

Preliminary  
Examination

Grinnell

4-22-74

1600

STP  
1700

m. G. reg.  
Mc - Glenwood  
Glenwood - St. Peter.

STP

P. Smith  
1750

WLS

STP.  
Trace silt dol.  
Good f. sh. ch.

1800

1850

1900

1950

last sample

Oneonta  
2000

2050

2100

2150

Jordan  
2200

St. Lawrence  
2250

2300

2350

Memo 4-23-74

RE: Grinnell City Well

Ed Winslow brought in samples from 1600' - 1980' for determination of casing point. Proposed casing to be set @ 270' below the base of the St. Peter.

KB is 13' above ground level.

COMPANY \_\_\_\_\_ FARM \_\_\_\_\_ WELL NO. \_\_\_\_\_  
 SEC. TWP. RGE. LOC. COUNTY STATE  
 CONTRACTOR \_\_\_\_\_ SIZE HOLE \_\_\_\_\_ DRILL PIPE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_ SIZE PUMP LINERS \_\_\_\_\_ LENGTH STROKE \_\_\_\_\_

DATE 4-15-74

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>1661</del> 1662		20	
63		15	
64		24	
65		23	
65		13	
67		8	
68		14	
69		12	
70		15	
71		25	
72		13	
73		17	
74		21	
75		13	
76		16	
77		18	
78		17	
79		22	
80		22	
81		23	
82		15	
83		23	
84		15	
85		23	
1686		22	
87		15	
88		23	
89		22	
90		15	
91		10	
1694		5	St Peter. 1691
93		5	
94		5	
95		5	
96		5	
97		5	
98		10	
99		10	
1700		5	
01		5	
02		5	
03		5	
04		5	
05		5	
06		5	
07		5	
08		5	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>1708</del> 1709		5	
10		10	
11		10	
12		10	
13		10	
14		5	
15		5	
16		10	
17		10	
18		10	
19		10	
20		10	
21		10	
22		30	P. duch. 1721
23		30	
24		25	
25		25	
26		22	
27		18	
28		15	
29		8	
30		22	
31			
32			
33			
34		13	
35		12	
36		23	
37		15	
38		14	
39		16	
40		20	
41		25	
42		30	
43		30	
44		28	
45		31	
46		35	
47		27	
48		45	
49		37	
50		30	
51		16	
52		19	
53		25	
54		20	
55		15	
56		25	
57		45	
58		50	

COMPANY				FARM	WELL NO.
SEC.	TWP.	RGE.	LOC.	COUNTY	STATE
CONTRACTOR				SIZE HOLE	DRILL PIPE
REMARKS:				SIZE PUMP LINERS	LENGTH STROKE

DATE \_\_\_\_\_

DATE	DEPTH	TIME O'CLOCK	MIN.	REMARKS
1758	59		40	
	60		35	
	61		30	
	62		16	
	63		20	
	64		15	
	65		20	
	66		10	
	67		14	
	68		16	
	69		15	
	70		13	
	71		11	
	72		14	
	73		22	
	74		20	
	75		17	
	76		21	
	77		17	
	78		17	
	79		12	
	80		31	
	81		20	
	82		31	
	83		15	
	84		20	
	85		18	
	86		15	
	87		16	
	88			
	89		31	
	90		10	
	91		15	
	92		25	
	93		20	
	94		30	
	95		28	
	96		15	
	97		20	
	98		20	
	99		20	
1800			28	
	01		20	
	02		13	
	03		12	
	04		15	
	05		16	
	06		14	
	07		20	
	08		19	

[illegible]

COMPANY				FARM	WELL NO.
SEC.	TWP.	RGE.	LOC.	COUNTY	STATE
CONTRACTOR				SIZE HOLE	DRILL PIPE
REMARKS:				SIZE PUMP LINERS	LENGTH STROKE

DATE \_\_\_\_\_

DEPTH	TIME O'CLOCK	MIN.	REMARKS
1831 32		22	
33		19	
34		22	
35		26	
36			
37		44	
38			
39			
40		131	
41			
42		33	
43		16	
44		24	
45		11	
46		14	
47		18	
48		17	
49		15	
50		15	
51		20	
52		30	
53		16	
54		15	
55		14	
56		8	
57		16	
58		21	
59		24	
60			
61			
62			
63		33	
64		17	
65		23	
66		36	
67		25	
68		24	
69		27	
70		22	
71			
72			
73			
74		24	
75			

[illegible]

COMPANY

FARM

WELL NO.

