

Iowa Department of Natural Resources - Geological Survey  
109 Trowbridge Hall, Iowa City, IA 52242-1319 PH (319) 335-1575

PWTS Well No. \_\_\_\_\_

County Permit No. \_\_\_\_\_

**Site identification**  
 Property Owner MOP #3 Other ID \_\_\_\_\_  
 Address Lukata IA  
 Tenant \_\_\_\_\_  
 Well Depth 605 ft Date completed 02/1/06

**Location** County Kossuth  
 \_\_\_\_\_ mi. <sup>N</sup> and \_\_\_\_\_ mi. <sup>E</sup> of intersection of \_\_\_\_\_ and \_\_\_\_\_  
 \_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4 of the \_\_\_\_\_ Sec \_\_\_\_\_ TWP \_\_\_\_\_ RANG \_\_\_\_\_ E \_\_\_\_\_ W \_\_\_\_\_

GPS Coordinates (NAD83 datum only) decimal degrees:  
 \_\_\_\_\_ N. Latitude \_\_\_\_\_ W. Longitude.

Show exact location of well in section grid with a dot (•). Sketch map of well location on property.

upland  hillside  valley  level surface Elevation (if known) \_\_\_\_\_

**Formation log**

From	To	Color	Hardness	Formation description
0	4	brown	S	fill
4	7	black	S	topsoil
7	12	yellow	S	clay
12	17	brown	S	clay
17	36	black	S	clay
36	37	dk blue	M	shale
38	65	gray	S	clay
65	69	brown white	MH	limestone
69	80	blue	MH	limestone
80	82	brown	MH	limestone
82	83	blue	S	shale
83	84	gray	MH	limestone
84	89	tan	MH	limestone
89	101	blue	M-MH	dolomite strip shale
101	106	brown	hard	additional information

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

**Well use**

<input type="checkbox"/> Domestic	<input type="checkbox"/> Heat pump	<input type="checkbox"/> Commercial
<input type="checkbox"/> Livestock	<input type="checkbox"/> Municipal	<input type="checkbox"/> Monitoring
<input type="checkbox"/> Test well	<input type="checkbox"/> Public supply	<input type="checkbox"/> Other
	<input type="checkbox"/> Irrigation	

**Drill method**  rotary  auger  cable other \_\_\_\_\_

**Hole size**  
 \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 hole size continued  
 \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft

Diagnose all depth measurements from ground level (GL). Use (+) for above GL measurements.

**Casing** Drive shoe (yes/no) \_\_\_\_\_ Pileless adapter (yes/no) \_\_\_\_\_

Size (ID/OD)	Type/Wt	Depth top	Depth bottom	Amount (length)
10	steel	+2	117	119

**Perforated or slotted casing?** (yes/no) \_\_\_\_\_

Perforated / slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 Perforated / slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft

**Casing grouted?** (yes/no) \_\_\_\_\_ Placement method \_\_\_\_\_

Type	Depth top	Depth bottom	Amount (vol/wt)
portland	0	95	10 bags

**Well screen?** (yes/no) \_\_\_\_\_

Diameter	Slot size	Depth top	Depth bottom	Length	Material
0					
0					

Bottom capped (yes/no) \_\_\_\_\_ with \_\_\_\_\_  
 Seals / Packers (yes/no) \_\_\_\_\_ kind \_\_\_\_\_ depth \_\_\_\_\_ ft  
 Gravel packed (yes/no) \_\_\_\_\_ from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 type \_\_\_\_\_ amount \_\_\_\_\_

**Well developed?** (yes/no) \_\_\_\_\_  
 Explain \_\_\_\_\_  
 (pumped, filtered, bailed) for \_\_\_\_\_ hrs at \_\_\_\_\_ GPM

**Pump installed?** (yes/no) \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Installer's name \_\_\_\_\_  
 Type of pump \_\_\_\_\_ Depth to intake \_\_\_\_\_ ft  
 Pump diameter \_\_\_\_\_ Rated capacity \_\_\_\_\_ GPM

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

**Water quality test?** (yes/no) \_\_\_\_\_ Date tested \_\_\_\_/\_\_\_\_/\_\_\_\_  
 Tested by \_\_\_\_\_

Contractor Schumacher Well  
 Address 2201 Stage Dr Algona  
 Driller Jeremy Walker Certification no. 6087

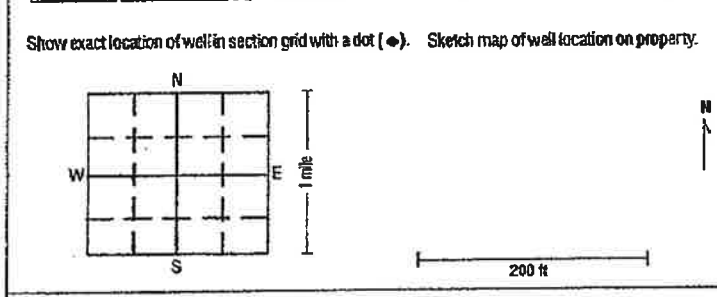
Iowa Department of Natural Resources—Geological Survey  
109 Troubridge Hall, Iowa City, IA 52242-1319 PH (319) 335-1575

