

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ORIGINAL

FIELD NOTES

OF

THE DEPENDENT RESURVEY OF
A PORTION OF THE WEST BOUNDARY,

AND

A PORTION OF THE SUBDIVISIONAL LINES,

IN

TOWNSHIP 19 SOUTH, RANGE 20 EAST,

OF THE SALT LAKE MERIDIAN
IN THE STATE OF UTAH

EXECUTED BY

Scott A. Burkhardt
Cadastral Surveyor

Under Special Instructions dated and approved **May 29, 2013**, which provided for the surveys included under Group Number **1200**, and Assignment Instructions dated **May 29, 2013**.

Survey Commenced, **June 3, 2013**
Survey Completed, **June 19, 2013**

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INDEX DIAGRAM

TOWNSHIP 19 SOUTH, RANGE 20 EAST, SALT LAKE MERIDIAN, UTAH

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TOWNSHIP 19 SOUTH, RANGE 20 EAST, SALT LAKE MERIDIAN, UTAH

The following field notes are those of the dependent resurvey of a portion of the west boundary and a portion of the subdivisional lines, in T.19 S., R.20 E., Salt Lake Meridian, Utah.

HISTORY OF SURVEYS

Surveyed by		Retr. or Resurveyed by	
SOUTH BOUNDARY			
All	A.J. Stewart	1901	
Portion		R. Gentry	1915
Portion		G.B. Hatch	1960
EAST BOUNDARY (Green River Guide Meridian)			
All	A.J. Stewart	1901	
All		C.F. Moore	1932
WEST BOUNDARY			
All	A.J. Stewart	1901	
All		G.B. Hatch and G.D. Vorhees	1960
NORTH BOUNDARY			
All	A.J. Stewart	1901	
Portion		J.L. Thomas	1989
SUBDIVISION			
All	A.J. Stewart	1901	
Portion		J.L. Thomas	1989

TOWNSHIP 19 SOUTH, RANGE 20 EAST, SALT LAKE MERIDIAN, UTAH

The survey was executed in accordance with the specifications set forth in the Manual of Surveying Instructions, 2009, and the Special Instructions for Group No. 1200, dated May 29, 2013.

The direction of each line is with reference to the true meridian, determined by Global Positioning System (GPS) utilizing Real-Time Kinematic (RTK) techniques throughout the survey. The positional accuracy of this survey complies with the *Standards for the Positional Accuracy of Cadastral Surveys when using Global Navigation Satellite Systems (GNSS)*, dated February 23, 2009. Trimble model R8 GPS receivers were used for field collection. Cadastral Automated Plat Drafting (CAPD) software was the primary software utilized for project calculations.

Preliminary to the resurvey, the lines of the prior surveys were retraced and a 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 GPS static observations, post processed by the National Geodetic Survey, Online Positioning User Service (OPUS), utilizing Continuously Operating Reference Stations (CORS): DE6238 MC01 MESA CNTY COOP CORS ARP, AJ2124 PUC1 CARBON COUNTY COU CORS ARP, and DH6916 MC04 MESA CNTY 04 COOP CORS ARP.

The geographic position of the 1/4 section corner of sections 16 and 21, T. 19 S., R. 20 E., as determined by direct RTK methods from the National Geodetic Survey OPUS solution, is as follows:

Latitude: **39°08'59.217" N.**,
Longitude: **109°43'01.687" W.**, N.A.D. 83 (2011), EPOCH: 2010.00,
Network Accuracy = 0.200 meter at 95% confidence.

The geographic position of the corner of sections 1, 6, 31, and 36, Tps. 18 S. and 19 S., Rs. 19 E. and 20 E., as determined by direct RTK methods from the National Geodetic Survey OPUS solution, is as follows:

Latitude: **39°11'33.479" N.**,
Longitude: **109°45'50.537" W.**, N.A.D. 83 (2011), EPOCH: 2010.00,
Network Accuracy = 0.200 meter at 95% confidence.

