

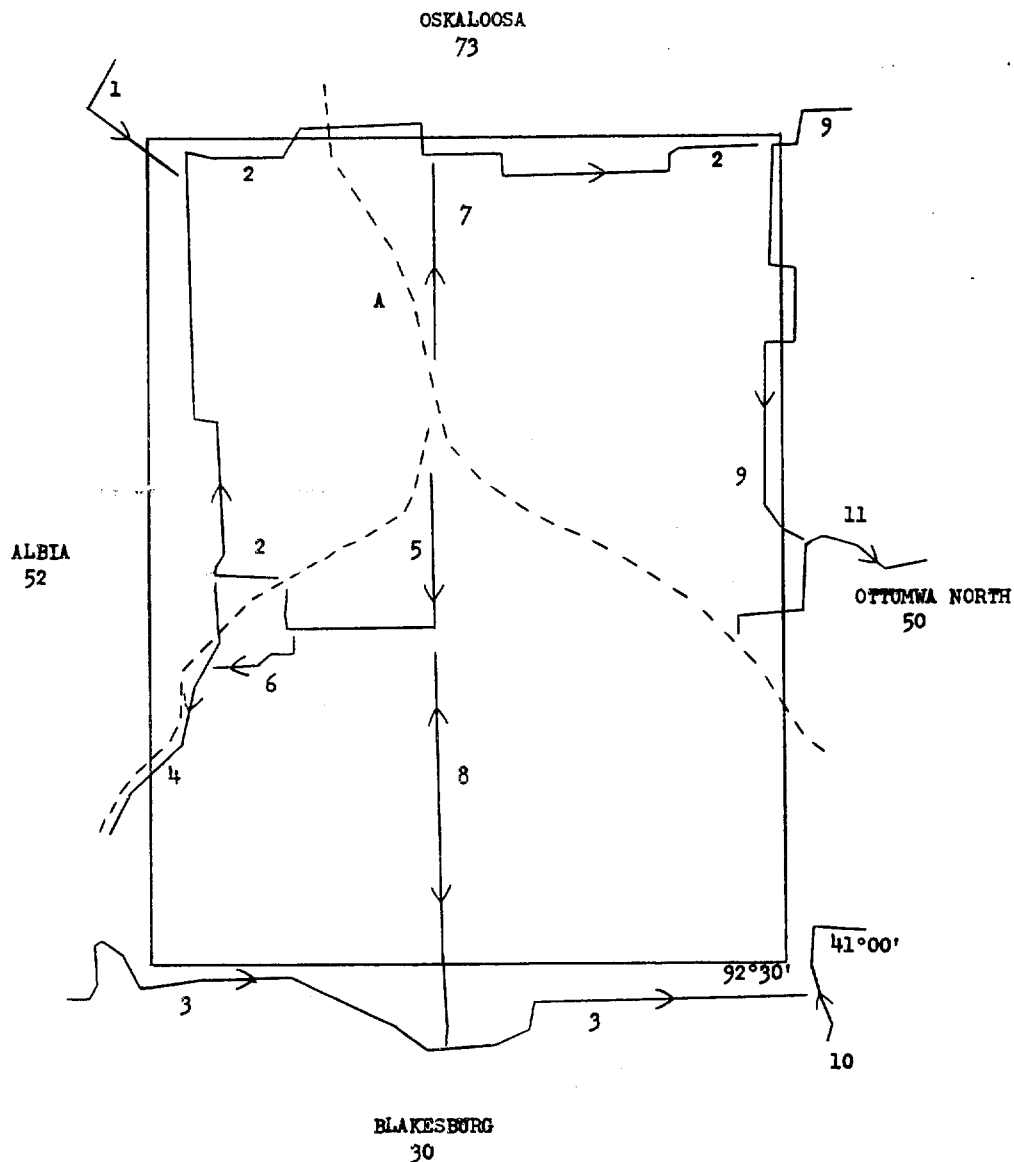
THIRD ORDER LEVELS
SEA LEVEL DATUM OF 1929
Final adjustment of 1967

Mahaska, Monroe and
Wapello Counties

Edition of 10/27/67
PR: EBF/SB/mp

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

COAL FIELD QUADRANGLE
51 - Iowa
N4100-W9230/15
Diagram NK 15-8
Des Moines, Iowa



USG&S LEVELING

A. Quadrangle No. 410923, adjustments of 1937 and 1953.

51 D

LINE 1Feet

SOUTHEAST AT NORTHWEST CORNER OF QUADRANGLE (by W. E. Knoxe, 1967; Book CV 2192)

PELLA QUAD., 74

- 1 64 8.0 Reference mark; T. 74 N., R. 17 W.; in NE. portion of sec. 1; 139 ft N. and 18 ft W. of T-rd. W.; on top of W. end of a corrugated steel culvert; punched hole 681.05
- 65 8.0 Leighton, 6.25 mi S. and 1.5 mi E. from; 3.0 mi S. and 6.0 mi W. from Oskaloosa; T. 74 N., R. 17 W.; in NE. portion of sec. 1; 21 ft W. of center of rd., and about 100 ft SW. of rd. at curve; about 400 ft N. of T-rd. W.; on top and near center of W. headwall of culvert; a standard tablet stamped "8 WEK 1967" 681.649

COAL FIELD QUAD., 51

- 66 8.5 UE 8 WEK A; T. 74 N., R. 16 W.; in N. central portion of sec. 6; 11 ft S. of center of rd., about 900 ft E. of T-rd. N., on E. end of S. concrete wheel guard of bridge; chiseled square (UE is 17.5 ft above water level, 6/7/67; UE is about 0.6 ft higher than center of bridge) 686.01
- 67 9.0 UE 8 WEK B; T. 74 N., R. 16 W.; between NW $\frac{1}{4}$ sec. 5 and NE $\frac{1}{4}$ sec. 6; ground level at center of crossroads 683.16
- 68 9.4 Oskaloosa; about 4.0 mi S. and 5.0 mi W. of; at approx. S $\frac{1}{2}$ between secs. 5 and 6; T. 74 N., R. 16 W.; at NE. cor. of concrete bridge over Des Moines River; standard tablet stamped "4 HK 1966" 693.851

LINE 2

NORTH ALONG WEST BORDER THENCE EAST ALONG NORTH BORDER (by H. Kablesh, 1966; Book CV 2086)

COAL FIELD QUAD., 51

- 0.0 In Monroe County; 4.0 mi SW. along Chicago and Northwestern RR. (formerly Minneapolis and St. Louis RR.) from bridge 525 over Des Moines River at Eddyville, Wapello Co., 13 poles E. of milepost 316 at bridge 537, in top of SW. end of W. concrete abutment; 7 ft SW. of the track and about 1.5 ft lower than track; a standard USCAGS disk stamped "F 112 1935" and set in the top of a concrete post 711.268
- 0.2 UE 112 A; about 660 ft W. of EM; center of grade crossing 717.9
- 0.2 UE 112 B; about 660 ft W. and 600 ft N. of EM; center of T-rd. S. 722.3
- 0.8 UE 112 C; about 0.7 mi W. of EM; center of E.-W. rd. at field entrance S. 735.2
- 1.1 UE 112 D; about 1.0 mi W. of EM; in W $\frac{1}{4}$ between secs. 16 and 21; T. 73 N., R. 16 W.; 13 ft N. and 88 ft E. of T-rd. N. at E. point of grassy triangle; chiseled square in N. end of concrete culvert 842.05
- 1.9 UE 112 E; about 1.7 mi W. of EM., at approximate center between secs. 17 and 20; T. 73 N., R. 16 W.; 16 ft S. and 27 ft E. of T-rd. E., rail spike in fence cor. post (T-rd. opposite at same elevation) 870.76
- 1.9 UE 112 F; about 4.5 mi SW. of Eddyville, along State Hwy. 137; T-rd. S. Hayden Chapel; top of rail spike at center of T-rd. S. 853.29
- 2.5 UE 112 G; about 0.25 mi E. of Hayden Chapel along Hwy. 137, at E. center of sec. 17; T. 73 N., R. 16 W.; rail spike at center of T-rd. N. 855.62

