

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

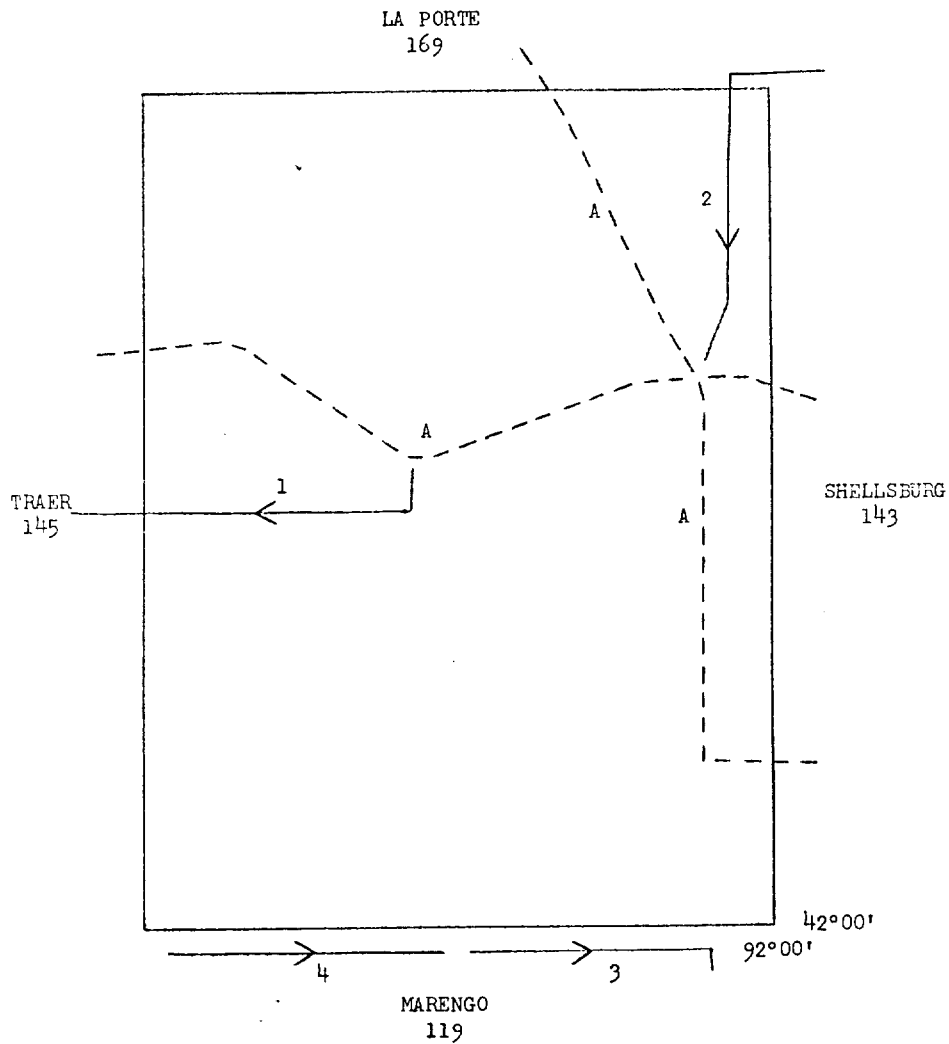
THIRD-ORDER LEVELS
SEA LEVEL DATUM OF 1929