DEPENDENT RESURVEY OF A PORTION OF THE WEST BOUNDARY,
TOWNSHIP 19 SOUTH, RANGE 20 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

Dependent Resurvey of a Portion of the West Boundary,
T. 19 S., R. 20 E., Salt Lake Meridian, Utah

The Reestablishment of the Survey Executed by A.J. Stewart in 1901,
and the Resurvey Executed by G.B. Hatch and G.D. Voorhees in 1960

Beginning at the corner of sections 18 and 19, T. 19 S., R. 20 E.,
on the west boundary of the township, monumented with an iron
post, 2 1/2 inches diameter, firmly set, projecting 5 inches above
the ground, with brass cap marked as described in the official
record of the 1960 resurvey.

Corner is located in steep, rocky terrain, with dense timber.

N. 0°39.7' W., between sections 13 and 18.

- 24.768** The 1/4 section corner of section 13, T. 19 S., R. 19 E.,
monumented with an iron post, 2 1/2 inches diameter, firmly set,
projecting 8 inches above a mound of stone, 4 feet diameter, 2
feet high, with brass cap marked as described in the official
record of the 1960 survey.

Corner is located on a very steep, southwest-facing slope, with
dense oakbrush.

N. 0°05.8' W., beginning new measurement.

- 17.549** The 1/4 section corner of section 18, T. 19 S., R. 20 E.,
monumented with an iron post, 2 1/2 inches diameter, firmly set,
projecting 12 inches above the ground, with brass cap marked as
described in the official record of the 1960 survey.

Corner is located on a very steep, north-facing slope, with dense
timber.

N. 0°32.4' W., beginning new measurement.

- 22.352** True point for the 1960 corner of sections 12 and 13, T. 19 S.,
R. 19 E. Point falls on broken ledges where it is impracticable
to establish a permanent monument.

Continuing measurement between sections 12 and 18.

- 26.606** The witness corner to the corner of sections 12 and 13. T. 19 S.,
R. 19 E., monumented with an iron post, 2 1/2 inches diameter,
firmly set, projecting 12 inches above the ground, with brass cap
marked

DEPENDENT RESURVEY OF A PORTION OF THE WEST BOUNDARY,
TOWNSHIP 19 SOUTH, RANGE 20 EAST, SALT LAKE MERIDIAN, UTAH

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T19S
R19E R20E
S12 | S7
S13 | S18
WC
1960

Remove marks S7 and S18 to match function and cap description in the official record of the 1960 survey.

Corner is located on a very steep, southeast-facing slope.

N. 0°33.8' W., beginning new measurement.

- 15.947** Point for the corner of sections 7 and 18, T. 19 S., R. 20 E., at proportionate distance. There is no remaining evidence of the 1960 iron post or mound of stone. Not monumented.

N. 0°33.8' W., between sections 7 and 12.

- 19.797** The 1/4 section corner of section 12, T. 19 S., R. 19 E., monumented with an iron post, 2 1/2 inches diameter, firmly set, projecting 4 inches above an embedded mound of stone, with brass cap marked as described in the official record of the 1960 survey.

Corner is located on a steep, southeast-facing slope.

N. 0°53.7' W., beginning new measurement.

- 22.728** The 1/4 section corner of section 7, T. 19 S., R. 20 E., monumented with an iron post, 2 1/2 inches diameter, firmly set, projecting 13 inches above the ground, with brass cap marked as described in the official record of the 1960 survey.

Corner is located on the edge of a mesa top.

N. 0°13.9' W., beginning new measurement.

- 17.264** The corner of sections 1 and 12, T. 19 S., R. 19 E., monumented with an iron post, 2 1/2 inches diameter, firmly set, projecting 12 inches above the ground, with brass cap marked as described in the official record of the 1960 survey.

Corner is located on a steep north-facing slope.

N. 1°07.0' W., between sections 1 and 7.

- 25.399** True point for the corner of sections 6 and 7, T. 19 S., R. 20 E. Point falls on ledges where it is impracticable to establish a

DEPENDENT RESURVEY OF A PORTION OF THE WEST BOUNDARY,
TOWNSHIP 19 SOUTH, RANGE 20 EAST, SALT LAKE MERIDIAN, UTAH

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permanent monument.

