

St. Joseph 10--continued

(Daily 2 a.m. water level from recorder graph)

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1945		Oct. 22	39.20	May 15	38.30	1947	
		Nov. 1	39.60	25	38.40	Jan. 1	40.80
Feb. 15	h41.28	4	39.90	27	38.20	15	40.70
23	h41.39	16	39.45	June 1	38.30	27	40.55
Mar. 6	h41.43	27	39.20	15	38.40	Feb. 1	40.80
16	h41.42	Dec. 1	39.25	28	37.70	15	40.65
22	h41.55	15	39.20	29	38.60	24	40.50
30	h41.53	19	39.30	July 1	38.45	Mar. 1	40.60
Apr. 5	h41.58	30	38.90	15	38.65	15	40.45
13	h41.28			31	39.15	16	41.10
20	h41.43	1946		Aug. 1	39.20	22	40.40
26	h41.14			15	39.75	Apr. 15	39.85
May 4	h41.09	Jan. 1	39.00	30	40.10	28	39.40
15	39.95	9	38.60	Sept. 1	40.05	May 3	39.45
38	39.45	13	39.30	3	39.95	13	38.95
June 1	39.40	15	39.00	15	40.35	31	38.65
10	39.90	Feb. 1	38.85	28	40.60	June 14	37.85
14	39.20	3	38.40	Oct. 7	40.65	22	37.60
28	38.80	15	38.75	15	40.80	July 1	37.60
July 1	39.05	17	39.20	26	40.90	8	37.55
15	38.85	Mar. 10	38.85	Nov. 3	40.95	14	37.55
27	39.10	14	38.80	16	40.95	25	37.75
Aug. 17	h39.47	31	38.55	17	40.20	Aug. 7	h38.53
Sept. 1	39.40	Apr. 1	38.45	22	41.00	14	h38.72
15	39.70	3	38.50	Dec. 1	40.90	22	h39.16
Oct. 1	39.50	15	37.80	15	41.00		
7	39.75	28	38.20	29	37.00		
15	39.50	May 1	38.30				

St. Joseph 11. (37/2-15C6). Formerly S<sub>j</sub> 4T-1. City of South Bend. Olive Park pumping station, Olive St., South Bend. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 15, T. 37 N., R. 2 E. Drilled unused artesian well in sand and gravel, diameter 3 inches to 1 $\frac{1}{2}$  inches, reported depth 152 feet. Land-surface datum is 716 feet above msl. Highest water level is 15.15 below lsd, June 12, 1947; lowest 20.64 below lsd, July 26, 1945, Aug. 2, 1946. Records available: 1945-48. Affected by nearby pumping.

1945		Apr. 20	17.93	June 28	17.65	Aug. 30	18.84
		26	18.26	July 5	18.25	Sept. 6	19.28
Feb. 16	19.32	May 4	18.35	12	19.90	14	18.90
23	19.18	10	18.37	19	20.09	21	19.00
Mar. 9	18.28	17	18.24	26	20.64	27	18.76
22	18.46	24	16.82	Aug. 2	19.85	Oct. 4	18.41
30	18.82	31	16.82	9	19.14	11	18.44
Apr. 5	18.46	June 8	16.65	17	18.69	19	18.25
13	18.56	21	17.42	23	19.09	26	18.46

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 11--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1945		Apr. 11	17.31	Oct. 21	19.22	May 24	16.30
		18	17.31	25	19.46	June 2	15.27
Nov. 1	18.42	May 2	18.16	Nov. 8	19.10	12	15.15
15	18.63	14	17.13	14	19.27	27	16.09
24	18.55	21	16.99	Dec. 5	19.24	July 14	17.62
Dec. 1	18.98	31	18.20	12	19.30	Sept. 5	18.25
8	19.07	June 13	18.29	27	19.02	11	18.39
21	18.98	21	18.43			18	17.91
		28	19.72	1947		Oct. 3	17.30
1946		July 5	19.06			10	17.76
		13	20.45	Jan. 16	19.13	22	18.08
Jan. 4	19.11	19	20.50	23	18.88	31	17.72
11	18.90	26	20.50	Feb. 3	19.07	Nov. 14	18.14
18	18.67	Aug. 2	20.64	20	18.70	Dec. 1	18.11
25	18.42	10	19.27	27	18.60		
Feb. 1	18.18	16	19.40	Mar. 6	18.60	1948	
8	17.82	23	19.74	21	18.74		
Mar. 2	18.19	Sept. 3	19.40	27	18.82	Apr. 23	17.38
7	18.16	6	20.22	Apr. 3	18.68	May 27	17.50
16	17.79	13	19.43	17	16.98	June 24	17.99
22	17.85	20	19.68	May 10	16.92	July 27	18.78
29	17.67	Oct. 5	19.46	16	17.20	Dec. 23	19.93
Apr. 4	17.23	11	19.52				

St. Joseph 12. (37/2-17A1). Formerly S<sub>j</sub> 4T-2. City of South Bend. Lombardy Dr., one block south of Sample St., South Bend. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 17, T. 37 N., R. 2 E. Drilled unused artesian well in sand and gravel, diameter 3 inches, reported depth 152 feet. Land-surface datum is 710 feet above msl. Highest water level is 4.77 above lsd, June 2, 1947; lowest 9.57 below lsd, Nov. 29, Dec. 7, 13, 1949. Records available 1945-50.

1945		June 8	7.10	Oct. 4	8.17	Jan. 25	7.63
		21	7.25	11	8.21	Feb. 1	7.70
Feb. 16	8.56	28	7.34	19	8.23	8	7.82
23	8.31	July 5	7.50	26	8.35	Mar. 2	7.47
Mar. 9	8.20	12	7.69	Nov. 1	8.32	7	7.08
22	8.14	19	7.74	15	8.39	16	6.78
30	8.12	26	7.99	24	8.28	21	6.82
Apr. 5	7.75	Aug. 2	7.74	Dec. 1	8.14	29	6.74
13	7.76	9	7.86	8	8.19	Apr. 4	7.87
20	7.73	17	7.99	21	8.40	18	7.14
26	7.52	23	8.14			25	7.50
May 4	7.40	30	8.25	1946		May 2	7.54
10	7.20	Sept. 6	8.33			14	7.49
17	6.75	14	8.40	Jan. 4	8.28	21	7.61
24	6.65	21	8.46	11	8.18	31	7.60
31	6.82	27	8.24	18	7.55	June 21	7.80

Table 5.--Water levels in observation wells in St. Joseph County--Continued

## St. Joseph 12--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1946		Sept. 18	7.06	Feb. 8	7.95	Dec. 20	9.55
		Oct. 3	7.24	15	7.59	27	9.54
July 5	7.44	10	7.47	22	7.48		
13	7.77	22	7.70	Mar. 1	7.52	1950	
26	8.07	31	7.62	8	8.50		
Aug. 2	8.58	Nov. 14	7.68	15	7.58	Jan. 3	8.31
10	8.63	Dec. 1	8.02	22	7.70	10	8.32
16	8.69			29	7.89	17	8.10
23	8.71	1948		Apr. 5	7.59	24	8.02
Sept. 3	8.88			12	7.78	31	7.92
6	8.92	Apr. 23	6.50	19	7.87	Feb. 7	9.09
13	8.95	May 27	6.36	26	7.95	14	7.85
20	9.08	June 24	6.92	May 3	7.97	21	8.08
Oct. 5	9.07	July 27	7.72	10	8.24	28	8.05
11	9.16	Aug. 3	7.78	17	8.35	Mar. 7	7.63
21	8.95	10	7.81	24	7.93	15	7.50
25	8.92	17	8.05	31	8.04	22	7.45
Nov. 8	8.86	24	8.21	June 7	8.24	28	6.65
14	8.76	31	8.58	14	8.36	Apr. 4	6.00
Dec. 5	8.83	Sept. 7	8.50	21	8.12	11	5.80
12	8.40	14	8.62	July 12	8.31	18	6.07
27	8.40	21	8.65	19	8.56	25	5.89
		28	8.62	26	8.74	May 2	6.00
1947		Oct. 5	8.54	Aug. 2	9.00	10	6.45
		12	8.68	11	9.00	18	6.66
Jan. 16	8.41	19	8.68	16	8.50	23	6.96
23	8.51	26	8.72	23	9.25	30	6.80
Feb. 3	8.05	Nov. 2	8.82	31	9.27	June 6	6.26
20	8.10	9	8.72	Sept. 6	9.26	14	6.00
27	8.22	15	8.68	13	9.38	21	6.44
Mar. 6	8.17	23	8.94	20	9.28	July 11	6.64
21	8.15	30	8.80	27	9.36	19	6.81
27	7.60	Dec. 7	8.97	Oct. 4	9.28	25	6.94
Apr. 3	7.12	14	8.88	11	8.78	Aug. 1	7.18
17	5.88	21	8.79	18	9.20	8	7.25
May 10	5.62	28	8.78	25	9.27	15	7.69
16	6.05			Nov. 1	9.35	22	8.04
24	5.39	1949		8	9.38	29	8.03
June 2	4.77			15	9.38	Sept. 5	8.25
12	5.34	Jan. 4	8.48	22	9.45	12	8.28
27	6.66	11	8.42	29	9.57	19	8.44
July 14	6.66	18	8.00	Dec. 7	9.57	26	8.42
Aug. 5	7.52	26	8.00	13	9.57	Oct. 3	8.52
Sept. 11	7.40	Feb. 1	7.97			10	8.47

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 13. (38/2-35P3). Formerly Sj 87. D. W. Lynch. 1138 Kinyon St., South Bend. SE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 35, T. 38 N., R. 2 E. Driven unused artesian well in sand and gravel, diameter 1 $\frac{1}{2}$  inches, depth 110 feet. Land-surface datum is 680 feet above msl. Highest water level is 2.54 below lsd, Mar. 9, 1945; lowest 6.01 below lsd, July 12, 1945. Records available: 1945:

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1945		Apr. 13	3.87	May 31	3.77	July 19	5.95
		19	3.36	June 8	4.11	27	5.99
Mar. 9	2.54	28	2.92	21	3.51	Aug. 2	5.96
22	3.45	May 3	3.29	28	5.40	9	5.23
30	3.36	10	3.62	July 6	4.83	17	4.86
Apr. 6	3.56	18	2.60	12	6.01		

St. Joseph 14. (38/3-25N1). Formerly Sj 90. Owner unknown. SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 25, T. 38 N., R. 3 E. Previously shown as SW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 29, T. 38 N., R. 4 E. Driven unused water-table well in sand and gravel, diameter 1 $\frac{1}{2}$  inches, depth 14 feet. Land-surface datum is 755 feet above msl. Highest water level is 8.45 below lsd, Mar. 29, 1946; lowest 10.72 below lsd, Sept. 7, 1946. Records available: 1945-46.

