

# SOUTH DAKOTA WATER WELL COMPLETION REPORT

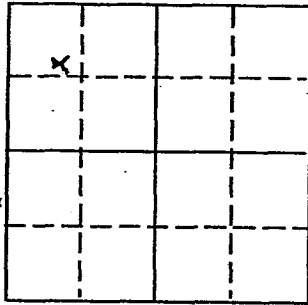
11-02

Location NW 1/4 NW 1/4 Sec 8 Twp 2N Rg 9E

Well Owner: USAF

County  
MEADE

North



MW 10BG501

Please mark well location with an "X"

Well Completion Date  
12/8/2010

WELL LOG:	DEPTH	
	FORMATION	FROM TO
<u>See attached Drilling Log for SB10BG501</u>	<u>0</u>	<u>29'</u>

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

- PROPOSED USE:**
- Domestic/Stock     Municipal     Business     Test Holes  
 Irrigation         Industrial     Institutional    Monitoring well

**METHOD OF DRILLING:**  
4.25" I.O. Hollow Stem Auger

**STATIC WATER LEVEL** 13.35' after 1.5 hrs FEET  
 If flowing: closed in pressure N/A PSI  
 GPM flow \_\_\_\_\_ through \_\_\_\_\_ Inch pipe  
 Controlled by  Valve  Reducers  Other \_\_\_\_\_  
 Reduced flow rate \_\_\_\_\_ GPM

**CASING DATA:**  Steel  Plastic  Other  
 If other describe Schedule 40 PVC

Can well be completely shut in? Well was completed with a 4" x 4" x 7' steel protective casing

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
	<u>2</u>	<u>+2.8'</u>	<u>23.5'</u>	<u>8.5</u>

**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: RECEIVED GPM

**GROUTING DATA:**

Grout Type	No. of Sacks	Grout Weight	From	To
<u>Cement</u>		Lb/gal	<u>0.0</u> Ft.	<u>19.5</u> Ft.
		Lb/gal		

Describe grouting procedure  
Mixed and tremied with grout pump

**SCREEN:**  Perforated pipe  Manufactured  
 Diameter 2 Inches Length 5 Feet  
 Material Schedule 40 PVC  
 Slot Size 10 Set From 23.5 Feet to 28.5 Feet  
 Other information

16-30 Silica Sand from 21.5' to 29.0'

**WAS A PACKER OR SEAL USED?**  Yes  No  
 If so, what material? 3/8 Bentonite Pellets

Describe packer(s) and location  
Hydrated Bentonite from 19.5' to 21.5'

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

Lab sample sent to for water quality analysis

**REMARKS** JAN 18 2011  
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 Schuly

Signature of Well Owner or Equitable Property Holder:  
Jerald E. [Signature]