Benton County

Edition of 10/12/70

PR:ADP/ph/gh

VINTON QUADRANGLE
144 - IOWA
N4200-W9200/15
DIAGRAM NK 15-5
WATERLOO



USC&GS VERTICAL CONTROL DATA
. Quadrangle 420922

144 B

LINE 1

FEET

C. L. Crutchfield, 1970; Book CV 2506

VINTON QUAD. - 144

- | | | |
|----------|---|---------|
| 2 15 0.0 | At Garrison, Benton County, at the Chicago, Rock Island & Pacific RR. station, 28 poles W. of milepost 29, in the SW. corner of the brick wall of the ticket office, and 5 ft higher than the rail; a USC&GS standard disk stamped "R 81 1934" and set vertically | 867.587 |
| 15 0.1 | UE R A, 0.1 mi SSE. along State Hwy. 198 from tablet, center of concrete bridge; a chiseled square, painted "UE centerline" (water 16.0 ft lower than center of bridge) | 864.27 |
| 16 0.4 | UE R B, 0.4 mi SSE. along State Hwy. 198 from tablet, center of crossroads, at jct. of Hwys. K, G, and 198, painted "UE centerline" | 869.4 |
| 17 1.4 | UE R C, 1.4 mi SSE. along State Hwy. 198 and County Route "G" from tablet, center of crossroads; a RR. spike in pavement, painted "UE centerline" | 916.36 |
| 18 2.4 | UE 4 D, 1.4 mi SSE. along State Hwy. 198 and Co. Route "G" thence 1.0 mi W. along a county rd. from tablet, center of T-rd. S.; painted "UE centerline" | 968.5 |
| 19 3.3 | Garrison, 1.5 mi S. and 2.0 mi W. of; near cor. secs. 1, 6, 31 and 36, Tps. 84 and 85 N., Rs. 11 and 12 W., 36 ft S. and 528 ft E. and 5.1 ft lower than crossroads, 1 ft N. of a T-fence S., 0.5 ft N. of a witness sign; a copper coated steel rod driven to a depth of 15 ft; a standard brass tablet crimped to rod, set flush with the ground and stamped "2 CLC 1970 963" | 963.005 |
| 20 3.3 | Reference mark, 15 ft N. and 33 ft E. and 0.4 ft lower than tablet, top of the S. end of a metal corrugated culvert; a punched hole, painted "RM" | 962.57 |
| 21 3.4 | UE 2 A, 0.1 mi W. along a county rd. from tablet, center of crossroads; painted "UE centerline" | 968.2 |
| 22 4.4 | UE 2 B, 1.1 mi W. along a county rd. from tablet; center of crossroads; a RR. spike in pavement painted "UE centerline" | 938.6 |
| 23 5.4 | UE 2 C, 2.1 mi W. along a county rd. from tablet, center of T-rd. N., painted "UE centerline" | 919.4 |
| 24 6.4 | UE 2 D, 3.1 mi W. along a county rd. from tablet, center of crossroads, painted "UE centerline" | 945.1 |
| 25 6.5 | Garrison, 1.5 mi S. and 5.0 mi W. of; near cor. secs. 3, 4, 33 and 34, Tps. 84 and 85 N., R. 12 W., 200 ft S. and 35 ft W. and 3.0 ft lower than crossroads, 1 ft E. of a N.-S. fence, 0.5 ft E. of a witness sign; a copper coated steel rod driven to a depth of 15 ft; a standard brass tablet crimped to rod, set flush with the ground and stamped "3 CLC 1970 942" | 942.119 |
| 26 6.5 | Reference mark, 20 ft S. and 43 ft W. and 2.6 ft lower than crossroads, top of the S. end of a metal corrugated culvert; a punched hole, painted "RM" | 942.45 |

TRAEER QUAD. - 145

- | | | |
|--------|---|-------|
| 27 7.5 | UE 3 A, 1.0 mi W. along a county rd. from tablet, center of T-rd. N.; painted "UE centerline" | 909.2 |
| 28 8.5 | UE 3 B, 2.0 mi W. along a county rd. from tablet, center of crossroads, painted "UE centerline" | 925.8 |

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VINTON QUADRANGLE
144 - IOWA

LINE 1 (Cont'd)

TRAER QUAD. - 145

FEET

2 29 8.9 UE 3 C, 2.4 mi W. along a county rd. from tablet, center of concrete bridge; a chiseled square, painted "UE centerline" (water 10.0 ft lower than center of bridge)

891.7

LINE 2

D. D. Bolin, 1966; Book CV 2042

WINTHROP NO. 2 QUAD. - 168

12.8 UE 21 C CL, 2.2 mi W. along the dirt and gravel rd. from the tablet, about 0.3 mi W. along the rd. from the cor. of secs. 15, 16, 21 and 22, T. 86 N., R. 10 W., at the center of the iron and wooden bridge over Bear Creek; a copper nail and washer