<u>Line 2 Cont'd.</u>	<u>COAL FIELD QUAD., 51</u>	<u>Feet</u>
3.5 Reference mark; about 400 ft S. and 60 ft E. of EM; chiseled square in NE. end of concrete culvert		829.15
3.5 UE; T-rd. W., about 130 ft S. of EM.		837.26
3.5 Eddyville, about 4.25 mi W. and 1.5 mi S. of; at E. center of sec. 8; T. 73 N., R. 16 W.; 123 ft N. and 31 ft W. of T-rd. W.; 3 ft S. of power pole; 1 ft E. of fence; in concrete post, standard tablet stamped "1 HK 1966"		837.261
4.0 UE 1 A; about 0.4 mi N. of EM; 110 ft N. and 24 ft W. of S. tip of grassy triangle and T-rd. NW.; rail spike in fence cor. post		857.46
4.6 UE 1 B; 0.6 mi N. of EM; center of N.-S. rd. at drive E. to house		834.38
4.9 UE 1 C; about 1.4 mi N. of EM; in NE $\frac{1}{4}$ of sec. 5; T. 73 N., R. 16 W.; copper nail and washer in center of wooden bridge over creek; water level 14 ft lower = 699 ft.		713.18
5.1 UE 1 D; about 1.5 mi N. of EM; in E $\frac{1}{4}$ between secs. 5 and 32; Ts. 73 and 74 N., R. 16 W.; center of T-rd. S.		742.5
5.6 UE 1 E; about 1.5 mi N. and 0.5 mi W. of EM, in W $\frac{1}{4}$ between secs. 5 and 32; Ts. 73 and 74 N., R. 16 W.; rail spike in center of crossroads		733.40
6.1 Eddyville, about 4.75 mi W. and 1.0 mi N. of; in approximate NE. cor. of SW $\frac{1}{4}$ of sec. 32; T. 74 N., R. 16 W.; about 55 ft E. of center of rd. curve at drive NE. to farm house; standard tablet on top of a concrete culvert; stamped "2 HK 1966"		775.172
6.6 UE 2 A; about 0.25 mi W. and 0.25 mi N. of EM; in N $\frac{1}{4}$ between secs. 31 and 32; T. 74 N., R. 16 W.; center of N.-S. rd. at drive E. to Old School House		847.7
7.1 UE 2 B; about 0.25 mi W. and 0.75 mi N. of EM; in S $\frac{1}{4}$ between secs. 29 and 30; T. 74 N., R. 16 W.; center of N.-S. rd. at fence W.		830.8
7.2 UE 2 C; about 0.25 mi W. and 1.27 mi N. of EM; at approximate quarter cor. between secs. 29 and 30; T. 74 N., R. 16 W.; chiseled square on N. wing of W. headwall of concrete culvert (water level 8 ft lower = 745 ft.)		752.62
7.6 UE 2 D; about 0.25 mi W. and 1.5 mi N. of EM, in N $\frac{1}{4}$ between secs. 29 and 30, T. 74 N., R. 16 W.; rail spike in center of crossroads		821.40
8.0 UE 2 E; about 0.25 mi W. and 2.0 mi N. of EM; in approximate S $\frac{1}{4}$ between secs. 19 and 20; T. 74 N., R. 16 W.; rail spike in center of T-rd. E.		746.11
X 8.5 Eddyville, 5.0 mi W. and 3.0 mi N. of; at approximate center between secs. 19 and 20; T. 74 N., R. 16 W.; at NE. cor. of concrete bridge over Bluff Creek; standard tablet stamped "3 HK 1966" (water level 28 ft lower = 682 ft.)		711.167
8.5 Reference mark; 70 ft S. and 24 ft W. of tablet; at SW. cor. of concrete bridge; chiseled square, painted "RM"		711.06
8.8 UE 3 A; about 0.3 mi N. of EM; rail spike at center of crossroads; cor. secs. 17, 18, 19 and 20; T. 74 N., R. 16 W.		752.63
9.3 UE 3 B; about 0.8 mi N. of EM; at center between secs. 17 and 18; T. 74 N., R. 16 W.; T-rd. W.		813.3
10.3 UE 3 C; about 1.8 mi N. of EM; at approximate center between secs. 7 and 8; T. 74 N., R. 16 W.; 25 ft N. and 65 ft W. of crossroads and about 6 ft lower than crossroads; painted square at top of W. end of steel culvert		731.59
11.2 Oskaloosa, about 4.0 mi S. and 5.0 mi W. of; at approx. S $\frac{1}{4}$ between secs. 5 and 6; T. 74 N., R. 16 W.; at NE. cor. of concrete bridge over Des Moines River; standard tablet stamped "4 HK 1966"		693.851

Coal Field Quadrangle
51 - Iowa

<u>Line 2 Cont'd.</u>	<u>COAL FIELD QUAD., 51</u>	<u>Feet</u>
11.2 Reference mark; 1140 ft S. and 25 ft W. of tablet; chiseled square in SW. abutment of concrete bridge over Des Moines River		702.81
12.7 UE 4 B; about 0.4 mi N. and 1.2 mi E. of BM; in NW $\frac{1}{4}$ of sec. 4; T. 74 N., R. 16 W.; at center of N. side of concrete bridge; chiseled square		683.87
13.2 Oskaloosa, 4.0 mi S. and 3.0 mi W. of; at approximate center of sec. 4; T. 74 N., R. 16 W.; at SW. cor. of concrete bridge over creek; standard tablet stamped "5 HK 1966"		686.018
13.2 Reference mark; 21 ft N. and 30 ft E. of tablet; chiseled square in NE. cor. of concrete bridge over creek		685.96
13.5 UE 5 A; about 0.26 mi E. of BM; 4 ft S. and 2 ft E. of SE. cor. of building, in center of cemetery; chiseled square at SW. cor. of concrete wall casing		810.18
13.9 T-rd. S.-N.; power line opposite UE 5 B		796.9
13.9 UE 5 B; about 0.7 mi E. of BM; at approximate W. center of sec. 3; T. 74 N., R. 16 W.; 65 ft E. and 25 ft N. of T-rd. S.; painted square on N. end of culvert and about 7 ft lower than T-rd. S.		789.8
14.4 UE 5 C; about 1.2 mi E. along rd. from BM; 0.2 mi S. of T-rd. E., at center between secs. 3 and 34; Ts. 74 and 75 N., R. 16 W.; chiseled square at W. center of concrete culvert		748.26
14.6 UE 5 D; about 1.4 mi E. along rd. from BM; at center between secs. 3 and 34; Ts. 74 and 75 N., R. 16 W.; center of T-rd. E.		781.7
14.9 UE 5 E; about 1.7 mi E. along rd. from BM; at approximate E. center between secs. 3 and 34; Ts. 74 and 75 N., R. 16 W.; center of rd. curve at drive S. to house		789.9
15.4 UE 5 F; about 2.2 mi E. along rd. from BM; in SE $\frac{1}{4}$ of sec. 34; T. 75 N., R. 16 W.; chiseled square in NE. cor. of concrete bridge over creek		709.44
<u>OSKALOOSA QUAD., 73</u>		
16.2 UE 5 G; about 2.3 mi E. along rd. from BM; at approximate center between secs. 34 and 35; T. 75 N., R. 16 W.; center of T-rd. E.		706.8
16.2 UE 5 H; about 2.4 mi E. along rd. from BM; in NW $\frac{1}{4}$ of sec. 35; T. 75 N., R. 16 W.; center of grade crossing		707.5
16.3 Oskaloosa, 3.0 mi S. and 1.0 mi W. of; in E $\frac{1}{4}$ of sec. 35; T. 75 N., R. 16 W.; 175 ft N. and 27 ft W. of crossroads; 3 ft SE. of power pole, in concrete post, standard tablet stamped "6 HK 1966"		804.114
16.3 Reference mark; 200 ft S. and 51 ft E. of BM; at SE. cor. of crossroads, rail spike in telephone pole		811.39
16.3 Crossroads S. of BM.		810.6
16.7 UE 6 A; about 0.47 mi E. of BM; center of E.-W. rd. at drain crossing		774.8
17.2 UE 6 B; about 0.8 mi E. of BM; at approximate center of sec. 36, T. 75 N., R. 16 W.; center of T-rd. S.		786.5
17.2 UE 6 C; about 0.9 mi E. of BM; at approximate E. center of sec. 36; T. 55 N., R. 16 W.; 25 ft N. and 25 ft W. of T-rd. N.; chiseled square at W. end of concrete culvert		790.55