1945		July 20	10.13	Dec. 6	10.14	Apr. 12	9.17
		27	10.20	21	10.20	20	9.37
Mar. 22	10.19	Aug. 3	10.17			25	9.51
Apr. 2	9.96	9	10.26	1946		May 2	9.67
6	9.95	17	10.34			13	9.87
13	9.40	23	10.37	Jan. 4	10.20	21	9.89
19	9.55	30	10.50	12	10.18	June 8	10.04
28	9.48	Sept. 6	10.38	19	9.79	22	9.46
May 3	9.54	14	10.48	25	9.34	July 15	9.86
10	9.43	28	10.20	Feb. 1	9.61	19	10.04
18	8.59	Oct. 4	9.86	8	9.78	Aug. 2	10.35
June 1	8.77	11	9.82	Mar. 4	9.70	10	10.50
7	8.82	27	9.85	9	8.96	17	10.58
21	9.49	Nov. 3	9.80	16	9.12	27	10.70
28	9.68	16	9.83	22	8.62	Sept. 7	10.72
July 6	9.89	24	10.31	29	8.45	14	10.65
12	10.03	Dec. 1	10.36	Apr. 6	8.50	21	10.69

St. Joseph 15. (38/2-27C1). Formerly Sj 91. Owner unknown. NE $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 27, T. 38 N., R. 2 E. Dug unused water-table well in sand, diameter 42 inches, depth 10 feet. Land-surface datum is 755 feet above msl. Highest water level is 3.97 below lsd, June 28, 1945; lowest 4.99 below lsd, Mar. 6, Apr. 17, 1947. Records available: 1945-47.

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 15--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1945		Aug. 23	4.40	Mar. 1	4.64	Oct. 7	4.84
		30	4.40	8	4.61	11	4.83
Mar. 22	4.23	Sept. 6	4.38	16	4.64	21	4.87
30	4.26	14	4.48	22	4.63	24	4.86
Apr. 6	4.22	28	4.43	29	4.63	Nov. 8	4.88
13	4.24	Oct. 4	4.52	Apr. 6	4.64	14	4.88
19	4.23	11	4.48	12	4.65	23	4.90
28	4.22	26	4.50	20	4.65	28	4.91
May 3	4.23	Nov. 1	4.56	25	4.67		
10	4.25	16	4.59	May 21	4.68	1947	
18	4.24	24	4.55	June 8	4.70		
31	4.27	Dec. 1	4.60	July 22	4.68	Jan. 18	4.91
June 8	4.25	6	4.62	July 7	4.70	23	4.97
21	4.18			19	4.71	30	4.97
28	3.97	1946		Aug. 2	4.74	Feb. 20	4.97
July 6	4.32			10	4.72	Mar. 6	4.99
12	4.33	Jan. 4	4.60	17	4.74	22	4.98
19	4.32	11	4.60	27	4.77	27	4.97
27	4.32	18	4.61	Sept. 7	4.79	Apr. 3	4.97
Aug. 2	4.36	25	4.62	14	4.80	17	4.99
9	4.37	Feb. 1	4.63	21	4.80	May 23	4.97
17	4.38	8	4.63	27	4.81	June 9	4.91

St. Joseph 16. (38/2-35B5). Formerly Sj 53. St. Marys College. Notre Dame. NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 35 T. 38 N., R. 2 E. Previously shown as NW $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 1, T. 38 N., R. 2 E. Drilled unused artesian well in sand and gravel, diameter 12 inches, depth 116 feet. Land-surface datum is 675 feet above msl. Recording gage installed Mar. 23, 1945, removed July 7, 1953. Highest water level is 0.9 below lsd, Apr. 12, 28, 30, 1950; lowest 16.0 below lsd, Mar. 11, 1953. Records available: 1945-58. Affected by nearby pumping.

(Daily 2 a.m. water level from recorder graph)

1945		Aug. 15	5.40	Dec. 15	4.80	Mar. 20	8.15
		20	8.80	31	6.55	31	4.45
Mar. 24	6.30	Sept. 1	6.05			Apr. 1	4.40
May 12	8.60	15	5.10	1946		15	4.85
14	5.00	22	8.85			30	6.05
25	4.75	30	4.80	Jan. 1	5.20	May 15	7.50
June 1	4.65	Oct. 1	8.15	12	5.05	23	4.20
3	4.60	2	4.55	31	6.25	June 1	4.35
4	8.25	15	5.45	Feb. 1	6.45	3	7.65
15	6.10	18	8.85	2	6.55	15	4.35
July 1	7.00	Nov. 1	5.10	4	5.10	July 1	5.35
15	5.25	4	5.05	15	6.15	15	8.30
17	5.25	12	5.25	Mar. 1	6.05	17	8.65
Aug. 1	5.00	14	5.15	14	5.35	28	5.05

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 16--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1946		June 14	5.45	May 15	3.05	May 2	5.10
		15	2.70	16	2.95	15	5.70
Aug. 1	5.05	July 1	4.75	June 1	4.10	June 1	5.30
14	4.50	15	4.20	15	4.50	15	5.40
15	4.60	21	4.00	21	8.10	19	5.00
17	7.90	26	7.60	July 1	4.30	28	6.90
Sept. 12	8.15	Aug. 2	4.80	15	8.30	July 1	5.30
15	5.90	14	4.85	Aug. 1	8.10	15	8.50
16	5.70	21	8.10	12	3.80	19	9.80
Oct. 1	6.00	28	4.50	15	5.00	Aug. 2	8.20
2	5.80	Sept. 1	4.80	29	9.30	14	9.50
15	6.10	5	4.35	Sept. 1	9.00	Sept. 12	9.20
27	9.05	10	7.75	15	6.60	15	9.40
Nov. 1	6.30	15	7.60	26	5.30	24	10.20
13	8.70	Oct. 1	4.60	Oct. 1	5.30	Oct. 1	9.60
14	5.60	15	4.50	15	5.60	15	9.20
15	5.80	17	7.95	19	4.30	25	5.90
Dec. 1	6.85	Nov. 1	6.55	24	9.00	Nov. 1	5.90
9	8.50	3	8.50	Nov. 1	5.80	15	9.70
15	5.60	11	4.40	7	5.30	19	9.90
30	5.25	15	5.75	13	8.80	Dec. 1	7.60
		Dec. 1	5.65	Dec. 1	6.90	15	8.00
1947		15	5.90	15	6.10	16	8.10
		18	6.00	28	7.70	24	5.70
Jan. 1	5.35	28	5.40	29	5.50		
15	6.65					1950 <u>1/</u>	
29	7.45	1948		1949( <u>1/</u> )		Jan. 1	5.60
Feb. 1	6.20	Jan. 1	6.45	Jan. 1	6.80	4	7.00
15	7.10	7	6.60	8	7.60	15	4.90
21	7.45	15	5.40	15	6.70	29	4.30
Mar. 1	6.55	30	5.15	23	5.70	Feb. 1	5.50
11	7.70	Feb. 1	6.00	Feb. 1	6.20	6	5.70
15	6.25	13	7.55	14	7.50	14	6.60
29	5.35	15	6.55	15	6.70	21	5.30
Apr. 1	5.50	28	h4.85	20	5.80	Mar. 25	6.00
2	5.55	Mar. 6	h6.20	Mar. 1	6.30	31	4.10
15	4.15	27	4.35	11	7.20	Apr. 1	4.50
29	2.85	Apr. 3	h4.60	15	5.80	6	.20
May 1	2.75	15	4.30	Apr. 1	6.10	15	1.70
13	5.10	21	7.55	11	4.60	22	5.40
15	3.75	27	3.80	13	8.00	May 1	4.20
24	2.35	May 1	7.30	15	8.00	15	6.00
June 1	2.55	5	7.70	May 1	5.20	29	6.80
4	2.10						

1/ Daily lowest water level from recorder graph

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 16--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1950 <u>1/</u>		Oct. 25	5.40	Mar. 1	3.80	Aug. 15	8.40
		Nov. 1	8.40	15	8.00	16	5.60
June 15	6.60	4	10.70	28	8.70	30	8.80
18	6.40	5	5.40	Apr. 1	8.10	Sept. 1	8.90
23	6.90	15	8.70	4	10.40	7	9.10
July 1	6.70	Dec. 8	7.50	15	4.60	13	8.10
8	7.40	15	7.60	May 1	5.00	Oct. 1	8.30
15	7.20	19	9.30	15	7.60	4	8.50
Aug. 1	7.40			31	8.20	15	8.40
15	7.60	1951( <u>1/</u> )		June 3	8.30	26	7.50
24	4.80			14	8.70	Nov. 1	7.70
25	8.20	Jan. 1	8.20	15	8.50	8	8.20
Sept. 1	7.90	6	3.90	23	7.60	15	7.80
15	8.10	15	4.30	July 1	8.30	25	7.00
21	4.10	Feb. 1	5.50	7	8.80	Dec. 1	7.30
Oct. 1	4.90	13	8.50	15	8.50	7	6.90
2	4.70	15	4.80	18	5.60	14	7.60
15	5.30	26	3.10	Aug. 1	8.30		