N. 1°07.0' W., between sections 1 and 6.

- 8.792** The witness corner to the corner of sections 6 and 7, T. 19 S., R. 20 E., monumented with an iron post, 2 1/2 inches diameter, firmly set, projecting 4 inches above the ground, with brass cap marked as described in the official record of the 1960 survey.

Corner is located on a moderately-steep south-facing slope, with dense oakbrush.

N. 1°02.6' W., beginning new measurement.

- 5.643** True point for the 1/4 section corner of section 1, T. 19 S., R. 19 E., at proportionate distance. Point falls on ledge where it is impracticable to establish a permanent monument.

- 5.803** The witness corner to the 1/4 section corner of section 1, T. 19 S., R. 19 E., monumented with an iron post, 2 1/2 inches diameter, firmly set, projecting 4 inches above a mound of stone, 4 feet diameter, 2 feet high, with brass cap marked as described in the official record of the 1960 survey.

Corner is located on a sandstone bench, with a several-hundred-foot drop-off to the south.

N. 0°08.9' E., beginning new measurement.

- 19.893** Point for the N 1/16 section corner of section 1, T. 19 S., R. 19 E., at proportionate distance. Found an iron post, 2 1/2 inches diameter, 30 inches long, lying loose on the ground, with brass cap marked as described in the official record of the 1960 survey. Point falls on a steep, unconsolidated slope where it is impracticable to remonument.

- 20.448** Point selected for the witness corner to the N 1/16 section corner of section 1, T. 19 S., R. 19 E.

Set the original 1960 iron post, 30 inches long, 2 1/2 inches diameter, 28 inches in the ground, with a magnet at base.

Add marks WC, 2013 and an arrow pointing to the true point to cap.

Corner is located on a moderately-steep southwest-facing slope.

- 27.688** Point for the 1/4 section corner of section 6, T. 19 S., R. 20 E., on the west boundary of the township. Find an iron post, 2 1/2 inches diameter, 30 inches long, lying loose on the ground, with brass cap marked as described in the official record of the 1960 survey. There is no remaining evidence of the original location of the iron post.

DEPENDENT RESURVEY OF A PORTION OF THE WEST BOUNDARY,
TOWNSHIP 19 SOUTH, RANGE 20 EAST, SALT LAKE MERIDIAN, UTAH

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Reset the iron post, 20 inches in the ground, at proportional distance, with a magnet at base, in a mound of stone, 2 feet diameter, to cap.

Add marks 2013 to cap.

Set a steel fence post east of the corner.

Corner is located on a ridge top extending North and South.

- 39.956** The 80 chain 1/16 section corner of section 1, T. 19 S., R. 19 E., monumented with an iron post, 2 1/2 inches diameter, firmly set, projecting 10 inches above the ground, with brass cap marked as described in the official record of the 1960 survey.

Corner is located on a gentle northwest-facing slope, with dense aspen trees.

N. 0°32.4' W., beginning new measurement.

- 27.676** The corner of sections 1, 6, 31, and 36, Tps. 18 and 19 S., Rs. 19 and 20 E., monumented with an iron post, 2 1/2 inches diameter, firmly set, projecting 8 inches above an embedded mound of stone, 3 feet diameter, with brass cap marked as described in the official record of the 1960 survey.

From which

An unrecorded iron pipe, 2 1/2 inches diameter, firmly set, projecting 9 inches above the ground, bears S. 89°25' E., 74.2 links distance, with an iron cap, marked 1960 T18S/T19S 36/31/WC/1/6 R19E/R20E.

From which

An unrecorded iron pipe, 2 1/2 inches diameter, firmly set, projecting 10 inches above the ground, bears S. 89°50' W., 75.9 links distance, with an iron cap, marked 1960 T18S/T19S 36/31/1/6/WC R19E/R20E.

From which

An unrecorded iron pipe, 2 1/2 inches diameter, firmly set, projecting 10 inches above the ground, bears N. 59°45' W., 0.4 links distance, with an iron cap, marked 1960 T18S/T19S 36/31/1/6 R19E/R20E.

