

SOUTH DAKOTA WATER WELL COMPLETION REPORT

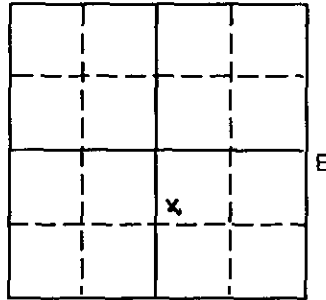
11-02

Location NW 1/4 SE 1/4 Sec 13 Twp 2N Rg 8E

County Pennington

MW080102

Please mark well location with an "X"



Well Completion Date 9/4/2008

Distance to nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.) ? ft. from Unknown (Identify source)

PROPOSED USE:

- Domestic/Stock Irrigation, Municipal Industrial, Business Institutional, Test Holes Monitoring well

METHOD OF DRILLING:

4.25" I.D. hollow stem auger

CASING DATA:

Table with columns: PIPEWEIGHT, DIAMETER, FROM, TO, HOLE DIAMETER. Includes data for Schedule 40 pvc casing.

GROUTING DATA:

Table with columns: Grout Type, No. of Sacks, Grout Weight, From, To. Includes data for Cement grouting.

Describe grouting procedure Mixed and tremied.

SCREEN:

Perforated pipe / Manufactured, Diameter 2.00 Inches, Length 15.0 Feet, Material Schedule 40 pvc, Slot Size 0.010" Set From 12.0 Feet to 27.0 Feet

WAS A PACKER OR SEAL USED?

Yes, 3/8" bentonite pellets. Describe packer(s) and location Hydrated bentonite from 8' to 10'.

DISINFECTION: Was well disinfected upon completion?

No, Why Not? Monitoring Well. Lab sample sent to for water quality analysis

Well Owner: United States Air Force

Business Name:

Address: 2103 Scott Drive

City, State, Zip: Ellsworth AFB SD 57706

WELL LOG: MW080102

Table with columns: FORMATION, DEPTH (FROM, TO). Includes entry: See attached drilling log for SB080108

STATIC WATER LEVEL 16.4 FEET

If flowing: closed in pressure PSI

GPM flow through Inch pipe

Controlled by Valve Reducers Other

Reduced flow rate GPM

Can well be completely shut in?

WELL TEST DATA:

Pumped Describe: Unknown

Bailed

Other

Pumping Level Below Land Surface

Ft. After Hrs. pumped GPM

Ft. After Hrs. pumped GPM

If pump installed, pump rate: GPM

REMARKS

This well was drilled under license # 678

And this report is true and accurate.

Drilling firm: American Engineering Testing, Inc.

Signature of License Representative:

Signature of Byron L. Schulz

Signature of Well Owner or Equitable Property Holder:

Signature of [Redacted]

Date: 9/15/08

977-08

# HTRW DRILLING LOG

(CONTINUATION SHEET)

HOLE NUMBER  
**5B080108**  
 SHEET **2** OF **3** SHEETS

PROJECT **Ellsworth AFB/ACC 4-Base PBC**

INSPECTOR **Joe Odegaard**

ELEV (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
		Grass surface					
1	0-1'	Silt (ML), some gravel (crushed limestone), branny, some rootlets 0-1'; dry	SS=0				R=18"/48"
2	1-2'	Fill	SS=0				
3	2-3'						
4	3-4'						
5	4-5'	Silty clay (CL), brown, some gravel, low plast., dry fill	SS=0				R=46"/60"
6	5-6'						
7	6-7'	Gravel (GW), crushed limestone, dry fill					
8	7-8'	Clay (CL), olive brown, trace gravel, trace shale, mod. plast., moist	SS=0.2				
9	8-9'	same as above					
10	9-10'		SS=0.4				
11	10-11'						
12	11-12'	Shale (CH), dark gray and grayish brown, some clay, high plast., highly fractured, light gray staining starting at 12', moist	SS=0				
13	12-13'		SS=38				
14	13-14'						petroleum odor
15	14-15'	same as above, 2" nodule at 15'	SS=753				
16	15-16'	moist to wet 16-17'					R=46"/60"
17	16-17'						
18	17-18'	moist 17-19', some orangish staining	SS=38				
19	18-19'						petroleum odor
20	19-20'	same as above, moist					

PROJECT **Ellsworth AFB/ACC 4-Base PBC**

HOLE NO. **5B080108**

# HTRW DRILLING LOG

(CONTINUATION SHEET)

HOLE NUMBER

SB080108

PROJECT

INSPECTOR

SHEET

3

OF

SHEETS

3

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEOTECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNT (g)	REMARKS (h)
	21	Shale (CH), dark gray to gray, highly fractured, high plastic, wet 20-22'	SS=445				19-24' R = 50" / 60" petroleum odor
	22						
	23	less fractured	SS=3.4				
	24	same as above					
	25	wet 24-27'					24-29' R = 52" / 60"
	26						
	27						
	28	moist 27-29'					
	29						
	30	End of boring at 29' Place MW080102					

PROJECT

Elsworth AFB / ACC A-Base PBC

HOLE NO.

SB080101