SEC. TWP. RGE. LOC.

COUNTY

STATE

CONTRACTOR

SIZE HOLE

DRILL PIPE

REMARKS:

SIZE PUMP LINERS

LENGTH STROKE

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
14		25	
15		17	
16		23	
17		25	
18		25	
19		25	
20		15	
21		25	
22		30	
23		20	
24		35	
25		50	
26		30	
27		20	
28		25	
29		30	
30		25	
31		15	
32		20	
33		15	
34		35	
35		25	
36		35	
37		20	
38		25	
39		35	
40		30	
41		17	
42		28	
43		25	
44		28	
45		21	
46		51	
47		57	
48		20	
49			
50		36	
51		18	
52		20	
53		25	
54		30	
55		24	
56		24	
57		25	
58			
59			
60			

DEPTH	TIME O'CLOCK	MIN.	REMARKS
61		17	
62		12	
63		11	
64		N	
65		16	
66		23	
67		30	
68		25	
69		30	
70		15	
71		35	
72		40	
73		30	
74		20	
75		15	
76		15	
77		30	
78		45	
79			
80			



KB +13'

1990 presently

515-2368383

want 270' below  
base of St. Peter.

TD - expected to be ~2500'

Stanley Engr., Muscatine

Gil Turner

319-263-9494

1995 @ 3:30

~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~  
~~\_\_\_\_\_~~

COMPANY				FARM	WELL NO.
SEC.	TWP.	RGE.	LOC.	COUNTY	STATE
CONTRACTOR				SIZE HOLE	DRILL PIPE
REMARKS:				SIZE PUMP LINERS	LENGTH STROKE

Depths measured from KB; actual depths are 13' less, i.e.  $2015 = 2002$

DATE May 23-1961

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2015	1108	3	A.M.
16	11	5	106 HRS WT. ON
17	116	4	CEMENT
18	20	5	
19	25	5	
20	30	5	
21	37	7	
22	43	6	Mix 1/4 GEL
23	46	3	rough
24	50	4	rough
25	54	4	"
26	59	5	
27	1204	5	
28	1209	5	
29	19	10	
30	28	9	
31	1236	8	
32	1242	6	CONIX
33	49/55	6	
34	03	8	
2035	1 11	8	
36	1:15	4	
37	19	4	
38	125	6	
39	133	8	
2040	38	5	VIS 37 PH 10 +
41	45	7	WT. 7.2
42	1:52	7	
43	1:58	6	205
44	2:08	7	PUMP OFF Clean
45	2:37	7	soen
46	2:45	8	
47	2:52	7	
48	2:59	7	
49	3:06	7	Loosy fluid
2050	4:14	5	370 pump OFF
			OB 4:43PM

DEPTH	TIME O'CLOCK	MIN.	REMARKS
20 50	14 48		
51	55	7	
52	5-	5	
53	504	4	
54	509	5	
20 55	14	5	
56	21	7	
57	26	5	
58	31	5	
59	39	8	
20 60	47	8	
61	53	6	
62	603	10	
63	10	7	
64	615	5	CONN. ground
20 65	63 1/2	4	SWIVE
66	43	5	
67	50	7	
68	54	4	rough
69	59	5	
20 70	707	8	
71	714	7	
72	720	6	
73	28	8	
74	36	8	
20 75	44	8	
76	52	8	
77	58	6	
78	806	8	
79	14	8	
20 80	19	5	gas
81	26	7	
82	34	8	
83	43	9	
84	51	9	Visc 44
20 85	59	8	
86	9:07	8	
87	15	8	
88	23	8	
89	32	9	
20 90	39	7	
91	47	8	
92	56	9	
93	1003	7	Visc 48
94	11	9	
20 95	10 19	8	CONN. CR Rig
96	10 1/16	6	
97	53	7	
98	1102	9	
99	08	6	
2100	11:1/16	8	



