

N3545-W8215/15  
NORTH CAROLINA

~~NO. 194~~  
DEMOCRAT QUADRANGLE

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Third-order Leveling S.L.D. of 1929  
Bull. 646, pg. 53-54  
By W. S. D. Moore, 1899  
Recopied: 6/17/54 jmr  
NGVD 29  
Elevations

FROM SEVENMILE RIDGE QUADRANGLE ALONG HIGHWAYS WEST TO BALD CREEK THENCE SOUTHWEST TO IVY

Bald Creek, 0.25 mi. E. of post office, 10 ft. N. of center of rd., in rock; copper bolt stamped "2555 ASH" 2555.510

FROM IVY SOUTHEAST TO BARNARDSVILLE (Single spur line by C. A. Clunet, 1900)

Barnardsville, 20 ft. S. of Ivy River, in foundation stone of Vurlison's store; aluminum tablet stamped "2186 ASH" 2185.465

FROM BURNSVILLE SOUTH UP CANE RIVER TO POINT 3.8 MILES SOUTH OF PENSACOLA (Single spur line by C. A. Clunet)

Pensacola, in foundation stone at SW. corner of Baptist Church; aluminum tablet stamped "2858 ASH" 2858.797

Pensacola, 3.8 mi. S. of, 0.2 mi. S. of boundary fence of Murchison property, 300 ft. N. of old mill, top of ledge of rock W. of rd.; aluminum tablet stamped "3113 ASH" 3113.345

FROM BURNSVILLE NORTH ALONG HIGHWAYS TO HUNTDAL (by S. W. D. Moore, 1901)

Daybook, 0.5 mi. N. of, N. of house, on E. bank of Jack Creek, N. of rd. and 10 ft. from center, on ledge; chiseled square 2296.17

Bk. B3541

S.L.D. of 1929

by F. B. Neary, 1929

Recopied: 6/17/54 jmr

(Cont'd. P. 9)

Second-order leveling:

FROM SWANNANCA STATION EAST ALONG SOUTHERN RAILROAD TO BLACK MOUNTAIN STATION THENCE NORTH ALONG MT. MITCHELL HIGHWAY TO THE SUMMIT OF MT. MITCHELL.

Note: The major portion of the route is listed under Swannanca quadrangle. This line was run in the period of November 22 to December 9, inclusive, and for the special purpose of determining the height of Mt. Mitchell. The results are the corrected mean of two runs with wye level and two tested one-piece wooden rods.

Camp Alice, 60 ft. S. of entrance to dining room, 60 ft. E. of center of bridge over small stream, on N. edge of rd. at end of Mount Mitchell Development Company road, in large flat rock ledge; standard tablet stamped "N 15 1929", painted "USPBM 5788"	5789.138
Reference mark, 60 ft. S. of tablet, on boulder; square cut	5781.92
Mount Mitchell, at approximate highest point of, 30 ft. NW. of N. corner of stone lookout station building, 15 ft. N. of NE. corner of Dr. Elisha Mitchell's grave, top of rock ledge; standard tablet stamped "N 16 1929", painted "USPBM" (stamped "6684" F.B. Neary, 2-4-50)	6683.500
Reference mark, 45 ft. N. 30° W. of tablet, on ledge; chiseled square	6678.62

QD. #194

Station: **BIG BALD** County: **Madison** State: **N. C.**

Observer: **S. S. Gannett** Year: **1884** - Datum: **A. D.**

Description: **Bull. 122, p. 104.** 1885

Located on State line, at corner of Unicol Co., Tenn., and Madison and Yancey Counties, N. C. Jonesboro, Tenn., is nearest RR. station. No trees on summit and no permanent mark.

NGVD-29  
Elevations

[Latitude 35 59 23.5

Longitude 82 29 25.0 ]

To Station—	Azimuth			Back Azimuth			Distance	
							Log. Meters	Miles
Chimney Top	157	18	08.1	337	10	27.8	4.701716	
Sandymush	45	54	47.0	225	40	57.8	4.695401	
Mitchell	320	46	10.4	140	54	05.4	4.507746	
Roan	248	53	28.2	69	06	27.5	4.550354	

Qd. #194

Station: **CELO** County: **Yancy** State: **N. C.**

Observer: **R. H. Lyddan** Year: **1934** Datum: **1927 N.A.D. - Prelim.**

Description: **Comp. Bk. TVA #4**

Located on highest point of Celo Mountain in government meander line.