Date: 11 Jan 11

11-81-1

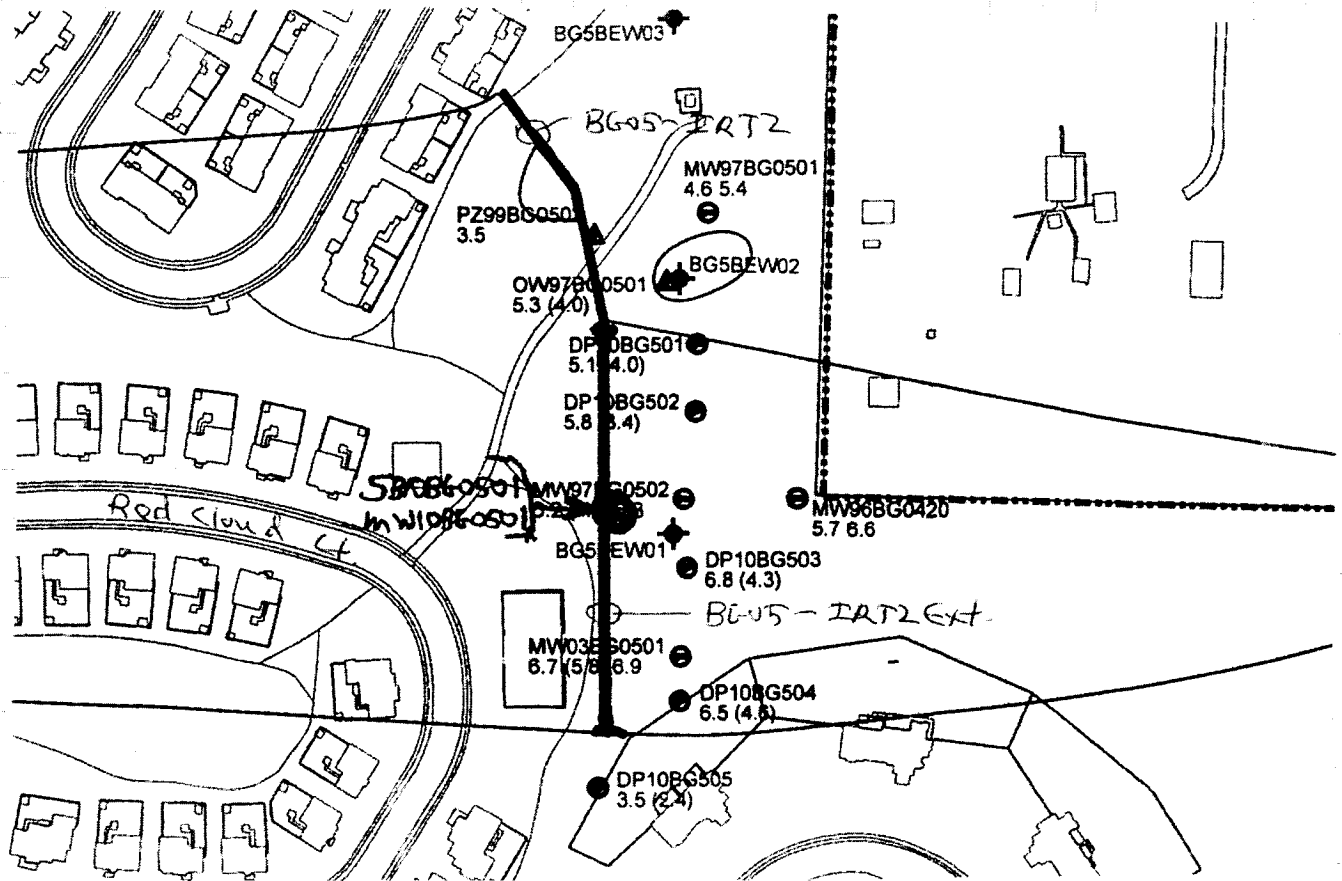
RECEIVED

JAN 18 2011

<b>DRILLING LOG</b>		Ellsworth Air Force Base		WATER RIGHTS PROGRAM		HOLE NUMBER SB10BG501	
1. COMPANY NAME <b>URS</b>		2. DRILL SUBCONTRACTOR <b>American Engineering Testing</b>		PROGRAM		SHEET 1 OF 3 SHEETS	
3. PROJECT <b>Ellsworth AFB/ACC 4-Base PBC</b>				4. SITE NAME <b>Ellsworth AFB, SD</b>			
5. NAME OF DRILLER <b>Brent Thomas</b>				6. MANUFACTURER'S DESIGNATION OF DRILL <b>CME 75</b>			
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		4 1/4 inch ID by 5 foot hollow stem augers, 5 foot long steel sampler		8. HOLE LOCATION		See location sketch	
				9. SURFACE ELEVATION			
				10. DATE STARTED <b>12-7-10</b>		11. DATE COMPLETED <b>12-8-10</b>	
12. OVERBURDEN THICKNESS				15. DEPTH GROUNDWATER ENCOUNTERED <b>14'</b>			
13. DEPTH DRILLED INTO ROCK				16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING <b>13.35' after 1.5 hrs.</b>			
14. TOTAL DEPTH OF HOLE <b>29'</b>				17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) <b>NA</b>			
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED		19. TOTAL NUMBER OF CORE BOXES	
<b>0</b>						<b>0</b>	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC		METALS		OTHER (SPECIFY)	
						OTHER (SPECIFY)	
22. DISPOSITION OF HOLE		BACKFILLED		MONITORING WELL		21. TOTAL CORE RECOVERY	
				<b>X</b>		<b>NA %</b>	
				23. SIGNATURE OF INSPECTOR <i>[Signature]</i>			

LOCATION SKETCH/COMMENTS

SCALE: 1 inch = 200 feet



PROJECT <b>Ellsworth AFB/ACC 4-Base PBC</b>	HOLE NO. <b>SB10BG501</b>
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# DRILLING LOG

HOLE NUMBER  
**SB10BG501**

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

INSPECTOR  
**Joe Odegaard**

SHEET **2** OF SHEETS **3**

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEO TECH SAMPLE OR LOG # (OR XREF #) (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNTS (g)	REMARKS (h)
		grass surface					
1	0-9"	Clayey SILT (ML), trace gravel, roots, dark grayish-brown, moist, to soil	SS=0				
2	9"-4'	CLAY (CH), stiff, trace gravel, dark brown, moist	SS=0				R = 18/48
3							
4							
5	4-9'	same as above, trace cobbles	SS=0				
6							R = 26/60
7							
8							
9		cobble in sample tip					
10	9-14'	CLAY (CL), soft, trace gravel, brown, moist	SS=0				
11							R = 60/60
12							
13			SS=0				
14		wet at 14'					
15	14-19'	GRAVEL (GP), some sand, trace clay, some cobbles, fine to coarse grain, brown, wet	SS=0				Free water in sample tube
16							R = 28/60
17							
18							
19							
20	19-24'	same as above, more clay					R = 38/60

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

**SB10BG501**

# DRILLING LOG

HOLE NUMBER  
**SB10BG501**

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

INSPECTOR  
**Joe Odegaard**

SHEET **3** OF SHEETS **3**

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIAL (c)	FIELD SCREENING RESULTS (d)	GEOTECH. SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOCK COUNTS (g)	REMARKS (h)
21							
22							
23							
24		24-28'; same as above, more clay, wet					R = 40 / 60
25							
26							
27							
28		28-29'; shale (CH), very stiff, dark gray, moist to wet					
29							
30		End of boring at 29'					

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

**SB10BG501**



AMERICAN  
ENGINEERING  
TESTING, INC.

CONSULTANTS  
· GEOTECHNICAL  
· MATERIALS  
· ENVIRONMENTAL

January 11, 2011

RECEIVED  
JAN 18 2011  
WATER RIGHTS  
PROGRAM

Mr. Ken Buhler  
Department of Environment and Natural Resources  
Water Rights Division  
Joe Foss Building  
523 East Capitol  
Pierre, South Dakota 57501

Subject: South Dakota Water Well Completion Reports  
United States Air Force  
Ellsworth AFB, South Dakota  
AET Project No. 18-03568

Dear Mr. Buhler:

Enclosed please find a water well completion report for groundwater monitoring well MW10BG501 at the referenced site. The above work was completed under subcontract to URS Group, Inc. for the United States Air Force. If you have any questions or need any additional information please contact our office at (605) 388-0029.

Sincerely,

Byron L. Schulz, CPRR  
Environmental Scientist  
Project Manager

BLS

encl: 1. South Dakota Water Well Completion Report  
2. URS Drilling Log

pc: Jerry Styles - 28 CES/CEANR  
Joe Odegaard - URS Group, Inc