

SOUTH DAKOTA WATER WELL COMPLETION REPORT

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

Well Owner: United States Air Force

County Pennington

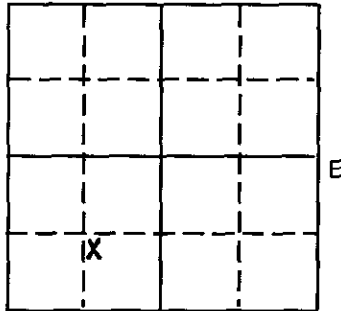
Business Name:

Address: 2103 Scott Drive

City, State, Zip: Ellsworth AFB SD 57706

MW080401

Please mark well location with an "X"



Well Completion Date 5/19/2008

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:
 Steel
 Plastic
 Other
If other describe Schedule 40 pvc

Table with 5 columns: PIPEWEIGHT (LB/FT), DIAMETER (IN), FROM (FT), TO (FT), HOLE DIAMETER (IN). Row 1: 2.00 IN, +2.8 FT, 26.5 FT, 8.50 IN.

Table with 5 columns: GROUT Type, No. of Sacks, Grout Weight (Lb/gal), From (Ft), To (Ft). Row 1: Cement, 0.0 Ft, 22.5 Ft.

Describe grouting procedure Mixed and tremied with grout pump.

SCREEN:
 Perforated pipe
 Manufactured
Diameter 2.00 Inches Length 5.0 Feet
Material Schedule 40 pvc
Slot Size 0.010" Set From 26.5 Feet to 31.5 Feet
Other information No. 16-30 silica sand from 24.5' to 31.5'.

WAS A PACKER OR SEAL USED?
 Yes
 No
if so, what material? 3/8" bentonite pellets
Describe packer(s) and location Hydrated bentonite from 22.5' to 24.5'.

DISINFECTION: Was well disinfected upon completion?
 Yes, How?
 No, Why Not? Monitoring well

Lab sample sent to for water quality analysis

WELL LOG: MW080401
Table with 3 columns: FORMATION, DEPTH FROM, DEPTH TO. Row 1: See attached drilling log for SB080401, 0, 31.5.

STATIC WATER LEVEL 26.3 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? Wellhead was completed with 4"x4" steel protop.

WELL TEST DATA:
 Pumped Describe: Unknown
 Bailed
 Other
Pumping Level Below Land Surface
Ft. After Hrs. pumped GPM
If pump installed, pump rate: RECEIVED GPM

REMARKS SEP 18 2008 WATER RIGHTS PROGRAM

This well was drilled under license # 678
And this report is true and accurate.
Drilling firm: American Engineering Testing, Inc.

Signature of License Representative: Byron L. Schulz

Signature of Well Owner or Equitable Property Holder:

Date: 9/15/08

9-27-08

# HTRW DRILLING LOG

(CONTINUATION SHEET)