800.72

13.1 UE 21 D, 2.5 mi W. along the dirt and gravel rd. from the tablet near cor. secs. 15, 16, 21 and 22, T. 86 N., R. 10 W., 25 ft N., 27 ft W. and 3.6 ft lower than the center of the crossroads, on top and on the E. end of the round metal culvert; a punched hole

838.33

LA PORTE QUAD. - 169

13.5 T. 86 N., R. 10 W., just SE. of the quarter cor. between secs. 16 and 21, 73 ft S. and 110 ft E. of center of crossroads, 20 ft SSE. of the telephone pole, 4 ft E. of witness post; a standard tablet stamped "ET 6 DOS 1966 892", set in a concrete post flush with the ground (NOTE: R.M. not feasible)

891.955

VINTON QUAD. - 144

14.1 UE T A, 0.6 mi S. along the dirt and gravel rd. from the tablet, near the center of sec. 21, T. 86 N., R. 10 W., 77 ft N., 11 ft E. and 1.2 ft higher than center of concrete bridge over Bear Creek, on top and on the N. end of the E. concrete railing; a chiseled square

798.89

14.6 UE TT A, 1.0 mi S. along the rd. from the tablet, near quarter cor. between secs. 21 and 28, T. 86 N., R. 10 W., 23 ft N., 35 ft E. and 2 ft lower than the center of crossroads, on top and on the N. end of a round metal culvert; a punched hole

796.62

15.7 UE TT B, 2.1 mi S. along the rd. from the tablet, near quarter cor. between secs. 28 and 33, T. 86 N., R. 10 W., 32 ft N., 120 ft W. and 4.3 ft lower than center of State Hwy. 101 at the Y-rd. NW. at the E. entrance to the concrete block building; on the S. side of the concrete walk; a chiseled square

834.64

16.4 At the Vinton airport, located in the NW $\frac{1}{4}$ sec. 33, T. 86 N., R. 10 W., 108 ft NW. of the NW. corner of the main hangar, on the SW. corner of the concrete foundation of the gas pumps; a standard tablet stamped "22 DDB 1966"

840.056

16.4 Reference mark, 149 ft SE. of the tablet, 12 ft S. of the SW. corner of the main hangar, at the NW. corner of the search light tower; a chiseled square

838.20

16.8 UE 22 A, about 0.4 mi E.-S. from the tablet, near the S. sixteenth cor. sec. 33, T. 86 N., R. 10 W., 27 ft N., 42 ft W. and 3.1 ft lower than center of State Hwy. 101, at the T-rd. W., on top of the N. end of a round metal culvert; a punched hole

809.89

17.1 Vinton, 3.0 mi N. of; near quarter cor. between secs. 4 and 33, Tps. 85 and 86 N., R. 10 W., 16 ft S., 46 ft E. and 1.6 ft lower than center of T-rd. E., on top and near the center of the southerly headwall of the concrete box culvert; a standard tablet stamped "23 DDB 1966"

805.181

17.1 Reference mark, 104 ft WNW. of the tablet, 1 ft N. and 56 ft W. of the center of the T-rd. E., on top and at the S. end of the round metal culvert; a punched hole

802.24

18.2 UE 23 A, 1.1 mi S. along State Hwy. 101 from the tablet, near center sec. 9, T. 85 N., R. 10 W., 17 ft S., 61 ft W. and 3.1 ft lower than center of hwy. at the T-rd. W., on the N. side of a power pole; a rail spike

781.46

LINE 2 (Cont'd)

VINTON QUAD. -- 144

FEET

- 19.0 UE 23 B, 1.9 mi S. along State Hwy. 101 from the tablet, in the SW $\frac{1}{4}$ sec. 9, T. 85 N., R. 10 W., 280 ft N., 12 ft E. and 0.7 ft lower than center of iron and concrete bridge over a lake, 265 ft S. of the T-rd. E., on top and at the N. end of the E. concrete bridge abutment; a chiseled square 791.40
- 19.8 UE 23 C, 2.7 mi S. along State Hwy. 101 from tablet, about 0.2 mi N. of Vinton, at the NE. corner of the E. concrete railing of the bridge over Cedar River; a chiseled square 784.26
- 20.2 At Vinton, at the front (S.) entrance to the county courthouse and in the NE. corner of the sandstone step; a UCC&GS standard disk stamped "794.670 M 81 1934" 794.670

