

THIRD-ORDER LEVELING
Sea Level Datum of 1929

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

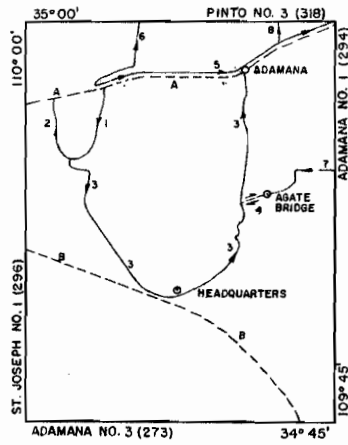
PETRIFIED FOREST QUADRANGLE
ARIZONA 295
N3445-W10945/15

FILE COPY

Apache and Navajo Counties

Edition of 1/14/57

Only standard tablets are listed for lines run more than 25 years before the above edition date



USC&GS Leveling Lines

- A. Goffs, Calif. to Albuquerque New Mexico (No. 18) (Ariz. portion) First order
- B. Holbrook to Springerville, Ariz. (No. 23) Second order

Feet

LINE 1.

FROM A POINT 1.0 MILE WEST OF CARRIZO SOUTH ALONG ROAD TO ORTEGAS RANCH (by P. Chapman, 1910; Book A8670)

"N 4 1906" (USC&GS) (Reported destroyed, 1933) 5219.478

(Note: Third order methods were used in running this line but closure was 0.303 high in 4.71 mi. This error has been distributed in line)

T. 18 N., R. 23 E., Sec. 18; 0.1 mi. S. of Atchison, Topeka and Santa Fe RR. bridge B240; in cap rock of small butte; aluminum tablet stamped "5235" 5236.011

LINE 2.

FROM ORTEGAS RANCH NORTH ALONG ROAD TO RAILROAD (by P. Chapman, 1910; Book A8670)

No permanent bench marks fall on this quadrangle.

LINE 3.

FROM ORTEGAS RANCH SOUTHEAST TO HEADQUARTERS OF PETRIFIED FOREST NATIONAL MONUMENT THENCE NORTHEAST ALONG STATE HIGHWAY 63 TO ADAMANA (by P. Chapman, 1910; Book A8670)

Ortegas Ranch, 1.3 mi. SE. of; 300 ft. NW. of SE. corner of Sec. 36, Tps. 17, 18 N., Rs. 22, 23 E.; in boulder; aluminum tablet stamped "5306" 5305.534

T. 17 N., R. 23 E., in NW 1/4 of NE 1/4 of Sec. 20; 500 ft. SW. of small painted butte; in flat conglomerate rock; aluminum tablet stamped "5453" 5452.965

T. 17 N., R. 23 E., Sec. 33; 20 ft. SW. of rd. from Holbrook to Petrified Forest; 60 ft. SW. of point where rd. reaches top of mesa; in rim rock of mesa; aluminum tablet stamped "5589" 5588.972

T. 16 N., R. 23 E., near center of Sec. 1; 75 ft. E. of wash from SE.; 20 ft. S. of rd.; in large petrified log; aluminum tablet stamped "5475" 5475.752

T. 17 N., R. 24 E., near 1/2 Cor. Sec. 29, 30; 10 ft. E. of rd. where it passes over brow of mesa; in rim rock; aluminum tablet stamped "5639" 5639.568

New Desc. 76 T. 17 N., R. 24 E., near center of Sec. 8; 2.0 mi. SW. of Agate Bridge; 1,000 ft. W. of ragged mesa S. of First Forest; 150 ft. E. of rd.; aluminum tablet stamped "5463" 5463.758

(Note: Third order methods were used in running this portion of the line but closure was -0.362 low in 8.77 miles. This error has been distributed in line.)

T. 18 N., R. 24 E., in SW 1/4 of NE 1/4 Sec. 32; on rock bench 3 ft. high; 3.5 ft. E. of W. edge; bench trends NNW. toward a small rock-capped butte 500 ft. distant; aluminum tablet stamped "5359" 5358.989

Adamana, 0.2 mi. W. of Atchison, Topeka and Santa Fe RR. Station; on sandstone post; chiseled square (Recovered by USC&GS, 1934) 5297.312

Adamana, 720 ft. E. of station; in foundation of N. side of water tank; aluminum tablet stamped "5301" 5301.334

LINE 4.

FROM A POINT 1.5 MILE WEST OF AGATE BRIDGE (FORMERLY NATURAL BRIDGE) EAST ALONG ROAD TO BRIDGE (Double run spur line by P. Chapman, 1910; Book A8670)

T. 17 N., R. 24 E., near center of Sec. 8; aluminum tablet stamped "5463" (Described in Line 3) 5463.758

Agate Bridge, 10 ft. SE. of S. end of; in NE 1/4 Sec. 9; T. 17 N., R. 24 E.; about 400 ft. SE. of Petrified Forest Highway; 130 ft. E. of NE. corner of parking area; in natural rock abutment of bridge; aluminum tablet stamped "5575" 5575.231

LINE 5.

