

SOUTH DAKOTA WATER WELL COMPLETION REPORT

11-02

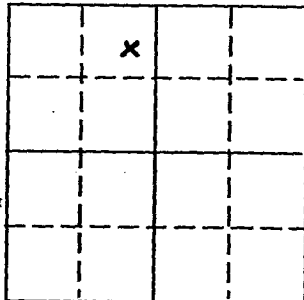
Location NE 1/4 NW 1/4 Sec 8 Twp 2N Rg 9E

Well Owner: USAF

County

North

MEADE



MW100303

Please mark well location with an "X"

Well Completion Date

1/12/10

Distance to nearest potential pollution source (Septic tank, abandoned well, feed lot, etc.)

? Unknown 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

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
LB/FT	IN	FT	FT	IN
	<u>2</u>	<u>+2.8</u>	<u>25.0</u>	<u>8.5</u>

GROUTING DATA:

Grout Type	No. of Sacks	Grout Weight	From	To
		Lb/gal	Ft	Ft
<u>Cement</u>			<u>0.0</u>	<u>21.0</u>

Describe grouting procedure

Mixed and tremied with grout pump

SCREEN:

Perforated pipe
 Manufactured
 Diameter 2 Inches Length 10 Feet

Material Schedule 40 PVC

Slot Size 10 Set From 25.0 Feet to 35.0 Feet

Other information

16-30 Silica Sand from 23.0' to 39.0'

WAS A PACKER OR SEAL USED? Yes No

If so, what material? 3/8 Bentonite Pellets

Describe packer(s) and location

Hydrated Bentonite from 21.0' to 23.0'

DISINFECTION: Was well disinfected upon completion?

Yes, How?
 No, Why Not? Monitoring Well

Lab sample sent to for water quality analysis

Business Name:

Address: 2103 SCOTT DRIVE

City, State, Zip: ELLSWORTH AFB, SD 57706

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
<u>See attached Drilling Log For SB100303</u>	<u>0</u>	<u>39'</u>

STATIC WATER LEVEL 19.36 FEET

If flowing: closed in pressure N/A PSI

GPM flow _____ through _____ Inch pipe

Controlled by Valve Reducers Other _____

Reduced flow rate _____ GPM

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

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:

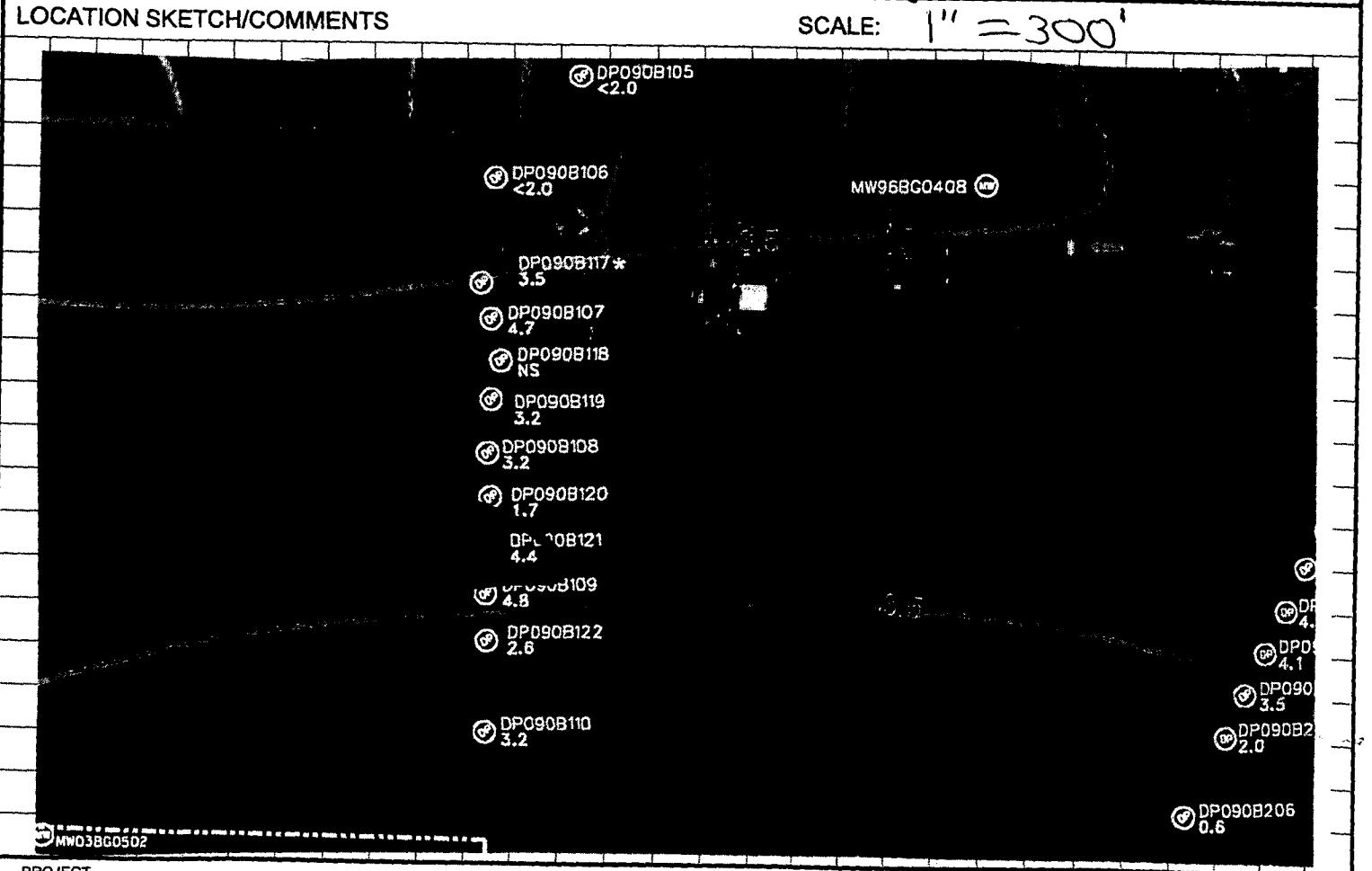
Byron Schuy

Signature of Well Owner or Equitable Property Holder:

