

ORIGINAL

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

FIELD NOTES

OF THE

CORRECTIVE RESURVEY

OF A PORTION OF THE WEST BOUNDARY,

A PORTION OF THE SUBDIVISIONAL LINES,

AND

A PORTION OF THE METES-AND-BOUNDS SURVEYS

**TOWNSHIP 22 NORTH, RANGE 31 EAST,**

OF THE GILA AND SALT RIVER MERIDIAN,

IN THE STATE OF ARIZONA

**EXECUTED BY**

**Leonard R. Sandoval, Cadastral Surveyor**

Under Special Instructions dated December 5, 2002, approved December 5, 2002 and Supplemental Special Instructions dated February 16, 2007, approved February 16, 2007, which provided for the corrective surveys included under Group No. 899, and assignment instructions dated February 16, 2007.

**Survey commenced February 26, 2007**

**Survey completed March 29, 2007**

**INDEX DIAGRAM**

TOWNSHIP 22 NORTH                      RANGE 31 EAST  
 GILA AND SALT RIVER MERDIAN, ARIZONA

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**T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona**

## CHAINS

The following field notes describe the corrective resurvey of a portion of the west boundary, a portion of the subdivisional lines, and a portion of the metes-and-bounds surveys, Township 22 North, Range 31 East, Gila and Salt River Meridian, Arizona.

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

W. R. Fitzgerald surveyed the south, west and north boundaries and the subdivisional lines in 1882. Charles L. Campbell resurveyed the west boundary, in 1907. John W. Berberich and Glenn R. Haste dependently resurveyed a portion of the west boundary, a portion of subdivisional lines and subdivided section 4, in 1940. Leonard R. Sandoval dependently resurveyed the north boundary in 2003. W. William Foster, dependently resurveyed the west boundary, subdivisional lines, subdivided certain sections and performed metes-and-bounds surveys in 2003-06.

In January 2007, while conducting the metes-and-bounds surveys in Township 22 North., Range 30 East, for the rights-of-way of Interstate Highway 40 and the Burlington Northern and Santa Fe Railroad, the surveys for a portion of the same rights-of-way in Township 22 North, Range 31 East, were not correlating with this survey. The angle points set by W. William Foster at the intersection of survey lines on rights-of-way were grossly out of position, thus necessitating this corrective resurvey. Since the railroad does not have right-of-way monuments, the center line of the south track is the controlling line for computing the 200 foot width of the right-of-way. Record bearings and distances were confirmed and returned in these field notes.

The survey was executed in accordance with the specifications as set forth in the Manual of Instructions for the Survey of the Public Lands of the United States, 1973, the Special Instructions dated December 5, 2002, Supplemental Special Instructions dated February 16, 2007, and the Assignment Instructions dated February 16, 2007, for Group No. 899, Arizona.

The true meridian direction and lengths of all lines were determined by real time kinematic global positioning system observations using Trimble 5800 model receivers.

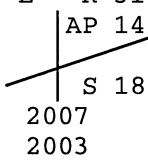
The mean magnetic declination is 11 1/4° E.

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**Corrective Resurvey of a Portion of the West Boundary,  
T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona**

CHAINS	
	<p align="center">Correcting the resurvey executed by W. William Foster, in 2003-06</p> <hr/> <p>Beginning at the witness cor. of secs. 13, 18, 19 and 24, on the W. bdy. of the Tp., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 4 ins. above ground with brass cap mkd. WC T22N R30E R31E S13 S18 S24 S19 2003.</p> <p>Add the marks 2007 to the brass cap.</p> <p>From this witness cor., the true point for the cor. of secs. 13, 18, 19 and 24, bears S. 0°14' E., 1.90 chs. dist.; the point falls in the Puerco River, where it is impracticable to establish a permanent monument.</p> <p>N. 0°03' W., bet. secs. 13 and 18.</p> <p>Over low rolling land.</p> <p>23.67 Point for Angle Point 1, sec. 18, at intersection with the S. right-of-way of the Burlington Northern and Santa Fe Railroad.</p> <p>From this cor. point, the erroneous, 2003, angle point, bears S. 4°58' E., 9 lks. dist., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 8 ins. above ground, with brass cap mkd. T22N R30E R31E AP1 S18 2003. Remove the 2003 stainless steel post and the accessory magnet enclosed in a white plastic case.</p> <p>Reset the stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p> <div data-bbox="792 1291 1036 1501" style="text-align: center;"> <pre> T 22 N R 30 E   R 31 E                 AP 1                 S 18                 2007         2003           </pre> </div> <p>Deposit a magnet in a white plastic case at the base of the stainless steel post.</p> <p>Cor. is located 6 lks. N. of the S. right-of-way fence, barbed wire, 5 strand, bears N. 55° E. and S. 55° W.</p> <p>25.45 Center of the south track of the Burlington Northern and Santa Fe Railroad, bears N. 55° E. and S. 55° W.</p> <p>25.71 Center of the north track of the Burlington Northern and Santa Fe Railroad, bears N. 55° E. and S. 55° W.</p>