FROM DOUBLE TRACK JUNCTION (BRIDGE B240 OVER RIO PUERCO) NORTHEAST ALONG ATCHISON, TOPEKA AND SANTA FE RAILWAY INTO SOUTHWEST CORNER OF PINTO NO. 1 QUADRANGLE (by V. S. Seward, 1933-1934; Book B5034)

T. 18 N., R. 23 E., Sec. 18; 0.1 mi. S. of Atchison, Topeka and Santa Fe RR. bridge 240; aluminum tablet stamped "5235" (Described in Line 1) 5236.011

Reference mark, 500 ft. NW. of tablet; at bridge B240 over Rio Puerco; 1.5 ft. SW. of SW. corner of bridge; on SW. abutment; chiseled square 5224.56

Double Track Junction, 0.8 mi. E. of; 1 ft. NW. of fence corner; on 6 by 6 by 3-in. sandstone post; chiseled square Not Found 76 5224.19

Double Track Junction, 1.8 mi. E. of; 900 ft. N. of RR.; 500 ft. N. of windmill; 400 ft. SE. of small sand hill; 40 ft. W. of fence corner; 6 ft. S. of rd.; on rock outcrop; chiseled square Not Found 76 5235.50

Double Track Junction, 2.4 mi. E. of; 3,000 ft. E. of windmill; 800 ft. N. of RR.; 100 ft. SW. of W. end of 400 ft. cut through old quarry; 120 ft. SE. of intersection of main rd. with old rd. from quarry; in 3 by 3-in. sandstone boulder 3 ft. above ground; standard tablet stamped "VS 2 1933 5241" New Desc. 76 5240.629

Reference mark, 30 ft. N. of tablet; on 3 ft. sandstone boulder 2 ft. high; chiseled square 5240.64

Double Track Junction, 3.4 mi. E. of; 3.8 mi. W. of Adamana Junction; 0.7 mi. SW. of ranch house; 0.7 mi. W. of overhead signal No. 2351; 40 ft. S. and 10 ft. W. of signal switch; 20 ft. S. of S. rail; on 3 by 3-in. sandstone boulder; chiseled square Not Found 76 5254.34

Adamana, 2.8 mi. W. of; about 0.8 mi. SE. of ranch house; 1,700 ft. E. of overhead signal No. 2351; 175 ft. E. of RR. crossing; 35 ft. W. of rail rack; 18 ft. S. of S. rail; in sandstone boulder; standard tablet stamped "VS 1 1933 5268" NF 76 5267.730

Reference mark, 85 ft. W. of tablet; 18 ft. S. of S. rail; on sandstone boulder; chiseled square 5266.81

Adamana, 1.8 mi. W. of; 1.0 mi. E. of RR. crossing; 275 ft. S. of S. rail; 200 ft. S. of right-of-way fence; in root of 15-in. cottonwood tree forking into four parts 2 ft. above ground; rail spike NF 76 5274.96

Adamana, 1.0 mi. W. of; 800 ft. E. of Apache-Navajo County line; 15 ft. S. of S. rail; 6 ft. S. of cantilever signal No. 2331; in center of concrete foundation; bolt NF 76 5293.69

Adamana, 0.2 mi. W. of A. T. & S. F. RR. station; 600 ft. W. of coal elevator; 75 ft. S. of S. rail; 3 ft. N. of right-of-way; in stone post; chiseled square (USC&GS BM "P 4") 5297.312

Reference mark, 90 ft. E. of BM.; on boulder; chiseled square 5297.01

Adamana, 1.0 mi. E. of RR. station; 160 ft. N. and 250 ft. W. of A. T. & S. F. RR. signal No. 2312; 170 ft. N. of N. rail; 70 ft. N. of center of rd.; 50 ft. E. of top of small isolated hill; on 4-ft. flat boulder; chiseled square 5322.58

Adamana, 1.6 mi. NE. of RR. station; at A. T. & S. F. RR. steel-girder bridge A231 over Dead River; on NW. abutment of bridge; chiseled square NF 76 5336.26

Adamana, 2.8 mi. NE. of RR. station; at S. edge of first small buttes E. of Adamana; 900 ft. SW. of A. T. & S. F. RR. signal No. 2292; 110 ft. N. of N. rail; 30 ft. N. of right-of-way fence; 15 ft. N. of old rd.; in 3 by 4 ft. sandstone boulder; standard tablet stamped "VS 33 1934 5359" 5359.210

Reference mark, 45 ft. SW. of tablet; 110 ft. N. of N. rail; 30 ft. N. of right-of-way fence; 15 ft. N. of old rd.; on sandstone boulder; chiseled square 5357.95

FILE COPY

LINE 5 CONTINUED

Billings, 3.2 mi. SW. of; 3.8 mi. NE. of RR. station at Adamana; about 1,000 ft. W. and 700 ft. N. of eastern-most large tree on N. side of Rio Puerco; 700 ft. N. and 300 ft. W. of A. T. & S.F. RR. culvert 229; 20 ft. N. of old rd.; 4 ft. S. of lone post 5 inches above ground; on boulder; chiseled square 5384.65

LINE 6.

FROM A POINT 2.4 MILES EAST OF DOUBLE TRACK JUNCTION NORTH INTO PINTO NO. 3 QUADRANGLE (318) (by V. S. Seward, 1933-1934; Book B5034)

Adamana, 4.8 mi. W. of; 2.4 mi. W. of Double Track Junction; standard tablet stamped "VS 2 1933 5241" (Described in Line 5) 5240.629

Double Track Junction, 3.0 mi. NE. of; near SW. Cor. of Sec. 3, T. 18 N., R. 23 E.; 2 ft. S. of fence corner; on boulder; chiseled square 5335.07

Double Track Junction, 4.0 mi. NE. of; near SW. Cor. Sec. 34, T. 18 N., R. 23 E.; 1,200 ft. S. and 1,000 ft. E. of jct. of U. S. Highway 66 and rd. SE. to Double Track Junction; 40 ft. S. of rd. forks; 16 ft. S. of fence jct. S.; on boulder; chiseled square 5288.83

Destroyed '76

FILE COPY

LINE 7.