(Daily lowest water level from recorder graph, 1952)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	7.10	5.90	7.00	-----	6.30	7.60	9.60	9.60	9.90	10.30	9.90	9.90
2	6.70	5.80	7.00	6.30	6.30	7.70	9.80	9.70	9.90	9.90	9.90	9.90
3	6.70	5.90	7.00	6.20	6.50	8.00	9.40	9.60	9.90	10.00	9.90	9.90
4	6.70	5.80	7.00	6.30	6.40	8.10	9.40	9.60	10.00	9.90	9.80	9.80
5	6.70	5.60	6.80	6.30	6.40	8.20	9.60	9.50	9.90	10.00	9.90	9.90
6	6.60	5.60	6.90	6.30	6.70	8.30	9.60	9.60	9.90	10.00	9.90	9.80
7	6.70	5.60	6.90	6.20	6.50	-----	9.90	9.60	9.90	9.90	10.00	9.90
8	6.70	5.70	6.80	6.20	12.80	-----	9.30	9.70	10.10	9.80	9.90	9.70
9	6.70	5.70	6.70	6.20	12.90	-----	9.20	9.60	9.90	10.00	9.90	9.80
10	6.70	5.80	6.70	6.20	8.60	-----	9.20	-----	10.00	9.80	10.00	9.80
11	6.60	5.80	6.60	6.20	8.60	-----	9.30	-----	9.90	9.80	9.90	9.70
12	6.70	5.90	6.20	6.20	8.70	-----	9.40	-----	10.00	9.60	9.90	9.90
13	6.70	5.90	6.10	6.00	9.20	-----	9.60	9.80	9.90	9.70	10.00	9.90
14	6.70	6.00	6.00	5.80	8.80	-----	9.60	9.70	9.80	10.10	10.00	9.80
15	6.50	6.00	6.00	5.70	8.90	-----	9.90	9.50	9.80	9.70	10.10	10.00
16	6.80	6.30	6.00	5.70	8.70	-----	9.90	9.40	9.90	9.70	10.00	9.90
17	6.10	6.30	6.00	5.60	8.70	-----	9.80	9.40	10.00	9.80	10.10	10.00
18	6.00	6.40	6.20	5.60	8.70	-----	9.80	9.40	9.90	9.70	10.10	9.90
19	5.90	6.40	5.90	5.70	8.90	-----	9.60	9.50	9.90	9.80	10.00	10.00
20	5.70	6.40	5.90	5.60	9.00	-----	9.60	9.50	9.80	9.80	10.00	10.00
21	5.50	6.40	5.80	5.70	8.90	-----	9.70	9.50	9.80	9.80	9.90	9.70
22	5.60	6.50	5.70	5.80	8.70	-----	9.50	9.60	9.80	9.70	10.00	9.70

1/ Daily lowest water level from recorder graph

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 16--continued

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
23	5.70	6.50	5.60	5.80	8.70	-----	9.30	9.50	9.90	9.70	9.80	9.70
24	5.90	6.50	5.50	5.70	8.40	-----	9.30	9.60	9.80	9.80	9.90	9.70
25	5.90	6.60	-----	5.90	7.90	-----	9.40	9.60	10.10	9.80	10.00	9.70
26	5.80	6.60	-----	6.00	7.90	-----	9.70	-----	10.10	9.80	9.80	9.70
27	5.70	6.70	-----	6.00	8.20	9.20	9.70	9.80	10.00	9.80	9.90	9.70
28	5.70	6.90	-----	6.10	7.40	9.20	9.60	9.90	9.90	10.00	9.80	9.60
29	5.90	6.80	-----	6.20	7.40	9.30	9.50	9.80	-----	9.90	9.80	9.70
30	6.00	-----	-----	6.20	7.40	9.40	9.80	9.90	9.90	9.90	9.80	9.90
31	5.90	-----	-----	-----	7.50	-----	9.70	9.90	-----	9.90	-----	9.80

(Daily lowest water level from recorder graph, 1953)

1	9.90	9.80	9.90	9.60	9.50	9.90	-----	-----	h6.39	-----	-----	h5.15
2	9.90	9.80	10.00	9.60	9.60	10.20	-----	-----	-----	-----	-----	-----
3	9.80	9.90	9.90	9.60	9.50	10.00	-----	-----	-----	-----	h5.80	-----
4	9.80	9.90	9.80	9.70	9.70	10.10	-----	h6.00	-----	-----	-----	-----
5	9.80	9.90	9.70	9.60	9.80	10.10	-----	-----	-----	-----	-----	-----
6	10.00	9.90	9.80	9.50	9.70	9.90	-----	-----	-----	h6.60	-----	-----
7	10.00	9.90	9.80	9.70	9.70	9.80	h5.80	-----	-----	-----	-----	-----
8	10.00	9.90	9.70	9.70	9.60	9.80	-----	-----	h5.90	-----	-----	h6.40
9	9.90	9.90	9.90	9.80	9.60	9.90	-----	-----	-----	-----	-----	-----
10	10.00	9.90	11.70	9.80	9.70	9.80	-----	-----	-----	-----	h6.45	-----
11	9.90	10.00	16.00	9.60	9.70	9.80	-----	h.586	-----	-----	-----	-----
12	10.00	10.00	7.40	9.60	9.80	10.10	-----	-----	-----	-----	-----	-----
13	10.00	10.00	6.80	9.70	9.70	9.90	-----	-----	-----	-----	-----	-----
14	10.10	10.10	6.80	9.70	9.80	10.00	h5.92	-----	-----	-----	-----	-----
15	9.90	10.20	6.90	9.70	9.80	10.40	-----	-----	h6.36	-----	-----	h6.41
16	9.80	10.00	9.40	9.70	9.80	10.10	-----	-----	-----	-----	-----	-----
17	9.80	10.00	9.40	9.50	9.70	10.90	-----	-----	-----	-----	h6.58	-----
18	9.70	10.00	9.30	9.60	9.80	10.10	-----	h6.13	-----	-----	-----	-----
19	9.80	9.90	9.40	9.50	9.80	10.50	-----	-----	-----	-----	-----	-----
20	9.80	9.90	9.40	9.60	9.60	-----	-----	-----	-----	-----	-----	-----
21	9.80	9.90	9.10	9.60	9.50	-----	h6.08	-----	-----	-----	-----	-----
22	9.80	9.70	6.00	9.60	9.80	-----	-----	-----	h6.65	h6.55	-----	h6.45
23	9.90	9.90	9.50	9.60	9.60	-----	-----	-----	-----	-----	-----	-----
24	10.10	9.90	9.40	9.60	9.70	-----	-----	-----	-----	-----	h6.45	-----
25	9.70	9.90	9.40	9.60	9.70	-----	-----	h6.30	-----	-----	-----	-----
26	9.70	9.80	9.60	9.50	9.80	-----	-----	-----	-----	-----	-----	-----
27	9.80	9.90	9.50	9.60	9.60	-----	-----	-----	-----	-----	-----	-----
28	9.80	9.90	9.60	9.70	9.70	-----	h6.25	-----	-----	h6.40	-----	-----
29	9.90	-----	9.50	9.50	9.70	-----	-----	-----	h6.49	-----	-----	h6.43
30	9.80	-----	9.60	9.60	9.70	-----	-----	-----	-----	-----	-----	-----
31	9.80	-----	9.70	-----	9.90	-----	-----	-----	-----	-----	-----	-----



Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 16--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1954		Nov. 23	5.50	Mar. 9	4.90	Jan. 22	6.55
		Dec. 1	5.70	17	4.50	29	6.15
Jan. 7	6.40	7	5.10	23	5.25	Feb. 5	6.05
13	5.70	14	5.52	30	5.28	12	5.95
19	6.60	21	5.50	Apr. 3	5.22	19	6.08
25	6.50	28	5.20	10	5.30	26	5.00
Feb. 3	6.50			17	5.25	Mar. 5	6.35
10	6.45	1955		24	5.39	12	6.25
16	6.08			May 1	3.85	19	6.10
23	6.08	Jan. 4	5.30	8	3.88	26	5.95
Mar. 2	5.10	11	4.90	15	3.44	Apr. 2	6.00
9	5.61	18	5.20	22	4.38	July 2	10.10
17	5.67	25	5.19	29	4.62	9	10.60
23	5.65	Feb. 1	5.38	June 5	4.98	16	8.50
30	5.32	8	5.43	12	6.15	23	8.60
Apr. 6	5.10	15	5.91	19	6.25	30	9.60
13	4.63	22	5.23	26	5.42	Aug. 6	9.20
21	4.62	Mar. 1	4.64	July 3	5.60	13	8.60
28	3.80	8	4.40	10	5.70	20	9.30
May 5	4.34	15	4.62	17	6.30	27	8.70
11	4.63	22	4.68	24	5.30	Sept. 3	8.57
18	5.06	29	4.57	31	5.50	10	8.65
25	5.33	Apr. 5	4.74	Aug. 8	6.45	17	7.75
June 2	4.87	26	4.79	15	5.55	24	6.75
8	5.20	May 3	5.75	22	5.70	Oct. 1	7.37
15	5.37	11	5.45	27	6.04	8	7.54
22	5.23	17	5.47	Sept. 4	5.90	15	7.35
29	5.41	24	5.50	11	6.30	22	7.45
July 5	5.50	31	5.50	18	7.05	29	6.40
13	5.33	June 7	5.61	25	6.37		
20	5.40	14	5.37	Oct. 2	7.50	1958	
27	6.40	21	5.68	9	6.50		
Aug. 4	5.88	28	5.87	16	6.60	Jan. 7	5.55
10	5.99	July 13	5.57	23	6.59	14	5.45
17	6.13	19	5.57	30	6.45	21	5.80
24	6.22	27	5.90	Nov. 6	6.59	28	5.45
25	6.88			13	6.57	Feb. 4	5.85
Sept. 7	6.41	1956		20	6.58	11	5.55
15	6.64			Dec. 4	6.52	18	5.90
21	6.70	Jan. 5	5.73	11	6.54	25	5.55
30	7.09	12	5.60	18	6.90	Mar. 4	4.90
Oct. 5	6.64	19	5.62	26	6.30	11	5.60
12	5.71	26	5.74			18	5.10
19	4.70	Feb. 2	5.88	1957		25	5.45
26	4.98	9	5.80			Apr. 1	5.40
Nov. 3	5.10	18	5.81	Jan. 2	6.50	8	5.10
9	5.31	27	4.65	8	6.51	15	6.60
16	5.38	Mar. 2	5.10	15	6.54	22	7.90

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 16--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1958		May 13	7.60	June 10	7.10	July 15	8.85
		20	8.00	17	6.60	22	8.35
Apr. 29	6.60	27	7.35	July 1	8.35	29	7.85
May 6	6.50	June 3	6.65	8	8.60		

St. Joseph 17. (37/3-7A1). Formerly Sj 89. V. D. Morgan. NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 7, T. 37 N., R. 3 E. Drilled and driven unused artesian(?) well in sand and gravel, diameter 2 inches, depth 138 feet. Land-surface datum is 745 feet above msl. Highest water level is 38.38 below lsd, June 4, 1947; lowest 51.54 below lsd, Aug. 24, 1957. Records available: 1945-58.