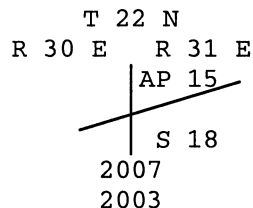
**Corrective Resurvey of a Portion of the West Boundary,  
T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona**

CHAINS	
27.32	<p>Point for the Angle Point 14, Sec. 18, at intersection with the N. right-of-way of the Burlington Northern and Santa Fe Railroad.</p> <p>From this cor. point, the erroneous, 2003, angle point, bears S. 5°18' E., 8 1/2 lks. dist., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 4 ins. above ground, with brass cap mkd. T22N R30E R31E AP14 S18 2003. Remove the 2003 stainless steel post and the accessory magnet enclosed in a white plastic case.</p> <p>Reset the stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p> <div style="text-align: center;"> <p>T 22 N R 30 E    R 31 E</p>  </div> <p>Deposit a magnet in a white plastic case at the base of the stainless steel post.</p> <p>Cor. is located 5 lks. N. of the N. right-of-way fence, barbed wire, 5 strand, bears N. 55° E. and S. 55° W.</p>
37.95	<p>The 1/4 sec. cor. of secs. 13 and 18, monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 4 ins. above ground, with brass cap mkd. T22N R30E R31E 1/4 S13 S18 2003, with a steel fence post set nearby.</p> <p>Add the marks 2007 to the brass cap.</p> <p>Cor. is located 15 1/2 lks. W. of a barbed wire fence, 4 strand, bears N. and S.</p> <hr style="width: 30%; margin: 10px auto;"/> <p>N. 0°03' W., bet. secs. 13 and 18., beginning new measurement.</p>
24.68	<p>Point for the Angle Point 15, Sec. 18, at intersection with the S. right-of-way of Interstate Highway 40.</p> <p>From this cor. point, the erroneous, 2003, angle point, bears N. 59°08' E., 5 1/2 lks. dist., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 4 ins. above ground, with brass cap mkd. T22N R30E R31E AP15 S18 2003, with a steel fence post set nearby. Remove the 2003 stainless steel post and the accessory magnet enclosed in a white plastic case.</p>

**Corrective Resurvey of a Portion of the West Boundary,  
T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona**

CHAINS

Reset the stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 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 6 lks. S. of the S. right-of-way fence, barbed wire, 5 strand, bears N. 55° E. and S. 55° W.

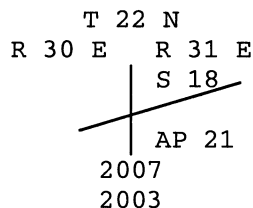
From this cor. point, station 2610+50 on the S. right-of-way of Interstate Highway 40, as described on State of Arizona Highway Department, Right of Way Plan of the Holbrook-Lupton Hwy, Project No. I-40-5(18), Drawing No. D-1-T-2178, Sheet No. 5 of 14, monumented with a brass tablet, 3 ins. diam., bears S. 53°24' W., 4.51 chs. dist., firmly set flush in a concrete collar, 6 ins. diam., projecting 5 ins. above ground, with top incorrectly mkd. ARIZONA HIGHWAY DEPT. POT 2610X00 ELEV. 6126.90 1962, witnessed by an angle iron, 3 ft. W., firmly set, projecting 28 ins. above ground, mkd. P.O.T. 2610+00 on the side.

34.33

Point for the Angle Point 21, Sec. 18, at intersection with the N. right-of-way of Interstate Highway 40.

From this cor. point, the erroneous, 2003, angle point, bears S. 17°35' W., 18 lks. dist., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set flush with the surface of the ground, with brass cap mkd. T22N R30E R31E AP21 S18 2003, with a steel fence post set nearby. Remove the 2003 stainless steel post, the accessory magnet enclosed in a white plastic case and the steel fence post.