LINE 3

G. H. Clarin, 1964, Book CV 1690

MARENGO QUAD. - 119

- 6.6 Van Horne, about 1.0 mi S. and 1.75 mi W. of; 0.25 mi W. of gravel crossroads at cor. secs. 15, 16, 21 and 22, T. 83 N., R. 11 W., 32 ft S. of center of E.-W. gravel rd., 20 ft E. of track rd. S. into field, 47 ft E. of powerline pole, 1 ft N. of right-of-way fence, in concrete post projecting 3 in.; standard tablet stamped "ET 11 JS 1963" 939.832
- 6.8 Rd. at cross fence 925.3
- 7.4 UE ET 11 A, 0.75 mi E. along rd. from tablet, T. 82 N., R. 11 W., near cor. secs. 14, 15, 22 and 23, 20 ft S., 31 ft E. and 2.4 ft lower than center of crossroads, on S. end of a 14-in. round concrete culvert; a chiseled square 931.18
- 7.9 Rd. at fence N. 922.1
- 8.1 Rd. at culvert 896.1
- 8.4 UE ET 11 B, 1.75 mi E. along rd. from tablet, T. 82 N., R. 11 W., near cor. secs. 13, 14, 23 and 24, 15 ft N., 132 ft E. and 0.2 ft lower than center of State Hwy. 82 at crossroads, in center of N. headwall of a concrete culvert; a chiseled square 902.18
- 8.5 Rd. at cross fence 922.5
- 8.7 Rd. at cross fence 933.3
- 9.3 Reference mark, 240 ft W. of tablet, 13 ft S. of center of rd., in center of S. headwall of a concrete culvert; a chiseled square 906.95
- 9.4 Van Horne, 1.0 mi S. and 1.0 mi E. of, T. 82 N., Rs. 10 and 11 W., near cor. secs. 13, 18, 19 and 24, 39 ft S. and 34 ft W. of center of crossroads, 5 ft S. of a power pole in top of a concrete post; a standard tablet stamped "4 GHC 1964 905" 905.348
- 9.8 Rd. at fence S. 929.9
- 10.3 UE 4 A, 0.94 mi E. along rd. from tablet, T. 82 N., R. 10 W., near cor. secs. 17, 18, 19 and 20, 30 ft S., 36 ft W. and 1.6 ft lower than center of crossroads, in N. side of power pole; a rail spike 952.04
- 10.6 Rd. opposite cemetery 933.9
- 10.7 Rd. at culvert 908.0
- 10.9 Rd. at cross-fence 908.2
- 11.2 Rd. at cross-fence 914.7

<u>LINE 3 (Cont'd)</u>		<u>MARENGO QUAD. - 119</u>	FEET
11.3	UE 4 B, 1.9 mi E. along rd. from tablet, T. 82 N., R. 10 W., near cor. secs. 16, 17, 20 and 21, 21 ft S., 40 ft W. and 0.3 ft lower than center of U.S. Hwy. 218 at crossroads, on S. end of a 14-in. round concrete culvert; chiseled square		900.08
11.4	Hwy. at culvert		886.9
11.8	Hwy. at cross-fence		921.5
12.2	UE 4 C, 1.9 mi E. thence 0.9 mi S. along hwy. from tablet, T. 82 N., R. 10 W., near cor. secs. 20, 21, 28 and 29, about 500 ft N. of hwy. at crossroads, 24 ft N. of center of hwy. at center of culvert; a bolt on washer		889.9
12.3	Crossroads		892.6
12.8	Hwy. at fence		928.6
12.9	Reference mark, 2, NNW. of station, 29 ft W. of center of Hwy., 1 ft E. of right-of-way fence, 2 ft NE. of fence post, 261.39 ft N. of R.M. 1; projects 7 in.; USC&GS R.M. 2 YOUNG		941.538
13.0	Van Horne, about 4.0 mi SE. of, about 14.0 mi S. of Vinton, 0.3 mi N. of jct. of U.S. 30 and 218, in SW $\frac{1}{4}$ sec. 28, T. 83 N., R. 10 W., near E. edge of right-of-way of U.S. Hwy. 213, 50 ft E. of center of Hwy. 218, 20 ft E. of right-of-way fence, 21 ft N. of E.-W. fence, 29 ft NE. of fence corner post; USC&GS triangulation station disk stamped "YOUNG 1934"		941.256

