Book 5831

ORIGINAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FIELD NOTES

OF THE

DEPENDENT RESURVEY

OF A PORTION OF THE WEST BOUNDARY

AND

A PORTION OF THE SUBDIVISIONAL LINES

TOWNSHIP 9 SOUTH, RANGE 20 WEST,

OF THE GILA AND SALT RIVER MERIDIAN,

IN THE STATE OF ARIZONA.

EXECUTED BY

Geoffrey A. Graham , Cadastral Surveyor

Under Special Instructions dated March 2, 2006, approved March 2, 2006, which provided for the surveys included under Group No. 990, and assignment instructions dated March 2, 2006.

Survey commenced March 23, 2006

Survey completed April 9, 2006

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GILA AND SALT RIVER MERIDIAN, ARIZONA

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T. 9 S., R. 20 W., Gila and Salt River Meridian, Arizona

CHAINS

The following field notes describe the dependent resurvey of a portion of the west boundary and a portion of the subdivisional lines, Township 9 South, Range 20 West, Gila and Salt River Meridian, Arizona.

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

In 1910, John F. Hesse surveyed the east boundary. In 1920, William H. Thorn and William D. Wilson surveyed the west boundary. In 1936, Benjamin J. Kinsey surveyed the subdivisional lines.

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, and the Special Instructions dated March 2, 2006, for Group Number 990, Arizona.

The true meridian direction and length of all lines were determined by real time kinematic global positioning system observations using Trimble Navigation 5700 and 5800 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 Global Positioning System (GPS) static observations post processed by National Geodetic Survey, Online Positioning User Service (OPUS), utilizing Continuously Operating Reference Stations (CORS) JACUMBAAP CS2004 CORS ARP, DURMID HILL PGGA CORS ARP, BLYTHE PGGA STA CORS ARP, and MCDOT BUCKEYE CORS ARP. The NAD 83 (CORS96)(EPOCH:2002), geographic position of the corner of sections 19, 24, 25 and 30 on the east boundary of the township, is as follows:

Latitude: 32°37'11.79" N. Longitude: 114°15'42.85" W.

The mean magnetic declination is 12° E.

Dependent Resurvey of a Portion of the West Boundary, T. 9 S., R. 20 W., Gila and Salt River Meridian, Arizona

CHAINS	
	Restoring the survey by William H. Thorn and William D. Wilson, in 1920
	Beginning at the 1/4 sec. cor. of sec. 25 only, T. 9 S., R. 21 W., monumented with an iron post, 1 in. diam., firmly set, projecting 10 ins. above a supporting mound of stone, 3 ft. base, 2 ft. high, with brass cap mkd. 1/4 S25 1920, with an accessory mound of stone, 3 ft. base, 1 ft. high, E. of the cor.
	Add the marks 2006 to the brass cap.
	Incorporate the accessory mound of stone into a supporting mound of stone, 6 ft. base, 2 1/2 ft. high.
	Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby.
	Cor. is located mid slope of the right bank of a ravine, 30 ft. deep, 50 ft. wide, drains N. 35° W.
	N. 0°04' W., bet. secs. 25 and 30.
	Generally descending over rocky terrain.
2.27	The cor. of secs. 19 and 30 only, T. 9 S., R. 20 W., monumented with an iron post, 2 ins. diam., firmly set, projecting 4 ins. above a supporting mound of stone, 5 ft. base, 2 ft. high, with brass cap mkd. T9S T9S R21W S19 S30 S25 R20W 1936. Add the marks 2006 to the brass cap. Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby.
39.91	The cor. of secs. 24 and 25 only, T. 9 S., R. 21 W., monumented with an iron post, 2 ins. diam., firmly set, projecting 12 ins. above the ground, surrounded by a concrete base, 15 ins. diam., 10 ins. high, with brass cap mkd. T9S R21W R20W S24 S19 S25 1920 2006.
	Cor. is located on top of spur, 30 ft. wide, slopes W.

Dependent Resurvey of a Portion of the Subdivisional Lines, T. 9 S., R. 20 W., Gila and Salt River Meridian, Arizona