<u>Line 2 Cont'd.</u>	<u>COAL FIELD QUAD., 51</u>	<u>Feet</u>
17.5 UE 6 D; about 1.3 mi E. of BM; about 2.8 mi S. of Oskaloosa, along Hwy. 137; at approximate center between secs. 31 and 36; T. 75 N., R. 15 and 16 W.; copper nail and washer at center of crossroads (Hwy. 137 and E.-W. rd.)		820.60
18.0 UE 6 E; about 1.7 mi E. of BM; at approximate center of sec. 31; T. 75 N., R. 15 W.; center of crossroads		832.2
18.2 UE 6 F; about 2.1 mi E. along rd. from BM; at approximate S. center of sec. 31; T. 75 N., R. 15 W.; 30 ft N. and 30 ft W. of T-rd. E.; rail spike in telephone pole		828.17
18.9 UE 6 G; about 2.6 mi E. of BM; at approximate center between two rd. curves; painted square at W. end of culvert, 21 ft W. of center of rd.		817.6
19.2 Oskaloosa, 3.25 mi S. and 1.5 mi E. of; at approximate W. center between secs. 32 and 5; Ts. 74 and 75 N., R. 15 W.; 20 ft N. and 230 ft E. of drive N. to house; 1 ft S. and 4 ft W. of board fence corner; in concrete post; standard tablet stamped "7 HK 1966"		834.160
19.2 Reference mark; 545 ft W. and 40 ft S. of BM; 20 ft S. of center of rd.; chiseled square at S. end of concrete culvert		828.78
20.0 UE 7 A; about 0.8 mi E. and S. of BM; at approximate center of sec. 5; T. 74 N., R. 15 W.; 125 ft N. and 24 ft W. of T-rd. E.; rail spike in guyed power pole		836.23
20.8 UE 7 B; about 1.5 mi S. and E. of BM; at W. center of sec. 4; T. 74 N., R. 15 W.; rail spike at center of crossroads		836.20
21.4 UE 7 C; about 2.1 mi E. along rd. from BM. at approximate E. center of sec. 4; T. 74 N., R. 15 W.; center of E.-W. rd. at drive S. to house		832.8
22.1 UE 7 D; about 2.8 mi E. along rd. from BM; at approximate center of sec. 3; T. 74 N., R. 15 W.; 24 ft S. and 100 ft E. of drive S. to house; chiseled square at W. end of concrete culvert		818.48
22.4 Oskaloosa, 4.0 mi E. and 3.75 mi S. of; at approximate E. center of sec. 3; T. 74 N., R. 15 W.; 30 ft S. and 107 ft W. of U. S. Hwy. 63 and E.-W. rd. (crossroads), 1 ft N. and 14 ft W. of gate; 2 ft SW. of a power pole; in concrete post, standard tablet stamped "8 HK 1966"		829.130
22.4 Reference mark; 50 ft N. and 92 ft W. of BM; painted square, center of W. end of culvert		827.53
22.7 UE 8 A; about 0.6 mi E. of BM; at approximate center of sec. 2; T. 74 N., R. 15 W.; center of crossroads		828.8
23.6 UE 8 B; about 0.6 mi E. and 0.6 mi N. of BM; at approximate center between secs. 2 and 35; Ts. 74 and 75 N., R. 15 W.; at center of T-rd. S. (offset crossroads)		831.3
24.1 Wright, 1.0 mi W. of; near cor. secs. 1, 2, 35 and 36; Ts. 74 and 75 N., R. 15 W.; 24 ft N. and 78 ft E. of grade crossing; 2 ft N. of power pole; in concrete post; standard tablet stamped "9 HK 1966"		836.961
24.1 Reference mark; 14 ft S. and 40 ft W. of BM; chiseled square in SW. cor. of concrete foundation of old signal		838.15

Coal Field Quadrangle
51 - Iowa

<u>Line 2 Cont'd.</u>	<u>COAL FIELD QUAD., 51</u>	<u>Feet</u>
24.7 UE 9 A; about 0.6 mi E. of HM; at approximate $E\frac{1}{4}$ between secs. 1 and 36; Ts. 74 and 75 N., R. 15 W.; chiseled square at S. center of concrete culvert		827.26
24.9 UE 9 B; about 1.0 mi E. of HM; in village of Wright, T-rd. W.		844.3
25.2 UE 9 C; about 1.1 mi E. of HM; in village of Wright; at Unsicker Memorial School; chiseled square at SW. cor. of first concrete step		845.89
25.7 UE 9 D; about 0.5 mi E. of Wright; at approximate quarter cor. secs. 6 and 31; Ts. 74 and 75 N., R. 14 W.; center of E.-W. rd. at field entrance N.		844.0
26.2 UE 9 E; about 1.0 mi E. of Wright; near cor. secs. 5, 6, 31 and 32; Ts. 74 and 75 N., R. 14 W.; center of T-rd. W.		844.2
26.2 Fremont, 2.7 mi N. and 3.5 mi W. of; 470 ft E. of rd. forks near cor. secs. 5, 6, 31 and 32; Ts. 74 and 75 N., R. 14 W.; 29 ft S. of center of rd., 97 ft E. of fence corner; 1 ft N. of fence, 2 ft SW. of telephone pole; in a concrete post, a standard tablet stamped "TT 30 MT 1955 847"		846.809

LINE 3

EAST ALONG SOUTH BORDER (by H. Kablesch, 1966; Book CV 2086)

MYSTIC QUAD., 31

0.0 Albia, 3.1 mi S. along Wabash RR. from crossing of Chicago, Burlington and Quincy RR. at; Monroe Co.; $8\frac{1}{2}$ poles NW. of milepost 269 ft a rd. crossing; 30 ft N. and 46 ft E. of center of grade crossing; 15 ft N. of a telephone pole #42; 6 ft W. of right-of-way fence; standard USC&GS disk stamped "P 119 1935" and set in top of a concrete post	967.193
0.5 UE 119 A; about 0.5 mi S. of HM. at $E\frac{1}{4}$ between secs. 3 and 34; Ts. 71 and 72 N., R. 17 W.; 54 ft N. of, 20 ft E. of crossroads; chiseled square at E. end of concrete culvert	964.94
1.3 UE 119 B; about 0.5 mi S. and 0.7 mi E. of HM. at center between secs. 2 and 35; Ts. 71 and 72 N., R. 17 W.; center of T-rd. S.	958.9
1.8 UE 119 C; about 0.5 mi S. of, 1.2 mi E. of HM., at approximate cor. of secs. 1, 2, 35 and 36; Ts. 71 and 72 N., R. 17 W.; 12 ft N. and 6 ft W. of gate at field entrance E.; painted square on N. end of steel culvert	952.6
2.3 UE 119 D; about 0.5 mi S., thence 1.2 mi E., then 0.5 mi N. of HM; at approx. center between secs. 35 and 36; T. 72 N., R. 17 W.; at N.-S. rd. at field rd. W.	956.2
2.8 Albia, 2.0 mi S. and 2.0 mi E. of; in $SE\frac{1}{4}$ of sec. 26; T. 72 N., R. 17 W.; 225 ft S. and 30 ft W. of T-rd. S.; 90 ft N. and 1 ft E. of T-fence W.; 3 ft NE. of telephone pole; in concrete post; standard tablet stamped "10 HK 1966"	957.069
2.8 Reference mark; 180 ft N. and 55 ft E. of HM; 27 ft E. and 25 ft S. of T-rd. S.; painted square on E. end of steel culvert	951.33
3.5 UE 10 A; about 0.7 mi SE. of HM; at approximate N. center of sec. 36; T. 72 N., R. 17 W.; 25 ft S. and 18 ft W. of T-rd. S. to airport; chiseled square at W. end of concrete culvert	957.06
4.5 UE 10 B; about 1.64 mi SE. of HM. along Co. Rd. "C"; in $SW\frac{1}{4}$ sec. 31; T. 72 N., R. 16 W.; center of T-rd. S.	959.0