1945		1946		Oct. 24	46.64	July 1	43.20
Mar. 30	46.29	Jan. 4	45.16	Nov. 8	46.32	8	43.80
Apr. 6	46.46	12	45.14	14	46.42	15	44.40
13	46.42	19	45.28	Dec. 5	46.66	22	44.10
19	46.11	25	45.60	28	46.19	27	43.49
26	46.13	Feb. 1	45.62			29	44.15
May 3	45.92	8	45.69	1947		Aug. 5	44.05
10	45.68	Mar. 4	45.06	Jan. 18	46.28	12	44.35
18	45.46	9	45.16	23	46.30	19	44.95
June 1	45.46	16	45.04	30	46.05	25	45.44
7	45.52	22	44.92	Feb. 20	46.28	Sept. 2	45.80
21	45.25	29	44.70	Mar. 6	46.36	16	45.60
28	45.52	Apr. 6	44.64	22	46.13	23	45.00
July 7	45.61	12	44.28	27	46.10	30	45.75
12	46.07	20	44.38	Apr. 3	46.06	Oct. 7	45.00
20	46.19	25	44.38	17	44.86	14	45.05
27	46.12	May 2	44.59	May 9	43.02	21	45.15
Aug. 3	46.09	21	44.35	23	42.25	28	45.10
9	45.88	June 8	44.98	June 4	38.38	Nov. 4	45.25
17	45.57	22	44.85	12	41.13	11	45.30
23	46.14	July 6	45.73	July 3	41.53	18	44.85
30	45.96	13	46.43	10	41.88	25	45.95
Sept. 6	46.16	19	47.00	Aug. 22	43.49	Dec. 2	45.30
14	45.59	Aug. 2	47.38	Sept. 11	42.97	8	45.50
28	45.39	10	46.95	18	42.92	16	45.40
Oct. 4	45.31	17	46.93	Oct. 3	43.03	23	45.60
11	45.26	27	47.02	31	43.39	30	45.45
26	45.32	Sept. 7	47.40	Nov. 28	43.12		
Nov. 3	45.17	14	46.60			1949	
16	45.24	21	46.98	1948		Jan. 4	45.15
24	45.01	30	46.34			13	45.65
Dec. 1	45.14	Oct. 7	46.41	Apr. 23	43.05	21	45.30
6	45.26	11	46.80	May 27	43.26	27	45.25
21	45.56	18	46.41	June 24	43.24	Feb. 3	45.40

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 17--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1949		Dec. 29	46.65	Nov. 2	44.20	Sept. 13	46.30
				9	44.07	21	46.57
Feb. 10	44.90	1950		16	44.14	27	46.49
17	45.22			23	44.30	Oct. 4	46.28
24	45.20	Jan. 5	46.15	30	44.49	10	46.35
Mar. 3	45.18	12	46.22	Dec. 7	44.20	18	46.35
10	45.24	19	46.00	14	44.75	25	46.70
17	45.14	26	45.70	21	44.85	Nov. 1	45.50
24	44.91	Feb. 2	46.00	28	44.70	8	45.15
31	45.27	10	45.25			15	45.30
Apr. 7	45.30	16	45.37	1951		22	44.70
14	45.20	23	44.79			30	44.90
21	45.20	Mar. 2	44.50	Jan. 4	44.75	Dec. 6	44.71
28	45.33	9	44.50	11	45.20	13	44.60
May 5	45.50	16	44.00	18	45.15	20	44.58
12	45.75	23	43.85	25	45.23	27	44.16
19	45.75	30	43.84	Feb. 1	44.89		
26	45.35	Apr. 6	43.45	8	45.17	1952	
June 2	46.00	13	42.92	15	44.84		
8	46.29	20	42.31	22	45.79	Jan. 3	43.95
16	46.10	27	42.04	Mar. 1	44.90	10	44.10
23	46.30	May 4	41.41	8	45.23	17	43.79
30	46.50	11	41.73	15	45.32	24	43.61
July 7	46.50	18	42.07	22	45.40	31	43.31
14	47.75	25	41.70	29	45.35	Feb. 7	43.13
21	47.30	June 1	41.89	Apr. 5	45.61	14	42.96
28	47.70	8	42.10	12	45.93	21	42.92
Aug. 4	47.45	15	41.58	19	45.89	28	42.72
11	48.90	22	40.50	26	45.88	Mar. 6	42.77
18	47.95	26	40.02	May 3	46.16	13	42.53
25	48.35	29	41.43	10	46.33	20	42.38
Sept. 1	47.64	July 6	41.14	17	46.29	27	42.58
8	47.59	13	41.96	24	46.38	Apr. 3	42.52
15	47.70	20	41.17	31	45.86	10	42.66
22	47.80	27	41.56	June 7	46.10	17	42.68
29	47.70	Aug. 3	41.64	14	46.32	24	42.95
Oct. 7	47.65	10	42.09	21	46.22	May 8	43.39
13	47.80	17	42.67	28	46.19	15	43.85
21	47.75	24	43.10	July 5	45.69	23	42.73
27	47.80	31	43.10	12	45.70	29	42.80
Nov. 3	47.80	Sept. 7	42.66	19	46.34	June 6	43.33
10	47.69	14	43.15	26	46.46	13	43.52
17	47.40	21	43.01	Aug. 2	46.40	19	43.51
24	46.48	28	42.80	9	46.00	26	43.56
Dec. 1	47.15	Oct. 5	42.70	16	46.00	July 3	44.08
8	46.80	12	43.48	23	46.07	10	43.75
15	47.20	19	43.00	30	46.30	17	43.96
22	47.00	26	43.27	Sept. 6	46.14	24	43.92

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 17--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1952		July 25	50.07	July 3	49.00	May 28	46.25
July 31	43.89	Aug. 1	50.69	10	48.28	June 4	46.61
Aug. 7	44.02	8	50.36	17	48.87	11	46.46
14	43.81	15	50.44	24	48.88	July 2	46.95
21	44.06	22	50.66	Aug. 7	48.71	9	48.04
28	44.58	29	51.02	14	48.14	Aug. 20	49.10
Sept. 4	44.32	Sept. 5	50.90	21	48.38	27	49.07
10	44.58	12	50.53	25	48.51	Sept. 3	48.61
18	45.20	19	50.95	28	48.44	10	48.36
25	45.22	26	50.62	Sept. 9	48.60	17	48.58
Oct. 2	45.34	Oct. 3	51.20	11	48.55	24	48.43
9	45.20	10	50.84	18	48.52	Oct. 1	48.24
16	45.20	17	50.97	25	48.44	8	47.76
23	45.15	30	50.72	Oct. 2	47.96	15	47.48
30	45.20	Nov. 7	50.65	9	47.86	22	47.13
Nov. 6	45.47	20	50.87	16	47.48	29	48.90
13	45.63	28	50.23	23	46.76	Nov. 5	46.68
20	45.75	Dec. 5	50.55	30	46.45	12	46.20
27	45.78	12	50.47	Nov. 6	45.96	20	46.20
Dec. 4	46.20	26	49.96	13	45.94	26	46.15
13	46.03			20	45.56	Dec. 3	46.14
20	46.20	1954		27	45.50	10	46.10
27	46.23	Jan. 2	49.90	Dec. 4	45.43	17	45.99
		9	50.20	11	45.34	24	46.09
		16	50.17	18	45.26	30	46.17
		23	49.97	25	45.10		
		30	50.08			1956	
1953		Feb. 6	50.06	1955		Jan. 7	46.08
Jan. 3	46.50	13	49.92	Jan. 1	45.07	14	46.38
10	47.85	20	49.85	8	45.19	21	46.48
17	47.04	27	49.50	15	45.84	28	46.54
24	47.08	Mar. 6	49.40	29	45.75	Feb. 4	46.58
30	47.17	15	49.30	Feb. 5	45.59	11	46.61
Feb. 7	47.46	21	49.16	19	44.75	18	46.64
21	47.65	27	49.15	26	44.57	25	46.67
28	47.69	Apr. 3	49.31	Mar. 5	44.70	Mar. 3	45.64
Mar. 7	47.68	10	48.96	12	44.83	10	46.18
14	48.88	17	48.81	19	44.97	17	46.09
21	48.80	24	48.70	26	44.70	24	46.09
28	47.76	May 1	48.50	Apr. 2	44.92	31	46.09
Apr. 4	47.79	8	47.80	9	44.98	Apr. 7	46.18
11	48.06	15	47.89	16	45.01	14	46.33
18	48.26	22	46.96	23	44.84	21	46.45
May 9	48.66	29	48.06	30	45.30	28	46.50
16	48.68	June 5	47.53	May 7	45.70	May 5	46.40
23	48.68	19	47.20	13	45.65	12	46.27
June 6	49.48	26	48.30	21	46.65	19	46.08
13	49.67						
July 10	49.98						
18	50.03						

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 17--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1956		Jan. 12	48.85	Sept. 21	50.90	May 3	47.98
		19	48.95	28	50.79	10	48.18
May 26	45.78	26	49.00	Oct. 5	51.05	17	49.03
June 2	45.70	Feb. 2	48.98	12	51.00	24	49.15
9	46.13	10	49.01	19	50.91	31	49.64
16	46.92	16	49.08	26	50.58	June 7	49.66
26	47.22	23	49.14	Nov. 2	50.06	14	49.53
30	47.34	Mar. 2	49.15	9	50.41	21	49.46
July 7	47.52	9	49.24	16	50.30	28	49.46
28	47.98	16	49.34	23	50.09	July 5	49.57
Aug. 4	48.18	23	49.35	30	49.10	12	49.59
11	48.20	30	49.37	Dec. 7	49.66	18	49.67
18	48.20	Apr. 1	49.44	14	49.64	26	49.90
25	47.90	13	49.46	21	49.51	Aug. 2	49.89
Sept. 1	48.15	20	49.49	28	49.04	9	49.88
8	48.05	27	49.60			16	49.80
15	48.22	May 4	49.49	1958		23	49.67
22	48.23	11	49.60			30	49.65
31	48.59	18	49.37	Jan. 4	48.95	Sept. 6	49.64
Oct. 6	48.76	25	49.38	11	48.84	13	49.63
13	48.85	June 1	49.41	18	48.82	20	49.60
20	49.08	8	49.60	25	48.64	27	49.59
27	48.97	15	49.57	Feb. 1	48.39	Oct. 4	49.45
Nov. 4	48.77	22	49.70	8	48.30	11	49.40
10	48.62	29	49.69	15	48.19	18	49.42
17	48.55	July 6	49.75	22	48.33	25	49.38
24	48.48	13	50.09	Mar. 1	48.25	Nov. 1	49.29
Dec. 1	48.54	20	50.55	8	48.09	8	49.25
8	48.48	27	50.57	15	47.93	15	49.20
15	48.58	Aug. 3	50.77	22	47.85	22	49.08
22	48.48	10	51.18	29	47.76	29	48.93
29	48.56	17	51.49	Apr. 5	47.68	Dec. 6	48.89
		24	51.54	12	47.85	13	48.95
1957		31	51.28	19	47.95	20	49.05
Jan. 5	48.72	Sept. 7	51.06	26	47.99	27	47.27
		14	50.88				

St. Joseph 18. (37/1-13Q1). Formerly S<sub>j</sub> 92. Camile Sargent. SW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 13, T. 37 N., R. 1 E. Driven unused water-table well in sand, diameter 1 $\frac{1}{2}$  inches, depth 27 feet. Land-surface datum is about 745 feet above msl. Highest water level is 23.64 below lsd, June 13, 1946; lowest 24.83 below lsd, Oct. 24, 1946. Records available: 1945-46.