PWTS Well No. \_\_\_\_\_

County Permit No. \_\_\_\_\_

**Site Identification**  
 Property Owner mep #3 Other ID \_\_\_\_\_  
 Address Leota IA  
 Tenant \_\_\_\_\_  
 Well Depth \_\_\_\_\_ ft Date completed 1/1/

**Location** County \_\_\_\_\_  
 \_\_\_\_\_ mi. N and \_\_\_\_\_ mi. E of intersection of \_\_\_\_\_ and \_\_\_\_\_  
 \_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4 of \_\_\_\_\_ Sec \_\_\_\_\_ TWP \_\_\_\_\_ R1NG \_\_\_\_\_ E  
 \_\_\_\_\_ W  
 GPS Coordinates (NAD83 datum only) decimal degrees:  
 \_\_\_\_\_ N. Latitude \_\_\_\_\_ W. Longitude.



upland  hillside  valley  level surface Elevation (if known) \_\_\_\_\_

**Formation log**

From	To	Color	Hardness	Formation description
106	110	gray brown	MH	limestone
110	114	tan	MH	limestone
114	116	blue	softer	shale
116	121	brown	MH	limestone
121	122	like blue	M-S	shale
122	141	white	MH	limestone
141	146	gray black	MH-S	limestone strips shale
146	167	tan	MH	dolomite
167	175	like green	softer	dolomite - shale - quartz
175	187	tan	MH	dolomite
187	226	like brown	MH	limestone
226	234	tan	MH	limestone
234	241	tan gray	MH	limestone
241	272	brown	MH	limestone
272	364	gray white	MH	use additional sheets as needed limestone

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

**Well use**

<input type="checkbox"/> Domestic	<input type="checkbox"/> Heat pump	<input type="checkbox"/> Commercial
<input type="checkbox"/> Livestock	<input type="checkbox"/> Municipal	<input type="checkbox"/> Monitoring
<input type="checkbox"/> Test well	<input type="checkbox"/> Public supply	<input type="checkbox"/> Other
	<input type="checkbox"/> Irrigation	

**Drill method**  rotary  auger  cable  other \_\_\_\_\_

**Hole size**  
 \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft

hole size continued  
 \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

**Casing** Drive shoe (yes/no) \_\_\_\_\_ Piless adapter (yes/no) \_\_\_\_\_

Size (ID/OD)	Type / Wt	Depth top	Depth bottom	Amount (length)

**Perforated or slotted casing?** (yes/no) \_\_\_\_\_

Perforated / slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 Perforated / slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft

**Casing grouted?** (yes/no) \_\_\_\_\_ Placement method \_\_\_\_\_

Type	Depth top	Depth bottom	Amount (vol/wt)

**Well screen?** (yes/no) \_\_\_\_\_

Diameter	Slot size	Depth top	Depth bottom	Length	Material
	0. _____				
	0. _____				

Bottom capped (yes/no) \_\_\_\_\_ with \_\_\_\_\_  
 Seals / Packers (yes/no) \_\_\_\_\_ kind \_\_\_\_\_ depth \_\_\_\_\_ ft  
 Gravel packed (yes/no) \_\_\_\_\_ from \_\_\_\_\_ ft to \_\_\_\_\_ ft  
 type \_\_\_\_\_ amount \_\_\_\_\_

**Well developed?** (yes/no) \_\_\_\_\_  
 Explain \_\_\_\_\_  
 (pumped, airlifted, bailed) for \_\_\_\_\_ hrs at \_\_\_\_\_ GPM

**Pump installed?** (yes/no) \_\_\_\_\_ Date \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
 Installer's name \_\_\_\_\_  
 Type of pump \_\_\_\_\_ Depth to intake \_\_\_\_\_ ft  
 Pump diameter \_\_\_\_\_ Rated capacity \_\_\_\_\_ GPM

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

**Water quality test?** (yes/no) \_\_\_\_\_ Date tested \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_  
 Tested by \_\_\_\_\_

Contractor Schumacher Well  
 Address 2001 S. Dr. Algona  
 Driller Jeremy Walker Certification no. 6087

**WELL RECORD**

Iowa Department of Natural Resources - Geological Survey  
109 Trowbridge Hall, Iowa City, IA 52242-1319 PH (319) 335-1575

PWTS Well No. \_\_\_\_\_

County Permit No. \_\_\_\_\_

**Site identification**

Property Owner Map # 3 Other ID \_\_\_\_\_

Address Lakota Ia

Tenant \_\_\_\_\_

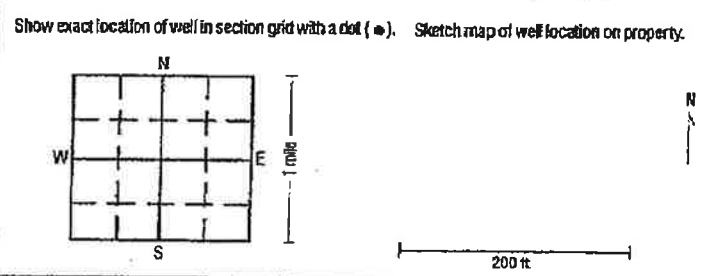
Well Depth \_\_\_\_\_ ft Date completed ~~\_\_\_\_\_~~