<u>Line 3 Cont'd.</u>	<u>MYSTIC QUAD., 31</u>	<u>Feet</u>
4.9 UE 10 C; about 2.1 mi E. along Co. Rd. "C" from EM; in SE $\frac{1}{4}$ of sec. 31; T. 72 N., R. 16 W.; 45 ft S. and 27 ft W. of T-rd. S.; chiseled square at W. end of concrete culvert		899.36
	<u>BLAKESBURG QUAD., 30</u>	
5.4 UE 10 D; about 2.6 mi E. along Co. Rd. "C" from EM; in SW $\frac{1}{4}$ of sec. 32; T. 72 N., R. 16 W.; center of E.-W. rd. at field entrance N.		941.7
5.9 Albia, 3.0 mi S. and 4.7 mi E. of; Blakesburg, 2.0 mi N. and 4.5 mi W. of; in E. center of sec. 32; T. 72 N., R. 16 W.; 50 ft W. and 44 ft N. of center of E.-W. rd. at drive S. to Emmet Van Dalen farm house; 3 ft W. of a power pole and 2 ft S. of right-of-way fence; in concrete post; standard tablet stamped "11 HK 1966"		941.753
5.9 Reference mark; 160 ft E. and 6 ft S. of EM; 35 ft N. of center of E.-W. rd., painted square at W. end of steel culvert		940.32
5.9 UE 11 A; about 0.6 mi E. along Co. Rd. "C" from EM; at approximate W. center of sec. 33; T. 72 N., R. 16 W.; center of E.-W. rd. at drive N. to Robert Picknell's house		930.4
7.1 UE 11 B; about 1.1 mi E. along Co. Rd. "C" from EM; at approximate E. center of sec. 33; T. 72 N., R. 16 W.; chiseled square in concrete base of flag pole at old school house		915.97
7.4 UE 11 C; about 1.4 mi E. of EM; at approximate center between secs. 33 and 34; T. 72 N., R. 16 W.; center of T-rd. N.		922.9
7.6 UE 11 D; about 1.8 mi E. of EM; in SW $\frac{1}{4}$ of sec. 34; T. 72 N., R. 16 W.; center of T-rd. W.		914.6
8.0 UE 11 E; about 2.2 mi E. of EM; at approximate S. center of sec. 34; T. 72 N., R. 16 W.; 18 ft S. and 39 ft W. of crossroads; chiseled square at W. end of concrete culvert		900.51
8.8 UE 11 F; about 2.9 mi E. along Co. Rd. "C" from EM; in NW $\frac{1}{4}$ of sec. 2; T. 71 N., R. 16 W.; center of E.-W. rd. at field entrance S.		868.4
9.2 Blakesburg, about 1.25 mi N. and 1.5 mi W. of; in the NE $\frac{1}{4}$ of sec. 2; T. 71 N., R. 16 W.; in SW. cor. of concrete bridge over Avery Creek; standard tablet stamped "12 HK 1966"		770.932
9.2 Reference mark; 135 ft E. of EM; chiseled square on SE. cor. of bridge over Avery Creek		773.48
9.5 UE 12 A; about 0.2 mi E. of EM; at crest of hill, center of E.-W. rd. at field entrance N.-S.		867.0
10.0 UE 12 B; about 0.75 mi E. from EM; in SW $\frac{1}{4}$ of sec. 1, T. 71 N., R. 16 W.; center of E.-W. rd. at field entrances N.-S.		900.2
10.2 UE 12 C; about 1.0 mi E. of EM; in SE $\frac{1}{4}$ of sec. 1; T. 71 N., R. 16 W.; 50 ft N. and 24 ft W. of center of E.-W. rd. at drive N. to log cabin; rail spike in fence cor. post		900.63
10.9 UE 12 D; about 0.6 mi N. of; in SW $\frac{1}{4}$ of sec. 6; T. 71 N., R. 15 W.; 40 ft N. and 40 ft E. of crossroads; chiseled square in N. end of concrete culvert		906.20
11.5 UE 12 E; about 2.3 mi E. of EM; in SE $\frac{1}{4}$ of sec. 6; T. 71 N., R. 15 W.; copper nail and washer at center of grade crossing		871.36

<u>Line 3 Cont'd.</u>	<u>BLAKESBURG QUAD., 30</u>	<u>Feet</u>
12.2 Blakesburg, 0.6 mi W. and 1.0 mi E. of; in SW $\frac{1}{4}$ of sec. 5; T. 71 N., R. 15 W.; 40 ft S. and 260 ft E. of drive N. to farm buildings; 2 ft S. of a fence line; standard tablet stamped "13 HK 1966" and set in top of E. wingwall of concrete spillway		890.298
12.2 Reference mark, 4 ft N. and 190 ft E. of BM; rail spike in NE. side of telephone pole		894.76
12.3 Center of T-rd. N.		894.0
12.8 UE 13 A; about 0.6 mi E. of BM; at S $\frac{1}{4}$ between secs. 4 and 5; T. 71 N., R. 15 W.; center of T-rd. W.		873.4
13.6 UE 13 B; Blakesburg, about 2.0 mi E. of, at quarter cor. between secs. 8 and 9; T. 71 N., R. 15 W.; chiseled square in NE. cor. of concrete step at E. entrance to A.T.T. Microwave Station		901.11
13.9 UE 13 C; about 2.5 mi E. of Blakesburg; at center of sec. 9, T. 71 N., R. 15 W.; center of T-rd. S.		899.92
14.4 UE 13 D; about 2.7 mi E. of Blakesburg; at approximate E. center of sec. 9; T. 72 N., R. 15 W.; 150 ft E. and 36 ft N. of center of rd. curve to N., rail spike at N. side of power pole		897.32
14.7 UE 13 E; about 2.7 mi E. of, 0.5 mi N. of Blakesburg; at approximate E $\frac{1}{4}$ between secs. 4 and 9; T. 71 N., R. 15 W.; center of N.-S. rd. at entrance W. to barn		894.8
15.3 Blakesburg, 2.7 mi E. and 1.0 mi N. of; at approximate E. center of sec. 4; T. 71 N., R. 15 W.; 110 ft SW. of center of rd. curve at drive W. to house owned by Donald Small; 2 ft W. of a power pole, in concrete post, standard tablet stamped "14 HK 1966"		887.941
15.3 Reference mark; 205 ft SW. of BM; rail spike in NW. side of power pole		887.51
15.9 UE 14 A; about 0.6 mi E. of BM; at approximate W. center of sec. 3; T. 71 N., R. 15 W.; center of rd. curve at drive SE.		869.7
16.4 N.-S. rd. at drive W. to house		874.1
16.6 UE 14 B; about 1.2 mi E.-N. from BM; at approx. center between secs. 3 and 34; Ts. 71 and 72 N., R. 15 W.; 30 ft W. and 18 ft E. of center of T-rd. N.; painted square at E. end of culvert		874.9
17.2 UE 14 C; about 1.9 mi E.-N. from BM; at approximate W $\frac{1}{4}$ between secs. 2 and 35; Ts. 71 and 72 N., R. 15 W.; center of E.-W. rds. at W. drive S. to house owned by E. C. Reinier		872.8
17.8 Blakesburg, about 4.5 mi E. and 1.5 mi N. of; at E $\frac{1}{4}$ between secs. 2 and 35; Ts. 71 and 72 N., R. 15 W.; at W. side of concrete step at S. entrance to Pleasant Home Methodist Church, standard tablet stamped "15 HK 1966"		877.867
17.8 Reference mark; 30 ft S. and 100 ft E. of BM; 15 ft E. and 30 ft N. of E.-W. rd. at drive N. to church; painted square on E. end of culvert		873.02
18.0 UE 15 A; about 0.5 mi E. of BM. at cor. of secs. 1, 2, 35 and 36; Ts. 71 and 72 N., R. 15 W.; center of T-rd. S.		880.2
18.6 UE 15 B; about 0.8 mi E. of BM; at approx. center between secs. 1 and 36; Ts. 71 and 72 N., R. 15 W.; chiseled square at center of T-rd. N.		872.12

