

THIRD-ORDER LEVELS
SEA LEVEL DATUM OF 1929

Final Adjustment of 1972

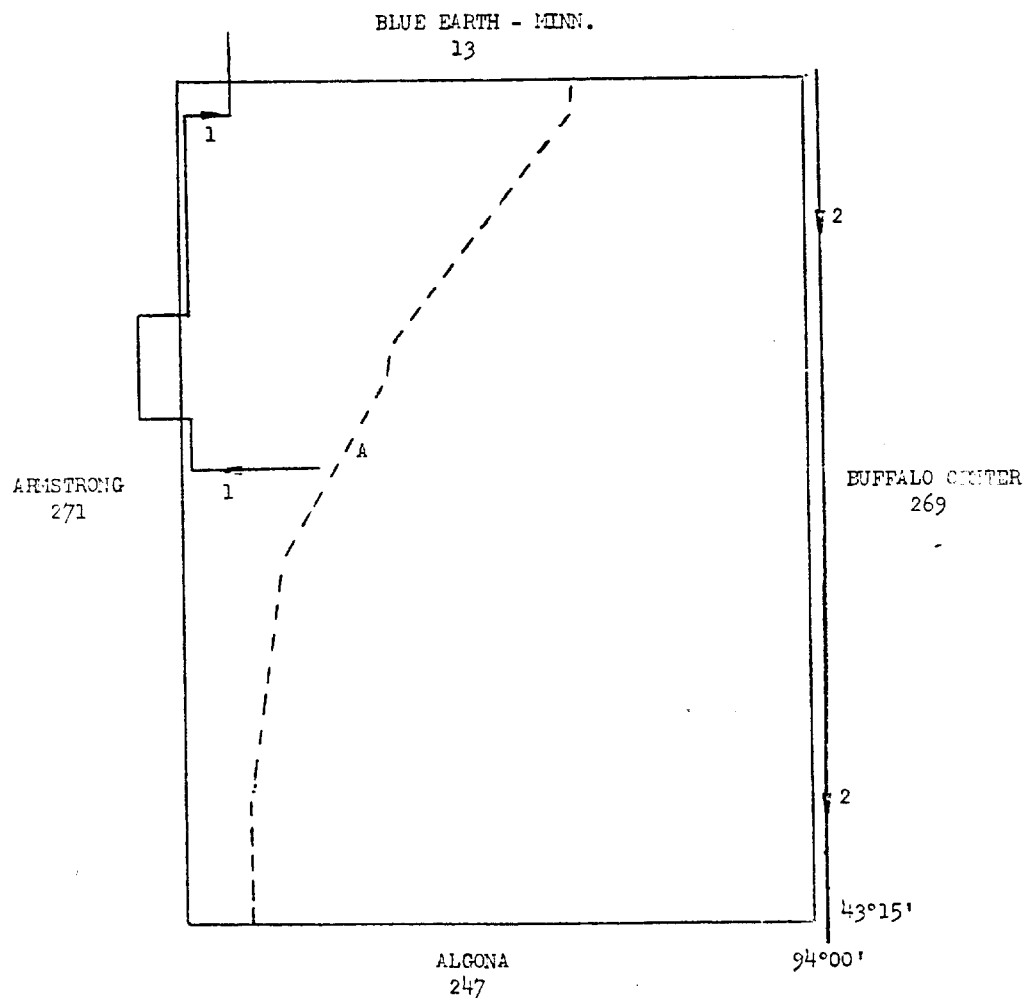
Kossuth County

Edition of: 1-11-72

PR: AMH/cb

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BANCROFT QUADRANGLE
270 - IOWA
N4315-W9400/15
DIAGRAM NK 15-1
FAIRMONT