SKINNELL 48 WELL

COMPANY				FARM		WELL NO.	
SEC.	TWP.	RGE.	LOC.	COUNTY		STATE	
CONTRACTOR				SIZE HOLE		DRILL PIPE	
REMARKS:				SIZE PUMP LINERS		LENGTH STROKE	

5/24/74

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2100	11:16	7	9 1/2 hrs.
1	23	7	
2	30	7	
3	38	8	Visc 48
4	46	8	
2105	53	7	
6	11:57	4	
7	1201	4	5/24/74
8	9	8	rough
9	15	6	Visc 48
2110	21	6	
11	29	8	63
12	1233	4	70
13	41	8	
14	50	9	
2115	59	9	
16	108	9	
17	19	11	112
18	23	4	Rough 10 1/2 hrs
19	34	11	
2120	45	11	
21	57	12	
22	2:07	10	Visc 47
23	2:18	11	
24	2:28	10	
2125	38	10	
26	2:48	10	CONN 201
27	3:10	6	
28	3:15	5	105
29	21	6	
2130	26	5	
31	29	3	
32	33	4	270
33	36	3	
34	39	3	
2135	44	5	
36	49	5	139
37	54	5	251
38	4-	6	
39	4:06	6	
2140	12	6	249
41	17	5	
42	22	5	Visc 46
43	28	6	
44	31	6	295
2145	41	7	
46	47	7	
47	54	6	
48	5-	6	
49	5:07	7	
2150	14	7	335 M.

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2150	5:14	7	
51	21	7	
52	28	7	
53	34	6	
54	38	4	
2155	42	4	
56	46	4	CONN
57	5:56	5	
58	6:06	6	
59	6:12	6	
2160	6:19	7	
61	6:25	6	
62	31	6	
63	39	8	
64	45	6	
2165	51	6	8:21 of 100
66	7:03	12	100
67	7:09	6	
68	7:18	9	
69	7:26	8	48 RPM
2170	7:36	8	Vis 48
71	7:41	7	
72	7:49	8	
73	7:57	8	34 RPM
74	8:06	9	165
2175	8:12	6	Vis 58 WT 7.4/7
76	8:20	8	RH 11 + 1/2 6 +
77	8:26	6	49 RPM
78	8:32	6	
79	8:38	6	197
2180	8:40	2	
81	8:44	4	
82	8:48	4	
83	8:54	6	213
84	8:58	4	62.96
2185	9:05	7	31.59
86	1:10	5	31.37
87	15	5	
88	20	5	CONN 201
89			KELLY OFF
2190	9:43		2. CKR. 110, 8
91	9:45	3	
92	5:0	3	
93	55	5	
94	10:02	7	
2195	10:06	4	263
96	10	4	
97	15	5	
98	19	4	
99	23	4	375 100/9
2200	27	4	284 9.30

KANSAS BLUE PRINT CO., WICHITA, KAN.



COMPANY Ginnell T.F.8 FARM \_\_\_\_\_ WELL NO. \_\_\_\_\_  
 SEC. \_\_\_\_\_ TWP. \_\_\_\_\_ RGE. \_\_\_\_\_ LOC. \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ SIZE HOLE 11 DRILL PIPE 4 1/2  
 REMARKS: 5/24/74 SIZE PUMP LINERS 7 LENGTH STROKE 14