Restoring the survey executed by Benjamin J. Kinsey, in 1936

**Dependent Resurvey of a Portion of the Subdivisional Lines,
T. 9 S., R. 20 W., Gila and Salt River Meridian, Arizona**

CHAINS	
	From the cor. of secs. 19, 24, 25 and 30 on the E. bdy. of the Tp., monumented with an iron post, 3 ins. diam., firmly set flush in a supporting mound of stone, 2 ft. base, 14 ins. high, with brass cap mkd. T9S R20W R19W S24 S19 S25 S30 1910, with an accessory mound of stone, 3 ft. base, 1 1/2 ft. high, W. of the cor. Add the marks 2006 to the brass cap. Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby. West, bet. secs. 24 and 25. Gently ascending over terrain, severely broken by many washes.
39.95	The 1/4 sec. cor. of secs. 24 and 25, monumented with an iron post, 1 in. diam., firmly set, projecting 4 ins. above a supporting mound of stone, 3 1/2 ft. base, 1 1/2 ft. high, with brass cap mkd. S24 1/4 S25 1936. Add the marks T9S R20W 2006 to the brass cap. Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby. --- N. 89°52' W., beginning new measurement. Gently ascending over terrain, severely broken by many washes.
40.00	The cor. of secs. 23, 24, 25 and 26, monumented with an iron post, 2 ins. diam., firmly set, projecting 4 ins. above a supporting mound of stone, 3 1/2 ft. base, 1 1/2 ft. high, with brass cap mkd. T9S R20W S23 S24 S26 S25 1936. Add the marks 2006 to the brass cap. Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby. --- S. 89°54' W., bet. secs. 23 and 26. Generally ascending over terrain, severely broken by many washes.
37.62	The witness cor. to the 1/4 sec. cor. of secs. 23 and 26, monumented with an iron post, 1 in. diam., firmly set, projecting 4 ins. above a supporting mound of stone, 4 ft. base, 2 ft. high, with brass cap mkd. WC S23 1/4 S26 1936. Add the marks T9S R20W 2006 to the brass cap.

**Dependent Resurvey of a Portion of the Subdivisional Lines,
T. 9 S., R. 20 W., Gila and Salt River Meridian, Arizona**

CHAINS	
	Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby.
	N. 89°59' W., beginning new measurement.
	Begin steeper ascent, rising 130 ft. over foothills of the Gila Mountains.
2.30	The true point for the 1/4 sec. cor. of secs. 23 and 26, falls in wash, 400 ft. wide, 20 ft. deep, drains N. 30° E., not monumented.
42.25	The cor. of secs. 22, 23, 26 and 27, monumented with an iron post, 2 ins. diam., firmly set, set flush in a supporting mound of stone, 3 ft. base, 1 1/2 ft. high, with brass cap mkd. T9S R20W S22 S23 S27 S26 1936.
	Add the marks 2006 to the brass cap.
	Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby.
	Cor. is located mid-slope of the northerly aspect of spur ridge, bears N. 55° E.
	From the 1/4 sec. cor. of secs. 27 and 28, monumented with an iron post, 2 ins. diam., firmly set, projecting 3 ins. above a supporting mound of stone, 4 ft. base, 3 ft. high, with brass cap mkd. 1/4 S28 S27 1936.
	from which a bearing object not of record
	A granite outcrop, 15 X 10 ft., bears N. 85° W., 19 lks. dist., mkd. X BO.
	Add the marks T9S R20W 2006 to the brass cap.
	Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby.
	N. 0°07' E., bet. secs. 27 and 28.
	Descend 80 ft. over rugged terrain.
39.48	The witness cor. to the cor. of secs. 21, 22, 27 and 28, monumented with an iron post, 2 ins. diam., firmly set, projecting 11 ins. above a supporting mound of stone, 4 ft. base, 3 ft. high, with brass cap mkd. WC T9S R20W S21 S22 S28 S27 1936.
	Add the marks 2006 to the brass cap.

**Dependent Resurvey of a Portion of the Subdivisional Lines,
T. 9 S., R. 20 W., Gila and Salt River Meridian, Arizona**

CHAINS	
	Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby.
40.23	The true point for the cor. of secs. 21, 22, 27 and 28; falls on steep northeasterly cliff face, not monumented.
	From the cor. of secs. 22, 23, 26 and 27.
	S. 89°28' W., bet. secs. 22 and 27.
	Ascend 410 ft. over steep, rocky terrain.
40.02	The 1/4 sec. cor. of secs. 22 and 27, monumented with an iron post, 1 in. diam., firmly set, projecting 4 ins. above a supporting mound of stone, 6 ft. base, 4 ft. high, with brass cap mkd. S22 1/4 S27 1936.
	Add the marks T9S R20W 2006 to the brass cap.
	Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby.
	N. 89°26' W., beginning new measurement.
	Ascend 870 ft. over rugged terrain.
39.86	The true point for the cor. of secs. 21, 22, 27 and 28.
	N. 89°23' W., bet. secs. 21 and 28.
	Descend 850 ft. over steep mountainous terrain.
40.04	The 1/4 sec. cor. of secs. 21 and 28, monumented with an iron post, 1 in. diam., firmly set, projecting 5 ins. above a supporting mound of stone, 5 ft. base, 3 ft. high, with brass cap mkd. S21 1/4 S28 1936.
	Add the marks T9S R20W 2006 to the brass cap.
	Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby.
	N. 89°51' W., beginning new measurement.
	Ascend 110 ft. over rocky terrain.
39.75	The cor. of secs. 20, 21, 28 and 29, monumented with an iron post, 2 ins. diam., firmly set, projecting 4 ins. above a