FROM ADAMANA NO. 1 QUADRANGLE (294) SOUTHEAST TO AGATE BRIDGE (FORMERLY NATURAL BRIDGE) TO A POINT NEAR CENTER OF SEC. 8, T. 17 N., R. 24 E.) (by V. S. Seward, 1934; Book B5034) 7.18

Tps. 17 and 18 N., R. 24 E., Cor. Secs. 35, 36, 2 and 1; G.L.O. iron pipe with cap stamped "TS 17, 18 N, R 24 E, SECS 35, 36, 2, 1" 5461.68

Agate Bridge, 10 ft. SE. of S. end of; aluminum tablet stamped "5575" (Described in Line 4) 5575.231

Reference mark, 50 ft. N. and 50 ft. W. of tablet; 18 inches SE. of SW. end of Agate Bridge; on petrified log which forms this bridge; chiseled square 5577.97

NE 76

Agate Bridge, 0.2 mi. S. and 0.6 mi. W. of; at First Forest; 160 ft. NW. of Petrified Forest Highway; 5 ft. above ground; on top near center of W. stone gate post; chiseled square 5535.31

T. 17 N., R. 24 E., near center of Sec. 8; 2.0 mi. SW. of Agate Bridge; aluminum tablet stamped "5463" (Described in Line 3) 5463.758

LINE 8.

NE 76

FROM A POINT 1.0 MILE EAST OF ADAMANA NORTH ALONG STATE HIGHWAY 63 INTO PINTO NO. 3 QUADRANGLE (318) (by V. S. Seward, 1934; Book B5035)

Adamana, 1.0 mi. E. of; chiseled square (Described in Line 5) 5322.58

NE 76

Adamana, 1.0 mi. E. and 0.8 mi. N. of RR. station; 100 ft. N. of top of second rise N. of RR.; 700 ft. W. of proposed rd.; 30 ft. E. of present rd.; on boulder; chiseled square 5400.90

LINE 5 CONTINUED

Billings, 3.2 mi. SW. of; 3.8 mi. NE. of RR. station at Adamana; about 1,000 ft. W. and 700 ft. N. of eastern-most large tree on N. side of Rio Puerco; 700 ft. N. and 300 ft. W. of A. T. & S.F. RR. culvert 229; 20 ft. N. of old rd.; 4 ft. S. of lone post 5 inches above ground; on boulder; chiseled square 5384.65

LINE 6.

FROM A POINT 2.4 MILES EAST OF DOUBLE TRACK JUNCTION NORTH INTO PINTO NO. 3 QUADRANGLE (318) (by V. S. Seward, 1933-1934; Book B5034)

Adamana, 4.8 mi. W. of; 2.4 mi. W. of Double Track Junction; standard tablet stamped "VS 2 1933 5241" (Described in Line 5) 5240.629

Double Track Junction, 3.0 mi. NE. of; near SW. Cor. of Sec. 3, T. 18 N., R. 23 E.; 2 ft. S. of fence corner; on boulder; chiseled square 5335.07

Double Track Junction, 4.0 mi. NE. of; near SW. Cor. Sec. 34, T. 18 N., R. 23 E.; 1,200 ft. S. and 1,000 ft. E. of jct. of U. S. Highway 66 and rd. SE. to Double Track Junction; 40 ft. S. of rd. forks; 16 ft. S. of fence jct. S.; on boulder; chiseled square 5288.83

Destroyed '76

FILE COPY

LINE 7.

FROM ADAMANA NO. 1 QUADRANGLE (294) SOUTHEAST TO AGATE BRIDGE (FORMERLY NATURAL BRIDGE) TO A POINT NEAR CENTER OF SEC. 8, T. 17 N., R. 24 E. (by V. S. Seward, 1934; Book B5034)

Tps. 17 and 18 N., R. 24 E., Cor. Secs. 35, 36, 2 and 1; G.L.O. iron pipe with cap stamped "TS 17, 18 N, R 24 E, SECS 35, 36, 2, 1" 5461.68

Agate Bridge, 10 ft. SE. of S. end of; aluminum tablet stamped "5575" (Described in Line 4) 5575.231

Reference mark, 50 ft. N. and 50 ft. W. of tablet; 18 inches SE. of SW. end of Agate Bridge; on petrified log which forms this bridge; chiseled square 5577.97

NF76

Agate Bridge, 0.2 mi. S. and 0.6 mi. W. of; at First Forest; 160 ft. NW. of Petrified Forest Highway; 5 ft. above ground; on top near center of W. stone gate post; chiseled square 5535.31

T. 17 N., R. 24 E., near center of Sec. 8; 2.0 mi. SW. of Agate Bridge; aluminum tablet stamped "5463" (Described in Line 3) 5463.758

LINE 8.

NF76

FROM A POINT 1.0 MILE EAST OF ADAMANA NORTH ALONG STATE HIGHWAY 63 INTO PINTO NO. 3 QUADRANGLE (318) (by V. S. Seward, 1934; Book B5035)

Adamana, 1.0 mi. E. of; chiseled square (Described in Line 5) 5322.58

NF76

Adamana, 1.0 mi. E. and 0.8 mi. N. of RR. station; 100 ft. N. of top of second rise N. of RR.; 700 ft. W. of proposed rd.; 30 ft. E. of present rd.; on boulder; chiseled square 5400.90

Third Order

Adjusted Elevations Based
on Sea Level Datum of 1929

Book: PV 766

Latitude $34^{\circ}45'$ Longitude $109^{\circ}45'$

FILE COP

- (9) FROM A POINT 0.2 MILE WEST OF THE WEST BOUNDARY FENCE OF THE PETRIFIED NATIONAL FOREST SOUTH INTO THE NORTH EDGE OF ADAMANA NO. 3 QUADRANGLE (273)

