From the point for AP 7, sec. 30, identical with AP 15, sec. 31, hereinbefore described.
	Thence, on line 7-8, sec. 30, along a portion of a circular curve to the right, having a central angle of 4°43', a radius of 7539.44 ft., on the easterly right-of-way of U. S. Highway 89, the chord of said arc bears N. 11°56' W., 9.42 chs. dist.
9.42	Point for AP 8, sec. 30, determined at the southeasterly cor. of Tract 101-06, as per legal description dated November 30, 1978, at record distance.

CHAINS

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 27 ins. in the ground, with brass cap mkd.

2005

Deposit a magnet in a white plastic case at the base of the stainless steel post.

From this point, the intersection of the orig. easterly right-of-way of U. S. Highway 89 and the southern boundary of the orig. Tumacacori National Monument, along a portion of a circular curve to the right, having a central angle of 6°13', a radius of 7539.44 ft., the chord of said arc bears N. 9°17' W., 98.5 lks. dist., monumented with an open end iron pipe, 1/2 in. diam., firmly set, flush with the ground.

S.  $80^{\circ}08'$  W., on line 8-9, sec. 30.

Point for AP 9, sec. 30, as per legal description for Tract 101-06, dated November 30, 1978, on the new easterly right-of-way, U. S. Highway 89, as shown on Arizona Highway Department project N-801-601, drawing D-12-T-335.

Point falls in the pavement of the entryway for the parking lot for the visitor center for the Tumacacori National Historical Park, not monumented.

Thence, on line 9-10, sec. 30, along a portion of a circular curve to the right, having a central angle of  $0^{\circ}37'$ , a radius of 7526.60 ft., on the new easterly right-of-way of U. S. Highway 89, the chord of said arc bears N.  $9^{\circ}13'$  W., 1.24 chs. dist.

Point for AP 10, sec. 30, as per legal description for Tract 101-06, dated November 30, 1978, on the new easterly right-of-way, U. S. Highway 89, as shown on Arizona Highway Department project N-801-601, drawing D-12-T-335.

#### CHAINS

Deposit a magnet in a white plastic case at the base of the stainless steel post.

From this point, a cor. of the orig. Tumacacori National Monument, monumented with a brass disk, 3 1/2 ins. diam., set flush in a concrete sidewalk, with bass disk mkd. ARIZONA HIGHWAY DEPT ELEV + STA NPS6 19, bears S. 89°17' E., 95 lks. dist.

Thence, on line 10-11, sec. 30, along a portion of a circular curve to the right, having a central angle of  $2^{\circ}18'$ , a radius of 7526.60 ft., on the new easterly right-of-way of U. S. Highway 89, the chord of said arc bears N.  $7^{\circ}46'$  W., 4.58 chs. dist.

Point for AP 11, sec. 30, at intersection of the new easterly right-of-way, U. S. Highway 89, and the western bdy. of the orig. Tumacacori National Monument, as shown on Arizona Highway Department project N-801-601, drawing D-12-T-335.

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 27 ins. in the ground, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Thence, N. 0°31' W., on line 11-12, sec. 30, along a portion the western boundary of the orig. Tumacacori National Monument, as shown on Arizona Highway Department project N-801-601, drawing D-12-T-335.

Point for AP 12, sec. 30, identical with the NW cor. of the orig. Tumacacori National Monument, as shown on the map titled Boundary Survey Tumacacori National Monument, drawing 311-41,002.

#### CHAINS

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Thence, N. 89°11' E., on line 12-13, sec. 30.

0.425

Point for AP 13, sec. 30, identical with a right-of-way marker for U. S. Highway 89, monumented with a 4 ins. angle iron, firmly set, projecting 19 ins. above ground, mkd. HWY. R.O.W. PT 100  $\,$ + , not remonumented, located at a cor. of an adobe wall, with walls extending E. and S.

From this point, a right-of-way marker for U. S. Highway 89, monumented with a 4 ins. angle iron, firmly set, projecting 20 ins. above ground, illegible markings, bears S.  $88^{\circ}35'$  E., 38 lks. dist. Right-of-way marker is located at the N. base of an adobe wall, with walls extending E. and W., and a fence extending N.