N.G.S. (USC&GS) VERTICAL CONTROL DATA

Quadrangle 430942

270-A

LINE 1

FEET

W.E. Knouse, 1972; Book UV-2870

BANCROFT QUAD. - 270

2	2	0.0	At Gerled, Kossuth County, 100 ft SE. of the Chicago and North Western RR. station, at the overhead crossing of the Chicago, Rock Island and Pacific RR., and in the toe of the wingwall at the N. end of the E. abutment, a standard USC&GS disk, stamped "1156.028 E 1 1930"	1156.026
2		0.2	UE E 1 A, T. 99 N., R. 28 W., just E. of cor. secs. 17, 18, 19 and 20; centerline of State Hwy. 9 and U.S. Hwy. 169, a RR. crossing; copper nail and washer	1147.7
3		0.3	UE E 1 B, T. 99 N., R. 28 W., near cor. secs. 17, 18, 19 and 20; centerline of State Hwy. 9 at T-rd. N.; copper nail and washer	1147.2
4		0.7	UE E 1 C, T. 99 N., R. 28 W., near quarter cor. secs. 18 and 19; centerline of State Hwy. 9 and U.S. Hwy. 169 at RR. crossing; copper nail and washer	1156.8
5		1.2	The azimuth for Triangulation Station PARK 1971, is a standard disk stamped "PARK 1971" and is set in the top of a 12-in. cylindrical concrete monument which projects 2-in. above ground. It is 86 ft N. of the center of Hwy. 9, 14 ft E. of the center of a dirt road, 11.8 ft S. of the S. rail of a single railroad track, 2.0 ft W. of a 4 by 8 in. RR. crossing signpost, and about level with the hwy.	1156.330
6		1.2	UE PARK A, T. 99 N., Rs. 28 and 29 W., near cor. secs. 13, 18, 19 and 24; centerline of U.S. Hwy. 169 and State Hwy. 49, at T-rd. N., copper nail and washer	1154.7
7		1.7	UE PARK B, T. 99 N., R. 29 W., near quarter cor. secs. 13 and 24; at center of junction of U.S. Hwy. 169 and State Hwy. 9 and county rd. P 40, in line with lane dividing island; chiseled square	1170.1
9		1.8	Reference mark 1, a standard disk stamped "PARK NO. 1 1971" is set in the top of a 12-in. cylindrical concrete monument which is flush with the ground. It is 117 ft W. of the center of Hwy. 169, 9.5 ft E.-NE. of the fence, 2 ft W.-SW. of the cutbank edge, and about 3 ft higher than the hwy.	1168.40
10		1.8	Triangulation Station PARK 1971, is located 6.0 mi W. of Lakota, 6.5 mi N. of Bancroft, at a road side park in the SW. angle of the junction of U.S. Hwy. 169 and State Hwy. 9, in Sec. 24, T. 99 N., R. 30 W.,	1167.573
11		1.8	Reference mark 2, is a standard disk stamped PARK NO 2 1971, is set in the top of a 12-in. cylindrical concrete monument which is flush with the ground. It is 51 ft S.-SE. of a field entrance, 11 ft W.-SW. of the cutbank edge, 1.0 ft E.-NE. of the fence, and about 3 ft higher than the hwy.	1166.739
12		2.4	UE PARK C, T. 99 N., R. 29 W., near cor. secs. 13, 14, 23 and 24; centerline of T-rd. N., copper nail and washer	1158.5
13		2.9	UE PARK D, T. 99 N., R. 29 W., near quarter cor. secs. 14 and 23; centerline of rd. at fence S.; copper nail and washer	1161.8
14		3.4	Reference mark 5 WEK, T. 99 N., R. 29 W., near cor. secs. 14, 15, 22 and 23, cross-roads, top rod set flush with road surface	1171.22
15		3.4	BM 5 WEK, Ledyard, 2.5 mi S. and 4.5 mi W. from along State Hwy. 9, 3.0 mi E. from Swea City; T. 99 N., R. 29 W., near cor. secs. 14, 15, 22 and 23, 51 ft N. and 4.5 ft W. of RR. crossing, 140 ft NW. of crossroads; 9 ft W. and 1 ft S. of fence corner post; a standard cap on rod supported BM encased in a 6-in. by 1 ft piece at well casing; stamped "5 WEK 1972"	1168.957

LINE 1 (Cont'd)

BANCROFT QUAD. - 270

FEET

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| 2 16 | 3.9 | UE 5 A, T. 99 N., R. 29 W. near quarter cor. secs. 14 and 15, centerline of gravel rd. at E.-W. fence; top of RR. spike | 1163.27 |
| 17 | 4.3 | UE 5 B, T. 99 N., R. 29 W.; about 600 ft S. of cor. secs. 10, 11, 14 and 15; at center of wood floor of bridge and 9.6 ft above water level (07-10-72), copper nail and washer | 1155.0 |