Station mark: Standard tablet stamped "CELO 1934".

Bearing trees scribed BT 128: 16-in. balsam S. 25° W., 0.05 chain.  
18-in. balsam N. 65° 30' E., 0.33 chain.

NOTE: Forest Service post 128 was loose and removed.

NGVD 29  
Elevations

(Latitude 35 51 08.44

Longitude 82 14 55.44 ]

To Station—	Azimuth			Back Azimuth			Distance	
	°	'	"	°	'	"	Log. Meters	Miles
✓ Mt. Mitchell	08	41	39.17	188	41	04.54	3.9928521	6.112
✓ Pig Pen Bluff	180	06	44.84	00	06	45.39	4.0767858	7.415
✓ Yellow	228	40	09.81	48	46	49.93	4.3570220	14.138
✓ Woodys Knob	256	48	20.05	76	53	24.28	4.1263995	8.313
✓ Three Knobs	290	21	16.02	110	25	12.22	4.0335251	6.713
✓ Horse Gap	316	42	46.69	136	45	53.43	4.0678272	7.264

Qd. #194

Station: COXCOMB County: Yancy-Buncombe State: N. C.

Observer: E. M. Thompson Year: 1934 Datum: 1927 N.A.D. - Prelim.

Description: Comp. Bk. TVA #50.

Located on highest point of Coxcomb Mountain. To reach from Burnsville drive E. on State Highway 19E for 7 mi, turn right on Temporary Road 695 and keep main rd. 16.7 mi to Cane River Gap. Turn right and drive 4 mi up second-class rd. to small gap. Leave car and walk NE. up old rd. about 1 mi to wide grassy gap known as Ogle Meadows, turn left and follow ridge about 0.5 mi to high wooded top and station.

Station mark: Standard tablet cemented in solid rock stamped "COXCOMB 1934".

Reference mark No. 1: 1-in. drill hole in rock outcrop 18.7 ft from station in true azimuth.

Reference mark No. 2: 1-in. drill hole in rock outcrop 6.45 ft from station in true azimuth.

Signal: 20-ft tripod with flag pole centered over station; brush in upper portion of tripod.

NGVD 29  
Elevations

[Latitude 35 49 04.02 Longitude 82 22 25.52 ]

To Station—	Azimuth			Back Azimuth			Distance	
	°	'	"	°	'	"	Log. Meters	Miles
Craggy Pinnacle	1	33	32.89	181	33	24.84	4.1045555	7.905
Frosty	48	37	18.46	228	33	36.50	4.1042468	7.899
Nofat	82	04	51.67	262	00	11.93	4.0835088	7.531
Samspon	158	09	33.86	338	07	07.68	4.2252146	10.437
Phillips	207	32	18.72	27	35	01.23	4.1770638	9.341
Celo	251	12	19.52	71	16	43.01	4.0766110	7.412
Mitchell	300	55	42.46	120	59	31.04	4.0586365	7.112

Qd. #194

Station: MITCHELL County: Yancy State: N. C.  
 Observer: Simmons (USC&GS) Year: 1934 Datum: 1927 N.A.D. - Preliminary  
 Description: Comp. Ek. TVA #50

Located on top of stone and concrete tower on highest point of Mt. Mitchell. Station is on top of stone tower on cross cut in top of cast iron pipe supporting the spiral stairway to roof of tower.

USC&GS (Final) Latitude: 35° 45' 52.973" Longitude: 82° 15' 54.675"

NGVD 29  
Elevations

[Latitude 35 45 52.94 Longitude 82 15 54.64 ]

To Station—	Azimuth			Back Azimuth			Distance	
							Log. Meters	Miles
Craggy Pinnacle	56	08	44.66	236	04	48.36	4.0880809	7.611
↘ Coxcomb	120	59	31.04	300	55	42.46	4.0586365	7.112
Celo	188	41	04.54	08	41	39.17	3.9928521	6.112
↘ Spruce Pine #14	215	46	26.35	35	49	20.12	4.1053895	7.920
↘ Woodys Knob	228	37	38.72	48	43	17.27	4.2863543	12.014
↘ Three Knobs	242	48	01.75	62	52	32.30	4.1158745	8.114
Spruce Pine #12	246	03	16.77	66	05	27.25	3.7876699	3.811
↘ Horse Gap	262	42	35.84	82	46	16.98	3.9813515	5.953
Green Knob	323	17	30.65	143	18	57.15	3.7942724	3.869
Kitsuma	358	31	36.91	178	31	46.49	4.2061521	9.989