N.  $2^{\circ}04'$  W., on line 13-14, sec. 30, on the new right-of-way for U.S. Highway 89.

6.08

Point for AP 14, sec. 30, determined at intersection with the original right-of-way for U.S. Highway 89 and perpendicular to the W. bdy. of Baca Float No. 3, from AP 15, sec. 30, hereinafter described, as shown on Arizona Highway Department project N-801-601, drawing D-12-T-335.

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

N. 89°46' E., on line 14-15, sec. 30.

0.69

Point for AP 15, sec. 30, determined at record dist. from the orig. N. bdy. of the Tumacacori National Monument, along the W. bdy. of the Luis Maria Baca Grant, Float No. 3, as shown on Arizona Highway Department project N-801-601, drawing D-12-T-335.

CHAINS

Deposit a magnet in a white plastic case at the base of the stainless steel post.

#### In Sec. 31

From the point for AP 6, sec. 30, identical with AP 1A, sec. 31, on the line bet. secs. 30 and 31, hereinbefore described.

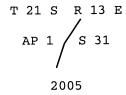
S. 20°45' W., on line 1A-1, sec. 31.

4.09

AP 1, sec. 31, monumented with a rebar, 1/2 in. diam., firmly set, projecting 3 ins. above ground, with a washer attached, mkd. RLS 25086.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.



Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar, 17 ins. long, inside the stainless steel post.

Set a steel fence post near the cor.

S. 11°45′ W., on line 1-2, sec. 31.

2.34

AP 2, sec. 31, monumented with a rebar, 1/2 in. diam., firmly set, projecting 4 ins. above ground, with a washer attached, mkd. RLS 25086.

#### CHAINS

T 21 S R 13 E

AP 2  $\left\langle S 31 \right\rangle$ 

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar, 18 ins. long, inside the stainless steel post.

Set a steel fence post near the cor.

S. 6°27' E., on line 2-3, sec. 31.

2.46

AP 3, sec. 31, monumented with a rebar, 1/2 in. diam., firmly set, 6 ins. below ground, with a washer attached, mkd. RLS 25086.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

T 21 S R 13 E
$$AP 3 S 31$$

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar, 18 ins. long, inside the stainless steel post.

Set a steel fence post near the cor.

S. 2°01' W., on line 3-4, sec. 31.

2.26

Point for AP 4, sec. 31, reestablished by grant boundary adjustment, there is no remaining evidence of the local cor.

#### CHAINS

T 21 S R 13 E

AP 4  $\left\langle S 31 \right\rangle$ 2005

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Cor. is located 45 lks. W. of the left bank of the Santa Cruz River, bears N. and S.

S.  $4^{\circ}00'$  E., on line 4-5, sec. 31.

3.02 Point for AP 5, sec. 31, reestablished by grant boundary adjustment, there is no remaining evidence of the local cor.

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Cor. is located 23 lks. E. of the left bank of the Santa Cruz River, bears N. and S.

S. 6°23' W., on line 5-6, sec. 31.

Point for AP 6, sec. 31, reestablished by grant boundary adjustment, there is no remaining evidence of the local cor. True point falls in the Santa Cruz River, 30 ft. wide, 1 ft. deep, where it is impracticable to establish a permanent monument.

From this point, the point selected for the witness cor. to AP 6, sec. 31, bears N.  $76^{\circ}31'$  W., 73 lks. dist.

CHAINS

T 21 S R 13 E

AP 6  $\left\langle \begin{array}{c} \text{XC} \\ \text{S 31} \end{array} \right\rangle$ 

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Cor. is located 38 lks. W. of the left bank of the Santa Cruz River, bears N. and S.

S. 1°07' E., on line 6-7, sec. 31.

2.55

AP 7, sec. 31, monumented with a rebar, 1/2 in. diam., firmly set, 5 ins. below ground, with a washer attached, mkd. RLS 25086.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 27 ins. in the ground, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar, 18 ins. long, inside the stainless steel post.

Cor. is located 45 lks. W. of the right bank of the Santa Cruz River, bears N. and S.