BM "J 35 1934" (USC&GS 341094, Line 101) 5600.648

Holbrook, 16.5 mi SE. of, along U.S. Highway 180 from the Santa Fe Railway Station to a T-rd. S., thence 0.9 mi S. along a power line; 21 ft E. of the rd., 10 ft N. of a power pole, 1.5 ft N. of a witness; set on a copper-coated rod enclosed by a fiber pipe; std. tablet stamped "92 DOR 1969 5505"

New Desc. '76

5504.609

Holbrook, 16.5 mi SE. of, along U.S. Highway 180 from the Santa Fe Railway Station to a T-rd. S. along a power line; 0.2 mi S. of a Bell System warning sign No. J 478 "Underground Cable"; 20 ft E. of the rd., 1.5 ft NE. of a witness; set on a copper-coated rod enclosed by a fiber pipe; std. tablet stamped "91 DOR 1969 5445"

New Desc. '76

5445.053

Holbrook, 16.5 mi SE. of, along U.S. Highway 180 from the Santa Fe Railway Station to a T-rd. S., thence 2.6 mi S. to a small clear area; 0.4 mi S. of a gate in a line fence; 145 ft N. of power pole No. APSCO 5, 20 ft E. of the rd., 1.5 ft S. of a witness; set on a copper-coated rod enclosed by a fiber pipe; std. tablet stamped "90 DOR 1969 5430"

New Desc. '76

5429.791

Holbrook, 16.5 mi SE. of, along U.S. Highway 180 from the Santa Fe Railway Station to a T-rd. S., thence 3.4 mi S. along a power line; 25 ft E. of the rd., 10 ft S. of power pole No. APSCO 15, 1.5 ft W. of a witness; set on a copper-coated rod enclosed by a fiber pipe; std. tablet stamped "89 DOR 1969 5350"

New Desc. '76

5350.201

Holbrook, 16.5 mi SE. of, along U.S. Highway 180 from the Santa Fe Railway Station to a T-rd. S., thence 4.4 mi S. to the S. edge of a bench; about 0.3 mi SW. of a pond; 125 ft E. of the rd., 10 ft N. of a power pole, 2 ft S. of a witness; set in a rock outcropping flush with the ground; std. tablet stamped "88 DOR 1969 5352"

New Desc. '76

5352.389

Page	Quads.	Miles	State	By	Date	Altitude by Field Book
			Arizona	J.D. Crossen	1976	
				Field Elevations		
				Book: PV 972		
				Latitude 34°45'	Longitude 109°45'	
				FROM THE WEST SIDE OF ADAMANA NO. 1 QUADRANGLE (294) NORTHWESTERLY INTO THE SOUTH EDGE OF PINTO NO. 3 QUADRANGLE (318)		
c/39		18.50		Petrified Forest (at center of western overpass of I-Hwy. 40), 10.2 mi S. of to Y-rd. (0.3 mi S. of rd. to Blue Mesa), thence 2.1 mi SE. along track rd. to locked gate at national park boundary; 33 ft S. of and level with centerline of rd., 1 ft E. of fence; set on copper-coated rod encased in 10-inch pipe; standard tablet stamped "29 JDC 1976"		5446.462
		19.83		Petrified Forest (at center of western overpass of I-Hwy. 40), 10.2 mi S. of (0.3 mi S. of rd. to Blue Mesa) at Y-rd., thence 0.8 mi SE. along track rd. to clear area just NW. of low hills; at northwest edge of clear area; 78 ft NE. of and 3.2 ft higher than centerline of rd., 3.0 ft above ground; cemented in large boulder; standard tablet stamped "28 JDC 1976"		5410.236
		20.57		Petrified Forest (at center of western overpass of I-Hwy. 40), 10.6 mi S. of to low bridge; 0.7 mi S. of rd. to Blue Mesa; at northeast end of bridge cemented in curbing; 11 ft E. of and 0.3 ft higher than centerline of rd.; standard tablet stamped "27 JDC 1976"		5396.567
d/1		22.07		Petrified Forest (at center of western overpass of I-Hwy. 40), 5.0 mi S. of to T-rd. (just S. of bridge over Rio Puerco), thence 0.7 mi W. and S. along track rd. to Y-rd., thence 3.6 mi (through soft sand dunes) to X-rd.; 10.3 mi 10.8 mi E. of center of western overpass of Petrified Forest at I-Hwy. 40, just past low bridge to T-rd., thence 0.2 mi W. to Y-rd., thence 1.2 mi right to X-rd.; about 700 ft E. of national park boundary fence, 31 ft E. of centerline of N.-S. rd., 27 ft N. of and 0.5 ft higher than centerline of E.-W. rd.; set on copper-coated rod encased in 10-inch pipe; standard tablet stamped "26 JDC 1976"		5354.447
				Page 1 of 3		7/15/76 d1

