



INDEX DIAGRAM

TOWNSHIP 33 NORTH , RANGE 25 EAST ,

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
4	4	6	6	7	8

T. 33 N., R. 25 E., Gila and Salt River Meridian, Arizona

## CHAINS

The following field notes describe the survey of the Eighth Standard Parallel North, along the south boundary of Township 33 North, Range 25 East, Gila and Salt River Meridian, Arizona.

The survey was executed in accordance with the specifications as set forth in the Manual of Surveying Instructions, 1973, and the Special Instructions dated November 22, 1989, for Group No. 715, Arizona.

The west boundary of the Navajo Indian Reservation, and the boundaries and subdivisional lines of Township 6 North, Ranges 10 and 11 West, Navajo Special Meridian, were surveyed by Ehad N. Darling in 1869. The west boundary of the Navajo Indian Reservation was dependently resurveyed by L.E. Sechrist in 1919-20.

The directions of lines were determined by direct hour angle observations of the sun and refer to the true meridian. Distances and angles were measured using a LIETZ SET-4 total station instrument.

The geographic position of the Standard Corner of T. 33 N., Rs. 25 and 26 E. was determined by the technique of relative positioning utilizing the Motorola Golden Eagle Global Positioning System Satellite Surveyor. "GANADO" and "IOHALI", first order triangulation stations established by the U.S. Coast and Geodetic survey, were used as control stations. The geographic position is as follows:

Latitude: 36°12'56.19" N., Longitude: 109°35'39.95" W. NAD27

The mean magnetic declination, as taken from the 1985 magnetic declination map published by U.S. Geological Survey, is 12 1/2° E.

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Survey of the Eighth Standard Parallel North,  
 Along the South Boundary of  
 T. 33 N., R. 25 E., Gila and Salt River Meridian, Arizona

CHAINS	
	<p>Beginning at the stan. cor. for T. 33 N., Rs. 24 and 25 E., monumented with a stainless steel post, 2 1/2 ins. diam., firmly set, projecting 4 ins. above ground, with brass cap mkd. SC T33N R24E R25E S36 S31 1990.</p> <p>East, on the S. bdy. of sec. 31.</p> <p>Over gently rolling land.</p>
40.00	<p>Point for the stan. 1/4 sec. cor. of sec. 31.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p> <p style="text-align: center;">SC                      T33N R25E                      1/4 S31  <hr style="width: 10%; margin: auto;"/>                     1990</p> <p>Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.</p>
80.00	<p>Point for the stan. cor. of secs. 31 and 32.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p> <p style="text-align: center;">SC                      T33N R25E                      S31   S32  <hr style="width: 10%; margin: auto;"/>                     1990</p> <p>Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.</p> <p>Land, gently rolling.                      Soil, sandy clay.                      No timber; rabbitbrush, cacti, greasewood and native grasses.</p>
39.15	<p>East, on the S. bdy. of sec. 32.</p> <p>Over gently rolling land.</p> <p>Point selected for the witness cor. to the stan. 1/4 sec. cor. of sec. 32.</p>

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CHAINS	
	<p>Set a brass tablet, 3 1/4 ins diam., 3 ins. stem, in a drill hole, cemented in place, in sandstone bedrock, flush with surface, with top mkd.</p>
	<p style="text-align: center;">WC                  SC                  T33N R25E                  1/4 S32                  -----&gt;                  1990</p>
	<p>Deposit a magnet, 1 in. long, 7/8 in. diam., beneath the brass tablet.</p>
	<p>Enter rugged land.</p>
<p>40.00</p>	<p>True point for the stan. 1/4 sec. cor. of sec. 32, falls on face of sandstone cliff; impracticable to monument.</p>
<p>80.00</p>	<p>True point for the stan. cor. of secs. 32 and 33, falls on steep slope of large clay ridge; impracticable to monument.</p>
	<p>From this cor. point, the point selected for the witness cor. to the stan. cor. of secs. 32 and 33, bears N. 34°16' W., 0.22 ch. dist.</p>
	<p>At the cor. point</p>
	<p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 15 ins. in the ground, to hard clay, and in a mound of stone, 3 ft. base, to top, with brass cap mkd.</p>
	<p style="text-align: center;">WC                  SC                  T33N R25E                  S32   S33                  -----&gt;                  1990</p>
	<p>Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.</p>
	<p>Witness cor. is located on top of very narrow clay ridge, bears SE and NW.</p>
	<p>Land, gently rolling to rugged.                  Soil, sandy clay, sandstone bedrock and clay outcrops.                  No timber; rabbitbrush, cacti, greasewood and native grasses.</p>

