

1. Contract City of Sioux City Date December 8, 1959
2. City and State Sioux City, Iowa Driller J. Panigot
3. Well No. 9 at test hole No. _____ Well location: About 75' from old abandoned well #6
4. Work completed 12-8-59 No of man hours as charged to job on time sheet _____
5. Diameter, length and type of material left in well:
6. 77 feet of 16" ~~iron~~ ^{Cook type W.W.} thickness or gauge bronze screen made of _____ No. _____ openings.
7. 197' feet of 3/8 wall thickness or gauge 24 ~~iron~~ casing made of steel with weld connections.
8. _____ feet of _____ wall thickness or gauge _____ outside casing made of _____ with _____ connections.
9. _____ yards of gravel used in the well. Size concrete sand and pea gravel (2 to 1)
10. Test of well. Did you use test or permanent pump? test Size of Bowl _____ Stages _____
11. Size of orifice 12 inch by 9 inch. Orifice tube reading 17 1/2 inches.
12. Pumping test — measurements from ground level:

TIME	G.P.M.	STATIC	DRAWDOWN	PUMPING LEVEL
<u>22 1/2</u> hours	<u>1500</u>	<u>44'6"</u>	<u>55'6"</u>	<u>100'</u>
<u>1 1/2</u> Hours	<u>1750</u>	<u>44'6"</u>	<u>64'6"</u>	<u>109'</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

13. Recovery in 5 minutes immediately, in 30 minutes _____
14. Did you seal bottom of well? yes Thickness 1/4 inches, material Bronze
15. Well underreamed? From _____ feet to _____ feet, _____ feet to _____ feet.
16. If all screen was not placed at bottom, state how it was spaced.
From 282 feet to 275 feet; from 269 1/2 feet to 195 feet; from _____ feet to _____ feet.
17. Depth of well from ground level to top of plug 282 Size of drilled hole 24"
18. Was cement placed around or between any of the casings? yes
19. If so, state where, how much and method used. from 15' to 195' pumped through pipe

CONTRACT.....City of Sioux City, Iowa..... Well No. 9.....

Log of well from ground level:

Feet		Feet	Formation
0	to	5	Black soil
5	to	20	Brown clay
20	to	26	Blue clay
26	to	36	Coarse sand & gravel
36	to	58	Gravel & boulders
58	to	60	Yellow shale
60	to	122	Sandstone
122	to	130	Shale with sandstone streaks
130	to	160	Sandstone
160	to	170	Sandstone with shale streaks
170	to	185	Sandstone
185	to	190	Sandstone with shale streaks
190	to	261	Sandstone
261	to	270	Coarse sand, trace shale
270	to	275	Shale
275	to	282	Coarse sandstone loose
282	to	285	Shale