Page	Quads.	Miles	State	By	Date	Altitude by Field Book
			Arizona	J.D. Crossen	1976	
				Field Elevations		
				Book: PV 972		
				SPUR LINE TO BM "5359"		
d/2		0.56		Petrified Forest (at center of western overpass of I-Hwy. 40), 10.8 10.8 mi S. of along paved rd. to T-rd. W., thence 0.2 mi right along track rd. to Y-rd., thence 1.2 mi right to X-rd., thence 0.15 mi W. to locked gate, pass through gate thence 0.40 mi cross-country (keeping S. of all dikes and stock tanks) to what appears as small low saddle; in southwest side of flat outcrop between two big rock outcrops; 3.0 ft NE. of end of 4-ft dropoff; defaced standard tablet stamped "5359" (These numbers are discernable)		5358.785
				RETURN TO MAIN LINE		
d/2		22.07		BM "26 JDC 1976" (As on previous page)		5354.447
		23.29		Petrified Forest (at center of western overpass of I-Hwy. 40), 5.0 mi S. of to T-rd. (just past south end of bridge over Rio Puerco), thence 0.7 mi W. and thence S. to Y-rd., thence 2.4 mi left, 0.1 mi S. of X-rd.; 264 ft W. of and lower than centerline of rd., 5 ft SE. of south end on single tilted slab of sandstone, level with ground; cemented in slab of sandstone; standard tablet stamped "25 JDC 1976"		5361.358
		24.34		Petrified Forest (at center of western overpass of I-Hwy. 40), 5.0 mi S. of to T-rd. (just S. of bridge over Rio Puerco), thence 0.7 mi W. and S. to Y-rd., thence 1.4 mi left, about 0.25 mi SE. of small top, at wind-eroded spot in rd.; 25 ft W. of and 3.1 ft higher than centerline of rd.; set on copper-coated rod encased in 10-inch pipe; standard tablet stamped "24 JDC 1976"		5342.920
		25.36		Adamana (opposite sign on AT & SF RR. on graded rd. S. of tracks), 0.9 mi E. to locked gate at national park boundary, continue E. 0.6 mi to paved rd.; 4.6 mi from center of western overpass of I-Hwy. 40 at Petrified Forest to T-rd. W., continue S. 0.4 mi to T-rd. W. (just S. of bridge over Rio Puerco), thence 0.7 mi W. and thence S. along track rd. to Y-rd., thence 0.3 mi left; about 375 ft W. of Newspaper Rock, 16 ft E. of and 1.5 ft higher than centerline of rd.; set on copper-coated rod encased in 10-inch pipe; standard tablet stamped "23 JDC 1976"		5323.123
				Page 2 of 3		7/15/76 d1d

Page	Quads.	Miles	State	By	Date	Altitude by Field Book
			Arizona	J.D. Crossen	1976	
				Field Elevations		
				Book: PV 972		
d/9		26.48		Adamana (opposite sign on AT & SF RR. on graded rd. S. of tracks), 0.9 mi E. to locked gate at national park boundary, pass through gate and continue E. 0.6 mi to paved rd., thence 0.4 mi S. to south end of bridge over Rio Puerco; 11 ft E. of and 3.0 ft higher than centerline of rd.; cemented in southeast railing of bridge; standard tablet stamped "22 JDC 1976"		5345.515
		27.44		Adamana (opposite sign on AT & SF RR. on graded rd. S. of tracks), 0.8 mi E. to very old cattleguard; 107 ft W. of newer cattleguard at national park boundary, 10 ft S. of and 1.0 ft higher than centerline of rd.; in south concrete foundation of cattleguard; standard tablet stamped "21 JDC 1976"		5315.615
		28.54		At Adamana (at west end of southernmost siding); 75 ft S. of south track of RR., 3.5 ft N. of fence and old hand hewn sandstone monument engraved "USBM" and a depressed chiseled square (Elevation is at bottom of chiseled square) (NGS Quad 34 109 4, line 102, designated "P 4")		5297.242
				P 4 by NGS	5297.312	
				P 4 this run	5297.242	
				Closure	-0.070	
		29.10		Adamana (on AT & SF RR.), 0.5 mi N. of, along graded rd. toward I-Hwy. 40, at top of grade; 36 ft E. of and 3.2 ft higher than centerline, 3.0 ft E. of wood power pole projecting 0.4 ft above ground; set in concrete post; standard tablet stamped "U 347 1959 RESET 1976" (BM "U 347 1959" appears in NGS Quad 34 109 4, line 103)		5402.630
				Page 3 of 3		7/15/76 d1d

FILE COPY

d/2		17.44		Petrified Forest (at center of western overpass of I-Hwy. 40), 10.2 mi S. of to Y-rd. (0.3 mi S. of rd. to Blue Mesa), thence 3.2 mi SE. (passing through locked gate) to northeast edge of rolling low hills; 28 ft E. of and 1 ft higher than centerline of rd.; set on copper-coated rod encased in 10-inch pipe; standard tablet stamped "30 JDC 1976"		5489.27
				Reported destroyed by Sony Margocco - Proj. Eng. Fred. Highway Adm. 6/19/84 34054' - 109°47'	5395.22	
				Page 2 of 3		7/15/76 d1d

REPORT ON PERMANENT SURVEY MARK

STATE Arizona COUNTY Navajo QUADRANGLE Petrified Forest NW.
QUOTE PRIMARY REFERENCE Double Track Junction, 2.4 mi. E. of
(Direction and distance)

DESIGNATION { LISTED VS 2 1933 5241
STAMPED VS 2 1933 5241 TYPE OF MARK: BM X TT _____ TRIANG. _____

Lat. _____' _____" DISTURBED ESTABLISHED BY
Long. _____' _____" Destroyed USGS USBR
Elev. 5240.629 feet Not Found USC&GS State GS
USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION: From the Adamana interchange on highway I-40 proceed south crossing old highway following dirt road 0.2 mi to intersection. From intersection turn right and travel south 1.80 mi to where road turns right. Follow road west 0.45 mi to point just past old stone quarry. BM is 150 ft south of road; 100 ft SW. of west end of cut through old stone quarry; in a 3X3 ft boulder; 1.8 ft above ground. A standard tablet stamped "US 2 1933 5241".

SUBMITTED BY W. Kranzler
TITLE Carto. Tech. DATE 2/20/76
AGENCY U.S. Geological Survey

Marks found in good condition need not be reported. **FILL IN ALL AVAILABLE INFORMATION**

Please prepare in triplicate.