ARMSTRONG QUAD. - 271

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|----|-----|--|----------|
| 18 | 4.4 | UE 5 C, T. 99 N., R. 29 W., near cor. secs. 10, 11, 14 and 15; centerline of gravel T-rd. S.; top of RR. spike | 1161.6 |
| 19 | 4.9 | UE 5 D, T. 99 N., R. 29 W., near quarter cor. secs. 10 and 15, centerline of rd. at fence N.-S. (rd. gravel); top of RR. spike | 1162.8 |
| 20 | 5.4 | UE 5 E, T. 99 N., R. 29 W., near cor. secs. 9, 10, 15 and 16; centerline of crossroads; (gravel); top of RR. spike | 1168.1 |
| 21 | 5.6 | UE 5 F, T. 99 N., R. 29 W., about 0.25 mi N. cor. secs. 9, 10, 15 and 16; center of wood floor of bridge and 10.5 ft above; (07-10-72); copper nail and washer | 1162.6 |
| 22 | 6.3 | UE 5 G, T. 99 N., R. 29 W., about 600 ft S. cor., secs. 3, 4, 9 and 10; center of wood floor of bridge and 10.5 ft above water level; copper nail and washer | 1160.2 |
| 24 | 6.4 | RM 6 WEK, T. 99 N., R. 29 W., near cor. secs. 3, 4, 9 and 10, 33 ft N. and 30 ft E. of crossroads, in W. side of power pole and near ground level, RR. spike | 1157.32 |
| 25 | 6.5 | BM 6 WEK, Ledyard, 5.5 mi W. and 0.5 mi S.; along dirt county road, 6.5 mi S. and 9.0 mi W. of Elmore Minn., T. 99 N., R. 29 W., about 500 ft N. of cor. secs. 3, 4, 9 and 10; 33 ft N. and 22 ft E. of centerline of rd. at fence E.; 1 ft W. of E.-W. fence, on top rod type BM and encased in a 6-in. by 1 ft piece of well casing; a standard cap stamped "6 WEK 1972" | 1163.234 |
| 26 | 7.3 | UE 6 A, T. 99 N., R. 29 W.; between NW $\frac{1}{4}$ of sec. 3, and NE $\frac{1}{4}$ of sec. 4, at center of wood bridge floor and 8.5 ft above water level (07-10-72); copper nail and washer | 1152.5 |
| 28 | 7.6 | UE 6 B, T. 99 and 100 N., R. 29 W., about 800 ft E. of cor. secs. 33, 34, 3 and 4, at center floor (wood) of bridge and 7.5 ft above water level (07-16-72); copper nail and washer | 1151.1 |

BANCROFT QUAD. - 270

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|----|-----|---|----------|
| 29 | 8.5 | UE 6 C, T. 99 and 100 N., R. 29 W., near cor. secs. 2, 3, 34 and 35, centerline of gravel T-rd. N.; top of RR. spike | 1151.1 |
| 30 | 9.0 | UE 6 D, T. 100 N., R. 29 W., near quarter cor. sec. 34 and 35; centerline of of gravel rd. at E.-W. fence; top of RR. spike | 1156.8 |
| 31 | 9.4 | RM 7 WEK, T. 100 N., R. 29 W., about 250 ft S. of cor. secs. 26, 27, 34 and 35; centerline wood floor bridge and 10.7 ft above water level; copper nail and washer | 1147.80 |
| 32 | 9.4 | BM 7 WEK, Ledyard, 1.5 mi N. and 4.5 mi W. from along dirt county road; 4.5 mi S. and 8.0 mi W. from Elmore, Minn., T. 100 N., R. 29 W., near cor. secs. 26, 27, 34 and 35; 41 ft S. and 34 ft E. of crossroads; 4 ft SW. of power pole, on top of rod type BM and encased in 6-in. by 1 ft piece of well casing; a standard cap stamped "7 WEK 1972" | 1149.246 |