S. 13°24' E., on line 7-8, sec. 31.

2.02

AP 8, sec. 31, on the N. bdy. of the "Karms Tract", as called for in Deed Book 19, Page 361 thereof, Santa Cruz County records, monumented with a rebar, 1/2 in. diam., firmly set, projecting 2 ins. above ground, with a brass washer wired to the rebar, mkd. LS 25086.

At the corner point

#### CHAINS

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar inside the stainless steel post.

Cor. is located 23 lks. S. of Santa Gertrudis Lane, bladed dirt road, 18 ft. wide, bears E. and W.

From this cor. point, an open end iron pipe, 1 in. diam., firmly set flush with the ground, with a lead cap, 1 1/2 ins. diam., with no markings, accepted as best available evidence of the N. bdy. of the "Karms Tract", as called for in Deed Book 19, Page 361 thereof, Santa Cruz County records, bears S. 89°57' E., 11.14 chs. dist.

N. 89°57' W., on line 8-9, sec. 31, along Santa Gertrudis road.

0.23 Right bank of Santa Cruz River, bears N. and S.

18.60

AP 9, sec. 31, monumented with an iron pin, 3/4 in. diam., firmly set, projecting 24 ins. above the bottom of a cattle guard, 2 ft. deep.

Attach an aluminum cap, 2 1/2 ins. diam., to the top of the iron pin, driving the pin 4 ins. below top of the cattle guard, with the aluminum cap mkd.

Cor. is located within Santa Gertrudis Lane.

From this cor., a rebar, 5/8 in. diam., firmly set, projecting 6 ins. above the bottom of the cattle guard, bears S.  $64^{\circ}19'$  E., 4 lks. dist.

N. 15°17' W., on line 9-10, sec. 31.

## CHAINS 0.80

AP 10, sec. 31, monumented with a rebar, 5/8 in. diam., with an aluminum cap attached, 1 1/2 ins. diam., mkd. SANCHEZ ASSOC. LS 12536.

At the corner point

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar, 15 ins. long, inside the stainless steel post.

Cor. is located under a barbed wire fence, bears S. 15° E. and N. 15° W.

S. 89°57′ E., on line 10-11, sec. 31.

#### 11.47

AP 11 sec. 31, monumented with a rebar, 1/2 in. diam., firmly set, flush with the ground, with a washer wired to the rebar mkd. RLS 17479.

Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Deposit the rebar, 18 ins. long, inside the stainless steel post.

Set a steel fence post near the cor.

N. 11°30' E., on line 11-12, sec. 31.

	T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona
CHAINS	
7.34	AP 12, sec. 31, monumented with an open end iron pipe, 2 ins. diam., firmly set, projecting 2 ins. above ground.
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, with brass cap mkd.
	T 21 S R 13 E
	S 31 / AP 12
	2005
	Deposit a magnet in a white plastic case at the base of the stainless steel post.
	Deposit the open end iron pipe, 18 ins. long, inside the stainless steel post.
	Cor. is located in the cor. of fences, with fences extending N., S. 12° W. and S. 81° W.
	S. 80°34' W., on line 12-13, sec. 31.
14.44	AP 13, sec. 31, monumented with an open end iron pipe, 2 ins. diam., firmly set, projecting 2 ins. above a concrete pour, 2 ft. diameter.
	Set a brass tablet, 3 1/4 ins. diam., 3 1/2 ins. stem, cemented into the top of the open end pipe, with the brass tablet mkd.
	T 21 S R 13 E S 31\AP 13
*	2005
	Cor. is located at the cor. of fences, with fences extending N. 80° E., S. 15° E., and N. 15° W.
	N. 15°18' W., on line 13-14, sec. 31, along the easterly right-of-way, U.S. Highway 89.
12.99	Point for AP 14, sec. 31, on the easterly right-of-way, U.S. Highway 89, station PC 991 + 19.14, determined by two point control, no evidence of the right-of-way marker exists.
	Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 26 ins. in the ground, in a collar of stone, with brass cap mkd.

CHAINS

T 21 S R 13 E
S 31 AP 14

Deposit a magnet in a white plastic case at the base of the stainless steel post.

Cor. is located 4.5 lks. W. of a wooden fence bearing S. 15° E. and N. 15° W.