REPORT ON PERMANENT SURVEY MARK

STATE Arizona COUNTY Navajo QUADRANGLE Petrified Forest SW.
QUOTE PRIMARY REFERENCE Holbrook, 16.5 mi SE. of along U.S. hwy. 180
(Direction and distance)

DESIGNATION { LISTED 88 DOR 1969 5352
STAMPED 88 DOR 1969 5352 TYPE OF MARK: BM X TT _____ TRIANG. _____

Lat. _____' _____" DISTURBED ESTABLISHED BY
Long. _____' _____" Destroyed USGS USBR
Elev. 5352.389 feet Not Found USC&GS State GS
USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION: Holbrook, 13.0 mi SE. of along U.S. Hwy. 180 from the A.T. & S.F. Ry. station, thence left 3.4 mi SE. along old hwy. to a T-rd. S., thence 4.4 mi S. to the S. edge of a bench, about 0.3 mi SW. of a pond; 125 ft E. of the rd., 10 ft N. of a power pole, 2 ft S. of a witness; set in a rock outcropping flush with the ground; std. tablet stamped "88 DOR 1969 5352"

SUBMITTED BY S.L. Guthary
TITLE Carto. Tech. DATE 5/26/76
AGENCY U.S.G.S.

Marks found in good condition need not be reported. **FILL IN ALL AVAILABLE INFORMATION**

Please prepare in triplicate.

REPORT ON PERMANENT SURVEY MARK

STATE Arizona COUNTY Navajo QUADRANGLE Petrified Forest SW.
QUOTE PRIMARY REFERENCE Holbrook, 16.5 mi SE. of along U.S. Hwy. 180
(Direction and distance)

DESIGNATION { LISTED 91 DOR 1969 5445
STAMPED 91 DOR 1969 5445 TYPE OF MARK: BM X TT _____ TRIANG. _____

Lat. _____' _____" DISTURBED ESTABLISHED BY
Long. _____' _____" Destroyed USGS USBR
Elev. 5445.053 feet Not Found USC&GS State GS
USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION: Holbrook, 13.0 mi SE. of along U.S. Hwy. 180 from the A.T. & S.F. Ry. Station, thence left 3.4 mi SE. along old hwy. to a T-rd. S., thence 1.65 mi S.; 0.2 mi S. of a Bell System warning sign no. J478 "Underground Cable"; about 700 ft N. of New Hwy., 20 ft E. of rd., 1.5 ft NE. of a witness; set on a copper-coated rod enclosed by a fiber pipe; std. tablet stamped "91 DOR 1969 5445"

SUBMITTED BY S.L. Guthary
TITLE Carto. Tech. DATE 5/26/76
AGENCY U.S.G.S.

Marks found in good condition need not be reported. **FILL IN ALL AVAILABLE INFORMATION**

Please prepare in triplicate.

FILE COPY

MAY 27 1980

REPORT ON PERMANENT SURVEY MARK

STATE Arizona COUNTY Navajo QUADRANGLE Petrified Forest SE.
QUOTE PRIMARY REFERENCE T 16N R23E near center of section 1
(Direction and distance)

DESIGNATION { LISTED 5475
STAMPED 5475 TYPE OF MARK: BM X TT _____ TRIANG. _____

Lat. _____ " CONDITION ESTABLISHED BY
Disturbed USGS USBR
Long. _____ " Destroyed USC&GS State GS
Elev. 5475.752 feet Not Found USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION:
Petrified Forest National Park Museum and visitor Center, 0.4 miles east and northeast, near center of section 1, T16N, R23E; about 825 ft Northeast of road intersection, about 175 southeast of road; in a large petrified log, an aluminum tablet stamped "5475."

SUBMITTED BY Alfred L. Ploetz
TITLE Supervisory Cartographer DATE April 3, 1980
AGENCY U.S. Geological Survey

Marks found in good condition need not be reported.
FILL IN ALL AVAILABLE INFORMATION

Please prepare in triplicate.

REPORT ON PERMANENT SURVEY MARK

STATE Arizona COUNTY Navajo QUADRANGLE Petrified Forest SW.
QUOTE PRIMARY REFERENCE Holbrook, 16.5 mi SE. of along U.S. Hwy. 180
(Direction and distance)

DESIGNATION { LISTED 89 DOR 1969 5350
STAMPED 89 DOR 1969 5350 TYPE OF MARK: BM X TT _____ TRIANG. _____

Lat. _____ " CONDITION ESTABLISHED BY
Disturbed USGS USBR
Long. _____ " Destroyed USC&GS State GS
Elev. 5350.201 feet Not Found USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION:
Holbrook, 13.0 mi SE. of, along U.S. Hwy. 180 from the A.T. & S.F. Ry. Station, thence left 3.4 mi SE. along old hwy. to a T-rd. S., thence 3.4 mi S.; 25 ft E. of rd., 10 ft S. of power pole no. APSCO 15, 1.5 ft W. of a witness; set on a copper-coated rod enclosed by a fiber pipe; std. tablet stamped "89 DOR 1969 5350"

SUBMITTED BY S.L. Guthary
TITLE Carto. Tech. DATE 5/26/76
AGENCY U.S.G.S.

Marks found in good condition need not be reported.
FILL IN ALL AVAILABLE INFORMATION

Please prepare in triplicate.