1945		July 7	24.23	Aug. 4	24.02	Sept. 1	24.02
		14	24.24	11	23.95	8	24.05
June 22	24.54	21	24.06	18	24.01	15	24.08
30	24.35	28	24.03	25	23.99	22	24.10

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 18--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1945		Nov. 3	24.56	Jan. 11	23.76	July 9	23.68
		10	24.56	May 28	23.65	21	23.77
Sept. 29	24.18	17	24.56	June 4	23.69	30	24.00
Oct. 11	24.21			13	23.64	Aug. 6	24.06
22	24.25	1946		19	23.70	13	24.06
27	24.56			26	23.68	Sept. 10	24.35
						Oct. 24	24.83

St. Joseph 19. (37/3-5P2). Formerly Sj 88. Morris Park Country Club. SE $\frac{1}{2}$ SW $\frac{1}{2}$  Sec. 5, T. 37 N., R. 3 E. Drilled unused water-table well in sand and gravel, diameter 12 inches, depth 86 feet. Land-surface datum is about 745 feet above msl. Highest water level is 9.68 below lsd, June 21, 1945; lowest 10.93 below lsd, Apr. 28, 1945. Records available: 1945.

1945		Apr. 19	10.90	June 1	10.35	July 27	10.10
		28	10.93	21	9.69		
Apr. 6	10.75	May 3	10.89	July 7	9.71		
13	10.81	18	10.62	12	10.15		

St. Joseph 20. (37/2-14E1). Formerly Sj 28, Sj 28-1. Oliver Corporation. 1217 S. Walnut St., South Bend. SW $\frac{1}{2}$ NW $\frac{1}{2}$  sec. 14, T. 37 N., R. 2 E. Drilled unused water-table well in sand, diameter 12 inches, depth 72 feet. Land-surface datum is 720 feet above msl. Recording gage installed Mar. 8, 1945, removed July 19, 1945. Highest water level is 16.77 below lsd, Apr. 11, 1946; lowest 18.86 below lsd, Jan. 30, 1947. Records available: 1945-47. Affected by trains.

1945 (1/)		Sept. 21	h17.80	Jan. 25	17.55	Sept. 3	17.92
		27	h17.80	Feb. 1	17.49	13	18.06
Mar. 8	h18.32	Oct. 4	h17.82	8	17.42	20	18.15
15	18.29	11	h17.82	Mar. 16	17.32	Oct. 11	18.40
Apr. 15	18.09	19	h17.81	22	17.07	Nov. 8	18.65
30	17.91	26	h17.84	29	16.96	Dec. 6	18.80
May 1	17.90	Nov. 1	h17.84	Apr. 4	16.85	27	18.79
15	17.81	15	h17.89	11	16.77		
31	17.33	24	h17.87	May 31	16.83	1947	
June 1	17.31	Dec. 1	h17.89	June 13	16.95	Jan. 16	18.85
15	17.08	8	h17.91	21	16.96	23	18.85
20	17.05	21	h17.91	28	17.01	30	18.86
July 16	18.32			July 5	17.06	Feb. 20	18.60
Aug. 17	h17.61	1946		13	17.12	Mar. 6	18.60
23	h17.62			19	17.23	21	18.43
30	h17.68	Jan. 4	17.85	26	17.36		
Sept. 6	h17.73	11	17.75	Aug. 2	17.48		
14	h17.79	18	17.69				

1/ Daily 2 a.m. water level from recorder graph.

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 21. (37/2-13E1). Formerly Sj 10-1. Borden Co. 1225 S. Main St., South Bend. SW $\frac{1}{2}$ NW $\frac{1}{2}$  sec. 13, T. 37 N., R. 2 E. Drilled unused water-table well in sand and gravel, diameter 8 inches, reported depth 58 feet. Land-surface datum is 732 feet above msl. Recording gage installed Jan. 1, 1946. Highest water level is 35.75 below lsd, May 25-27, 1946; lowest 36.86 below lsd, Feb. 1, 1946. Records available: 1946. Affected by barometric pressure.

(Daily 2 a.m. water level from recorder graph, 1946)

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
Feb. 1	h36.86	Feb. 25	36.34	Apr. 7	36.12	May 2	35.93
2	36.39	26	36.32	8	36.10	3	35.92
3	36.41	27	36.33	9	36.10	4	35.90
4	36.40	28	36.34	10	36.10	5	35.90
5	36.38	Mar. 1	36.34	11	36.09	6	35.89
6	36.36	2	36.33	12	36.10	7	35.88
7	36.38	3	36.33	13	36.09	8	35.87
8	36.39	4	36.32	14	36.07	9	35.86
9	36.39	5	36.32	15	36.05	10	35.86
10	36.40	6	36.31	16	36.05	12	35.85
11	36.39	7	36.31	17	36.05	13	35.84
12	36.39	8	36.30	18	36.03	14	35.83
13	36.37	9	36.28	19	36.02	15	35.82
14	36.36	12	36.29	20	36.02	16	35.81
15	36.39	13	36.28	21	36.01	17	35.81
16	36.37	14	36.28	22	36.00	18	35.79
17	36.38	24	36.22	23	35.99	21	35.77
18	36.38	25	36.22	24	35.98	22	35.78
19	36.36	26	36.21	25	35.97	23	35.77
20	36.35	27	36.21	27	35.97	24	35.76
21	36.37	28	36.20	28	35.96	25	35.75
22	36.35	29	36.19	29	35.95	26	35.75
23	36.35	Apr. 5	36.14	30	35.95	27	35.75
24	36.34	6	36.13	May 1	35.94		

St. Joseph 22. (37/2-13E2). Formerly Sj 10-2. Borden Co. 1225 S. Main St., South Bend. SW $\frac{1}{2}$ NW $\frac{1}{2}$  sec. 13, T. 37 N., R. 2 E. Drilled unused water-table well in sand and gravel, diameter 12 inches, depth 45 feet. Land-surface datum is 732 feet above msl. Recording gage installed Jan. 25, 1946. Highest water level is 34.22 below lsd, Aug. 13-15, 1950; lowest 39.24 below lsd, Dec. 23-25, 1949. Records available: 1946-52. Affected by barometric pressure.

(Daily 2 a.m. water level from recorder graph)

1946		Feb. 15	36.43	Mar. 30	36.24	May 1	35.97
		26	36.35	Apr. 1	36.23	27	35.81
Jan. 26	36.41	Mar. 1	36.37	15	36.10	July 27	35.96
Feb. 1	36.42	14	36.31	30	35.97	Aug. 1	36.02
3	36.45						

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 22--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1946		Oct. 15	35.13	Sept. 15	38.54	Dec. 1	35.72
		31	35.29	30	38.68	15	35.92
Aug. 15	36.18	Nov. 1	35.31	Oct. 1	38.69	31	e36.15
30	36.38	14	35.46	15	38.77		
Sept. 1	36.40			31	38.89	1951	
15	36.58	1948		Nov. 1	38.89	Jan. 1	e36.15
30	36.77			15	38.97	14	36.21
Oct. 1	36.79	Jan. 9	36.17	28	39.05	22	36.24
15	36.99	15	36.24	Dec. 1	h39.13	28	36.21
31	37.21	Aug. 27	35.98	15	39.19	Feb. 21	36.19
Nov. 1	37.23	Sept. 1	36.05	25	39.24	28	36.21
15	37.41	8	36.19			Mar. 1	36.18
29	37.58	Oct. 16	37.21	1950		10	36.26
Dec. 1	37.59	22	37.35	Jan. 1	39.20	15	36.23
15	37.74	Nov. 17	37.44	15	39.13	Apr. 1	36.21
31	37.85	29	37.54	31	38.95	15	36.17
		Dec. 1	37.57	Feb. 1	38.94	30	36.15
1947		18	37.72	15	h38.80	May 1	36.15
		30	37.75	28	38.66	15	36.05
Jan. 1	37.85			Mar. 1	38.65	31	35.87
15	37.93	1949		15	38.48	June 1	35.84
31	38.02			31	e38.20	15	35.58
Feb. 2	38.02	Jan. 11	37.80	Apr. 6	h38.06	30	35.37
15	38.06	15	37.85	13	h37.81	July 1	35.36
22	38.09	30	38.02	30	37.13	15	e35.25
Mar. 1	38.09	Feb. 1	38.03	May 1	37.09	19	35.21
15	37.99	15	38.10	15	36.51	Aug. 1	35.21
29	37.92	28	38.46	31	36.04	2	35.22
Apr. 1	37.91	Mar. 1	38.50	June 1	36.02	15	35.13
15	37.71	9	38.70	15	35.63	31	35.03
30	37.23	15	38.69	30	35.00	Sept. 1	35.03
May 1	37.20	Apr. 1	38.51	July 1	34.97	2	35.04
15	36.66	15	38.39	15	34.51	15	34.97
30	36.03	29	38.31	31	h34.29	27	34.93
June 3	35.88	May 1	38.30	Aug. 1	34.29	Oct. 1	34.99
15	35.35	15	38.20	15	e34.22	2	34.97
30	34.81	31	38.12	30	34.41	15	35.20
July 1	34.78	June 1	38.12	Sept. 1	34.42	31	35.41
15	34.52	15	38.03	15	34.64	Nov. 1	35.43
26	34.45	25	38.00	30	34.87	15	35.54
Aug. 1	34.48	July 1	38.03	Oct. 1	34.80	30	35.64
15	34.57	15	38.16	15	35.07	Dec. 1	35.64
31	34.77	30	38.24	30	35.27	4	35.63
Sept. 1	34.78	Aug. 1	e38.24	Nov. 1	35.28	15	35.64
15	34.89	15	38.33	15	35.48	16	35.68
30	35.00	30	e38.41	30	e35.69		
Oct. 1	35.01	Sept. 2	38.42				



Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 22--continued

Date	Water Level	Date	Water Level	Date	Water Level	Date	Water Level
1952		Jan. 26	35.54	Feb. 15	35.37	May 4	35.15
		27	35.54	16	35.35	5	35.18
Jan. 2	35.64	28	35.55	17	35.33	6	35.18
3	35.63	29	35.54	18	35.33		
4	35.63	30	35.54	19	35.32		
5	35.59	31	35.53	20	35.29		
6	35.61	Feb. 1	35.51	21	35.28		
7	35.61	2	35.50	22	35.29		
8	35.60	3	35.49	23	35.28		
9	35.57	4	35.46	24	35.27		
10	35.58	5	35.47	25	35.26		
11	35.62	6	35.46	26	35.24		
12	35.60	7	35.46	27	35.22		
13	35.60	8	35.44	28	35.21		
14	35.58	9	35.45	29	35.20		
15	35.56	10	35.43	May 1	35.19		
16	35.60	11	35.40	2	35.19		
17	35.57	12	35.41	3	35.18		
25	35.57	13	35.39				

St. Joseph 23. (38/1-33R2). New York Central System. SE $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 33, T. 38 N., R. 1 E. Drilled unused water-table well in sand and gravel, diameter 12 inches, depth 56 feet. Land-surface datum is 722 feet above msl. Highest water level is 5.19 below lsd, June 21, 1956; lowest 6.05 below lsd, Jan. 19, 1957. Records available: 1956-57.

1956		Nov. 23	5.94	1957		Feb. 2	5.74
		30	5.95			9	5.80
June 21	5.19	Dec. 8	5.97	Jan. 5	6.00		
Nov. 2	5.92	15	5.99	12	6.02		
9	5.92	22	5.92	19	6.05		
16	5.98	29	5.88	26	6.02		

Table 5.--Water levels in observation wells in St. Joseph County--Continued

St. Joseph 24. (36/2-32M1). Wabash Railroad Co. NW $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 32, T. 36 N., R. 2 E. Drilled unused water-table well in sand, diameter 12 inches, depth 92 feet. Land-surface datum is 824 feet above msl. Recording gage installed Aug. 8, 1957. Highest water level is 39.23 below lsd, June 22, 23, 1948; lowest 41.53 below lsd, July 17, 1957. Records available: 1957-58. Affected by barometric pressure and by trains.

(Daily highest water level from recorder graph, 1957)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-----	-----	-----	-----	-----	-----	-----	-----	39.74	39.81	-----	39.74
2	-----	-----	-----	-----	-----	-----	-----	-----	39.62	39.99	-----	39.91
3	-----	-----	-----	-----	-----	-----	-----	-----	39.70	40.00	-----	39.72
4	-----	-----	-----	-----	-----	-----	-----	-----	39.83	40.00	-----	39.88
5	-----	-----	-----	-----	-----	-----	-----	-----	39.91	40.00	-----	-----
6	-----	-----	-----	-----	h39.93	-----	-----	-----	39.80	39.92	39.94	-----
7	-----	-----	-----	-----	-----	-----	-----	-----	39.82	39.93	39.60	-----
8	-----	-----	-----	-----	-----	-----	-----	-----	39.84	40.04	39.47	40.01
9	-----	-----	-----	-----	-----	-----	-----	39.55	39.87	40.05	40.15	39.62
10	-----	-----	-----	-----	-----	-----	-----	39.61	39.85	40.08	40.18	39.53
11	-----	-----	-----	-----	-----	-----	-----	39.67	39.77	40.09	39.98	39.96
12	-----	-----	-----	-----	-----	-----	-----	39.73	39.76	40.04	39.87	39.78
13	h40.11	-----	-----	-----	-----	-----	-----	39.60	-----	39.99	39.75	39.68
14	-----	-----	-----	-----	-----	-----	-----	39.63	39.72	39.95	39.41	39.99
15	-----	-----	-----	h40.01	-----	-----	-----	39.68	39.67	39.92	39.88	39.81
16	-----	-----	-----	-----	-----	-----	-----	39.79	39.88	39.90	39.87	39.93
17	-----	-----	-----	-----	-----	-----	h41.53	39.71	39.92	39.97	39.84	39.71
18	-----	-----	-----	-----	-----	-----	-----	39.72	39.81	40.16	39.31	39.45
19	-----	-----	-----	-----	-----	-----	-----	39.73	39.75	40.13	39.61	-----
20	-----	-----	-----	-----	-----	-----	-----	39.77	39.81	40.12	39.93	-----
21	-----	-----	-----	-----	-----	-----	-----	39.84	39.82	39.91	40.09	40.28
22	-----	-----	-----	h39.99	-----	-----	-----	39.77	39.95	39.82	39.85	-----
23	-----	-----	-----	-----	-----	-----	-----	39.56	39.96	39.53	39.54	-----
24	-----	-----	-----	-----	-----	-----	-----	39.53	39.85	39.68	39.68	-----
25	-----	-----	-----	-----	-----	-----	-----	39.72	39.88	-----	39.77	-----
26	-----	-----	-----	-----	-----	-----	-----	39.83	40.05	-----	39.81	-----
27	-----	-----	-----	-----	-----	-----	-----	39.82	40.00	-----	39.72	-----
28	-----	-----	-----	-----	-----	-----	-----	39.76	39.94	-----	39.77	-----
29	-----	-----	-----	h39.97	-----	-----	-----	e39.77	39.86	-----	39.76	-----
30	-----	-----	-----	-----	-----	-----	-----	39.84	39.78	-----	39.76	-----
31	-----	-----	-----	-----	-----	-----	-----	39.81	-----	-----	-----	-----

Table 5.--Water levels in observation wells in St. Joseph County,--Continued

St. Joseph 24--continued

(Daily highest water level from recorder graph, 1958)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-----	40.10	40.16	39.74	39.81	-----	39.38	39.55	39.69	39.90	39.76	39.76
2	-----	40.09	39.98	39.71	39.77	-----	39.38	39.46	39.57	39.71	39.78	39.68
3	-----	40.17	39.98	39.71	39.76	-----	39.40	39.48	39.59	39.59	39.89	39.60
4	-----	40.00	40.05	39.71	39.88	40.18	39.36	39.57	39.67	39.54	39.75	39.61
5	-----	39.96	39.85	39.40	39.87	-----	39.42	39.54	39.53	39.66	39.64	40.00
6	-----	40.14	39.87	39.49	39.86	-----	39.50	39.51	39.53	39.65	39.98	40.15
7	-----	40.16	39.90	39.80	39.82	-----	39.47	39.46	39.62	39.62	39.81	39.86
8	-----	40.19	39.80	39.97	39.78	-----	39.50	39.53	39.71	39.61	39.59	39.80
9	-----	40.05	39.77	39.86	39.91	-----	39.45	39.53	39.37	39.65	40.22	40.01
10	-----	39.98	39.94	39.71	39.90	-----	39.42	39.47	39.49	39.86	40.06	39.94
11	-----	40.01	39.93	39.75	39.93	-----	39.46	39.52	39.69	39.92	39.87	39.79
12	-----	40.06	39.80	39.88	40.04	-----	39.52	39.50	39.67	39.79	39.88	39.83
13	-----	40.07	39.69	39.82	39.98	-----	39.50	39.55	39.64	39.77	39.80	40.07
14	-----	40.00	39.85	39.77	39.84	-----	39.50	39.46	39.55	39.81	39.84	39.92
15	-----	39.97	39.82	39.70	39.87	-----	39.52	39.53	39.67	39.69	39.78	39.84
16	-----	40.16	39.80	39.85	39.89	-----	39.45	39.48	39.67	39.70	39.85	39.66
17	-----	40.08	39.90	39.78	-----	-----	39.41	39.46	39.50	39.80	39.72	39.66
18	-----	40.06	39.91	39.78	-----	-----	39.63	39.60	39.79	39.88	39.82	39.75
19	-----	40.19	39.81	39.75	-----	-----	39.46	39.54	39.66	39.74	39.97	39.67
20	-----	40.13	39.79	39.72	-----	39.34	39.54	39.47	39.60	39.76	39.92	40.13
21	-----	39.90	39.80	39.69	-----	39.36	39.53	39.49	39.61	39.84	39.86	40.03
22	-----	40.10	39.88	39.66	-----	39.23	-----	39.64	39.77	39.79	39.88	39.76
23	-----	39.93	39.88	39.53	-----	39.23	-----	39.47	39.66	39.79	39.80	39.83
24	-----	39.84	39.82	39.53	-----	39.32	-----	39.41	39.62	39.86	39.87	40.11
25	-----	40.01	39.79	40.04	-----	39.26	-----	39.60	39.67	39.88	39.53	40.10
26	-----	39.85	39.73	39.81	-----	39.45	-----	39.61	39.74	39.90	39.83	39.92
27	-----	39.75	39.79	39.71	-----	39.44	-----	39.50	39.75	39.92	39.94	39.91
28	-----	39.88	39.79	39.70	-----	39.44	-----	-----	39.71	39.94	39.75	40.04
29	-----	-----	39.79	39.87	-----	39.35	-----	-----	39.54	39.98	39.89	40.07
30	-----	-----	39.75	39.78	-----	39.37	-----	39.55	39.54	39.89	-----	40.10
31	-----	-----	39.83	-----	-----	-----	-----	39.58	-----	39.76	-----	40.10

PUBLICATIONS OF COOPERATIVE GROUND-WATER PROGRAMS

Report

Ground-water resources of the Indianapolis area, Marion County, Ind. C. L. McGuinness. Ind. Dept. Conserv., Div. Geology. 1943.

Bulletins

No. 1 Memorandum concerning a pumping test at Gas City, Ind. J. G. Ferris, Ind. Dept. Conserv., Div. Water Resources. 1945.