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>2220</del> 2221	<del>9:31</del> 9:38	4 7	<u>19.49</u>
2	9:38	7	
3	10:42	4	
4	10:47	3	
5	10:53	6	
6	11:00	7	
7	11:04	6	
8	11:16	10	
9	11:21	5	
<del>2210</del>	<del>11:25</del>	<del>4</del>	
11	108	3	
12	34	2	
13	34	3	
14	38	2	
15	39	3	
16	11:41	3	<u>62.90</u>
17	43	2	<u>31.30</u>
18	45	2	<u>31.60</u>
19	48	4	
<del>2220</del>	<del>58</del>	<del>9</del>	KELLY OFF
21	<del>11:51</del>		<u>vis 48</u>
22	31	4	
23	12:35	4	
24	12:39	4	
25	41	2	
26	45	3	
27	50	5	
28	55	5	
29	59	4	
<del>2230</del>	<del>1:02</del>	<del>3</del>	
31	105	3	
32	1:08	3	
33	11	3	
34	14	3	
<del>2235</del>	<del>18</del>	<del>4</del>	
36	22	4	
37	25	3	
38	31	6	
39	37	6	
<del>2240</del>	<del>47</del>	<del>10</del>	
41	156	9	
42	204	8	
43	13	9	
44	22	9	
<del>2245</del>	<del>30</del>	<del>8</del>	
46	36	6	
47	41	6	
48	50	9	
49	3-	10	
<del>2250</del>	<del>311</del>	<del>11</del>	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>2250</del> 51	<del>311</del> 314	11	CONN
52	35	7	OB 328
53	40	5	
54	47	7	
55	353	6	
56	58	5	
57	402	4	
58	408	6	
59	14	6	
60	20	6	
61	27	7	
62	33	4	
63	438	5	
64	41	3	
65	51	10	
66	55	4	
67	504	9	26 hrs
68	10	6	
69	14	4	
70	20	6	
71	27	7	
72	32	5	
73	40	8	
74	45	5	
75	53	8	
76	6-	7	
77	606	6	
78	611	5	
79	16	5	
80	621	5	
81	24	5	CONN
82	653	4	OB 6:49
83	56	3	
84	59	3	
85	703	4	
86	09	6	
87	15	6	
88	21	6	
89	728	7	
90	34	6	
91	740	6	
92	45	5	
93	51	6	
94	57	6	
95	803	6	
96	809	6	
97	15	6	
98	22	7	
99	26	4	
<del>2300</del>	<del>32</del>	<del>6</del>	

KANSAS BLUE PRINT CO., WICHITA, KAN.



COMPANY

FARM

WELL NO.

SEC.            TWP.            RGE.            LOC.

COUNTY                      STATE

CONTRACTOR

SIZE HOLE                      DRILL PIPE

REMARKS:

SIZE PUMP LINERS                      LENGTH STROKE

5/23/74

DATE							
DEPTH	TIME O'CLOCK	MIN.	REMARKS	DEPTH	TIME O'CLOCK	MIN.	REMARKS
2300	8:32	6		2350	10:18	4	
1	38	6		52	12	4	
2	44	6		53	16	4	
3	48	4		54	20	4	
4	52	4		2355	23	3	
2305	58	6		56	26	3	
6	8:02	4		57	30	4	
7	05	3		58	35	5	
8	09	4		59	40	5	
9	9:12	3		2360	45	5	
2310	15	3		61	49	4	
11	18	3		62	54	5	
12	22	4		63	58	4	
13	26	4		64	20:5	7	
14	32	6	CONN	2365	10	5	
2315	40/44	4		66	14	4	
16	47	3		67	19	5	
17	51	4		68	25	6	
18	55	4		69	30	5	
19	10:01	6	Log left 1 HOTEL	2370	36	6	
2320	10:07	6		71	42	6	
21	10:14	7		72	45	3	
22	20	6		73	49	4	
23	26	6		74	57	8	
24	32	6		2375	30:2	5	
2325	39	7		76	30:7	5	
26	45	6		77	31:2	5	CONN.
27	51	6		78	3:20:1	4	OB @ 523
28	58	7		79	32	5	
29	10:5	7		2380		5	
2330	11:11	6		81	34:0	5	
31	15	8		82	47	5	
32	19	4		83	51	4	
33	26	7		84	54	3	
34	36	10		2385	58	4	
2335	11:43	7		85	4:02	4	
36	11:50	7		87	4:05	3	
37	57	7		88	4:10	5	
38	12:02	5	5/24/74 AMT	89	14	4	
39	07	5		2390	17	3	
2340	12:11	4		91	31	4	
41	14	3		92	37	6	
42	18	4		93	31	4	
43	22	4		94	35	4	
44	28	6		2395	40	5	
2345			CONN	96	45	5	
46	46	5	OB 12:41	97	49	4	
47	51	5		98	56	7	
48	57	6		99	59	3	
49	1-	3		2400	5:04	5	
2350	10:4	4					

KANSAS BLUE PRINT CO., WICHITA, KAN.