LINE 1 (Cont'd)		BRANCROFT QUAD. - 270	FEET
2	34 10.0	UE 7 A, T. 100 N., R. 29 W. near quarter cor. secs. 26 and 27; and gravel rd. at fence W.; top of RR. spike	1149.3
	35 10.1	UE 7 B, T. 100 N., R. 29 W., about 0.2 mi N. of quarter cor. secs. 26 and 27, at centerline of wood floor of bridge and 12.1 ft above water level; copper nail and washer	1146.0
	36 10.4	UE 7 C, T. 100 N., R. 29 W. near cor. secs. 22, 23 26 and 27, centerline of gravel crossroads; top of RR. spike	1156.7
	37 10.9	UE 7 D, T. 100 N., R. 29 W. near quarter cor. secs. 22 and 23; centerline of rd (gravel) at fence W.; top of RR. spike	1153.7
	38 11.4	UE 7 E, T. 100 N., R. 29 W., near cor. secs. 22, 23, 14 and 15, centerline of gravel rd. at fence E., top of RR. spike	1145.0
	39 11.7	UE 7 F, T. 100 N., R. 29 W., between $S\frac{1}{4}$ secs. 14 and 15, centerline of wood bridge floor and 9.2 ft above water level; copper nail and washer	1133.8
	40 12.4	UE 7 G, T. 100 N., R. 29 W., near cor. secs. 10, 11, 14 and 15; centerline of T-rd. S., top of rod flush with asphalt rd. surface	1148.9
	41 12.6	RM 8 WEK, T. 100 N., R. 29 W., about 800 ft W. of cor. secs. 10, 11, 14 and 15, centerline of concrete bridge floor E., 11.6 ft above water level; chiseled cross	1135.75
	42 12.6	BM 8 WEK, Ledyard; 4.5 mi N. and 4.5 mi W. from along County Rd. A 16, 0.5 mi S. and 8.0 mi W. from Elmore, Minn.; T. 100 N., R. 29 W., about 750 ft W. of cor. secs. 10, 11, 14 and 15, on E. end of N. concrete wheel guard of bridge; a standard cap stamped "8 WEK 1972"	1136.335
	44 13.2	UE 8 A, T. 100 N., R. 29 W., near quarter cor. secs. 11 and 14, centerline of rd. at fence S., copper nail and washer	1140.1
	45 13.7	UE 8 B, T. 100 N., R. 29 W., near cor. secs. 11, 12, 13 and 14, centerline of crossroads set flush with asphalt surface	1138.2
	46 14.5	UE 8 C, T. 100 and 101 N., Rs. 28 and 29 W. near N. cor. secs. 11 and 12; centerline of gravel T-rd. S.; top of RR. spike	1136.6
	47 14.6	UE 8 D, T. 100 and 101 N., Rs. 28 and 29 W., near S. cor. secs. 31 and 32; centerline of gravel T-rd. N., top of RR. spike	1135.7
	48 14.7	BM 9 WEK, Elmore, Minn., 7.0 mi W. and 0.5 mi S. from Ledyard, 5.5 mi N. and 3.5 mi W. from; T. 100 and 101 N., Rs. 28 W., near cor. secs. 31 and 32, 34 ft N. and 33 ft E. of T-rd. N., 2 ft NE. of fence cor. post; a rod type BM encased in a 6 in. by 1 ft piece of well casing; a standard cap stamped "9 WEK 1972"	1134.343
	49 14.7	RM 9 WEK, T. 101 N., R. 28 W., about 350 ft N. of S. cor. secs. 31 and 32; 33 ft E. of centerline of N.-S. rd., in W. side of power pole and near ground level, a RR. spike	1134.52
	50 15.1	UE 9 A, T. 101 N., R. 28 W., near quarter cor. secs. 31 and 32; centerline of gravel road at fence W.; top of RR. spike	1133.0
	51 15.7	UE 35 WL B; 1.9 mi S. of tablet, 36 ft E., 33 ft N. and 2.6 ft lower than crossroads; a spike in the SW. side of a power pole	1134.030

