

076924

WELL RECORD
 PWTS Well No. 2172877

PWTS Permit No. 40877
 County Permit No.

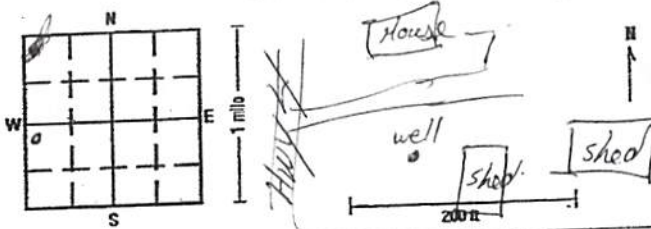
Site identification

Property Owner Chad Anderson Other ID _____
 Address Emmetsburg
 Tenant 3862 460th Ave Emmetsburg
 Well Depth 235 ft Date completed 11/12/13

Location

County PALO ALTO
1/2 mi. N and 0 mi. E of intersection of Hwy 4 and Hwy 18
SW 1/4 of the NW 1/4 of the SW 1/4 of Sec 31 TWP 96 RNG 32 E W
 GPS Coordinates (NAD83 datum only) decimal degrees:
43.08848 N. Latitude -94.67806 W. Longitude

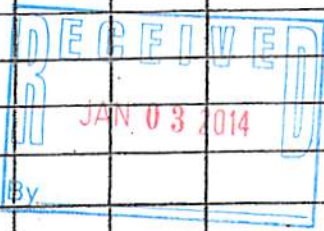
Show exact location of well in section grid with a dot (•). Sketch map of well location on property.



upland hillside valley level surface Elevation (if known) 1181

Formation log

From	To	Color	Hardness	Formation description
0	3	Blk	S	Top Soil
3	7	yel	M	Clay
7	155	gray	M	Clay
155	228	gray	M	fine Dirty Sand
228	237	clear	S	Nice Sand (clean)



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

Well use

- Domestic Heatpump Commercial
 Livestock Municipal Monitoring
 Test well Public supply Other
 Irrigation

Drill method rotary auger cable other _____
Hole size
9 inch from 0 ft to 235 ft
 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) _____ Fillers adapter (yes/no) _____

Size (ID/OD)	Type/Wt	Depth top	Depth bottom	Amount (length)
5	PVC 200	+1	230	231

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)
Bentonite	0	95	9 bags

Well screen? (yes/no)

Diameter	Slot size	Depth top	Depth bottom	Length	Material
5.6 od	0.018	230	235	5	SS

Bottom capped (yes/no) with SS Plate
 Seals/Packers (yes/no) kind _____ depth _____ ft
 Gravel packed (yes/no) from 95 ft to 235 ft
 type Rock Muscatine amount 500 lbs

Well developed? (yes/no)
 Explain airlift - Surge - Jet w/water
 (pumped, drilled, bailed) for 3 hrs at 50 GPM

Pump installed? (yes/no) Date 11/13/13
 Installer's name Bill Elbert
 Type of pump Subir Depth to intake 100 ft
 Pump diameter 3 3/4 Rated capacity 15 GPM

Water information Aquifer: sand/gravel limestone sandstone
 Main water-supply zone from 230 ft to 235 ft seepage well
 Static water level 49 ft (below/above) GL; tape airline E-line estimate
 Pumping water level 65 ft below GL; tape airline E-line estimate
 At yield of 50 GPM; orifice volumetric estimate for 3 hours
 Measurements taken at 3:00 (AM/PM) Date 11/12/13

Water quality test? (yes/no) Date tested 1/1/1
 Tested by Sanitarian

Contractor Elbert Bros Well Drilling Inc
 Address Whitemore
 Driller Rick Elbert Certification no. 2335