Reset the stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.



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

**Corrective Resurvey of a Portion of the West Boundary,  
T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona**

CHAINS	
	<p>Cor. is located under the N. right-of-way fence, woven wire with 2 strand of barbed wire, bears N. 65° E. and S. 65° W.</p> <p>Reset steel fence post nearby.</p> <p>From this cor. point, the point for station 2610+50 on the N. right-of-way of Interstate Highway 40, determined at record distances, as shown on sheet 5 of 14, Drawing No. D-1-T-217B of the Right-of-Way Plan of Arizona State Highway Department, bears S. 66°54' W., 8.975 chs. dist.; there is no remaining evidence of the original right-of-way monument. The point is located at the cor. of the N. right-of-way fence, woven wire with 2 strand barbed wire, bears N. 65° E. and S. 55° W.</p> <p>From this cor. point, station 2610+50 on the S. right-of-way of Interstate Highway 40, bears S. 27°45' E., 9.97 chs. dist., hereinbefore described.</p>
39.84	<p>True point for the cor. of secs. 7, 12, 13 and 18, falls in a dry sandy wash, 10 ft. wide, 1 ft. deep, drains S. 80° E., where it is impracticable to establish a permanent monument.</p> <p>From this cor. point, the witness cor. to the cor. of secs. 7, 12, 13 and 18, bears S. 32°12' W., 72 lks. dist., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 3 ins. above ground, with brass cap mkd. WC T22N R30E R31E S12 S7 S13 S18 2003, with a steel fence post set nearby.</p>
	<hr/> <p align="center"><b>Corrective Resurvey of a Portion of the Subdivisional Lines, T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona</b></p> <hr/> <p>From the 1/4 sec. cor. of secs. 7 and 18, monumented with a stainless steel post, 2 1/2 ins. diam., firmly set flush with the surface of the ground, with brass cap mkd. T22N R31E 1/4 S7 S18 2003.</p> <p>Add the marks 2007 to the brass cap.</p> <p>S. 89°53' W., bet. secs. 7 and 18.</p> <p>Over low rolling land.</p>
15.855	<p>Point for Angle Point 5, sec. 7, identical with Angle Point 19, sec. 18, at intersection with the S. right-of-way of Interstate Highway 40.</p>

**Corrective Resurvey of A Portion  
of the Subdivisional Lines,  
T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona**

CHAINS

From this cor. point, the erroneous 2003 angle point, bears N. 72°24' E., 7 lks. dist., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set flush with the surface of the ground, with brass cap erroneously marked, T22N R31E AP19 AP5 S18 S7 2003 and a steel fence post set nearby. Remove the 2003 stainless steel post, the accessory magnet enclosed in a white plastic case and the steel fence post.

Reset the stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground. Remark the brass cap to read.

T 22 N R 31 E  
 / AP 5  
 / S 7  
 / S 18  
 / AP 19  
 / 2007  
 / 2003

Deposit a magnet in a white plastic case at the base of the stainless steel post and set the steel fence post nearby.

26.49

Point for Angle Point 18, sec. 7, identical with Angle Point 20, sec. 18, at intersection with the N. right-of-way of Interstate Highway 40.

From this cor. point, the erroneous 2003 angle point, bears N. 74°30' E., 17 lks. dist., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 4 ins. above the ground, with brass cap erroneously marked, T22N R31E AP18 AP20 S7 S18 2003, and a steel fence post set nearby. Remove the 2003 stainless steel post, the accessory magnet enclosed in a white plastic case and the steel fence post.

Reset the stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap remark to read.

T 22 N R 31 E  
 / AP 18  
 / S 7  
 / S 18  
 / AP 20  
 / 2007  
 / 2003

Deposit a magnet in a white plastic case at the base of the stainless steel post and set the steel fence post nearby.

39.47

The true point for the cor. of secs. 7, 12, 13 and 18, on the W. bdy. of the Tp., hereinbefore described.