Qd. #194

Station: NOFAT County: Madison-Buncombe State: N. C.  
 Observer: E. M. Thompson Year: 1934 Datum: 1927 N.A.D. - Preliminary  
 Description: Comp. Bk. TVA #50

Located on highest point of W. range of Nofat Mountain, about 2 mi NE. of Fork Ivy. To reach from Burnsville go W. on Highway 19E 6 mi to junction with Highway 19; keep left on Hwy. 19E for 15.25 mi. Turn left on second class road and go 1.2 mi to Ivy Hill Baptist Church; leave car and walk N. up trail on main ridge about 3/4 mi to station.

Signal: Pole tripod, 2 white flags, centered.

Station mark: Standard tablet set in top of stone stamped "NOFAT 1934".

Reference mark No. 1: Drill hole in rock 9.69 ft.  
 Reference mark No. 2: Drill hole in rock 9 ft.  
 Reference mark No. 3: Drill hole in rock 9.46 ft.

NGVD 29  
Elevations

[Latitude 35 48 09.58

Longitude 82 30 23.63 ]

To Station--	Azimuth			Back Azimuth			Distance	
							Log. Meters	Miles
White Oak	68	45	39.06	248	42	14.31	3.9747740	5.863
Coxcomb	262	00	11.93	82	04	51.67	4.0835088	7.531
Craggy Pinnacle	313	22	51.55	133	27	22.86	4.2057808	9.980
Britten	359	58	56.50	179	58	56.56	3.9554245	5.608

Qd. #194

Station: PHILLIPS County: Yancy State: N. C.

Observer: E. M. Thompson Year: 1934 Datum: 1927 N.A.D. - Prelim.

Description: Comp. Bk. TVA #50

Located on summit of wooded top about 1.4 mi N. of Burnsville, locally known as Phillips Knob.

Station mark: Standard tablet set in boulder on E. end of top, stamped "PHILLIPS 1934".

Signal: Two white flags over white target, mounted in tripod and centered over station mark.

Reference mark No. 1: S. 66° E., 12.2 ft.  
 Reference mark No. 2: S. 37° W., 51.9 ft.  
 Reference mark No. 3: N. 67° W., 5.6 ft.

NGVD 29  
Elevations

(Latitude 35 56 16.45 Longitude 82 17 48.22 1

To Station—	Azimuth			Back Azimuth			Distance	
							Log. Meters	Miles
✓ Coxcomb	27	35	01.23	207	32	18.72	4.1770638	9.341
Paint Gap	67	01	18.77	246	56	11.51	4.1544824	8.868
Sampson	99	45	47.11	279	40	37.94	4.1268299	8.321
Flat Top	140	34	59.13	320	31	02.57	4.2005236	9.860
Peters	172	25	08.82	352	24	19.04	4.2056929	9.978
Celo	335	27	02.13	155	28	43.42	4.0184338	6.483



Qd. #194

Station: PAINT GAP County: Madison-Yancy State: N. C.

Observer: R. P. Willingham Year: 1934 Datum: 1927 N.A.D. - Prelim.

Description: Comp. Bk. TVA #50

Station is about 2 mi S. and 8 mi W. (airline) from Burnsville, on Madison-Yancy County line. To reach from Burnsville, drive W. 5.3 mi on Highway 19-E, turn left and keep main right-hand rd. and drive 1.4 mi., turn right on second-class rd. and drive about 300 ft to house, leave car here and walk NW. up Horton Creek to its head about 3/4 mi, then in same direction to top of ridge and station, on property of Tom Ray. Station is on open grassy ridge.

Signal: Pole tripod with two white flags set in place over station mark.

Station mark: Standard tablet set in top of granite rock set 2 ft in ground.

Reference mark No. 1: Drill hole N. 18° W., 11.09 ft.