COMPANY Summit #8

FARM

WELL NO.

SEC. TWP. RGE. LOC.

COUNTY

STATE

CONTRACTOR

SIZE HOLE

DRILL PIPE

REMARKS:

SIZE PUMP LINERS

LENGTH STROKE

DATE

5/25/74

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2400			
1	5:04	2	
2	09	3	
3	12	3	
4	14	2	
2405	19	5	
6	21	2	
7	25	4	
8	29	4	CONN
9	44	6	OB 5:38
2410	51	7	
11	57	6	
12	601	4	
13	607	6	
14	09	2	
2415	613	4	
16	17	4	
17	22	5	
18	27	5	
19	31	4	
2420	37	6	
21	42	5	
22	46	4	
23	50	4	
24	53	3	
2425	57	4	
26	702	5	
27	6	4	
28	7:10	4	
29	13	3	
2430	716	3	
31	719	3	
32	24	5	
33	26	2	
34	29	3	
2435			
36			
37	27	8	Kelly #
38	42	5	
39	46	4	
2440	50	4	
41			CONN - 3 CK. R.
42	822	4	OB 8:18
43	29	7	
44	39	10	
2445	46	7	
46	51	4	
47	57	6	
48	9-	3	
49	905	5	
2450	10	5	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
2450			
51	9:10	5	
52	20	5	
53	27	7	
54	29	2	
2455	38	9	
56	52	14	
57	1008	16	Visc 43
58	17	9	
59	32	15	
2460	43	11	
61	53	10	
62	1108	15	
63	25	17	
64	32	7	
2465	40	8	
66	46	6	
67	50	4	
68	33	3	
69	55	2	
2470	59	4	
71	1204	5	CONN.
72	1216	4	
73	23	7	
74	1232	9	
2475	12:44	12	
76	12:54	12	
77	1:02	6	
78	1:08	6	
79	1:13	5	
2480	1:17	4	
81	1:22	5	
82	1:29	7	
83	1:37	8	
84	1:48	12	
2485	1:59	11	
86	2:09	10	
87	2:17	8	
88	2:29	7	
89	2:32	8	
2490	2:43	11	
91	3:55	12	
92	2:57	4	
93	3:05	6	
94	3:15	10	
2495	3:25	10	
96	3:46	11	
97	4:5	9	
98	5:7	12	
99	4:10	13	
2500	11:23	13	

← Cuttings received to 2500



WELL NO.

STATE

DRILL PIPE

LENGTH STROKE

outglobe @ 5:16 PM

[illegible][illegible]

5-27-74

Grinnell 1974 Jordan well #8

Ed Winslow brought cuttings to depth  
of 2500' (2510' contract TD)

Drilling started 3-19-74

Csg. schedule:

235' of 26" surface csg.

715' of 20",  $\frac{3}{8}$ " wall csg.

1,290' of 12" csg. cemented in 17½" hole  
11" open hole

12" csg. extends 3' above ground

Driller's Tops:

Jordan 2185

St. Lawrence 2239

Top of Franc. from preliminary study of  
wet cuttings:

approx. 2480

May 31, 1974

Mr. Gil Tavner  
Stanley Engineering Company  
Stanley Building  
Muscatine, Iowa 52751

Dear Mr. Tavner,

Ed Winslow delivered drill cuttings to a depth of 2400' in the new Grinnell City well #8 on May 27, 1974. Preliminary analysis of wet samples indicates that the top of the Franconia was encountered at a depth of about 2480'.

Very truly yours,

Donald L. Kech  
Chf. Subsurface Geol.

DLK:mph

2500'

GW Grinnell City  
well (1974)

April 26, 1974

Mr. Gil Tavner  
Stanley Engineering Company  
Stanley Building  
Muscatine, Iowa 52861

Dear Mr. Tavner,

Ed Winslow delivered drill cuttings from the interval 1600' - 1980' in the new Grinnell City well on April 23, 1974. Identified and estimated formation depths are as follows:

St. Peter	1691'
Prairie du Chien	
Willow River	1721'
Root Valley	1890'
Oneota	1980'
Jordan	2185'
St. Lawrence	2240'

Mr. Winslow related that the contract specifications require 12-inch casing to be set 270 feet below the base of the St. Peter. In discussing this part of the casing schedule with you by telephone on 23 April, I made the following statements:

1. Comparison of water analyses from existing deep wells at Grinnell and their respective casing records gives no indication that water quality from the well under construction will be significantly improved by setting the casing 270 feet below the base of the St. Peter.
2. If the Jordan is more tightly cemented at this site than in the other wells, the expected yield might be significantly reduced by casing off the Willow River and Root Valley Members of the Prairie du Chien.