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**Corrective Resurvey of a Portion  
of the Metes-and-Bounds Surveys,  
T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona**

CHAINS	
	<p>Correcting the survey executed by W. William Foster, in 2003-06</p> <hr/>
	<p>From Angle Point 1, sec. 18, on the S. right-of-way of Burlington Northern and Santa Fe Railroad, on the W. bdy. of the Sec. 18, hereinbefore described.</p> <p>Thence, on line 1-2, sec. 18, along a circular curve to the left, having a central angle of <math>2^{\circ}16'01''</math>, a radius of 11261.45 ft., on the S. right-of-way of the Burlington Northern and Santa Fe Railroad, the chord of said arc bears N. <math>55^{\circ}21'</math> E., 6.75 chs. dist.</p>
6.75	<p>Point for Angle Point 2, sec. 18, on the S. right-of-way of Burlington Northern and Santa Fe Railroad.</p> <p>From this cor. point, the erroneous 2003 angle point, bears S. <math>53^{\circ}58'</math> W., 1.495 chs. dist., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 4 ins. above the ground, with brass cap mkd., T22N R31E AP2 S18 2003. Remove the 2003 stainless steel post and the accessory magnet enclosed in a white plastic case.</p> <p>Reset the stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground. Add the marks 2007 to the brass cap.</p> <p>Cor. is located under the S. right-of-way fence, barbed wire, 5 strand, bears N. <math>55^{\circ}</math> E. and curves SW.</p> <hr/> <p>N. <math>54^{\circ}15'</math> E., on the S. right-of-way of the Burlington Northern and Santa Fe Railroad.</p>
17.90	<p>Angle Point 3, sec. 18, at intersection with the E. and W. center line of sec. 18, on the S. right-of-way of the Burlington Northern and Santa Fe Railroad, monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 7 ins. above ground, with brass cap mkd. T22N R31E AP3 C--C S18 2003, located alongside the S. right-of-way fence of the railroad, barbed wire, 5 strand, bears N. <math>55^{\circ}</math> E. and S. <math>55^{\circ}</math> W. Add the marks 2007 to the brass cap.</p> <hr/> <p>From Angle Point 14, sec. 18, on the N. right-of-way of the Burlington Northern and Santa Fe Railroad, on the W. bdy. of the Sec. 18, hereinbefore described.</p>

**Corrective Resurvey of a Portion  
of the Metes-and-Bounds Surveys,  
T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona**

CHAINS	
	<p>Thence, on line 14-13, sec. 18, along a circular curve to the left, having a central angle of <math>1^{\circ}34'48''</math>, a radius of 11061.45 ft., on the N. right-of-way of the Burlington Northern and Santa Fe Railroad, the chord of said arc bears N. <math>55^{\circ}01'</math> E., 4.62 chs. dist.</p>
4.62	<p>Point for Angle Point 13, sec. 18, on the S. right-of-way of Burlington Northern and Santa Fe Railroad.</p> <p>From this cor. point, the erroneous 2003 angle point, bears S. <math>53^{\circ}35'</math> W., 1.51 chs. dist., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 4 ins. above the ground, with brass cap mkd., T22N R31E AP13 S18 2003. Remove the 2003 stainless steel post and the accessory magnet enclosed in a white plastic case.</p> <p>Reset the stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground. Add the marks 2007 to the brass cap.</p> <p>Cor. is located under the N. right-of-way fence, barbed wire, 5 strand, bears N. <math>55^{\circ}</math> E. and curves SW.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>N. <math>54^{\circ}15'</math> E., on line 13-12, on the N. right-of-way of the Burlington Northern and Santa Fe Railroad.</p>
13.68	<p>Angle Point 12, sec. 18, at intersection with the E. and W. center line of sec. 18, on the N. right-of-way of the Burlington Northern and Santa Fe Railroad, monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 8 ins. above ground, with brass cap mkd. T22N R31E AP12 C--C S18 2003, located alongside the N. right-of-way fence of the railroad, barbed wire, 5 strand, bears N. <math>54^{\circ}</math> E. and S. <math>54^{\circ}</math> W. Add the marks 2007 to the brass cap.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>From Angle Point 15, sec. 18, on the W. bdy. Of the Tp., hereinbefore described.</p> <p>N. <math>53^{\circ}24'</math> E., on line 15-16, sec. 18, along the S. right-of-way of Interstate Highway 40.</p>
8.555	<p>Angle Point 16, sec. 18, monumented with a concrete pad, 12 x 16 ins. diam., firmly set flush with the surface of the ground, the remains of a highway right-of-way monument, identified as Angle Point 16, sec. 18, in the 2003 survey, witnessed by an angle iron, to the W., firmly set, projecting 22 ins. above ground, with no marks visible.</p> <hr style="width: 20%; margin: 10px auto;"/>

**Corrective Resurvey of a Portion  
of the Metes-and-Bounds Surveys,  
T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona**