Publications of cooperative ground-water programs--Continued

Bulletins--continued

- No 2 A preliminary report of the ground-water levels of the State based on records of twenty-six observation wells for which long time records are available. Anonymous. Ind. Dept. Conserv., Div. Water Resources. 1946. (Out of print.)
- 3 Ground-water resources of St. Joseph County, Ind. Part 1, South Bend area. F. H. Klaer, Jr., and R. W. Stallman. Ind. Dept. Conserv., Div. Water Resources. 1948.
- 4 Ground-water resources of Boone County, Ind. E. A. Brown. Ind. Dept. Conserv., Div. Water Resources. 1949.
- 5 Ground-water resources of Noble County, Ind. R. W. Stallman and F. H. Klaer, Jr. Ind. Dept. Conserv., Div. Water Resources. 1950.
- 7 Water-level records of Indiana. Anonymous. Ind. Dept. Conserv., Div. Water Resources. 1956.
- 8 Ground-water resources of Tippecanoe County, Ind.; Appendix, Basic Data. J. S. Rosenshein and O. J. Cosner. Ind. Dept. Conserv., Div. Water Resources. 1956.
- 8 Ground-water resources of Tippecanoe County, Ind. J. S. Rosenshein. Ind. Dept. Conserv., Div. Water Resources. 1958.
- 9 Ground-water resources of Adams County, Indiana. F. A. Watkins, Jr., and P. E. Ward. Ind. Dept. Conserv., Div. Water Resources. 1962.
- 10 Ground-water resources of Northwestern Ind., Preliminary Report: Lake County. J. S. Rosenshein. Ind. Dept. Conserv., Div. Water Resources. 1961.
- 11 Ground-water resources of West-Central Ind., Preliminary Report: Greene County. F. A. Watkins, Jr., and D. G. Jordan. Ind. Dept. Conserv., Div. Water Resources. 1961.
- 12 Ground-water resources of Northwestern Ind., Preliminary Report: Porter County. J. S. Rosenshein. Ind. Dept. Conserv., Div. Water Resources. 1962.
- 13 Ground-water resources of Northwestern Ind., Preliminary Report: LaPorte County. J. S. Rosenshein and J. D. Hunn. Ind. Dept. Conserv., Div. Water Resources. 1962.
- 14 Ground-water resources of West-Central Ind., Preliminary Report: Sullivan County. F. A. Watkins, Jr., and D. G. Jordan. Ind. Dept. Conserv., Div. Water Resources. 1962.
- 15 Ground-water resources of Northwestern Ind., Preliminary Report: St. Joseph County. J. S. Rosenshein and J. D. Hunn. Ind. Dept. Conserv., Div. Water Resources. 1962.

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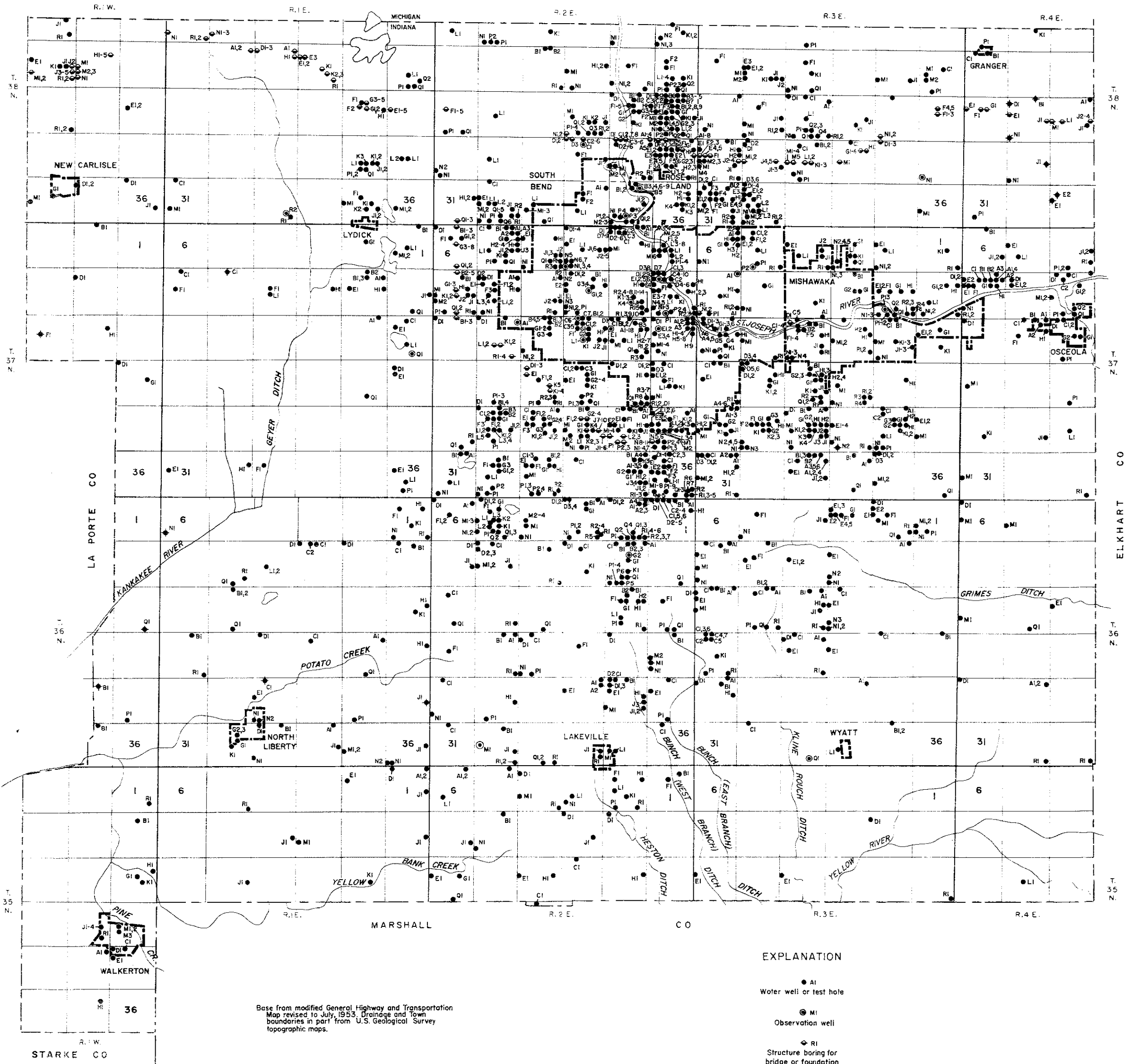
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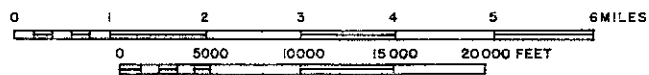


Base from modified General Highway and Transportation Map revised to July, 1953. Drainage and Town boundaries in part from U.S. Geological Survey topographic maps.

EXPLANATION

- A1 Water well or test hole
- ⊙ M1 Observation well
- ⊕ R1 Structure boring for bridge or foundation
- ◆ B1 Oil or gas exploration well

MAP OF ST. JOSEPH COUNTY, INDIANA SHOWING LOCATION OF WELLS AND TEST HOLES



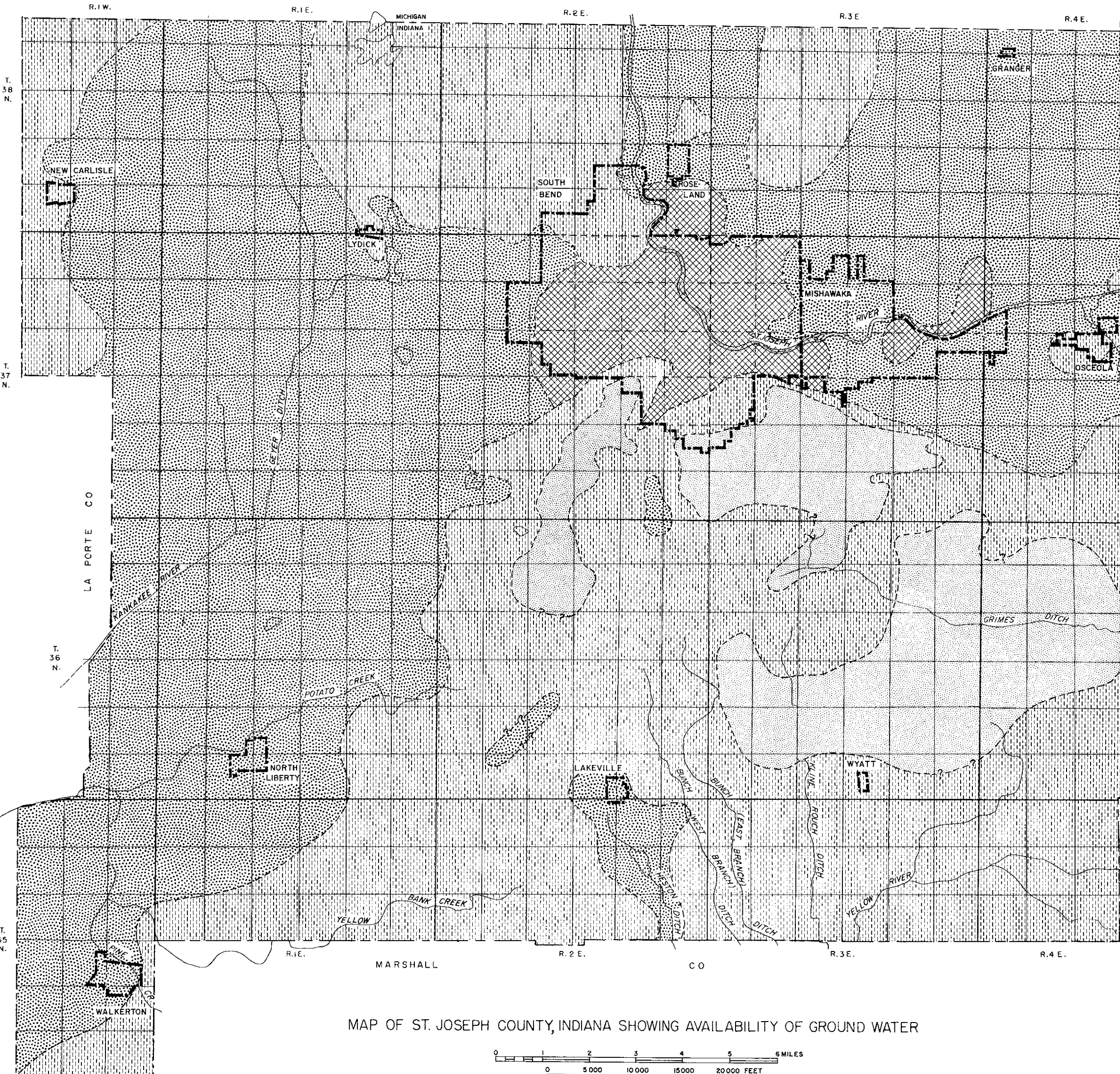
By J. S. Rosenhein and J. D. Hunn  
1960

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

DIAGRAM OF TOWNSHIP

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

SECTION LETTER SYMBOLS IN WELL-NUMBERING SYSTEM.