<u>Line 3 Cont'd.</u>	<u>BLAKESBURG QUAD., 30</u>	<u>Feet</u>
19.1 UE 15 C; about 1.3 mi E. of EM; at cor. of secs. 1, 6, 31 and 36; T. 71 N., R. 14 and 15 W.; chiseled square at center of T-rd. S.		826.35
19.9 UE 15 D; about 2.0 mi E. of EM; at approximate $E\frac{1}{4}$ between secs. 6 and 31, Ts. 71 and 72 N., R. 14 W.; chiseled square at field entrances N.-S.		751.27
20.3 UE 15 E; about 2.5 mi E. of EM; at approximate $W\frac{1}{4}$ between secs. 5 and 32; Ts. 71 and 72 N., R. 14 W.; chiseled square at center of T-rd. S.		767.87
<u>OTTUMWA SOUTH QUAD., 29</u>		
20.8 Ottumwa, 2.0 mi S. and 4.25 mi W. of, about 0.2 mi E. of quarter cor. between secs. 5 and 32; Ts. 71 and 72 N., R. 14 W.; 63 ft S. and 317 ft W. of T-rd. N., 63 ft S. and 120 ft E. of private drive S., 63 ft S. and 74 ft E. of center of rd. at 4 ft x 4 ft concrete culvert under road; in concrete post standard tablet stamped "112 RC 1955 RESET 1956"		779.957

LINE 4

SOUTH ALONG CENTRAL PORTION OF WEST BORDER (by H. Kablesh, 1966; Book CV 2086)

COAL FIELD QUAD., 51

0.0 UE 112 E (previously described in line 2)	870.76
0.5 UE 112 H; Avery, 3.7 mi N. and 0.5 mi W. of; 0.47 mi S. of UE 112 E; at approx. center of sec. 20; T. 73 N., R. 16 W.; center of N.-S. rd. at drive E. to house	841.6
0.8 UE 112 J; about 0.75 mi S. of UE 112 E; in approx. S. center of sec. 20; T. 73 N., R. 16 W.; copper nail and washer at SW. cor. of wooden bridge over creek	738.15
0.8 UE 112 K; about 1.03 mi S. of UE 112 E; near center of N. edge of sec. 29; T. 73 N., R. 16 W.; copper nail and washer in E. side of bridge over creek; (water level 14 ft. lower = 714.4 ft)	728.41
1.2 UE 112 L; about 1.2 mi S. of UE 112 E; at approx. N. center of sec. 29, T. 73 N., R. 16 W.; center of grade crossing	737.2
2.1 Avery, 1.0 mi W. and 1.75 mi N. of; in $SW\frac{1}{4}$ of sec. 29; T. 73 N., R. 16 W.; at NE. cor. of cemetery, 38 ft W. of center of rd.; 2 ft E. of fence cor., in concrete post, standard tablet stamped "16 HK 1966"	875.573
1.9 Reference mark; about 830 ft N. of EM; 18 ft E. of center of gravel rd.; painted square at E. end of culvert	870.94
2.1 Reference mark; 300 ft S. of EM; about 8 ft N. and 25 ft W. of center of rd. at entrance W. to cemetery; chiseled square at N. end of culvert	874.05
2.6 UE 16 A; about 0.6 mi S. of EM; at approximate W. center of sec. 32; T. 73 N., R. 16 W.; center of T-rd. W.	895.9
3.1 UE 16 B; about 1.0 mi S. of EM; at approximate W. center between secs. 5 and 32; Ts. 72 and 73 N., R. 16 W.; center of T-rd. E.	896.31
3.7 UE 16 C; about 1.6 mi S. of EM; at approximate center between secs. 5 and 6; T. 72 N., R. 16 W.; top of bolt, painted white at E. center of wooden bridge over C.B. & Q. RR.	916.73

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<u>Line 4 Cont'd.</u>	<u>COAL FIELD QUAD., 51</u>	<u>Feet</u>
4.1 UE 16 D; about 2.0 mi S. of HM. in $S\frac{1}{4}$ between secs. 5 and 6; T. 72 N., R. 16 W.; center of T-rd. N.		912.1
4.7 Maxon, 1.2 mi N. and 1.5 mi E. of; in approximate $W\frac{1}{4}$ between secs. 6 and 7; T. 72 N., R. 16 W.; at SE. cor. of concrete bridge over C.B. & Q. RR.; standard tablet stamped "17 HK 1966"		945.455
4.7 Reference mark; about 200 ft W. of HM; chiseled square at SW. cor. of bridge over C.B. & Q. RR.		945.05

ALBIA QUAD., 52

5.2 UE 17 A; about 0.4 mi W. of HM; at approx. cor. of secs. 1, 6, 7 and 12; T. 72 N., R. 16 and 17 W.; center of T-rd. S.	928.9
5.9 UE 17 B; about 0.5 mi W. and 0.5 mi S. of HM; top of bolt painted white, about 6 inches S. of N. rail of E. bound track of C.B. & Q. RR.	925.11
6.0 UE 17 C; about 0.5 mi W. and 0.7 mi S. of HM; in $SE\frac{1}{4}$ of sec. 12; T. 72 N., R. 17 W.; center of T-rd. E.	933.7
6.5 UE 17 D; about 1.0 mi W. and 1.0 mi S. of HM; at approximate center between secs. 12 and 13; T. 72 N., R. 17 W.; chiseled square at E. edge of sidewalk at gate at entrance to farmhouse	928.40
7.3 UE 17 E; about 0.25 mi E. of Maxon, copper nail and washer at about 6 inches S. of S. rail of E. bound track of C.B. & Q. RR.	942.82
7.3 UE 17 F; at Maxon; center of T-rd. NE. of station	942.7
7.4 At Maxon, Monroe County; 180 ft NE. of the center of the crossing of the C.B. & Q. RR. and the Minneapolis and St. Louis RR.; 9 ft SE. of the center of the M. & St. L. RR. track in the center of the top of an abandoned concrete semaphore base, and about 8 inches lower than the track, a standard USC&GS disk stamped "B 112 1935"	942.839

LINE 5

SOUTH THEN WEST NEAR CENTER OF QUADRANGLE (by H. Kablesh, 1966; Book CV 2086)

COAL FIELD QUAD., 51

0.0 At Eddyville, Wapello County, on the M. & S.L. RR.; 12 poles N. of milepost 312; at bridge 525 over Des Moines River, in the top of the E. end of the S. pier, 6 ft E. of the center of the track, and about $6\frac{1}{2}$ ft lower than the track; a standard USC&GS disk stamped "J 112 1935" and set in the top of a concrete post	670.773
0.6 UE J 112 A; Eddyville, about 1.0 mi S. of, about 375 ft E. of junction of Hwys. 137 and 213; chiseled square at NW. end of concrete bridge over Des Moines River	680.46
0.6 Rail spike, center of T-rd. S. (junction Hwys. 137 and 213)	677.62
1.1 UE J 112 B; junction Hwys. 137 and 213; 0.4 mi S. of; 60 ft N. and 25 ft E. of T-rd. W. to power plant, rail spike at W. side of telephone pole	677.40

