

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ORIGINAL

FIELD NOTES

OF

THE RETRACEMENT OF

A PORTION OF THE UTAH-ARIZONA STATE BOUNDARY LINE
FROM MILE POST 178 TO MILE POST 179,
(A PORTION OF THE SOUTH BOUNDARY),

AND

THE SURVEY OF A PORTION OF THE NORTH BOUNDARY

OF

TOWNSHIP 43 SOUTH, RANGE 10 EAST,

OF THE SALT LAKE MERIDIAN
IN THE STATE OF UTAH

EXECUTED BY

Scott A. Burkhardt
Cadastral Surveyor

Under Special Instructions dated and approved **October 1, 2014** which provided for the surveys included under Group Number **1286**, and Assignment Instructions dated **October 1, 2014**.

Survey Commenced, **October 6, 2014**
Survey Completed, **October 23, 2014**

INDEX DIAGRAM

Township 43 South, Range 10 East.

3	3				
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
UTAH	3				

ARIZONA

TOWNSHIP 43 SOUTH, RANGE 10 EAST, SALT LAKE MERIDIAN, UTAH

The following field notes are those of the retracement of a portion of the Utah-Arizona state boundary line from Mile Post 178 to Mile Post 179 (a portion of the south boundary), and the survey of a portion of the north boundary of T. 43 S., R. 10 E., Salt Lake Meridian, Utah.

HISTORY OF SURVEYS

Surveyed by		Retr. or Resurveyed by	
SOUTH BOUNDARY (Utah-Arizona State Boundary Line)			
All	H.B. Carpenter		
		1901	
Portion			W.A. Douglass 1909
Portion			S.A. Burkhardt 2001
EAST BOUNDARY			
All	S.A. Burkhardt	2006	
WEST BOUNDARY			
All	S.A. Burkhardt	concurrently	2014
NORTH BOUNDARY			
Portion	S.A. Burkhardt	2006	
SUBDIVISION			
Portion	S.A. Burkhardt	2006	
Portion	Unsurveyed		

Protraction Diagram No.48, dated March 7, 1961

TOWNSHIP 43 SOUTH, RANGE 10 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. 1286, dated October 1, 2014.

The direction of the lines was determined by references to true meridian, established 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 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 National Geodetic Survey, Online Positioning User Service (OPUS), utilizing Continuously Operating Reference Stations (CORS): DI2245 P011 SPIDERROCKAZ2005 CORS ARP, AI8805 FRED FREDONIA CORS ARP, and DI2242 P009 MARYSVILLE_UT2006 CORS ARP.

The geographic position of Mile Post 178 on the Utah-Arizona state boundary line, as determined by direct RTK methods from the National Geodetic Survey OPUS solution, is as follows:

Latitude: **37°00'08.714" N.**,
Longitude: **110°49'54.439" W.**, N.A.D. 83 (2011), EPOCH: 2010.00
Network Accuracy = 0.200 meter at 95% confidence.

The geographic position of the corner of Tps. 42 and 43 S., Rs. 9 and 10 E., as determined by direct RTK methods from the National Geodetic Survey OPUS solution, is as follows:

Latitude: **37°05'06.291" N.**,
Longitude: **110°50'49.574" W.**, N.A.D. 83 (2011), EPOCH: 2010.00
Network Accuracy = 0.200 meter at 95% confidence

All stainless steel monuments and brass tablets set in this survey bear the Navajo Nation Seal.

RETRACEMENT OF A PORTION OF THE UTAH-ARIZONA STATE BOUNDARY LINE,
 FROM MILE POST 178 TO MILE POST 179,
 (A PORTION OF THE SOUTH BOUNDARY),
 TOWNSHIP 43 SOUTH, RANGE 10 EAST, SALT LAKE MERIDIAN, UTAH

CHAINS

Retracement of a Portion of the Utah-Arizona State boundary line,
 from Mile Post 178 to Mile Post 179,
 (a Portion of the South Boundary),
 Township 43 South, Range 10 East, Salt Lake Meridian, Utah

Reestablishment of the Survey Executed by H.B. Carpenter in 1901

Beginning at Mile Post 178 on the Utah-Arizona state line,
 monumented with a stainless steel post, 2 1/2 inches diameter,
 firmly set in a mound of stone, with brass cap marked as
 described in the concurrent retracement of a portion of the Utah-
 Arizona state boundary line (south boundary of T. 43S., R. 9E.).

N. 89°36.4' E., on the 179th mile.

79.294 Mile Post 179 on the Utah-Arizona state line, monumented with a
 stainless steel post, 2 1/2 inches diameter, firmly set, flush
 with the ground, with brass cap marked as described in the
 official record of the 2006 retracement, with a steel fence post
 to the north.

From which the 2006 bearing trees

A juniper, 20 inches diameter, bears S. 48° E., 52.5 links
 distance, marked ARIZ 179MP BT

A juniper, 9 inches diameter, bears N. 51° W., 26.5 links
 distance, marked UTAH 179MP BT

Corner is located on gently rolling ground, with dense pinon and
 juniper forest.

The Survey of the North Boundary,
 Township 43 South, Range 10 East, Salt Lake Meridian, Utah

From the corner of sections 4, 5, 32, and 33, on the north
 boundary of the township, monumented with a stainless steel post,
 2 1/2 inches diameter, firmly set, projecting 2 inches above a
 mound of stone, 4 feet diameter, to cap, with brass cap marked as
 described in the official record of the 2006 survey.

West, on the north boundary of the township.

158.950 The corner of Tps. 42 and 43 S., Rs. 9 and 10 E., established at
 the bearing and distance as shown on Protraction Diagram No. 48,
 monumented with a 3 1/4 inch diameter brass tablet flush with
 sandstone marked as described in the concurrent survey of the
 east boundary of T. 43S., R. 9E., with a mound of stone, 3 feet
 diameter, 3 feet high to the south.

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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 1st day of *October, 2014*, I have retraced a portion of the *Utah-Arizona State Boundary, from Mile Post 178 to Mile Post 179 (a portion of the south boundary)*, and surveyed a portion of the *north boundary, in Township 43 South, Range 10 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 of the Survey of the Public Lands of the United States, and in specific manner described in the foregoing field notes.

January 6, 2015
Date

Scott A. Burkhardt
Cadastral Surveyor

CERTIFICATE OF APPROVAL

BUREAU OF LAND MANAGEMENT
Salt Lake City, Utah

The following field notes of the *retracement of a portion of the Utah-Arizona State Boundary, from Mile Post 178 to Mile Post 179 (a portion of the south boundary)*, and the *survey of a portion of the north boundary, in Township 43 South, Range 10 East, Salt Lake Meridian, Utah*, executed by *Scott A. Burkhardt, Cadastral Surveyor*, having been critically examined and found correct, are hereby approved.

August 14, 2015
Date

Daniel W. Webb
Chief Cadastral Surveyor for Utah