LINE 4

<u>G. H. Clarin, 1964; Book CV 1690</u>		<u>MARENGO QUAD. - 119</u>	
8.1	Keystone, 0.5 mi S. and 2.0 mi W. of, T. 83 N., R. 12 W., near cor. secs. 15, 16, 21 and 22, 38 ft N. and 32 ft W. of center of crossroads, 2 ft E. of W. right-of-way fence, in top of a concrete post; a standard tablet stamped "14 GHC 1964 918"		918.244
8.6	Rd. at cross fence		918.7
9.1	UE 14 A, 1.0 mi E. along rd. from tablet, T. 83 N., R. 12 W., near cor. secs. 14, 15, 22 and 23, 39 ft S., 26 ft W. and 4.6 ft lower than center of crossroads, in N. end of a 14-in. corrugated steel pipe culvert; punched hole		890.64
9.6	Rd. at drive N.		901.8
10.0	UE 14 B, 2.0 mi E. along rd. from tablet, T. 83 N., R. 12 W., 400 ft W. of cor. secs. 13, 14, 23 and 24, 21 ft N., 17 ft E. and 0.4 ft lower than center of rd. at bridge on the SW. end of the NE. concrete bridge wing wall; a chiseled square, 2.1 ft above water level		871.58
10.1	Hwy. at crossroads		880.5
10.6	Rd. at culvert		858.8
11.1	Reference mark, 80 ft NW. of tablet, in N. end of a 24-in. corrugated steel pipe culvert; a punched hole		867.83
11.1	Keystone, 0.5 mi S. and 1.0 mi E. of, T. 83 N., Rs. 11 and 12 W., near cor. secs. 13, 18, 19 and 24, 35 ft S. and 34 ft E. of center of crossroads, 2 ft N. of S. right-of-way fence, 10 ft SE. of a telephone pole, in top of a concrete post; standard tablet stamped "15 GHC 1964 866"		866.386

EC

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VINTON QUADRANGLE
144 - IOWA

<u>LINE 4 (Cont'd)</u>	<u>MARENGO QUAD. - 119</u>	<u>FEET</u>
11.2 Rd. at bridge		868.4
11.6 Rd. at cross-fence		908.1
12.1 UE 15 A, 1.0 mi E. along rd. from tablet, T. 83 N., R. 11 W., near cor. secs. 17, 18, 19 and 20, 33 ft S., 28 ft E. and 0.4 ft lower than center of crossroads, in S. side of a power pole; a rail spike		931.24
12.6 Rd. at cross-fence		921.9
13.1 UE 15 B, 2.0 mi E. along rd. from tablet, T. 83 N., R. 11 W., near cor. secs. 16, 17, 20 and 21, 32 ft N., 18 ft W. and 2.7 ft lower than center of crossroads, in W. end of a 20-in. corrugated steel pipe culvert; a punched hole		904.28
13.6 Rd. at culvert		899.0
14.4 Van Horne, about 1.0 mi S. and 1.75 mi W. of; 0.25 mi W. of graveled crossroads, at cor. secs. 15, 16, 21 and 22, T. 83 N., R. 11 W., 32 ft S. of center of E.-W. gravel rd., 20 ft E. of track rd. S. into field, 47 ft E. of power line pole, 1 ft N. of right-of-way fence, in concrete post projecting 3 in.; standard tablet stamped "ET 11 JS 1963"		939.832