<u>Line 5 Cont'd.</u>	<u>COAL FIELD QUAD., 51</u>	<u>Feet</u>
1.2 UE J 112 C; about 0.6 mi S. along Hwy. 213 from junction with Hwy. 137, chiseled square at SW. end of bridge over creek		679.33
1.7 UE J 112 D; about 1.0 mi S. along State Hwy. 213 from junction State Hwy. 137; painted square on top of upright angle iron railing at NW. end of bridge over creek		685.9
2.2 UE J 112 E; junction State Hwy. 137 and 213; about 1.5 mi S. along State Hwy. 213; center of N.-S. rd. at E.-W. fence		807.6
2.6 Eddyville, about 3.0 mi S. of; about 1.9 mi S. of junction of State Hwys. 137 and 213; at approximate cor. of secs. 13, 18, 19 and 24; T. 73 N., R. 15 and 16 W.; 260 ft W. and 30 ft E. of crossroads, 3 ft N. of telephone pole and 1 ft W. of fence line; concrete post, standard tablet stamped "19 HK 1966"		842.419
2.6 Reference mark; 400 ft N. of HM; 30 ft W. of center of N.-S. rd.; rail spike in W. side of telephone pole		842.84
3.2 UE 19 A; about 0.6 mi S. of HM; at approximate center between secs. 19 and 24; T. 73 N., R. 15 and 16 W.; center of N.-S. rd. at E.-W. fence		833.7
3.7 UE 19 B; about 1.1 mi S. of HM; at approximate cor. of secs. 19, 24, 25 and 30; T. 73 N., R. 15 and 16 W.; 32 ft S. and 50 ft E. of crossroads; rail spike in W. side of fence post		801.33
4.1 Eddyville, about 4.0 mi S. and 0.4 mi W. of; at approximate E. center between secs. 24 and 25; T. 73 N., R. 16 W.; 67 ft ENE of home owned by Mr. Marion Klyn; 30 ft S. of center of E.-W. gravel rd., 4 ft E. of power pole; with transformer; in concrete post, standard USCGS disk stamped "Monroe Azimuth Mark 1956"		835.925
4.1 UE A; about 0.15 mi W. of HM; center of crossroads		807.3
4.7 UE B; about 0.6 mi W. of HM; at approximate cor. of secs. 23, 24, 25 and 26; T. 73 N., R. 16 W.; center of T-rd. S.		796.7
5.2 UE C; about 1.1 mi W. of HM. at approximate center between secs. 23 and 26 ; T. 73 N., R. 16 W.; center of E.-W. rd. at fence S.		827.4
5.7 UE D; about 1.6 mi W. of HM; at approximate cor. of secs. 22, 23, 26 and 27; T. 73 N., R. 16 W.; chiseled square SW. cor. of concrete step at S. entrance to Pleasant Corner Church		859.57
6.2 UE E; about 2.1 mi W. of HM; at approximate center between secs. 22 and 27; T. 73 N., R. 16 W.; center of T-rd. W.		864.6
6.4 Center of E.-W. rd. at drive N. to house		866.9
6.8 UE F; about 2.7 mi W. of HM; at approximate $N\frac{1}{4}$ between secs. 27 and 28; T. 73 N., R. 16 W.; chiseled square at W. end of sidewalk N. to house		866.30
7.1 UE G; about 2.7 mi W. of HM; at approximate cor. secs. 21, 22, 27 and 28; T. 73 N., R. 16 W.; center of T-rd. E.		826.1
7.6 UE H; about 2.7 mi W. and 0.4 mi N. of HM; at approximate center between secs. 21 and 22; T. 73 N., R. 16 W.; chiseled square at SE. cor. of well floor at E. side of farm house		832.83
7.9 UE J; about 2.7 mi W. and 0.7 mi N. of HM; at approximate $N\frac{1}{4}$ between secs. 21 and 22; T. 73 N., R. 16 W.; center of N.-S. rd. at fence W.		831.0
8.3 USCGS disk stamped "F 112 1935" (previously described in line 2)		711.268

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LINE 6

Feet

WEST NEAR WEST CENTRAL AREA OF QUADRANGLE (by H. Kablesh, 1966; Book CV 2086)

COAL FIELD QUAD., 51

0.0	UE F (previously described in line 5)	866.30
0.5	UE K; about 2.7 mi W. and 0.7 mi S. of Monroe Azimuth Mark; at approximate $S\frac{1}{4}$ between secs. 27 and 28; T. 73 N., R. 16 W.; center of rd. curve at rd. E.	870.1
1.1	UE L; about 3.3 mi W. and 1.0 mi S. of EM; at approximate center between secs. 28 and 33; T. 73 N., R. 16 W.; center of E.-W. rd. at drive S. to house	874.4
1.7	UE M; about 4.0 mi W. and 1.0 mi S. of EM; at approximate $E\frac{1}{4}$ between secs. 29 and 32; T. 73 N., R. 16 W.; center of E.-W. rd. at drain crossing	852.7
2.4	"16 HK 1966" (previously described in line 4)	875.573

LINE 7

NORTH AT NORTH CENTRAL AREA OF QUADRANGLE (by H. Kablesh, 1966; Book CV 2086)

COAL FIELD QUAD., 51

0.0	In Mahaska Co.; about 1.0 mi N. along the Chicago, Rock Island and Pacific RR. from Eddyville, Wapello Co.; about 330 ft S. of E.-W. rd. and 200 ft W. of State Hwy. 137, at bridge 932, and in the top of E. end of S. abutment; a standard USCGS disk stamped "U 5 1930"	674.441
0.0	Grade crossing	674.6
0.5	UE 5 A; about 0.47 mi N. of EM. along State Hwy. 137; center of hwy. at drive W.	677.2
1.0	UE 5 B; about 1.02 mi N. of EM; center of hwy. at fence W.	681.84
1.5	UE 5 C; about 1.46 mi N. of EM. along State Hwy. 137; in $N\frac{1}{4}$ between secs. 19 and 24; T. 74 N., R. 15 and 16 W.; chiseled square at NE. cor. of hwy. bridge over creek	687.4
1.6	UE 5 D; about 1.7 mi N. of EM. along State Hwy. 137, at cor. of secs. 13, 18, 19 and 24; T. 74 N., R. 15 and 16 W.; chiseled square at E. edge of pavement at crossroads	715.80
1.9	UE 5 E; about 1.9 mi N. of EM. along State Hwy. 137; chiseled square at NE. cor. of hwy. bridge over creek	696.86
2.6	UE 5 F; about 2.6 mi N. of EM. along State Hwy. 137, at approximate cor. of secs. 7, 8, 12 and 13; T. 74 N., R. 15 and 16 W.; chiseled square at E. edge of hwy. at drive E. to house	763.10
2.9	Eddyville, about 4.5 mi N. of along State Hwy. 137; Oskaloosa, about 5.0 mi S. of; at SW. cor. of hwy. bridge over creek; standard tablet stamped "18 HK 1966"	705.506
2.9	Reference mark; about 40 ft NE. of EM.; chiseled square at NE. cor. hwy. bridge over creek	704.98
3.5	UE 18 A; about 0.6 mi N. of EM; at approximate $N\frac{1}{4}$ between secs. 7 and 12; T. 74 N., R. 15 and 16 W.; chiseled square at E. edge of hwy., at T-rd. W.	798.20
3.5	Chiseled square; E. edge hwy. at T-rd. E.	810.86

<u>Line 7 Cont'd.</u>	<u>COAL FIELD QUAD., 51</u>	<u>Feet</u>
4.0 UE 18 B; about 1.1 mi N. of BM. along State Hwy. 137; at approximate $S\frac{1}{4}$ between secs. 1 and 6; T. 74 N., Rs. 15 and 16 W.; chiseled square at E. edge of hwy. at drive W. to house		811.53
4.6 UE 18 C; about 1.7 mi N. of BM. along State Hwy. 137; at approximate $N\frac{1}{4}$ between secs. 1 and 6; T. 74 N., Rs. 15 and 16 W.; chiseled square at E. edge of hwy. at cross drives		816.55
5.1 UE 18 D; about 2.2 mi N. of BM. along State Hwy. 137; at about 930 ft S. of quarter cor. between secs. 31 and 36; T. 75 N., Rs. 15 and 16 W.; center of hwy. at drive W. to house		811.1
5.3 UE 6 D (Previously described in line 2)		820.60

LINE 8

THROUGH SOUTH CENTER OF QUADRANGLE, LEVELED TWICE (by D. D. Bolin, 1966; BookCV 2088)