These statements are made as a matter of record to show our conclusions relative to the casing schedule that you established.

Sincerely,

Donald L. Koch  
Chf. Subsurface Geol.

DLK:mph





**STANLEY CONSULTANTS, INC**

STANLEY BUILDING  
MUSCATINE, IOWA 52761  
TELEPHONE : 319/263-9494  
CABLE : STANLEY MUSCATINE IOWA  
TELEX : 468402

November 11, 1974

Mr. Paul J. Horick  
Chief Ground Water Geology  
Iowa Geological Survey  
16 West Jefferson Street  
Iowa City, Iowa 52242

Dear Mr. Horick:

Re: Pumping Tests, Well No. 8  
Grinnell, Iowa

Please forgive the delay in answering your request regarding pumping tests for the new Grinnell City Well No. 8. I was in attendance and supervised the first 3 hours of the most recent pumping test which took place on October 21 and 22 but have been awaiting the well drillers' record of the final 21 hours.

Prior to acid treatment the well was pumped for 24 hours on September 12-13 at 1,040 gpm and showed a specific capacity of 5.85 gpm per foot. Static water level, measured with an electric depth gage was 371 feet below the top of the casing at that time.

Following our recommendation to the city to accept the well drillers' proposal for acid treatment, the well was given acid treatment. Particulars of the method used are described in our letter of recommendation to the city, a copy of which was sent to Mr. Walt Steinhilber at your office.

Subsequent to acidizing in this manner, the well was pumped for 24 hours at 1,404 gpm with a resulting specific capacity of 33.8 gpm per foot of drawdown. All depth measurements of this test were made by electric gage. Discharge was measured by standard discharge orifice. Static water level before commencement of pumping was 373'-3" below the top of casing. Maximum pumping level (achieved after 8 hours and held for the remaining 16 hours) was 414'-10".

*This acid job improved well yield 483%  
PSH*

From **STANLEY CONSULTANTS, INC.** To Mr. Paul J. Horick Date November 11, 1974

Our specifications call for the well drilling contractor to submit a complete record of all pumping test measurements to your office and no doubt you will be receiving this in due course.

My regards to Walt Steinhilber who will be interested to learn of the satisfactory outcome of the acid treatment.

Sincerely,

STANLEY CONSULTANTS, INC.



G. F. Tavener

GFT:mec:5902

cc: Mr. Thomas H. Hawkins

October 16, 1974

Mr. Gil Tavener  
Stanley Engineering Company  
Stanley Building  
Muscatine  
Iowa 52661

Dear Mr. Tavener,

Do you have the final construction and production test data on the new Grinnell city well no. 8? I would appreciate a copy of this to complete our file on this installation. Was the well developed by acidizing or shooting? I would like all details, including before and after development pumping test information on static and pumping levels and pumping rates.

Thank-you.

Very truly yours,

Paul J. Horick  
Chief, Groundwater Geology

PJH:tls

Grinnell No. 8

Surface elevation  
estimated from  
NK map

1022' a.s.l.

R. Horick



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===== 5 TO 30 INCH =====

PHONE, DAV. (319) 391-5740  
P. O., WALCOTT, IOWA, R. R. 1 52773

November 4, 1974

Iowa Geological Survey  
16 West Jefferson Street  
Iowa City, Iowa 52240

Ref: Grinnell, Iowa  
city well

Attention: Mr. Van Heck,

Enclosed you will find two well test from the Grinnell well.  
One is before acidizing and the other after acidizing by Mr.  
Ed Winslow's technique.

Sincerely yours,

WINSLOW DRILLING CO.



Phyllis J. Winslow, secretary