Date: 21 June 2010

0-2470

DRILLING LOG		Ellsworth Air Force Base		HOLE NUMBER SB100B 03	
1. COMPANY NAME URS		2. DRILL SUBCONTRACTOR AET		SHEET 1 OF 3 SHEETS	
3. PROJECT Off Base Groundwater Plume			4. SITE NAME Ellsworth AFB, SD		
5. NAME OF DRILLER Brent Thomas			6. MANUFACTURER'S DESIGNATION OF DRILL CME 75		
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		8. HOLE LOCATION		9. SURFACE ELEVATION	
4 1/4 inch ID by 5 foot long hollow stem augers; 4 inch ID by 5 foot long split spoons		See location sketch		3179	
12. OVERBURDEN THICKNESS 35'		15. DEPTH GROUNDWATER ENCOUNTERED 19'		10. DATE STARTED 1-11-10	
13. DEPTH DRILLED INTO ROCK 4'		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING 18.0 after 1 hour		11. DATE COMPLETED 1-12-10	
14. TOTAL DEPTH OF HOLE 39'		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES		19. TOTAL NUMBER OF CORE BOXES		21. TOTAL CORE RECOVERY	
0		0		NA %	
20. SAMPLES FOR CHEMICAL ANALYSIS		23. SIGNATURE OF INSPECTOR		21. TOTAL CORE RECOVERY	
0		[Signature]		NA %	
22. DISPOSITION OF HOLE		23. SIGNATURE OF INSPECTOR		21. TOTAL CORE RECOVERY	
BACKFILLED		MONITORING WELL		NA %	
		2" PVC		NA %	



PROJECT Off Base Groundwater Plume	HOLE NO. SB100B 03
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DRILLING LOG

HOLE NUMBER
SB100B03

PROJECT

INSPECTOR

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

Off Base Groundwater Plume

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 COUNTS (g)	REMARKS (h)
	1	Grassy surface Clayey SILT (ML), dark brown, moist to dry, trace roots					R = 26 / 48
	2						
	3						
	4						
	5	CLAY (CL), dark brown, stiff, low plast., moist, trace gravel, trace roots					R = 30 / 60
	6						
	7	Clayey SAND (SP), brown, med. to coarse sand, moist, some gravel, trace Cobbles					
	8						
	9						
	10	same as above, no clay, dry to moist					R = 14 / 60
	11						
	12						
	13						
	14						
	15	CLAY (CL), gray, med. stiff, low plast., moist					R = 40 / 60
	16						
	17						
	18	SAND & GRAVEL (SP-GP), brown, moist, trace Cobbles					
	19						
	20	same as above, wet					

PROJECT

Off Base Groundwater Plume

SB100B03

DRILLING LOG

HOLE NUMBER

SB100B 03

SHEET

3

OF

SHEETS

3

PROJECT

Off Base Groundwater Plume

INSPECTOR

Joe Odegaard

ELEV. (a)	DEPTH (b)	DESCRIPTION OF MATERIALS (c)	FIELD SCREENING RESULTS (d)	GEO TECH SAMPLE OR CORE BOX NO. (e)	ANALYTICAL SAMPLE NO. (f)	BLOW COUNTS (g)	REMARKS (h)
21		sandy GRAVEL (GP), brown, wet, some cobbles					R = 18 / 60
22							
23							
24		Same as above					end 1-11-10 continue 1-12-10
25							R = 34 / 60
26							
27							
28							
29		SAND (SP), brown, fine grain, wet					
30							R = 40 / 60
31							
32							
33		Gravelly SAND & Sandy GRAVEL (SP-GP), sand is fine to med. grain, some cobbles, wet					
34		moist at 34' same as above, some clay					
35							R = 60 / 60
36		shale (CH), dark gray and brown, very stiff, low plast., moist, trace gravel, weathered					
37		competent shale 36-39'					
38							
39		End of Boring at 39'					

PROJECT

Off Base Groundwater Plume

SB100B 03



AMERICAN
ENGINEERING
TESTING, INC.

CONSULTANTS
· GEOTECHNICAL
· MATERIALS
· ENVIRONMENTAL

April 6, 2010

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

RECEIVED
JUN 24 2010
WATER RIGHTS
PROGRAM

Subject: South Dakota Water Well Completion Reports
United States Air Force
Ellsworth AFB, South Dakota
AET Project No. 18-03031

Dear Mr. Buhler:

Enclosed please find water well completion reports for groundwater monitoring wells MW10OB01 through MW10OB10 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 Reports
2. URS Drilling Logs

pc: Tim Pavek - 28 CES/CEANR
Joe Odegaard - URS Group, Inc.