HOLE NUMBER  
SB080401

PROJECT  
Eltsworth AFB / Acc 40 Base PBC

INSPECTOR  
Civil Martins

SHEET 2 OF 3 SHEETS

| 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)         |
|-----------|-----------|--|-----------------------------|------------------------------------|---------------------------|----------------|---------------------|
|           | 1         | Crassy<br>0-1' clayey silt (ML)<br>loose, moist-dry, brown       | SS=0 ppm                    |                                    |                           |                | R = 12 / 48         |
|           | 2         |  |                             |                                    |                           |                |                     |
|           | 3         |  |                             |                                    |                           |                |                     |
|           | 4         | 4-7' clayey silt (ML),<br>slightly cohesive, moist-dry,<br>brown | SS=0 ppm                    |                                    |                           |                | R = 36 / 60         |
|           | 5         |  |                             |                                    |                           |                |                     |
|           | 6         |  |                             |                                    |                           |                |                     |
|           | 7         |  |                             |                                    |                           |                |                     |
|           | 8         |  |                             |                                    |                           |                |                     |
|           | 9         | 9-10' same, cohesive   |                             |                                    |                           |                |                     |
|           | 10        |  |                             |                                    |                           |                | - cobble in<br>shoe |
|           | 11        | 10-10.5' clayey sand (SW) med<br>dense, moist, brown             | SS=0 ppm                    |                                    |                           |                | R = 30 / 60         |
|           | 12        | 10.5-11.5' sandy clay (CL),<br>stiff, moist, red                 |                             |                                    |                           |                |                     |
|           | 13        | 11.5-12' gravelly, clayey sand<br>(SC) cohesive, moist, brown    |                             |                                    |                           |                |                     |
|           | 14        |  |                             |                                    |                           |                |                     |
|           | 15        | 12-15' clayey sand (SC)<br>cohesive, moist, brown                | SS=0 ppm                    |                                    |                           |                | R = 24 / 60         |
|           | 16        | 15-16' clayey gravel (GC),<br>cohesive, moist, brown             |                             |                                    |                           |                |                     |
|           | 17        |  |                             |                                    |                           |                |                     |
|           | 18        |  |                             |                                    |                           |                |                     |
|           | 19        |  |                             |                                    |                           |                |                     |
|           | 20        |  |                             |                                    |                           |                |                     |

PROJECT  
Eltsworth AFB / Acc 4 Base PBC

HOLE NO.  
SB080401

# HTRW DRILLING LOG

(CONTINUATION SHEET)

HOLE NUMBER  
SB080401

PROJECT  
Ellsworth AFB / ACC 4 Base PBC

INSPECTOR  
Carl Martens

SHEET 3 OF 3 SHEETS

| ELEV. (ft) | DEPTH (ft) | DESCRIPTION OF MATERIALS (c)   | FIELD SCREENING RESULTS (d) | DETECTH SAMPLE OR CORE BOX NO. (e) | ANALYTICAL SAMPLE NO. (f) | BLOW COUNT (g) | REMARKS (h)                                  |
|------------|------------|--|-----------------------------|------------------------------------|---------------------------|----------------|--|
|            | 19-19.5    | sticky clay (CL),<br>silt, moist, red  | SS = OPPM                   |                                    |                           |                | R = 12/60                                    |
|            | 19.5-20    | clayey sand (SC),<br>slightly cohesive, moist, brown                                   |                             |                                    |                           |                | - silt push<br>- shredded clay<br>in sampler |
|            | 20         |  |                             |                                    |                           |                | - cobble in sampler @ 19.5'                  |
|            | 21         |  |                             |                                    |                           |                |  |
|            | 22         |  |                             |                                    |                           |                |  |
|            | 23         |  |                             |                                    |                           |                |  |
|            | 24         |  |                             |                                    |                           |                |  |
|            | 25         |  | SS = OPPM                   |                                    |                           |                | R = 30/60                                    |
|            | 26         | 26-27.0 gravelly clay (GC),<br>silt, wet, brown  |                             |                                    |                           |                | SS = 907                                     |
|            | 27         | 27.0-27.5 sand (SP) loose wet,<br>brown  |                             |                                    |                           |                |  |
|            | 28         | 27.5-29' weathered shale<br>(CH) very stiff, moist,<br>gray to orange staining, blocky |                             |                                    |                           |                |  |
|            | 29         | 29-31.5 weathered shale<br>(CH) same as above,<br>- competent @ 30'                    |                             |                                    |                           |                | R = 30/60                                    |
|            | 30         |  |                             |                                    |                           |                |  |
|            | 31         |  |                             |                                    |                           |                |  |
|            | 32         | End of boring.   |                             |                                    |                           |                |  |
|            | 33         |  |                             |                                    |                           |                |  |
|            | 34         |  |                             |                                    |                           |                |  |
|            | 35         |  |                             |                                    |                           |                |  |
|            | 36         |  |                             |                                    |                           |                |  |
|            | 37         |  |                             |                                    |                           |                |  |
|            | 38         |  |                             |                                    |                           |                |  |
|            | 39         |  |                             |                                    |                           |                |  |

PROJECT  
Ellsworth AFB / ACC 4 Base PBC

HOLE NO.  
SB080401