REPORT ON PERMANENT SURVEY MARK

STATE Arizona COUNTY Navajo QUADRANGLE Petrified Forest SW.
QUOTE PRIMARY REFERENCE Holbrook 16.5 mi SE. of along U.S. Hwy. 180
(Direction and distance)

DESIGNATION { LISTED 90 DOR 1969 5430
STAMPED 90 DOR 1969 5430 TYPE OF MARK: BM X TT _____ TRIANG. _____

Lat. _____ " CONDITION ESTABLISHED BY
Disturbed USGS USBR
Long. _____ " Destroyed USC&GS State GS
Elev. 5429.791 feet Not Found USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION:
Holbrook, 13.0 mi SE. of along U.S. Hwy. 180 from the A.T. & S.F. Ry. Station, thence left 3.4 mi SE. along old hwy. to a T-rd. S., thence 2.6 mi S. to a small clear area, 0.4 mi S. of a gate in a fence line; 145 ft N. of power pole no. APSCO 5, 20 ft E. of the rd., 1.5 ft S. of a witness; set on a copper-coated rod enclosed by a fiber pipe; std. tablet stamped "90 DOR 1969

SUBMITTED BY S.L. Guthary
TITLE Carto. Tech. DATE 5/26/76
AGENCY U.S.G.S.

Marks found in good condition need not be reported.
FILL IN ALL AVAILABLE INFORMATION

Please prepare in triplicate.

FILE COPY
MAY 27 1980

REPORT ON PERMANENT SURVEY MARK

295

AREA OFFICE
line 9

STATE Arizona COUNTY Navajo QUADRANGLE Petrified Forest-SW.
QUOTE PRIMARY REFERENCE Holbrook, 16.5 SE. of along U.S. Hwy 180
(Direction and distance)

DESIGNATION { LISTED 92 DOR 1969 5505
STAMPED 92 DOR 1969 5505 TYPE OF MARK: BM X TT _____ TRIANG. _____

Lat. _____' _____" CONDITION Disturbed ESTABLISHED BY USGS USBR
Long. _____' _____" Destroyed USC&GS State GS
Elev. 5504.609 feet Not Found USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION:

Holbrook, 13.0 mi SE. of along U.S. Hwy. 180 from the A.T. & S.F. Ry. station, thence left 3.4 mi SE. along old hwy. to a T-rd. S., thence 0.9 mi S.; 21 ft E. of the road, 10 ft N. of a power pole, 1.5 ft N. of a witness; set on a copper-coated rod enclosed by a fiber pipe; std. tablet stamped "92 DOR 1969 5505"

SUBMITTED BY S.L. Guthary DATE 5/26/76
TITLE Carto. Tech.
AGENCY U.S.G.S.

Marks found in good condition need not be reported.
FILL IN ALL AVAILABLE INFORMATION

Please prepare in triplicate.

REPORT ON PERMANENT SURVEY MARK

295
AREA OFFICE
line 3

STATE Arizona COUNTY Apache QUADRANGLE Petrified Forest NE.
QUOTE PRIMARY REFERENCE T17N., R24E near center of sec 8
(Direction and distance)

DESIGNATION { LISTED 5463
STAMPED 5463 TYPE OF MARK: BM X TT _____ TRIANG. _____

Lat. _____' _____" CONDITION Disturbed ESTABLISHED BY USGS USBR
Long. _____' _____" Destroyed USC&GS State GS
Elev. 5463.758 feet Not Found USNPS USNFS
USGLO (Other)
USBLM

REMARKS OR REVISED DESCRIPTION:

T17N., R24E., near center of section 8, 1.4 mi WSW of Agate Bridge, 1000 ft W. of rugged mesa S. of Jasper Forest, 12 ft E. of road; aluminum tablet stamped "5463"

SUBMITTED BY William Kranzler DATE 2/20/76
TITLE Carto. Tech.
AGENCY U.S.G.S.

Marks found in good condition need not be reported.
FILL IN ALL AVAILABLE INFORMATION

Please prepare in triplicate.

Page	Sheet	State	By	Date	Altitude by Field Book	
		Arizona	J.D. Crossen	1976		
		PETRIFIED FOREST (295)				
		Third Order Field Elevations				
		Book: PV 972				
		Latitude 34°45' Longitude 109°45'				
		(10) FROM THE WEST SIDE OF ADAMANA NO. 1 QUADRANGLE (294) NORTHWESTERLY INTO THE SOUTH EDGE OF PINTO NO. 3 QUADRANGLE (318)				
c/39		18.50	Petrified Forest (at center of western overpass of I-Hwy. 40), 10.7 mi S. of to Y-rd. (0.3 mi S. of rd. to Blue Mesa), thence 2.1 mi SE. along track rd. to locked gate at national park boundary; 33 ft S. of and level with centerline of rd., 1 ft E. of fence; set on copper-coated rod encased in 10-inch pipe; standard tablet stamped "29 JDC 1976"			5446.462
		19.83	Petrified Forest (at center of western overpass of I-Hwy. 40), 10.2 mi S. of (0.3 mi S. of rd. to Blue Mesa) at Y-rd., thence 0.8 mi SE. along track rd. to clear area just NW. of low hills; at northwest edge of clear area; 78 ft NE. of and 3.2 ft higher than centerline of rd., 3.0 ft above ground; cemented in large boulder; standard tablet stamped "28 JDC 1976"			5410.236
		20.57	Petrified Forest (at center of western overpass of I-Hwy. 40), 10.6 mi S. of to low bridge; 0.7 mi S. of rd. to Blue Mesa; at northeast end of bridge cemented in curbing; 11 ft E. of and 0.3 ft higher than centerline of rd.; standard tablet stamped "27 JDC 1976"			5396.567
d/1		22.07	Petrified Forest (at center of western overpass of I-Hwy. 40), 5.0 mi S. of to T-rd. (just S. of bridge over Rio Puerco), thence 0.7 mi W. and S. along track rd. to Y-rd., thence 3.6 mi (through soft sand dunes) to X-rd.; 10.8 mi 10.8 mi S. of center of western overpass of Petrified Forest at I-Hwy. 40, just past low bridge to T-rd., thence 0.2 mi W. to Y-rd., thence 1.2 mi right to X-rd.; about 700 ft E. of national park boundary fence, 31 ft E. of centerline of N-S rd., 27 ft N. of and 0.5 ft higher than centerline of E-W rd.; set on copper-coated rod encased in 10-inch pipe; standard tablet stamped "26 JDC 1976"			5354.447
			Page 1 of 3		7/15/76 d1	

