

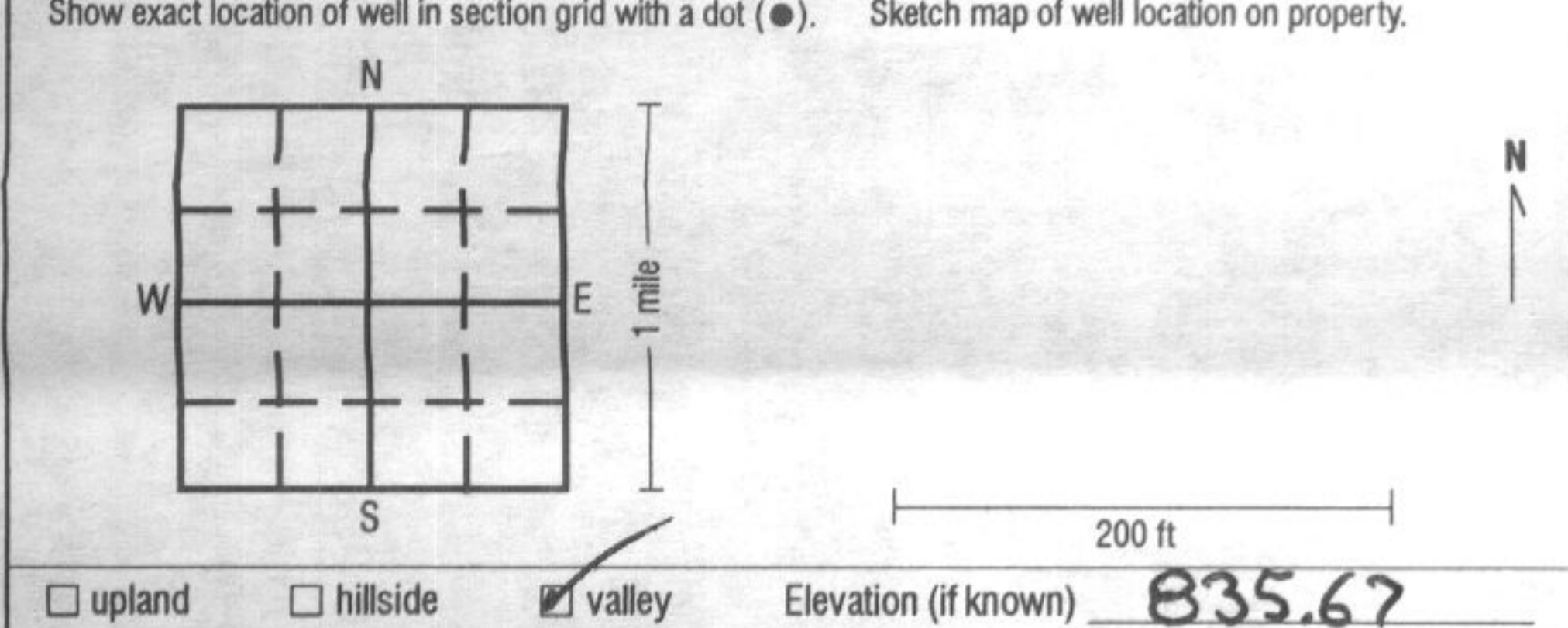
Site identification
 Property Owner Des Moines Water Works Well Number CW-4
 Address 2201 Valley Drive, Des Moines, Ia. 50321-1190
 Tenant _____
 Well Depth 39.25 ft Date completed 11/16/99

Drill method rotary auger cable other Cassion
Hole size 16 inch from 0 ft to 39.25 ft
 hole size continued _____ inch from _____ ft to _____ ft
 _____ inch from _____ ft to _____ ft

Location County Polk
37 mi. ^N and .8 mi. ^E of intersection of Army Rd. W. and I35 S.
 _____ 1/4 of the _____ 1/4 of the _____ 1/4 of Sec 30 TWP 78N RNG 25W E

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.
Casing Drive shoe (yes/no) _____ Pitless adapter (yes/no) _____

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)
<u>13'/16'</u>	<u>Concrete</u>	<u>835.67</u>	<u>795.92</u>	



Perforated or slotted casing? (yes/no)
 Perforated / slotted from _____ ft to _____ ft
 Perforated / slotted from _____ ft to _____ ft

Casing grouted? (yes/no) _____ Placement method Tremie

Type	Depth Top	Depth bottom	Amount (vol/wt)
<u>Bentonite</u>			

Formation log

From	To	Color	Hardness	Formation description
<u>0</u>	<u>5</u>	<u>Br</u>	<u>Soft</u>	<u>Brown Sand</u>
<u>5</u>	<u>7</u>	<u>Lt/Gray</u>	<u>Soft</u>	<u>Fine - Coarse Sand</u>
<u>7</u>	<u>26</u>			<u>w/Gravel</u>
<u>26</u>	<u>29</u>	<u>Lt/Gray</u>	<u>Hard</u>	<u>Large Gravel</u>
<u>29</u>		<u>Blue</u>	<u>Hard</u>	<u>Weathered shale</u>

use additional sheets as needed

Well screen? (yes/no) _____

Diameter	Slot size	Depth Top	Depth Bottom	Length	Material
<u>9.625</u>	<u>0.---</u>			<u>960'</u>	<u>S.S.</u>

 Bottom capped (yes/no) with SS Plate
 Seals / Packers (yes/no) kind K depth _____ ft
 Gravel packed (yes/no) _____ from _____ ft to _____ ft
 type _____ amount _____

Well developed? (yes/no)
 Explain Surged by Pumping
 (pumped, airlifted, bailed) for 336 hrs at 500 GPM.

Pump installed? (yes/no) Date 4/12/00
 Installer's name Harry Burton
 Type of pump Turbine Depth to intake 41 ft
 Pump diameter 20" Rated capacity 3400 GPM

Water information Aquifer: sand/gravel limestone sandstone
 Main water-supply zone from 798.5 ft to _____ ft seepage well
 Static water level 23.84 ft (below/above) GL; tape airline E-line estimate
 Pumping water level 806.25 below GL; tape airline E-line estimate
 At yield of 1000 GPM; orifice volumetric estimate
 Measurements taken at _____ : _____ (AM/PM) Date _____ / _____ / _____

Remarks (including depth of lost drilling fluids, materials, or tools)

Water quality test? (yes/no) _____ Date tested _____ / _____ / _____
 Tested by _____

Well use
 Domestic Municipal Commercial
 Livestock Public supply Monitoring
 Test well Irrigation Other _____ (explain)

Contractor Reynolds, Inc
 Address P.O. Box 186 Orleans, Ia. 47452
 Driller Harry Burton Certification no. 40562