Survey of the Eighth Standard Parallel North,  
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CHAINS	
	<p>East, on the S. bdy. of sec. 33.</p> <p>Over rugged land.</p>
40.00	<p>Point for the stan. 1/4 sec. cor. of sec. 33.</p>
	<p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 6 ins. in the ground, to hard clay, supported in a mound of stone, 3 ft. base, to top, with brass cap mkd.</p>
	<p style="text-align: center;">SC  T33N R25E  1/4 S33  <hr style="width: 10%; margin: auto;"/> 1990</p>
	<p>Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.</p>
52.40	<p>W. edge of canyon, bears SE and NW.</p>
63.90	<p>E. edge of canyon, bears N. and S.; thence enter rolling land.</p>
72.40	<p>High voltage power line, steel frame, 8 strands, bears NE and SW.</p>
80.00	<p>Point for the cor. of secs. 33 and 34.</p>
	<p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 12 ins. in the ground, to bedrock, supported in a mound of stone, 3 ft. base, to top, with brass cap mkd.</p>
	<p style="text-align: center;">SC  T33N R25E  S33   S34  <hr style="width: 10%; margin: auto;"/> 1990</p>
	<p>Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.</p>
	<p>Land, rugged to rolling.  Soil, sandstone bedrock, clay and sandy clay.  No timber; scattered native grasses.</p>
	<hr/> <p>East, on the S. bdy. of sec. 34.</p>
	<p>Over rolling land.</p>

Survey of the Eighth Standard Parallel North,  
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CHAINS	
34.65	Trail road, bears SSE and NNW.
40.00	Point for the stan. 1/4 sec. cor. of sec. 34.  Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.  <div style="text-align: center;">           SC            T33N R25E            1/4 S34  <hr style="width: 10%; margin: 0 auto;"/>           1990         </div> Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.
80.00	Point for the stan. cor. of secs. 34 and 35.  Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.  <div style="text-align: center;">           SC            T33N R25E            S34   S35  <hr style="width: 10%; margin: 0 auto;"/>           1990         </div> Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.  Land, rolling. Soil, sandy clay. No timber; rabbitbrush, sagebrush, cacti, greasewood and native grasses. <hr style="width: 80%; margin: 10px auto;"/>
	East, on the S. bdy. of sec. 35.  Over broken land.
31.70	E. rim of Ventana Mesa, bears N. and S.
40.00	Point for the stan. 1/4 sec. cor. of sec. 35.  Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.

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CHAINS	
	<p style="text-align: center;">SC                      T33N R25E                      1/4 S35  <hr style="width: 20%; margin: auto;"/>                     1990</p> <p>Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.</p> <p>Cor. is located on E. slope of Ventana Mesa, bears N. and S.</p> <p>Thence descend abruptly to nearly level land.</p> <p>61.80 W. bank of wash, 10 ft. deep, bears NE and SW.</p> <p>75.60 E. bank of same wash, 8 ft. deep, bears NE and SW.</p> <p>80.00 Point for the stan. cor. of secs. 35 and 36.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p>
	<p style="text-align: center;">SC                      T33N R25E                      S35   S36  <hr style="width: 20%; margin: auto;"/>                     1990</p> <p>Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.</p> <p>Land, broken to nearly level.                      Soil, sandy clay and clay.                      No timber; rabbitbrush, sagebrush, cacti, greasewood and native grasses.</p> <hr/> <p>East, on the S. bdy. of sec. 36.</p> <p>Over nearly level land.</p> <p>40.00 Point for the stan. 1/4 sec. cor. of sec. 36.</p> <p>Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.</p>