From this cor. point, a right-of-way marker for U. S. Highway 89, monumented with a 4 ins. angle iron, firmly set, projecting 14 ins. above ground, mkd. HWY R.O.W. PC 991 + 19.14 on a face, bears S.  $74^{\circ}40'$  W., 3.03 chs. dist. The right-of-way marker is located in the westerly right-of-way fence for U. S. Highway 89, bears S.  $15^{\circ}$  E. and N.  $15^{\circ}$  W.

From this same cor. point, a right-of-way marker for U. S. Highway 89, monumented with a 4 ins. angle iron, firmly set, projecting 28 ins. above ground, mkd. HWY R.O.W. PT 972 + 19.91 on a face, bears S.  $15^{\circ}18'$  E., 28.78 chs. dist. The right-of-way marker is located in the easterly right-of-way fence for U. S. Highway 89, bears S.  $15^{\circ}$  E., and N.  $15^{\circ}$  W.

Thence, on line 14-15, sec. 31, along a circular curve to the right, having a central angle of  $1^{\circ}00'$ , a radius of 7539.44 ft., on the easterly right-of-way of U. S. Highway 89, the chord of said arc bears N.  $14^{\circ}49'$  W., 1.98 chs. dist.

1.98

Point for AP 15, sec. 31, identical with AP 7, sec. 30, at intersection with the line bet. secs. 30 and 31, not monumented.

#### T. 21 S., R. 13 E., Gila and Salt River Meridian, Arizona

CHAINS

#### GENERAL DESCRIPTION

This survey of the Tumacacori National Historical Park is located 1 mile south of the settlement of Carmen, AZ., and 3 miles south of the Tubac Presidio State Historical Park. It is bounded by U. S. Highway 89 to the west, which now serves as the eastern frontage road for U. S. Interstate 19.

The elevation at the Mission is roughly 3250 feet above sea level. The site occupies the sandy bottomlands of the Santa Cruz River, which flows north through the eastern half of the park, under a thick canopy of cottonwoods with dense undergrowth. Mesquite trees are abundant in the western half.

The mean magnetic declination of  $11^{\circ}$  E. was derived from the United States Geological Survey computer program GEOMAG, utilizing the World Magnetic Model for Epoch 2000 for the dates of survey.

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

#### FIELD ASSISTANTS

NAMES	CAPACITY
Robert J. Lyle	Surveying Technician
Mark R. Searles	Surveying Technician

#### CERTIFICATE OF SURVEY

I, Lonnie Bitsoi, Cadastral Surveyor, HEREBY CERTIFY upon honor, that in pursuance of special instructions bearing date of the 10th day of March, 2005, I have dependently resurveyed a portion of the west boundary of the Luis Maria Baca Grant, Float No. 3 and a portion of the subdivisional lines and executed the metes-and-bounds survey of the exterior boundary of the Tumacacori National Historical Park, T. 21 S., R. 13 E., of the Gila and Salt River Meridian, in the State of Arizona, which are represented in the foregoing field notes as having been executed by me and under my direction. Said survey has been made in strict conformity with said special instructions, the Manual of Instructions for the Survey of the Public Lands of the United States, 1973, and in specific manner described in the foregoing field notes.

	onger assigned to this office lable for signature.
(Date)	(Cadastral Surveyor)
CERTIFIC	TATE OF APPROVAL
	BUREAU OF LAND MANAGEMENT Phoenix, Arizona
boundary of the Luis Maria Baca of subdivisional lines and the metes-a of the Tumacacori National Historic River Meridian, in the State of Ari Surveyor, having been critically approved.  DEC. 4, 2007  (Date) Ac	ependent resurvey of a portion of the west Grant, Float No. 3 and a portion of the and-bounds survey of the exterior boundary al Park, T. 21 S., R. 13 E., Gila and Salt zona, executed by Lonnie Bitsoi, Cadastral examined and found correct, are hereby ting (Chief Cadastral Surveyor of Arizona)  THE OF TRANSCRIPT  Ascript of the field notes of the above R. 13 E., Gila and Salt River Meridian, inal field notes.
(Deta)	(Chief Cadastral Surveyor of Arizona)
(Date)	- I GILLEL GAGADELAL DULVEYOL OL MILZONAT