BLUE EARTH, MINN. 13

LINE 2

FEET

W.E. Knouse, 1972; Book CV-2370

BUFFALO CENTER QUAD. - 269

5	2	0.0	Frost, 6.0 mi S. and 4.0 mi W. from, SE. cor. sec. 36, T. 101 N., R. 27 W., 509 ft N. and 33 ft W. from T-rd. N. at Iowa-Minnesota State Line, 45 ft N. and 1 ft E. from fence corner, 11 ft N. of REA pole, in concrete post; standard tablet stamped "TT 16 WM 1953"	1126.544
3		0.6	UE WM 16 BB, T. 100 and 101 N., R. 27 W. near S $\frac{1}{4}$ cor. sec. 31; and gravel rd. at fence N.; top of RR. spike	1124.5
4		1.0	UE WM 16 CC, T. 100 and 101 N., R. 28 W., near N. cor. secs. 11 and 12, centerline of gravel T-rd. S.; top of RR. spike	1135.6
5		1.8	UE WM 16 DD, T. 100 N., R. 27 W., near cor. secs. 11, 12, 13 and 14; centerline of crossroads; top of RR. spike in asphalt road	1140.6
6		2.3	UE WM 16 EE, T. 100 N., R. 27 W., near quarter cor. secs. 13, 14, centerline of rd. at fence E.; top of rod flush with road	1144.9
7		2.8	Pake, 3.75 mi W. and 0.75 mi S. from along ^{Gr.} rd. R. 14, 5.5 mi N. and 2.0 mi W. from Buffalo Center, T. 100 N., R. 27 W., near cor. secs. 13, 14, 23 and 24, 76 ft N. and 40 ft E. of crossroads, 1 ft W. of E. right-of-way fence; a rod type BM encased in a 6-in. by 1 ft piece of well casing; a standard cap stamped "20 WEK 1972"	1138.002
8		2.8	BM 20 WEK, T. 100 N., R. 27 W., near cor. secs. 13, 14, 23 and 24; centerline of crossroads; top of rod set flush with road surface	1142.66
9		3.3	UE 20 A, T. 100 N., R. 27 W., near quarter cor. secs. 23 and 24; centerline of rd. at E.-W. fence; top of RR. spike flush with asphalt surface	1147.1
10		3.8	UE 20 B, T. 100 N., R. 27 W., near cor. secs. 23, 24, 25 and 26; center of crossroads; top rod flush with asphalt surface	1150.0
11		4.3	UE 20 C, T. 100 N., R. 27 W., near quarter cor. secs. 25 and 26; centerline of asphalt rd. at fence W.; top of RR. spike	1154.4
12		4.8	UE 20 D, T. 100 N., R. 27 W., near cor. secs. 25, 26, 35 and 36; centerline of asphalt rd. at T-rd. E.; top rod flush with road surface	1155.1
15		5.8	Buffalo Center, 2.5 mi N. and 2.0 mi W. from along County rd. R. 14, 3.5 mi N. and 5.25 mi E. from Lakota, T. 99 and 100 N., R. 27 W., near cor. secs. 35, 36, 1 and 2, 84 ft N. and 3.9 ft E. of crossroads; 1 ft W. of E. right-of-way fence, a rod type BM encased in a 6 in. by 1 ft piece of plastic well casing; a standard cap stamped "BM 21 WEK 1972"	1154.640
16		5.8	BM 21 WEK, T. 99 and 100 N., R. 27 W., near cor. secs. 35, 36, 1 and 2; centerline of asphalt rd. at crossing rd., top of rod flush with road surface	1159.51

BUFFALO CENTER QUAD. - 269

FEET

LINE 2 (Cont'd)