CHAINS	
	<p>From Angle Point 18, sec. 18, monumented with an aluminum cap, 3 ins. diam., set flush in concrete collar, 6 ins. diam., firmly set 6 ins. below the surface of ground with top mkd. ARIZONA HIGHWAY DEPT. 2628X00 ELEV. 6133.37 1962, identified as Angle Point 18, sec. 18, in the 2003 survey.</p> <p>N. 61°25' E., on line 18-19, sec. 18, along the S. right-of-way of Interstate Highway 40.</p>
5.87	<p>Angle Point 5, sec. 7, identical with Angle Point 19, sec. 18, at intersection with the line bet. secs. 7 and 18, hereinbefore described.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>N. 61°25' E., on line 5-6, sec. 7, along the S. right-of-way of Interstate Highway 40.</p>
51.425	<p>Angle Point 6, sec. 7, monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 5 ins. above ground, with brass cap mkd. T22N R31E S7 AP6 2003. Add the marks 2007 to the brass cap.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>From Angle Point 21, sec. 18, on the W. bdy. Of the Tp., hereinbefore described.</p> <p>N. 66°54' E., on line 21-20, sec. 18, along the N. right-of-way of Interstate Highway 40.</p>
14.11	<p>Angle Point 18, sec. 7, identical with Angle Point 20, sec. 18, on line bet. secs. 7 and 18, hereinbefore described.</p> <hr style="width: 20%; margin: 10px auto;"/> <p>N. 66°54' E., on line 18-17, sec. 7, along the N. right-of-way of Interstate Highway 40.</p>
4.945	<p>Angle Point 17, sec. 7, monumented with a brass tablet, 3 ins. diam., firmly set flush in conc. collar, 6 ins. diam., 5 ins. below the surface of the ground, with top mkd. ARIZONA HIGHWAY DEPT. POT 2629X00 ELEV. 6131.49 1962, witnessed by an angle iron, 3 ft. E., firmly set, projecting 18 ins. above ground, mkd. 2629+00 on the side. The monument is located 2 1/2 ft. N. of the N. right-of-way fence, woven wire with 2 strands of barbed wire, bears N. 65° E. and S. 67° W.</p> <hr style="width: 20%; margin: 10px auto;"/>

## T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona

CHAINS

## GENERAL DESCRIPTION

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The area resurveyed is between the communities of Houck and Lupton, Arizona, along Interstate Highway 40, in the Puerco River valley. The terrain is rolling land and the Puerco River is the main drainage southwesterly.

The elevation is approximately 6100 feet above sea level. The soil is sandy and gravelly clay. The timber consists of scattered piñon and juniper, with undergrowth of scattered brush and native grasses.

Principal access to the survey is provided by Interstate Highway 40. Most of the area is occupied by permanent residents along the highway. There is no evidence of current mining activity.

The mean magnetic declination of  $11\ 1/4^\circ$  E. was derived from the United States Geological Survey computer program GEOMAG, utilizing the World Magnetic Model for Epoch 2005 for the dates of survey.

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CERTIFICATE OF SURVEY

I, Leonard R. Sandoval, Cadastral Surveyor, HEREBY CERTIFY upon honor, that in pursuance of Special Instructions dated December 5, 2002, approved December 5, 2002 and Supplemental Special Instructions dated February 16, 2007, approved February 16, 2007, I have correctively resurveyed a portion of the west boundary, a portion of the subdivisional lines and a portion of the metes-and-bounds surveys, T. 22 N., R. 31 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.

8-2-07  
(Date)

Leonard R. Sandoval  
(Cadastral Surveyor)

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT  
Phoenix, Arizona

The foregoing field notes of the corrective resurvey of a portion of the west boundary, a portion of the subdivisional lines and a portion of the metes-and-bounds survey, T. 22 N., R. 31 E., Gila and Salt River Meridian, in the State of Arizona, executed by Leonard R. Sandoval, Cadastral Surveyor, having been critically examined and found correct, are hereby approved.

11/25/2008  
(Date)

Stephen K. Hansen  
(Chief Cadastral Surveyor of Arizona)

~~CERTIFICATE OF TRANSCRIPT~~

~~I CERTIFY That the foregoing transcript of the field notes of the above described surveys in T. 22 N., R. 31 E., Gila and Salt River Meridian, Arizona, is a true copy of the original field notes.~~

~~\_\_\_\_\_  
(Date)~~

~~\_\_\_\_\_  
(Chief Cadastral Surveyor of Arizona)~~