	<u>COAL FIELD QUAD., 51</u>	
0.0 "UE 19 B" (previously described in line 5)		801.33
0.8 UE; center of RR.; about 1.9 mi S. along the dirt and gravel rd. from BM "19 HK 1966", on top of a bolt head in the center of rd. and 6 inches S. of the N. rail of the most southerly set of tracks; painted "UE" center of		722.83
0.9 UE 19 B A; T. 73 N., Rs. 15 and 16 W.; near the cor. of secs. 25, 30, 31 and 36; 12 ft W. and 0.8 ft higher than the center of the iron and concrete bridge; at the center and on top of the W. concrete headwall; a chiseled square, painted "UE 19 B A"		720.26
1.5 UE 19 BB; T. 73 N., Rs. 15 and 16 W.; near the quarter cor. between secs. 31 and 36; 45 ft N., 26 ft E. and 1.8 ft lower than the center of the T-rd. E., on the E. side of a power pole; a rail spike, painted "UE 19 BB"		817.88
2.0 UE 19 BC; T. 71 and 72 N., Rs. 15 and 16 W.; near the cor. of secs. 1, 6, 31 and 36; 35 ft N., 37 ft W. and 1 ft higher than the center of the T-rd. W.; on top and on the N. end of a round metal culvert; a punched hole, painted "UE 19 BC"		781.74
2.8 UE 19 BD; T. 72 N., Rs. 15 and 16 W.; near the S. sixteenth cor. between secs. 1 and 6; 244 ft N. and 22 ft W. of the center of the crossroads; 1.6 ft lower than the center of the rd., on top and at the S. end of the W. headwall of concrete box culvert; a chiseled square, painted "UE 19 BD"		718.39
3.3 Blakesburg, 6.3 mi N. of, T. 72 N., Rs. 15 and 16 W.; near the N. sixteenth cor. of secs. 7 and 12; 76 ft N. and 12 ft W. and 0.6 ft higher than the center of the iron and concrete bridge; on top and at the N. end of the W. concrete headwall; a standard tablet stamped "20 HK 1966"		715.685
3.3 Reference mark; 152 ft S. of the tablet; on top and at the S. end of the W. concrete headwall; a chiseled square		715.95
4.1 UE 20 A; 0.7 mi S. along the dirt and gravel rd. from the tablet; T. 72 N., Rs. 15 and 16 W.; near the cor. of secs. 7, 12, 13 and 18; 8 ft N., 29 ft E. and 0.6 ft higher than the center of the rd. at the T-trail E.; on the top and at the N. end of the round concrete culvert; a chiseled square, painted "UE 20 A"		828.12

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<u>Line 8 Cont'd.</u>	<u>COAL FIELD QUAD., 51</u>	<u>Feet</u>
5.1 UE 20 B; 1.7 mi S. along the dirt and gravel rd. from the tablet; T. 72 N., Rs. 15 and 16 W.; near the cor. of secs. 13, 18, 19 and 24; 28 ft S., 29 ft E. and 0.2 ft lower than the center of the N.-S. rd. at old State Hwy. 34; on top and at the E. end of the round metal culvert; a punched hole, painted "UE 20 B"		871.04
6.1 Blakesburg, 3.6 mi N. of; T. 72 N., Rs. 15 and 16 W.; near the cor. of secs. 19, 24, 25 and 30; at the junction of new State Hwy. 34 and 213; 101 ft S., 150 ft W. and 7.4 ft lower than the center of the crossroads, 3 ft SE. of the cor. fence post; 2 ft S. of the telephone pole, in top of a concrete post; a standard tablet stamped "21 HK 1966"		737.929
6.1 Reference mark; 249 ft SE. of the tablet; 324 ft S. and 42 ft W. of the crossroads; on top and at the W. end of a concrete box culvert; a chiseled square, painted "RM"		737.69
7.0 UE 21 A; 0.8 mi S. along State Hwy. 213 from the tablet; T. 72 N., Rs. 15 and 16 W.; near the S. sixteenth cor. between secs. 25 and 30; at the S. end of the E. concrete abutment of the iron and concrete bridge over Avery Creek; a chiseled square, painted "UE 21 A"		745.67

BLAKESBURG QUAD., 30

7.9 UE 21 B; 1.7 mi S. along State Hwy. 213 from the tablet; T. 72 N., R. 15 W.; in the SW $\frac{1}{4}$ of sec. 31; 257 ft NE. and 5.7 ft higher than the center of the T-rd. NE.; 32 ft S. of the gravel rd., on the SW. side of a power pole; a rail spike; painted "UE 21 B"	891.55
9.2 UE 12 D; Blakesburg, about 0.6 mi N. of, in the SW $\frac{1}{4}$ of sec. 6; T. 71 N., R. 15 W.; 40 ft N. and 40 ft E. of crossroads; chiseled square in N. end of concrete culvert	906.20

LINE 9

SOUTH ALONG NORTH HALF EAST BORDER (by M. V. Thompson, 1955; Book CV 694)

WHAT CHEER QUAD., 72

3.4 Fremont, 3.0 mi N. and 2.0 mi W. of; 580 ft E. of T-rd. S., at center of sec. 33; T. 75 N., R. 14 W.; 33 ft N. of center of rd., 18 ft W. of center of wooden gate; 1 ft S. of fence, in a concrete post, a standard tablet stamped "TT 31 MT 1955 836"	836.428
3.5 Reference mark; spike in power pole at T-rd. S.; 30 ft N. of center of E.-W. rd., 25 ft W. of chute into cattle pen; 580 ft W. of tablet	837.12
4.0 UE, spike in power pole; 100 ft SW. of T-rd. E.	833.39
4.5 UE, spike in power pole at W. end of sharp rd. curve; 30 ft N. of rd. and 40 ft W. of extended tangent of center of driveway S.	836.28
5.1 UE, spike in guy pole in ditch; 30 ft S. of rd. at driveway to farm house N.	841.98

COAL FIELD QUAD., 51

5.4 "TT 30 MT 1955 847" (described in line 2)	846.809
5.4 Reference mark; spike in telephone pole in ditch; 30 ft S. of rd. and 115 ft E. of center of grass triangle at T-rd. E.; 330 ft W. of tablet	843.83

<u>Line 9 Cont'd.</u>	<u>COAL FIELD QUAD., 51</u>	<u>Feet</u>
5.9 UE, spike in power pole; 50 ft SW. of railway crossing		838.26
6.5 Fremont, 1.5 mi N. and 3.7 mi W. of; 34 ft N. and 30 ft E. of crossroads; at cor. secs. 5, 6, 7 and 8; T. 74 N., R. 14 W.; 3 ft W. of fence cor., in a concrete post; a standard tablet stamped "17 MAC 1923 RESET 818"		818.186
6.6 Reference mark; spike in power pole; 50 ft SW. of crossroads; 90 ft SW. of tablet		817.34
7.1 UE; spike in power pole; 30 ft W. of rd., 15 ft S. of fence corner		830.22
7.5 UE; spike in 8-in. post at fence corner; 40 ft E. of center of rd.		821.12
8.0 UE; spike in telephone pole; 25 ft N. of fence corner; 70 ft NE. of T-rd. N., on Hwy. 63		820.69
<u>OTTUMWA NORTH QUAD., 50</u>		
8.7 Fremont, 0.5 mi S. and 3.5 mi W. of; about 0.25 mi E. and 0.1 mi N. of cor. secs. 17, 18, 19 and 20; T. 74 N., R. 14 W.; opposite white house on W. side of rd., 539 ft N. of section line fence, 31 ft E. of center of rd., 1 ft W. of fence, 2 ft SE. of power pole; in a concrete post, a standard tablet stamped "TT 29 MT 1955 810"		810.109
8.7 Reference mark; spike in power pole at white farm house, 40 ft W. of center of rd., 15 ft N. of center of driveway; 80 ft SW. of tablet		807.74
9.3 UE; spike in power pole; 40 ft E. of rd. and 40 ft N. of fence corner		815.96
9.8 UE; spike in telephone pole at fence corner; 40 ft W. of T-rd. E.		790.38
10.4 UE; spike in power pole; at center of right angle rd. turn; 40 ft SW. of center of rd.		814.34
<u>COAL FIELD QUAD., 51</u>		
10.9 Kirkville, 2.0 mi N. of; 415 ft N. of crossroads, at cor. secs. 29, 30, 31 and 32; T. 74 N., R. 14 W.; 31 ft E. of center of rd., 1 ft W. of fence, 2 ft N. of telephone pole, in a concrete post; a standard tablet stamped "TT 28 MT 1955 811"		810.709
11.0 Reference mark; spike in telephone pole; 50 ft NW. of crossroads; 370 ft S. of tablet		808.41
11.4 UE; chiseled square, near W. edge of concrete base for steel fence corner post; 40 ft E. of rd.		821.78
12.0 UE; spike in guy pole; 25 ft E. of center of rd., and 10 ft W. of fence corner		834.42
12.4 UE; spike in guy pole; 20 ft E. of center of rd., at fence corner		842.70
12.9 Kirkville, at NW. village limits of; near cor. secs. 5, 6, 7 and 8; T. 73 N., R. 14 W.; 410 ft N. of a Y-rd. N., 20 ft E. of a N.-S. rd., 1 ft W. of fence, 3 ft N. of telephone pole; in a concrete post, a standard tablet stamped "TT 27 MT 1955 850"		849.711
13.0 Reference mark; spike in power pole; 40 ft S. of T-rd. N., 420 ft S. of tablet		842.16
13.8 UE; spike in power pole; at T-rd. E.; 50 ft W. of rd., 8 ft S. of driveway		831.72