Corner is located in an old fence line, with wooden posts and rusted barbed-wire.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISIONAL LINES,
TOWNSHIP 19 SOUTH, RANGE 20 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

Dependent Resurvey of a Portion of the Subdivisional Lines,
T. 19 S., R. 20 E., Salt Lake Meridian, Utah

The Reestablishment of the Survey Executed by
A.J. Stewart in 1901, and the Dependent Resurvey
Executed by J.L. Thomas in 1989

From the 1/4 section corner of sections 16 and 21, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, projecting 7 inches above the ground, with aluminum cap marked as described in the official record of the 1989 survey.

With a mound of stone, 3 feet diameter, 2 feet high, north of the corner.

From the corner, a fence line, extending east and west, bears South, 4 links distance.

Corner is located on a fairly level mesa top.

S. 88°45.7' W., between sections 16 and 21.

40.074 The corner of sections 16, 17, 20, and 21, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, projecting 6 inches above the ground, with aluminum cap marked as described in the official record of the 1989 survey.

With a scattered mound of stone, west of the corner.

Rehabilitate witness mound of stone to 3 feet diameter, 2 feet high.

From the corner, a fence line, chainlink with steel posts projecting 4 feet, extending east and west, bears South, 8 links distance.

Corner is located on a gently rolling mesa top.

S. 89°39.6' W., between sections 17 and 20.

20.021 The E 1/16 section corner of sections 17 and 20, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, flush with a mound of stone, 4 feet diameter, 1 1/2 feet high, with aluminum cap marked as described in the official record of the 1989 survey.

Corner is located in a steep drainage, with large trees.

S. 89°38.9' W., beginning new measurement.

DEPENDENT RESURVEY OF A PORTION OF THE SUBDIVISIONAL LINES,
TOWNSHIP 19 SOUTH, RANGE 20 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

- 20.022** The 1/4 section corner of sections 17 and 20, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, flush with the ground, with aluminum cap marked as described in the official record of the 1989 survey.

With a mound of stone, 3 feet diameter, 2 feet high, north of the corner.

Corner is located on a steep northeast-facing slope, with large trees.

S. 89°39.6' W., beginning new measurement.

- 40.050** The corner of sections 17, 18, 19, and 20, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, projecting 3 inches above the ground, with aluminum cap marked as described in the official record of the 1989 survey.

With an embedded mound of stone, west of the corner.

Corner is located in a steep drainage, course S.20°E., with large trees.

S. 89°54.5' W., between sections 18 and 19.

- 39.253** The 1/4 section corner of sections 18 and 19, monumented with an aluminum post, 2 1/2 inches diameter, firmly set, projecting 4 inches above a scattered mound of stone, with aluminum cap marked as described in the official record of the 1989 survey.

Rehabilitate the mound of stone to 2 feet diameter, 2 feet high, north of the corner.

Corner is located at the bottom of a deep drainage.

The Reestablishment of the Survey Executed
by A.J. Stewart in 1901

S. 70°19.7' W., beginning new measurement.

- 42.417** The corner of sections 18 and 19, on the west boundary of the township, hereinbefore described.
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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FIELD ASSISTANTS

Name	Capacity
Phil Freiberg	Survey Technician

CERTIFICATE OF SURVEY

I, *Scott A. Burkhardt, Cadastral Surveyor*, HEREBY CERTIFY upon honor, that in pursuance of Special Instructions bearing the date of the *May 29, 2013*, I have *dependently resurveyed a portion of the west boundary and a portion of the subdivisional lines, in Township 19 South, Range 20 East*, of the *Salt Lake* Meridian, in the State of *Utah*, 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.

10/31/2014

Date

Scott A. Burkhardt

Cadastral Surveyor

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT
Salt Lake City, Utah

The foregoing field notes of the *dependent resurvey of a portion of the west boundary and a portion of the subdivisional lines, in Township 19 South, Range 20 East, Salt Lake Meridian; Utah*, executed by *Scott A. Burkhardt, Cadastral Surveyor*, having been critically examined and found correct, are hereby approved.

November 28, 2014

Date

Daniel W. Webb

Chief Cadastral Surveyor for Utah