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CHAINS	
	SC T33N R25E 1/4 S36 <hr style="width: 20%; margin: auto;"/> 1990  Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.
43.55	W. right-of-way fence of U.S. Highway 191, barbed wire, 5 strands, parallels highway.
43.75	Power line, bears SSE and NNW.
44.70	Center of pavement of U.S. Highway 191, asphalt surfaced, 40 lks. wide, bears SSE on curve to left.
45.89	E. right-of-way fence of U.S. Highway 191, barbed wire, 5 strands, parallels highway.
48.20	Telephone line, bears SSE and NNW.
62.02	Barbed wire fence, 6 strands, bears N. and S.
80.00	Point for the stan. cor. of T. 33 N., Rs. 25 and 26 E.  Set a stainless steel post, 28 ins. long, 2 1/2 ins. diam., 24 ins. in the ground, with brass cap mkd.  <div style="text-align: center;">                         SC                          T33N                          R25E   R26E                          S36   S31  <hr style="width: 20%; margin: auto;"/>                         1990                     </div> Deposit a magnet enclosed in a 1 x 1 x 2 5/8 ins. white plastic case beneath the stainless steel post.  Land, nearly level. Soil, sandy clay. No timber; rabbitbrush, sagebrush, cacti, greasewood and native grasses.

T. 33 N., R. 25 E., Gila and Salt River Meridian, Arizona

CHAINS	GENERAL DESCRIPTION
	<p>The land covered in this survey is located within the Navajo Indian Reservation, approximately 7 miles north-northwest of Chinle. The land is rolling in the west, transitioning to rugged and then nearly level going eastward.</p> <p>Access is provided by U.S. Highway 191 in the eastern portion, and several trail roads.</p> <p>The soil consists of sandy clay, clay and sandstone bedrock.</p> <p>There is no timber, with vegetation consisting of cacti, rabbitbrush, greasewood and native grasses.</p> <p>The mean magnetic declination is 12 1/2° E., with no noticeable differences due to local attraction.</p>

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FIELD ASSISTANTS

NAMES	CAPACITY
Jones Curtiss	Cadastral Survey Technician
Daniel Bryan	Engineering Technician
Nelson Kinsel	Engineering Technician
Andrew Murphy	Engineering Technician

CERTIFICATE OF SURVEY

I, Leonard R. Sandoval, Cadastral Surveyor, HEREBY CERTIFY upon honor that, in pursuance of special instructions bearing date of the 22nd day of November, 1989, I have surveyed the Eighth Standard Parallel North, along the south boundary of Township 33 North, Range 25 East, 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; and that 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, and in specific manner described in the foregoing field notes.

October 7, 1992  
(Date)

Leonard R. Sandoval  
(Cadastral Surveyor)

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT  
Arizona State Office  
Phoenix, Arizona

The foregoing field notes of the survey of the Eighth Standard Parallel North, along the south boundary of Township 33 North, Range 25 East, Gila and Salt River Meridian, Arizona, executed by Leonard R. Sandoval, Cadastral Surveyor, having been critically examined and found correct, are hereby approved.

OCT 14 1992  
(Date)

James P. Kelly  
(Chief Cadastral Surveyor of Arizona)

~~CERTIFICATE OF TRANSCRIPT~~

~~I Certify that the foregoing transcript of the field notes of the above described survey in T. 33 N., R. 25 E., Gila and Salt River Meridian, Arizona, is a true copy of the original field notes.~~

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

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