EXPLANATION

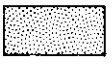
T. Production from glaciofluvial sand and gravel  
38 N.



Depths of domestic wells generally less than 50 feet. Depths of industrial and public-supply wells generally deeper. Yields adequate to more than adequate for domestic use. Larger yields possible

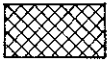


Well depths generally from 50 to 100 feet. Yields adequate to more than adequate for domestic use. Larger yields possible



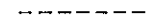
Well depths generally more than 100 feet. Yields adequate to more than adequate for domestic use. Larger yields possible locally

ELKHART CO



Well depths generally less than 200 feet. Area of industrial and public-supply pumpage and large yields

T. 36 N.



Boundary approximate



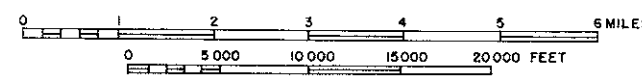
Boundary uncertain

T. 35 N.

6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

DIAGRAM OF TOWNSHIP

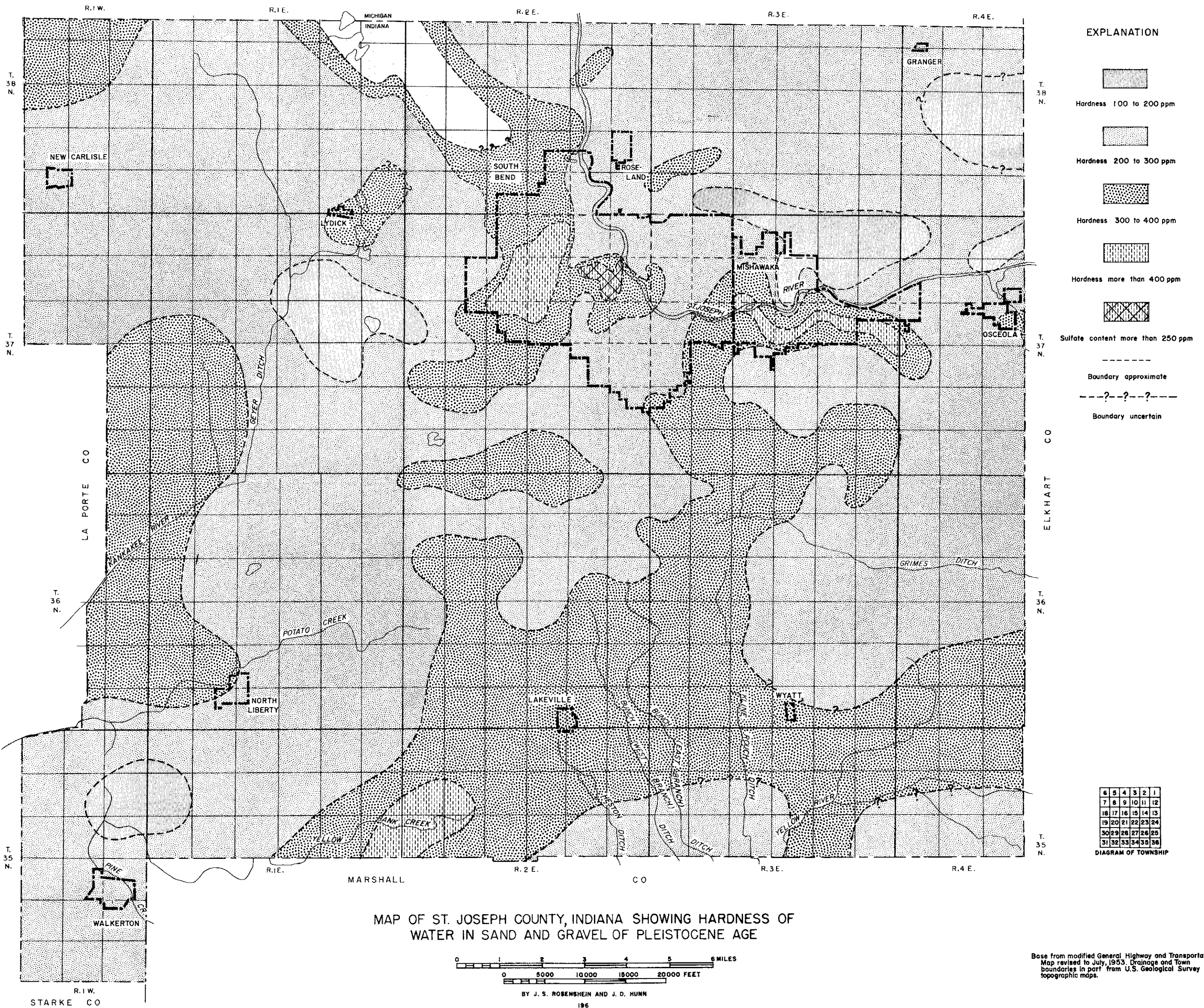
MAP OF ST. JOSEPH COUNTY, INDIANA SHOWING AVAILABILITY OF GROUND WATER

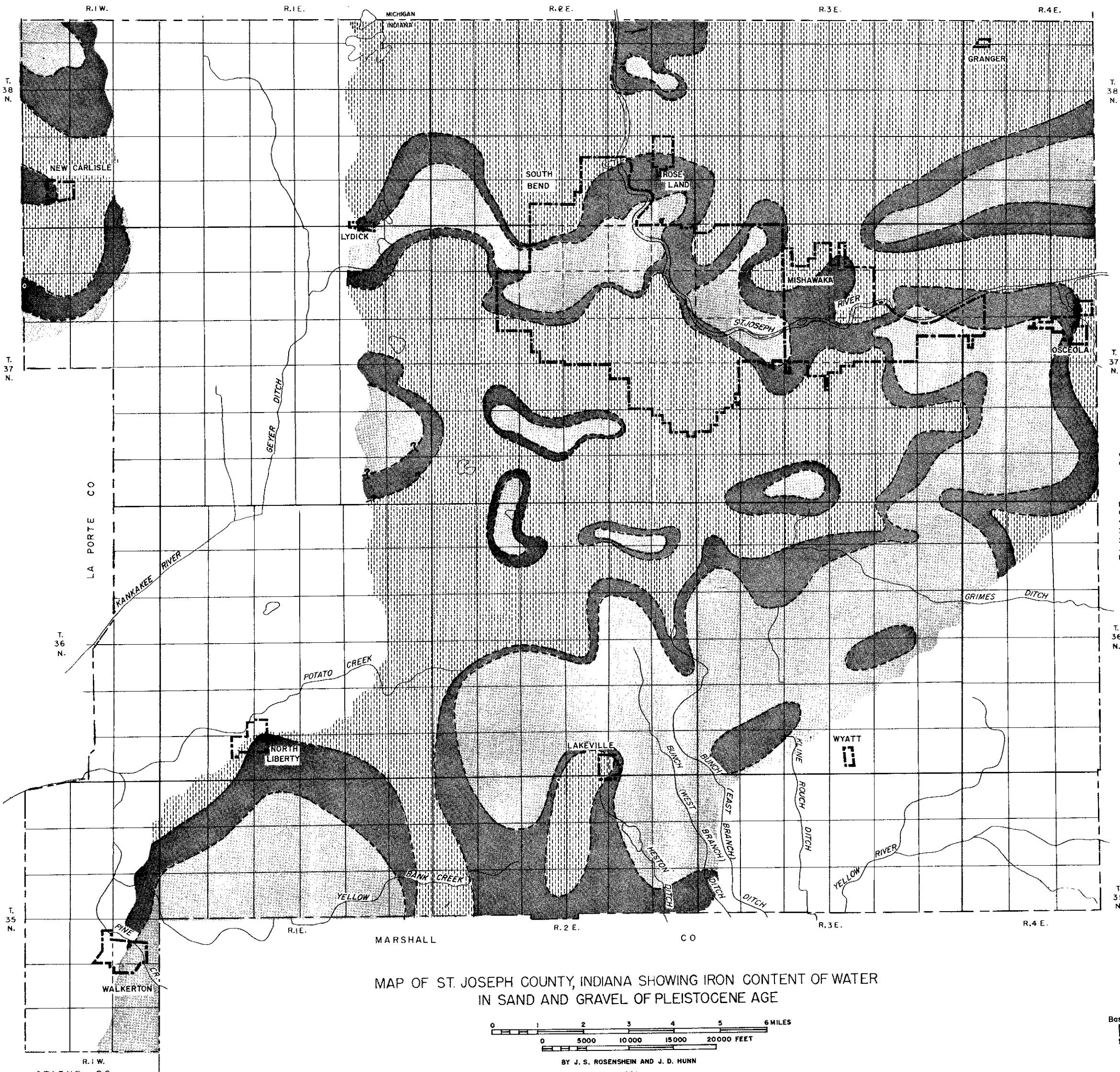


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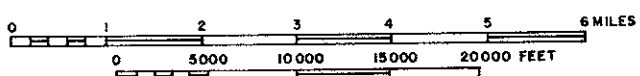
EXPLANATION

-  Iron content less than 0.3 ppm
-  Iron content 0.3 to 1.0 ppm
-  Iron content more than 1.0 ppm
-  Data not sufficient to show distribution of Iron content
-  Boundary approximate
-  Boundary uncertain

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

DIAGRAM OF TOWNSHIP

MAP OF ST. JOSEPH COUNTY, INDIANA SHOWING IRON CONTENT OF WATER  
IN SAND AND GRAVEL OF PLEISTOCENE AGE



BY J. S. ROSENSHEIN AND J. D. HUNN  
1960

Base from modified General Highway and Transportation Map revised to July, 1953. Drainage and Town boundaries in part from U.S. Geological Survey topographic maps.