**Location** County \_\_\_\_\_

\_\_\_\_\_ mi. <sup>N</sup>/<sub>S</sub> and \_\_\_\_\_ mi. <sup>E</sup>/<sub>W</sub> of Intersection of \_\_\_\_\_ and \_\_\_\_\_

1/4 of the \_\_\_\_\_ 1/4 of the \_\_\_\_\_ 1/4 of the \_\_\_\_\_ Sec \_\_\_\_\_ TWP \_\_\_\_\_ R1NG \_\_\_\_\_ E \_\_\_\_\_ W \_\_\_\_\_

GPS Coordinates (NAD83 datum only) decimal degrees:  
\_\_\_\_\_ N. Latitude \_\_\_\_\_ W. Longitude.



upland  hillside  valley  level surface Elevation (if known) \_\_\_\_\_

**Formation log**

From	To	Color	Hardness	Formation description
304	365	gray	MH	fractured limestone <sup>some water</sup>
365	396	gray	MH	limestone
396	407	tan gray	MH	dolomite
407	419	gray	softer	dolomite
419	420	light gray	S	shale
420	447	green	MH	limestone <sup>strips</sup> shale
447	463	brown gray	MH	limestone
463	489	tan green	M	limestone <sup>strips</sup> shale
489	497	white	M	sandstone - <sup>strips</sup> shale
497	504	green	M-S	shale
504	510	brown	H	chert
510	515	gray	H	limestone
515	517	green	MH	fractured limestone <sup>iron pigment little water</sup>
517	520	green	S-M	shale
520	565	white	S	sandstone

**Remarks** (including depth of lost drilling fluids, materials, or tools) 565 605 green S sandstone water

**Well use**

Domestic  Municipal  Commercial  Monitoring

Livestock  Public supply  Other \_\_\_\_\_

Test well  Irrigation

**Drill method**  rotary  auger  cable  other \_\_\_\_\_

**Hole size**

\_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft

\_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft

hole size continued \_\_\_\_\_ inch from \_\_\_\_\_ ft to \_\_\_\_\_ ft

Record all depth measurements from ground level (GL). Use (+) for above GL measurements.

**Casing** Drive shoe (yes/no) \_\_\_\_\_ Pileless adaptor (yes/no) \_\_\_\_\_

Size (ID/OD)	Type / WI	Depth top	Depth bottom	Amount (length)

**Perforated or slotted casing?** (yes/no) \_\_\_\_\_

Perforated / slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft

Perforated / slotted from \_\_\_\_\_ ft to \_\_\_\_\_ ft

**Casing grouted?** (yes/no) \_\_\_\_\_ Placement method \_\_\_\_\_

Type	Depth top	Depth bottom	Amount (vol/wt)

**Well screen?** (yes/no) \_\_\_\_\_

Diameter	Slot size	Depth top	Depth bottom	Length	Material

Bottom capped (yes/no) \_\_\_\_\_ with \_\_\_\_\_

Seals / Packers (yes/no) kind \_\_\_\_\_ depth \_\_\_\_\_ ft

Gravel packed (yes/no) from \_\_\_\_\_ ft to \_\_\_\_\_ ft

type \_\_\_\_\_ amount \_\_\_\_\_

**Well developed?** (yes/no) \_\_\_\_\_

Explain \_\_\_\_\_

(pumped, airlifted, bailed) for \_\_\_\_\_ hrs at \_\_\_\_\_ GPM

**Pump installed?** (yes/no) \_\_\_\_\_ Date \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_

Installer's name \_\_\_\_\_

Type of pump \_\_\_\_\_ Depth to intake \_\_\_\_\_ ft

Pump diameter \_\_\_\_\_ Rated capacity \_\_\_\_\_ GPM

**Water information** Aquifer:  sand / gravel  limestone  sandstone

Main water-supply zone from \_\_\_\_\_ ft to \_\_\_\_\_ ft  seepage well

Static water level \_\_\_\_\_ ft (below/above) GL;  tape  airline  E-line  estimate

Pumping water level \_\_\_\_\_ ft below GL;  tape  airline  E-line  estimate

At yield of \_\_\_\_\_ GPM;  orifice  volumetric  estimate for \_\_\_\_\_ hours

Measurements taken at \_\_\_\_\_ (AM/PM) Date \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_

**Water quality test?** (yes/no) \_\_\_\_\_ Date tested \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_

Tested by \_\_\_\_\_

Contractor Schumacher Well

Address 2201 State Dr Algona

Driller J Walker Certification no. 6087