Page	Sheet	State	By	Date	Altitude by Field Book	
		Arizona	J.D. Crossen	1976		
		PETRIFIED FOREST (295)				
		Third Order Field Elevations				
		Book: PV 972				
d/2			SPUR LINE TO BM "5359"			
d/21		0.56	Petrified Forest (at center of western overpass of I-Hwy. 40), 10.8 mi S. of along paved rd. to T-rd. W., thence 0.2 mi right along track rd. to Y-rd., thence 1.2 mi right to X-rd., thence 0.15 mi W. to locked gate, pass through gate thence 0.40 mi cross-country (keeping S. of all dikes and stock tanks) to what appears as small low saddle; in southwest side of flat outcrop between two big rock outcrops; 3.0 ft NE. of end of 4-ft dropoff; defaced standard tablet stamped "5359" (These numbers are discernable)			5358.785
			RETURN TO MAIN LINE			
d/2		22.07	BM "26 JDC 1976" (As on previous page)			5354.447
		23.29	Petrified Forest (at center of western overpass of I-Hwy. 40), 5.0 mi S. of to T-rd. (just past south end of bridge over Rio Puerco), thence 0.7 mi W. and thence S. to Y-rd., thence 2.4 mi left, 0.1 mi S. of X-rd.; 264 ft W. of and lower than centerline of rd., 5 ft SE. of south end on single tilted slab of sandstone, level with ground; cemented in slab of sandstone; standard tablet stamped "25 JDC 1976"			5361.358
		24.34	Petrified Forest (at center of western overpass of I-Hwy. 40), 5.0 mi S. of to T-rd. (just S. of bridge over Rio Puerco), thence 0.7 mi W. and S. to Y-rd., thence 1.4 mi left, about 0.25 mi SE. of small top, at wind-eroded spot in rd.; 25 ft W. of and 3.1 ft higher than centerline of rd.; set on copper-coated rod encased in 10-inch pipe; standard tablet stamped "24 JDC 1976"			5342.920
		25.36	Adamana (opposite sign on AT & SF RR. on graded rd. S. of tracks), 0.9 mi E. to locked gate at national park boundary, continue E. 0.6 mi to paved rd.; 4.6 mi from center of western overpass of I-Hwy. 40 at Petrified Forest to T-rd. W., continue S. 0.4 mi to T-rd. W. (just S. of bridge over Rio Puerco), thence 0.7 mi W. and thence S. along track rd. to Y-rd., thence 0.3 mi left; about 375 ft W. of Newspaper Rock, 16 ft E. of and 1.5 ft higher than centerline of rd.; set on copper-coated rod encased in 10-inch pipe; standard tablet stamped "23 JDC 1976"			5323.123
			Page 2 of 3		7/15/76 d1a	

Page	Sheet	State	By	Date	Altitude by Field Book	
		Arizona	J.D. Crossen	1976		
		PETRIFIED FOREST (295)				
		Third Order Field Elevations				
		Book: PV 972				
d/9		26.48	Adamana (opposite sign on AT & SF RR. on graded rd. S. of tracks), 0.9 mi E. to locked gate at national park boundary, pass through gate and continue E. 0.6 mi to paved rd., thence 0.4 mi S. to south end of bridge over Rio Puerco; 11 ft E. of and 3.0 ft higher than centerline of rd.; cemented in southeast railing of bridge; standard tablet stamped "22 JDC 1976"			5345.515
		27.44	Adamana (opposite sign on AT & SF RR. on graded rd. S. of tracks), 0.8 mi E. to very old cattleguard; 107 ft W. of newer cattleguard at national park boundary, 10 ft S. of and 1.0 ft higher than centerline of rd.; in south concrete foundation of cattleguard; standard tablet stamped "21 JDC 1976"			5315.615
		28.54	At Adamana (at west end of southernmost siding); 75 ft S. of south track of RR., 3.5 ft N. of fence and old hand hewn sandstone monument engraved "USBM" and a depressed chiseled square (Elevation is at bottom of chiseled square) (NGS Quad 34 109 4, line 102, designated "P 4")			5297.242
			P 4 by NGS		5297.312	
			P 4 this run		5297.242	
			Closure		-0.070	
		29.10	Adamana (on AT & SF RR.), 0.5 mi N. of, along graded rd. toward I-Hwy. 40, at top of grade; 36 ft E. of and 3.2 ft higher than centerline, 3.0 ft E. of wood power pole projecting 0.4 ft above ground; set in concrete post; standard tablet stamped "U 347 1959 RESET 1976" (BM "U 347 1959" appears in NGS Quad 34 109 4, line 103)			5402.630
			Page 3 of 3		7/15/76 d1d	

FILE COPY

Bench Mark 27 JDC 1984

New description

Petrified Forest (at center of western overpass of Hwy I-40), 10.6 miles south to low bridge, 0.7 miles south of road to Blue Mesa. 50.5 ft north and 54.6 ft east of north end of bridge. 1.7 ft lower than centerline of road. Concrete monument approximately 0.5 ft above ground, marked by a 4 ft fence post painted orange. Standard tablet stamped "27 JDC 1984"

Sony Mazzoni