Reference mark No. 2: Drill hole due E. 8.45 ft

NGVD 29  
Elevations

[Latitude 35 53 15.35

Longitude 82 26 32.09 1

To Station—	Azimuth			Back Azimuth			Distance	
							Log. Meters	Miles
Stony Knob	92	41	47.81	272	38	53.12	3.8740362	4.648
Sampson	179	29	25.19	359	29	23.56	3.8944565	4.873
Phillips	246	56	11.51	67	01	18.79	4.1544824	8.868

Qd. #194

Station: PIG PEN BLUFF

County: Yancy

State: N. C.

Observer: R. H. Lyddan

Year: 1934 Datum: 1927 N.A.D. - Prelim.

Description: Comp. Bk. TVA #4

Located about 4 mi NE. of Windham Post Office on second peak on ridge, N. of rd. through gap, 500 ft E. of cleared ridge on NE. end of Green Mountain. Station is rear center of top.

Signal: Two flags on pole in tree 6.8 ft and N. 35° W. from station.

Station mark: Standard tablet set in rock stamped "PIG PEN BLUFF 1934".

Reference mark No. 1: 8.2 ft N. 60° W.

Reference mark No. 2: 3.5 ft N. 55° E.

Reference mark No. 3: 9.6 ft S. 40° W.

NGVD 29  
Elevations

[Latitude 35 57 35.64

Longitude 82 14 54.50 ]

To Station—	Azimuth			Back Azimuth			Distance	
	°	'	"	°	'	"	Log. Meters	Miles
✓ Celo	00	06	45.39	180	06	44.84	4.0767858	7.415
Unaka G.S.	169	19	23.50	349	17	56.97	4.2976607	12.331
Roan High Bluff	212	03	27.38	32	07	05.01	4.2415480	10.837
Roan High Knob	215	15	11.53	35	19	38.26	4.2936683	12.210
✓ Wilson Knob	254	40	15.59	74	44	35.40	4.0603378	7.136
Yellow	259	43	45.31	79	50	25.40	4.2390301	10.774
Three Knobs	327	13	13.29	147	17	09.25	4.2709828	11.597

Qd. #194

Station: SAMPSON County: Yancey State: N. C.

Observer: R. P. Willingham Year: 1934 Datum: 1927 N.A.D.

Description: Comp. Bk. TVA #50.

Station is located about 3 mi NW. of Bald Creek on the highest point of top known as Sampson Mountain. To reach from Bald Creek follow Licks Creek rd. for 2.1 mi to schoolhouse, then continue on foot about 2.3 mi to gap. Turn E. and follow ridge about 3/4 mi to station.

Signal: Tripod with white flags and brushy top centered over station.

Station mark: Standard tablet set in rock stamped "SAMPSON 1934".

Reference mark No. 1: Drill hole, N. 17° W., 10.45 ft.

Reference mark No. 2: Drill hole, S. 79° W., 9.85 ft.

NGVD 29  
Elevations

[Latitude 35 57 29.80

Longitude 82 26 34.88 ]

To Station—	Azimuth			Back Azimuth			Distance	
							Log. Meters	Miles
Stony Knob	44	40	08.45	224	37	15.24	4.0225173	6.545
Flat Top	197	16	19.32	17	17	32.89	4.0197185	6.502
Peters	218	59	06.94	39	03	26.87	4.0440669	17.310
✓ Pig Pen Bluff	269	21	06.91	89	27	58.19	4.0443296	17.285
Phillips	279	40	37.94	99	45	47.11	4.1268299	8.321
✓ Coxcomb	338	07	07.68	158	09	33.86	4.0252146	10.437
✓ Paint Gap	359	29	23.56	179	29	25.19	3.8944565	4.873

UPPER FRENCH BROAD BENCH MARKS

Tennessee Valley Authority

Fourth Order

The UFB bench marks are filed with the TVA control booklets. The designations range from UFB-1 through UFB-315 and are listed in this order.

This cover sheet is placed with USGS Quads to inform that additional BM's are available in the listed quads.

<u>USGS</u>	<u>TVA</u>
87	194
88	185
123	202
124	193
160	201
161	192
✓ 194	200
195	191
196	182

NGVD 29  
Elevations