

DESCRIPTION
HORIZONTAL CONTROL STATION

DIAGRAM St. Johns
USGS QUAD NO. 294

Triangulation Electronic - Distance Traverse Intersected Object
Station BLUFF USGS County APACHE State ARIZONA
Established by USGS Year 1933 Project D 942-946

Check one:

New Station: Write full description below
 Recovery of Old Station: Recovered by USGS Year 1954 Project PH 358

Object	Bearing	Distance		Azimuth
		Feet	Meters	
Geronimo USGS				186°19'01.8"
RM 1		46.70		16 54
RM 2		41.88		121 02

Located about 27.0 mi ESE. from Holbrook and 27.0 mi NW. of St. Johns, on small, sandy knoll, on edge of bluff on southeast side of Milky Wash.

To reach from RR. station in Holbrook, drive S. on U.S. Hwy. 260 for 0.6 mi to jct.; stay on left fork of U.S. Hwy. 260 passing Petrified Forest National Monument Rd. jct. at 17.6 mi.; continue past monument jct. 8.7 mi; turn left (E.) through gate onto track rd. 0.5 mi; take right fork 0.1 mi; pass through gate, at 0.2 mi past gate take dim track rd. to left for 2.0 mi; pass through gate 1.2 mi; pass to SE. of earthen stock tank 0.2 mi; turn left (N.) across country 0.2 mi to edge of mesa and station.

Station mark: Standard tablet stamped "BLUFF 1933" cemented in top of sandstone post set in ground.

Reference mark No. 1: Standard reference mark tablet cemented in top of sandstone post.

Reference mark No. 2: Standard reference mark tablet cemented in top of sandstone post.

USGS Adjusted 1966 Coordinates. Note: PH 1787, 1976 VA elevation.

ARIZONA EAST ZONE

X= 636850.1

Y= 1365972.5

MAPPING ANGLE=+0 15 35

ELEV 5734.4 FT

QUAD 34 109 41

BLUFF USGS

LAT 34 45 13.799

LONG 109 42 39.840

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DESCRIPTION

Supplementary Horizontal Control Station

Station BM VS 31 USGS County APACHE State AZ Quad No. 294

Project PH 358 Year 1954

Surveyed by checked (XX) or unchecked () methods

Description:

Located about 1.0 mi N. and 2.5 mi E. of Agate Bridge in the Petrified Forest National Monument.

To reach from Petrified Forest National Monument Headquarters, drive N. on State Hwy. 63 for 10.2 mi; turn right on Blue Forest Loop Rd. for 1.3 mi; turn right on dim track rd. 1.6 mi to large sandstone boulder to left (N.) of rd. and bench mark in top of boulder; 400 ft SE. of small stream; 280 ft S. of boulder; at west edge of bare area covered with agate-like pebbles.

Station mark: Standard bench mark tablet stamped "VS 31 1934 5464" set in top of sandstone boulder.

ARIZONA EAST ZONE
 X= 629652.9
 Y= 1429176.7
 MAPPING ANGLE=+0 14 45
 ELEV 5464.337 FT
 QUAD 34 109 41

BM VS 31 USGS LAT 34 55 39.370 LONG 109 44 14.840

STATION	OBSERVED DIRECTION	DISTANCE	A-O	A-O FT
STATIONS OBSERVED BY THIRD ORDER METHODS FROM PH 358 1954				
GERONIMO USGS	292 59 24.1	15473.5	3.9	
FLATTOP USGS	33 6 37.3	45242.0	-1.3	

DESCRIPTION
HORIZONTAL CONTROL STATION

34 109 41

DIAGRAM St. Johns

USGS QUAD NO. 294

1st Order

Triangulation

Electronic - Distance Traverse

Intersected Object

Station GERONIMO USGS

County APACHE

State ARIZONA

Established by USGS

Year 1933

Project D 942-946

Check one:

New Station: Write full description below

Recovery of Old Station: Recovered by USGS

Year 1974

Project PH 1704

PH 358

PH 1704

Object	Bearing	Distance		Azimuth
		Feet	Meters	
Bluff USGS				6°19'45.2"
RM 1		12.48		260 21
RM 2		21.67		328 05

Described in National Geodetic Survey Description List 34 109 4, Station 1004.
All marks in good condition. New to reach follows:

From center of overpass on Interstate 40 at Navajo, go S. then E. 0.2 mi to T-rd. S., go right 0.4 mi to end of pavement at X-rd., continue S. 0.2 mi across Rio Puerco to Y-rd., go left 0.8 mi to T-rd. S. at cattleguard, go right (S.) on main traveled rd., 14.9 mi to T-rd. W. at cattleguard, go right on main traveled rd. 8.4 mi, rd. turns S., go S. 0.4 mi to track rd. W., to right (W.) 0.7 mi to south end and highest part of top - Road Ends at station.

Note by USGS 1974. Occupied only to establish ETVA elevation.