5	17	6.4	UE 21 A, T. 99 N., R. 27 W., near quarter cor. secs. 1 and 2, centerline of rd. at fence W.; top of rod in road	1169.4
18	6.9	UE 21 B, T. 99 N., R. 27 W., near cor. secs. 1, 2, 11 and 12; centerline of crossroads; top rod in road	1171.7	
19	7.4	UE 21 C, T. 99 N., R. 27 W., near quarter cor. secs. 11 and 12; centerline of rd. at fence W.; top of RR. spike	1164.3	
20	7.7	UE 21 D, T. 99 N., R. 27 W., between $S\frac{1}{2}$ secs. 11 and 12; center floor bridge and 13.0 ft above water level (07-24-72); chiseled square	1157.7	
22	8.4	UE 21 F, T. 99 N., R. 27 W., near quarter cor. secs. 13, and 14; centerline of rd. at fence E.; top of rod in road	1172.4	
23	8.9	UE 21 G, T. 99 N., R. 28 W., near cor. secs. 13, 14, 23 and 24; centerline of crossroads, (State Hwy. 9 and North and South County Road); copper nail and washer	1172.4	
24	9.0	RM 22 WEK, T. 99 N., R. 27 W., between $N\frac{1}{2}$ sec. 23 and 24; 15 ft E. of centerline of road at cattle crossing under road; 1 ft W. of E. end and on top of cattle crossing (concrete), chiseled cross	1168.77	
25	9.0	BM 22 WEK, Buffalo Center, 2.0 mi W. and 0.5 mi S. from along County Road R 14, 5.25 mi E. and 0.5 mi N. of Lakota, T. 99 N., R. 27 W., between $N\frac{1}{2}$ secs. 23 and 24; 18 ft W. of centerline of rd. at underroad and cattle crossing (concrete); about 1 ft E. of W. end of concrete cattle crossing (under road); a standard cap stamped "22 WEK 1972"	1169.042	
27	9.9	UE 22 B, T. 99 N., R. 27 W., about 300 ft S. of cor. secs. 23, 24, 25 and 26, 290 ft S. of crossroads and 40 ft E. of centerline of N.-S. road; in W. side of telephone pole and near ground level; a RR. spike	1160.1	
28	10.4	UE 22 C, T. 99 N., R. 27 W., near quarter cor. secs. 25 and 26; centerline of rd. at fence W.; top of rod in road	1176.0	
29	10.9	UE 22 D, T. 99 N., R. 27 W., near cor. secs. 25, 26, 35 and 36; centerline of crossroad; copper nail and washer	1171.3	
30	11.4	UE 22 E, T. 99 N., R. 27 W., near quarter cor. secs. 35 and 36; centerline of rd. at fence W.; copper nail and washer	1189.4	
31	11.9	RM 23 WEK, T. 98 and 99 N., R. 27 W., near cor. secs. 35, 36, 1 and 2; centerline of T-rd. E., top of rod set in road	1185.28	
32	11.9	BM 23 WEK, Buffalo Center, 3.5 mi S. and 2.0 mi W. from, along County Road R 14, 7.5 mi N. and 2.5 mi E. from Titonka, T. 98 and 99 N., R. 27 W., near cor. secs. 1, 2, 35 and 36; 116 ft S. and 48 ft W. of T-rd. E., 1 ft E. of W. right-of-way fence, rod supported BM encased in a 6 in. by 1 in. piece of well casing, a standard cap stamped "23 WEK 1972"	1182.121	
33	12.4	UE 23 A, T. 98 N., R. 27 W., near quarter cor. secs. 1 and 2, centerline of rd. at fence E.; copper nail and washer	1181.1	
34	12.9	UE 23 B, T. 98 N., R. 27 W., near cor. secs. 1, 2, 11 and 12; centerline of crossroads; top rod set in road	1181.0	

LINE 2 (Cont'd)

BUFFALO CENTER QUAD. - 269

FEET

5	35	13.4	UE 23 C, T. 98 N., R. 27 W., near quarter cor. secs. 11 and 12; centerline of rd. at E.-W. fence; copper nail and washer	1174.4
	36	13.9	UE 23 D, T. 98 N., R. 27 W., near cor. secs. 11, 12, 13 and 14; centerline of rds. top of rod in road	1176.5
	37	14.4	UE 23 E, T. 98 N., R. 27 W., near quarter cor. secs. 13 and 14; centerline of rd. at fence W., top of rod set in road	1176.4
	38	14.9	RM 24 WEK, T. 98 N., R. 27 W., near cor. secs. 13, 14, 23 and 24; centerline of T-rd. W.; top of rod in road	1176.88
	39	14.9	BM 24 WEK, Buffalo Center, 6.5 mi S. and 2.0 mi W. from along County rd. R 14, 7.5 mi S. and 2.5 mi E. from Titonka, T. 98 N., R. 27 W., near cor. secs. 13, 14, 23 and 24, 66 ft S. and 49 ft E. of T-rd. W.; 1 ft W. of E. right-of-way fence, rod supported BM encased in a 6 in. by 1 ft piece of clay tile; a standard cap stamped "24 WEK 1972"	1172.152
	40	15.4	UE 24 A, T. 98 N., R. 27 W. near quarter cor. secs. 23 and 24; centerline of rd. at fence E.; top of rod in road	1172.0
	41	15.8	UE 24 B, T. 98 N., R. 27 W. between S $\frac{1}{2}$ secs. 23 and 24; center floor of bridge and 11.5 ft above water level (C7-27-72); painted square	1164.7
	42	15.9	UE 24 C, T. 98 N., R. 27 W., near cor. secs. 23, 24, 25 and 26; centerline of crossroads; copper nail and washer	1171.3
	43	16.4	UE 24 D, T. 98 N., R. 27 W. near quarter cor. secs. 25 and 26; center floor bridge and 13.2 ft above water level (C7-26-72); chiseled square	1165.44
	44	16.9	UE 24 E, T. 98 N., R. 27 W., near cor. secs. 25, 26, 35 and 36; center of crossroads; top of rod in road	1171.6
	46	17.9	RM 25 WEK, T. 97 and 98 N., R. 27 W., near cor. secs. 35, 36, 1 and 2, centerline of crossroads, top of rod in road	1185.47