**Dependent Resurvey of a Portion of the Subdivisional Lines,
T. 9 S., R. 20 W., Gila and Salt River Meridian, Arizona**

CHAINS	
	supporting mound of stone, 3 ft. base, 2 ft. high, with brass cap mkd. T9S R20W S20 S21 S29 S28 1936. Add the marks 2006 to the brass cap. Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby. Cor. is located on the right bank of a ravine, 50 ft. wide, 10 ft. deep, drains S. 15° E.
	N. 89°45' W., bet. secs. 20 and 29. Ascend 180 ft. over mountainous terrain.
39.90	The 1/4 sec. cor. of secs. 20 and 29, monumented with an iron post, 1 in. diam., firmly set, projecting 7 ins. above a supporting mound of stone, 4 ft. base, 3 ft. high, with brass cap mkd. S20 1/4 S29 1936. from which a bearing object not of record A granite boulder, 3 X 2 3/4 X 2 1/2 ft. high, bears W., 2 1/2 lks. dist., mkd. with a cross 9 X 8 ins. Add the marks T9S R20W 2006 to the brass cap. Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby. Cor. is located on southerly side of narrow ravine, 30 ft. wide, 15 ft. deep, drains S. 65° E.
	S. 89°59' W., beginning new measurement. Descend 40 ft. over steep, mountainous terrain.
40.08	The cor. of secs. 19, 20, 29 and 30, monumented with an iron post, 2 ins. diam., firmly set, projecting 8 ins. above a supporting mound of stone, 5 ft. base, 2 ft. high, with brass cap mkd. T9S R20W S19 S20 S30 S29 1936. Add the marks 2006 to the brass cap. Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby.
	N. 89°53' W., bet. secs. 19 and 30. Descend 420 ft. over steep mountainous terrain.

**Dependent Resurvey of a Portion of the Subdivisional Lines,
T. 9 S., R. 20 W., Gila and Salt River Meridian, Arizona**

CHAINS	
39.91	The 1/4 sec. cor. of secs. 19 and 30, monumented with an iron post 1 in. diam., firmly set in a crack in granite face, projecting 3 ins. above a supporting mound of stone, 2 ft. base, 1 ft. high, with brass cap mkd. S19 1/4 S30 1936. Add the marks T9S R20W 2006 to the brass cap. Set a steel sign post, with attached, Bureau of Land Management, standard sign, S-201, nearby. Cor. is located on left bank of wash, 40 ft. wide, 20 ft. deep, drains N. 60° W.
	S. 89°59' W., beginning new measurement. Descend 70 ft. over steep, rugged terrain.
10.60	The true point for the cor. of secs. 19 and 30 only, on the W. bdy. of the Tp., hereinbefore described.

GENERAL DESCRIPTION

The purpose of this survey was to identify the boundary of that portion of the Barry M. Goldwater Military Reservation, managed by the Marine Corps. Access was primarily off of a series of track roads along the flood plains around the base of the Gila Mountains. Several washes provided good paths through the mountains as evidenced by the debris of passage by illegal immigrants. A full two thirds of the corner positions of this survey were in the Gila Mountains and required extensive hiking to reach.

Elevations for the area range between 400 and 2000 ft. above sea level, with terrain consisting of gently rolling soft sand with scant vegetation on the flood plains. What vegetation was present was primarily creosote, and other plants typical of the lower Sonoran Desert biotic community. The mountains, primarily of granite and basalt, had even less vegetation except for in the drainages which held many species of the lower Sonoran Desert. The steepness of the terrain provides excellent habitat for desert bighorn sheep of which one was seen, along with plenty of evidence of their existence.

The mean magnetic declination of 12° E. was derived from the National Geophysical Data Center's magnetic declination calculator, GEOMAG v6.0, utilizing the International Geomagnetic Reference Field model for years 2005 through 2010, for the dates of survey.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FIELD ASSISTANTS

NAMES	CAPACITY
Jon E. Drake	Naval Facilities Land Surveyor
R. Edward Patton, Jr.	Land Surveyor
Leon F. Strohman	Surveying Technician
Ronald W. Windes	Surveying technician

CERTIFICATE OF SURVEY

I, Geoffrey A. Graham, Cadastral Surveyor, HEREBY CERTIFY upon honor, that in pursuance of special instructions bearing date of the 2nd day of March, 2006, I have dependently resurveyed a portion of the west boundary and a portion of the subdivisional lines, T. 9 S., R. 20 W., 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.

8/10/2007
(Date)

Geoffrey A. Graham
(Cadastral Surveyor)

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT
Phoenix, Arizona

The foregoing field notes of the dependent resurvey of a portion of the west boundary and a portion of the subdivisional lines, T. 9 S., R. 20 W., Gila and Salt River Meridian, in the State of Arizona, executed by Geoffrey A. Graham, Cadastral Surveyor, having been critically examined and found correct, are hereby approved.

August 22, 2007
(Date)

Dennis K. McKay
Acting (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. 9 S., R. 20 W., Gila and Salt River Meridian, Arizona, is a true copy of the original field notes.

~~(Date)~~

~~(Chief Cadastral Surveyor of Arizona)~~