USGS Adjusted Coordinates. Note: PH 1787, 1976 VA elevation.

ARIZONA EAST ZONE

X= 642921.93

Y= 1423194.60

MAPPING ANGLE=+0 16 22

ELEV 5963.2 FT

QUAD 34 109 41

GERONIMO USGS

LAT 34 54 39.5570

LONG 109 41 23.8120

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DESCRIPTION

34 109 41

Supplementary Horizontal Control Station

Station TBM 5384.7 County Apache State AZ Quad No. 294Project PH 358 Year 1955Surveyed by checked (x) or unchecked () methods

Description:

Described in Level Line by V.S. Seward, 1934, Line 1 as follows:

Billings, 3.5 mi S. and 1.1 mi W. of, 0.9 mi S. of telegraph line, on line between above described tablet (VS 29 1934) and prominent gap at northeast edge of Blue Forest, at center of S-curve in stream, 15 ft S. of stream, 4 ft S. of 5-ft cedar post, 6 inches above ground, in top of buried boulder; chiseled square painted "USBM 5385.1".

Note by USGS, 1955: Located about 15.8 mi NE. of Petrified Forest National Monument Headquarters.

Note: Not third-order. 2 sets turned with T-2.

ARIZONA EAST ZONE

X= 630339.5

Y= 1441311.3

MAPPING ANGLE=+0 14 57

ELEV 5384.730 FT

QUAD 34 109 41

TBM 5384.7

LAT 34 57 39.330

LONG 109 43 53.950

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DESCRIPTION

Supplementary Horizontal Control Station

Station SC 36/^{17N}~~16N~~/24E County APACHE State AZ Quad No. 294

Project PH 358 Year 1954

Surveyed by checked (XX) or unchecked () methods

Description:

Located at corner T16,17N R24,25E of Gila and Salt River Meridian.

Station mark: GLO pipe and cap

ZONA EAST ZONE

X= 623720.7

Y= 1390777.0

MAPPING ANGLE=+0 14 42

ELEV 5695.0 FT

QUAD 34 109 41

SC 36/17N/24E

LAT 34 49 19.520

LONG 109 44 16.000

STATION	OBSERVED DIRECTION	DISTANCE	A-C	A-C FT
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STATIONS OBSERVED BY THIRD ORDER METHODS FROM PH 358 1954

FLATTOP USGS	91 10 48.6	24621.9	-1.3	
GERONIMO USGS	203 54 4.8	35394.6	2.6	
46-6220 A	328 22 24.3	33182.6	6.6	
BLUFF USGS	342 6 5.8	26104.8	-10.8	

NOV 21 1974

DESCRIPTION

Supplementary Horizontal Control Station

Station SC 36/19N/24E County APACHE State AZ Quad No. 294

Project PH 358 Year 1954

Surveyed by checked (XX) or unchecked () methods

Description:

Located at corner T18,19N R24,25E. (Gila and Salt River Meridian.)

Station mark: GLO pipe with cap

ARIZONA EAST ZONE

X= 628833.8

Y= 1454284.3

MAPPING ANGLE=+0 14 48

ELFV 5375.0 FT

QUAD 34 109 41

SC 36/19N/24E

LAT 34 59 47.720

LONG 109 44 11.370

STATION	OBSERVED DIRECTION	DISTANCE	A-O	A-C FT
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STATIONS OBSERVED BY THIRD ORDER METHODS FROM PH 358 1954

INDIAN MOUND USGS	198 50 35.8	25274.2	2.0	
4-83 A	245 25 1.3	14013.0	4.9	
GERONIMO USGS	335 52 12.1	34135.4	-3.5	

DESCRIPTION

Supplementary Horizontal Control Station

Station 3-50 A County Apache State AZ Quad No. 294
 Project PH 1540 Year 1972
 Surveyed by checked (X) or unchecked () methods

Description:

Located about 32 mi ENE. of Holbrook, Arizona; 10 mi SSW. of Navajo;
 6 mi S. of Pinta; on a low ridge overlooking a precipice to the W.

Station mark: A 5/8 inch reinforcing bar.

Paneled.

ARIZONA EAST ZONE

ELEV 5619.4 FT

X= 664374.8

Y= 1453942.3

MAPPING ANGLE=+0 18 52

3-50 A

LAT 34 59 42.615

LONG 109 37 4.193

STATION	OBSERVED DIRECTION	DISTANCE	A-O	A-O FT
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STATIONS OBSERVED BY THIRD ORDER METHODS

DESERT PARK	123 0 26.2	53829.1	-0.4	
DOUGLAS	126 32 23.7	96166.6	-7.0	
INDIAN MOUND USGS	131 47 35.2	36683.2	-1.0	
SANDHILL USGS	146 51 17.7	64220.3	13.0	
HOGON USGS	176 14 23.7	98490.9	-3.4	

JUL 19 1972