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<u>Line 9 Cont'd.</u>	<u>OTTUMWA NORTH QUAD., 50</u>	<u>Feet</u>
14.2 UE; 1-in. pipe in fence post; 30 ft W. of T-trail E.		784.76
14.7 UE; chiseled square on top center of W. wingwall on N. side of concrete bridge		717.22
15.1 UE; T. 73 N., R. 14 W.; about 0.25 mi W. of quarter cor. secs. 16 and 17; 120 ft N. and 140 ft E. of T-rd. S., in root on S. side of 30-in. elm tree; copper nail and washer		767.62

LINE 10

NORTH THEN EAST AT SOUTHEAST CORNER OF QUADRANGLE (by R. E. Carey, 1955; Book CV 692)

OTTUMWA SOUTH QUAD., 29

18.1 Reference mark; about 100 ft W. of tablet; 30 ft S., center of rd.; on S. end of concrete pipe culvert; chiseled square	766.46
18.1 Ottumwa, 2.0 mi S. and 4.25 mi W. of; about 0.2 mi E., quarter cor. between secs. 5 and 32; T. 71 and 72 N., R. 14 W.; 63 ft S., and 317 ft W. of a T-rd. N., 34 ft S. and 120 ft E. of a private drive S., 63 ft S. and 74 ft E. of center of 4 x 4 inch concrete culvert under rd., at a cut bank, in concrete post; a standard tablet stamped "112 RC 1955 780 RESET 1956"	779.957
18.1 Center of rd. at T-rd. N., 34 ft N. and 300 ft E. of 112 RC	779.3
18.8 UE; T. 72 N., R. 14 W.; about 0.2 mi E. of the center of sec. 32; center of crossroads	847.2
18.8 T.P., about 85 ft N. and 12 ft W. of crossroads; in top of a 6-in. stump; copper nail and washer	846.56

OTTUMWA NORTH QUAD., 50

19.5 UE; T. 72 N., R. 14 W.; in the NW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of sec. 29; about 200 ft NE. of SW. end rd. angle; 32 ft N. and 75 ft W. of crown of hill at field drive S., in root on SE. side of an 18-in. oak tree; copper nail and washer (tree found, cut nail and washer has been removed 8/3/56 ER)	793.78
19.5 Crown hill at field drive S., 32 ft S. and 75 ft E. of UE.	796.1
19.7 UE; T. 72 N., R. 14 W.; in SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of sec. 29; near foot of steep grade, center of steel underpass at small drain	684.0
19.8 Center of steel bridge, near quarter cor. between secs. 28 and 29; T. 72 N., R. 14 W.	673.4
20.2 Ottumwa, 4.0 mi W. of; on Hwy. 34; about 0.25 mi S. cor. secs. 20, 21, 28 and 29; T. 72 N., R. 14 W.; 60 ft S. and 285 ft W. of center of Hwy. 34 at crossroads; 2 ft N. and 5 ft W. of cor. post of T-fence S., 3 ft E. of telephone pole; in concrete post, standard tablet stamped "113 RC 1955 727"	726.310

LINE 11

GENERALLY EAST AT CENTER EAST BORDER (by R. E. Carey, 1955; Book CV 692)

OTTUMWA NORTH QUAD., 50

0.0 About 5.0 mi NW. along the C.R.I. & P. RR. from Ottumwa, Wapello Co., at power transmission line pole 166; 46 ft NE. of the center of the track, near a gate to a private rd. and 3 ft SE. of a fence corner; a standard WSC&GS disk stamped "658.453 Y 5 1930", and set in the top of a concrete post	658.453
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<u>Line 11 Cont'd.</u>	<u>OTTUMWA NORTH QUAD., 50</u>	<u>Feet</u>
0.4 UE; T. 72 N., R. 14 W.; near the center of sec. 5; center of private rd. crossing, on belt head inside painted square		658.6
1.0 UE; Ts. 72 and 73 N., R. 14 W.; probably near W. sixteenth cor. between secs. 5 and 32; center of Bridge No. 825; copper nail and washer		658.68
	<u>COAL FIELD QUAD., 51</u>	
1.9 Center of State Hwy. 15; at T-rd. E.; 38 ft N. and 522 ft W. of "115 RC"		670.1
2.0 Reference mark; about 130 ft W. of tablet; 40 ft S., center of rd., in root on S. side of an 18-in. oak tree; copper nail and washer		690.63
2.1 Chillicothe, 1.0 mi E. of; 3.5 mi S. of Kirkville, near cor. secs. 29, 30, 31 and 32; T. 73 N., R. 14 W.; 38 ft S. and 522 ft E. of the center of State Hwy. 15; at T-rd. E.; 107 ft NE. of the NE. cor. of a school house; 2 ft N. and 33 ft W. of the NE. cor. of school yard; in concrete post, a standard tablet stamped "115 RC 1955 692"		692.242
	<u>OTTUMWA NORTH QUAD., 50</u>	
2.6 UE; T. 73 N., R. 14 W.; about 0.15 mi N. quarter cor. between secs. 29 and 32; at W. end of curve; 45 ft W. and 4.5 ft lower than center of rd., in root on SE. side of an 18-in. oak tree; copper nail and washer		764.21
3.2 UE; T. 73 N., R. 14 W.; near S. sixteenth cor. between secs. 28 and 29; W. point of grassy triangle formed by rd. forks at T-rd. W.		761.2
3.6 Center of rd. at drain; about 0.1 mi N. quarter cor. between secs. 28 and 29; T. 73 N., R. 14 W.;		767.9
4.0 Center of E.-W. rd. in line with rd. S.; 31 ft S. and 225 ft E. of Sta. No. 2		771.5
4.0 Kirkville, 2.5 mi S. and 1.0 mi E. of; 31 ft N. and 225 ft W. of T-rd. S., which is near cor. secs. 20, 21, 28 and 29; T. 73 N., R. 14 W.; 31 ft N. and 71 ft W. of a private drive N., 2 ft S. and 2 ft E. of SE. cor. of board fence at barn yard, in concrete post, standard USC&GS and State disk stamped "Sta. No. 2 50 RESET 1955 782" (elevation by USGS)		782.189
4.0 Reference mark; 60 ft E. of tablet; 30 ft N. of center of rd., on W. edge of concrete drive; chiseled square		783.35
4.2 UE; T. 73 N., R. 14 W.; near E. sixteenth cor. between secs. 20 and 29; center of rd. at T-rd. N.		748.6
4.9 UE; T. 73 N., R. 14 W.; in the NE $\frac{1}{4}$ of sec. 20; near the center of the W. concrete headwall of bridge; chiseled square, flush with rd.		700.76
5.3 UE; T. 73 N., R. 14 W.; near E. sixteenth cor. between secs. 17 and 20; center of rd. at T-rd. W.		760.7
5.6 Center of bridge; 750 ft S. of T-rd. S., which is about 0.25 mi W. quarter cor. between secs. 16 and 17; T. 73 N., R. 14 W.; copper nail and washer		751.15

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Coal Field Quadrangle

51 - Iowa

Line 11 Cont'd.

OTTUMWA NORTH QUAD., 50

Feet

- 5.8 Center of rd. at T-rd. S., about 0.25 mi W. of quarter cor. between secs. 16 and 17;
T. 73 N., R. 14 W. 763.7
- 5.8 WE 767.6 (previously described in line 9) 767.62
- 6.1 Reference mark; about 170 ft SW. of tablet; 28 ft S., center of rd., in rest on E.
side of a 12-in. elm tree; copper nail and washer 823.50
- 6.1 Kirkville, 1.0 mi S. and 0.75 mi E. of; near quarter cor. secs. 16 and 17; T. 73 N.,
R. 14 W.; 0.25 mi E. of a T-rd. S., 30 ft N. and 123 ft E. of private drive S.;
30 ft N. and 2 ft W. and 0.1 ft higher than center of rd. at N.-S. fence line;
in concrete post, standard tablet stamped "116 RC 1955 831" 830.788