MW-03

WATER WELL RECORD Form WWC-5

Division of Water Resources App. No.

1 LOCATION OF WATER WELL: County: Ottawa | Fraction: ¼ ¼ SW ¼ NE ¼ | Section Number: 16 | Township No.: T 11 S | Range Number: R 2 ☐E ☑W

Street/Rural Address of Well Location; if unknown, distance & direction from nearest town or intersection: If at owner's address, check here ☐.
Former Atlas Missile site S-1 located at intersection of Justice Rd. and N. 210th Rd.

2 WATER WELL OWNER: RR#, Street Address, Box #: Army Corps of Engineers 601 E. 12th St.
City, State, ZIP Code : Kansas City, MO 64106

Global Positioning System (GPS) information:
Latitude: 278937.3' (Northing) (in decimal degrees)
Longitude: 1441577.0' (Easting) (in decimal degrees)
Elevation: 1384.7'
Datum: ☐ WGS 84, ☑ NAD 83, ☐ NAD 27
Collection Method:
☐ GPS unit (Make/Model: .....)
☐ Digital Map/Photo, ☐ Topographic Map, ☑ Land Survey
Est. Accuracy: ☑ <3 m, ☐ 3-5 m, ☐ 5-15 m, ☐ >15 m

3 LOCATE WELL WITH AN "X" IN SECTION BOX:

N / W / E / S; NW, NE, SW (X), SE; |----------1 mile---------|

4 DEPTH OF COMPLETED WELL 81.0 ft.
Depth(s) Groundwater Encountered (1)..... ft. (2)..... ft. (3)..... ft.
WELL'S STATIC WATER LEVEL 65.05 ft. below land surface measured on mo/day/yr. 9/19/2011
Pump test data: Well water was.....ft. after..... hours pumping..... gpm
EST. YIELD.....gpm. Well water was.....ft. after..... hours pumping..... gpm
Bore Hole Diameter 8 in. to 5.5 ft., and 6 in. to 81 ft.
WELL WATER TO BE USED AS: ☐ Public water supply ☐ Geothermal ☐ Injection well
☐ Domestic ☐ Feedlot ☐ Oil field water supply ☐ Dewatering ☐ Other (Specify below)
☐ Irrigation ☐ Industrial ☐ Domestic-lawn & garden ☑ Monitoring well MW-03
Was a chemical/bacteriological sample submitted to Department? ☐ Yes ☑ No
If yes, mo/day/yr sample was submitted.....
Water well disinfected? ☐ Yes ☑ No

5 TYPE OF CASING USED: ☐ Steel ☑ PVC ☐ Other .....
CASING JOINTS: ☐ Glued ☐ Clamped ☐ Welded ☑ Threaded
Casing diameter 2 in. to 58.6 ft., Diameter ..... in. to ..... ft., Diameter ..... in. to ..... ft.
Casing height above land surface -3 in., Weight .....lbs./ft., Wall thickness or gauge No. .....
TYPE OF SCREEN OR PERFORATION MATERIAL:
☐ Steel ☐ Stainless Steel ☑ PVC ☐ Other (Specify) .....
☐ Brass ☐ Galvanized Steel ☐ None used (open hole)
SCREEN OR PERFORATION OPENINGS ARE:
☐ Continuous slot ☑ Mill slot ☐ Gauze wrapped ☐ Torch cut ☐ Drilled holes ☐ None (open hole)
☐ Louvered shutter ☐ Key punched ☐ Wire wrapped ☐ Saw cut ☐ Other (specify) .....
SCREEN-PERFORATED INTERVALS: From 78.6 ft. to 58.6 ft., From ..... ft. to ..... ft.
From ..... ft. to ..... ft., From ..... ft. to ..... ft.
GRAVEL PACK INTERVALS: From 81 ft. to 54 ft., From ..... ft. to ..... ft.
From ..... ft. to ..... ft., From ..... ft. to ..... ft.

6 GROUT MATERIAL: ☐ Neat cement ☑ Cement grout ☑ Bentonite ☐ Other .....
Grout Intervals: From 51 ft. to 1.0 ft., From ..... ft. to ..... ft., From ..... ft. to ..... ft.
What is the nearest source of possible contamination:
☐ Septic tank ☐ Lateral lines ☐ Pit privy ☐ Livestock pens ☐ Insecticide storage ☑ Other (specify below)
☐ Sewer lines ☐ Cesspool ☐ Sewage lagoon ☐ Fuel storage ☐ Abandoned water well missile complex
☐ Watertight sewer lines ☐ Seepage pit ☐ Feedyard ☐ Fertilizer storage ☐ Oil well/gas well
Direction from well ..... Distance from well .....

FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHO. LOG (cont.) or PLUGGING INTERVALS
0	5.5	clay/silt overburden			
5.5	11.1	interbedded shale/sandstone			
11.1	81	sandstone w/ occasional claystone			

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was ☑ constructed, ☐ reconstructed, or ☐ plugged under my jurisdiction and was completed on (mo/day/year) 07/19/2011 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. ..... This Water Well Record was completed on (mo/day/year) 12/09/2011 under the business name of US Army COE by (signature) .....

INSTRUCTIONS: Use typewriter or ball point pen. *PLEASE PRESS FIRMLY* and *PRINT* clearly. Please fill in blanks and check the correct answers. Send three copies (white, blue, pink) to Kansas Department of Health and Environment, Bureau of Water, Geology Section, 1000 SW Jackson St., Suite 420, Topeka, Kansas 66612-1367. Telephone 785-296-5524. Send one copy to WATER WELL OWNER and retain one for your records. Include fee of $5.00 for each constructed well. Visit us at http://www.kdheks.gov/waterwell/index.html.

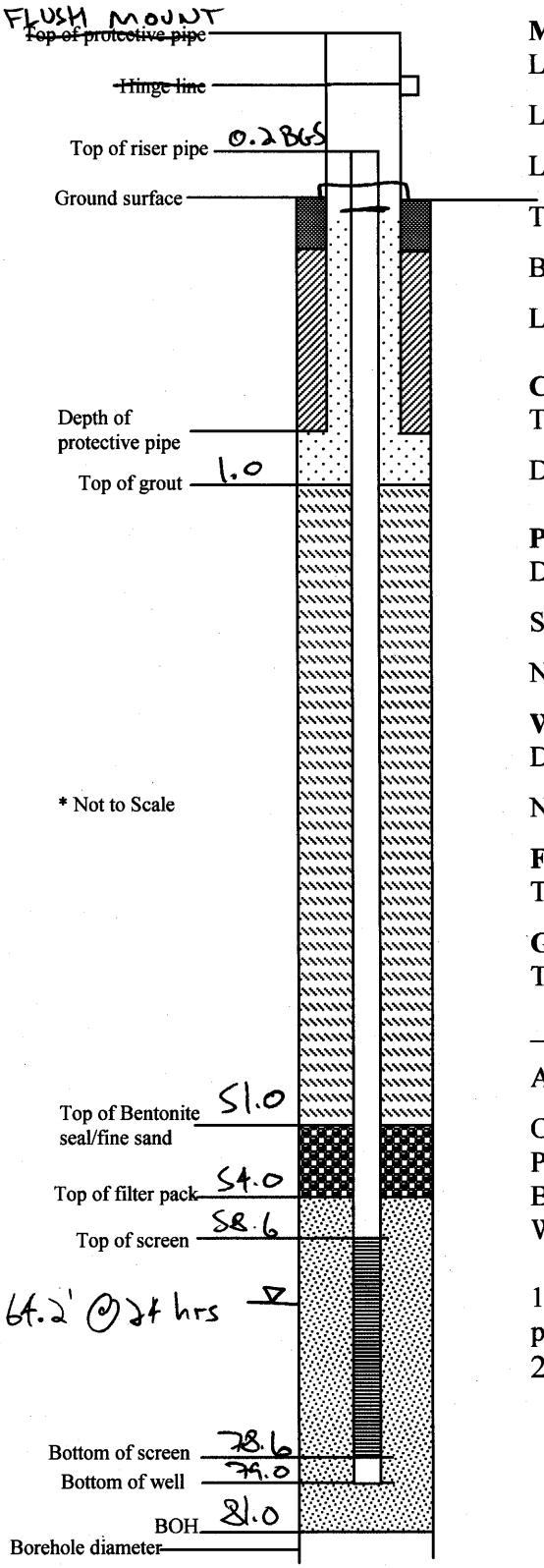
KSA 82a-1212 Check: ☐ White Copy, ☐ Blue Copy, ☐ Pink Copy

MONITORING WELL INSTALLATION FORM

Project Schilling S-1
Boring Number MW-03

Well Number MW-03
Date Installed 7/19/11

Type of riser pipe & diameter Sch 40 2" PVC
Type of screen & slot size PVC, 20 slot



Measurements:
Length of riser pipe 58.4'
Length of screen 20.0'
Length of end blank 0.4'
Total length of well installation 79.0'
Bottom depth of borehole 81.0'
Length of riser pipe stickup above ground surface 0.2 BGS

Centralizers:
Total number of centralizers 2
Depth(s) of centralizer(s) BGS 59' + 39'

Protective Pipe: FLUSH MOUNT
Date set SURFACE COMPLETION
Size and type of protective pipe
Number of weep holes drilled in protective pipe

Well Pad:
Dimensions of well pad 3' x 3'
Number and size of protective posts around well 0

Filter Pack:
Type and grain size of filter pack material 20/40 Silica Sand

Grout Mix (es):
Type of grout mix and locations used in the well installation
1:1 Portland grout with 5% Bentonite
Amount and type of grout materials used for each mix
Other:
Portland:
Bentonite (specify type):
Water:

1. Material used to fill annular space between borehole and protective pipe Grout
2. Material used to fill void between protective pipe and well riser pipe Cement

Kansas State Plan 1983 Kansas North 1501

HTW DRILLING LOG

HOLE NO. MW-03

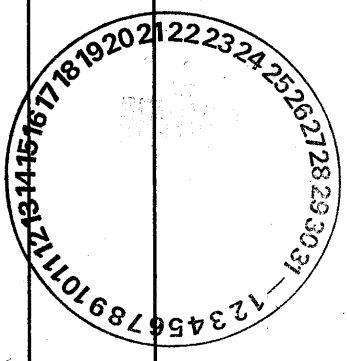
1. COMPANY NAME: USACE	2. DRILLING SUBCONTRACTOR
SHEET 1 OF 10 SHEETS	
3. PROJECT: Schilling S-1	4. LOCATION: 278937.79'N 1441572.92'E KS State Plane 1501 NAD 83 (FT)
5. NAME OF DRILLER: D Marquis	6. MANUFACTURER'S DESIGNATION OF DRILL: Diedrich D90 TM
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: 3 3/4" ID HSA; 3 1/4" ID IDS; 2 1/4" ID SS; 4" Double Tube Core Barrel	8. HOLE LOCATION: 278937.277 N 1441577.01E E
	9. SURFACE ELEVATION: 1384.711
	10. DATE STARTED: 7/11/11 — 11. DATE COMPLETED: 7/19/11
12. OVERBURDEN THICKNESS: 8.8	15. DEPTH GROUNDWATER ENCOUNTERED
13. DEPTH DRILLED INTO ROCK: 72.2	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED
14. TOTAL DEPTH OF HOLE: 81.0	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): 64.2 0730 7/19/11

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
	NA	NA	8

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	NA	NA	NA	NA	65 %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	NA	X	NA	

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
	0	LEAN CLAY DARK BROWN STIFF DRY Rootlets	Measured with PID 0.0 ppm	NA	Sampled with Terracore	NA	Drive 1 3 3/4" ID Hollow Stem Auger (HSA) w/ 3 1/4" ID Inner Barrel Sampler (IBS) D-5.0 R-4.2
	1	1.1					
	2	LEAN CLAY ORANGISH BROWN DRY MEDIUM STIFF Silty	0.0 ppm		NA		
		2.8					
	3	SILT REDDISH BROWN LOOSE DRY	0.0 ppm				
		3.5					
	4	LEAN CLAY GREY STIFF DRY Sandy parting	0.0 ppm				
	5	5.0					5.0



PROJECT: Schilling S-1 HOLE NO.: MW-03

MRK FORM JUN 89 55

HTW DRILLING LOG

HOLE NO. MW-03

PROJECT Schilling S-1

INSPECTOR

SHEET 2 OF 10 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 COUNTS g	REMARKS h
	5	SAND TAN LOOSE DRY Fine Grained	0.0 ppm	NA S-S	MW-03-SB-01	50-R	Drive 2 3¾" ID HSA 3¼ ID FBS D-0.1 R-0.1 S-1 SPT 1 2¼" ID Split spoon (SS) w/ Metal Catcher (mc) D-0.4 R-0.4 S-S SPT Refusal
Loss = 3.3'	6			Box 1	S-S	S-S	
	7				NA		PULL 1 4" Core Barrel Start 1630 Stop 1635 Run 3.6 Rec 0.2 RQD 0 CD 9.0 Loss 3.4 LOW 0 UL = 3.3
	8					NA	
		8.8			8.8		End 7/11/11
	9	SHALE GREY SOFT THIN TO MEDIUM BEDDED VERY FINE GRAINED Sandy			MW-03-SB-02 8.9		9.1 CD PULL 2 4" Core Barrel Start 0725 Stop 0740 Run 4.3 Rec 2.8 RQD 54% CD 12.2 LOW 0 loss 1.5 UL = 1.4
Loss = 1.4'	10		0.0 ppm		NA		
	11						Begin 7/12/11
		11.1					
		SAND STONE ORANGISH BROWN SOFT FINE GRAINED THIN BEDDED Moderately Cemented Angular Bedding Ironstone partings	0.0 ppm				
	12						
	13						13.4 CD PULL 3 4" Core Barrel Start 0800 Stop 0820
Loss = 1.2'	14						
		14.0					

HTW DRILLING LOG

HOLE NO. MW-03

PROJECT Schillings S-1

INSPECTOR

SHEET 3 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 COUNTS g	REMARKS h
Loss 1.4'	14	SANDSTONE ORANGISH BROWN THIN BEDDED FINE GRAINED SOFT Moderately Cemented Shale partings					PULL 3 cont'd Start core Stop core Run 9.9 Rec'd 7.0 RQD >4' CR 21.5 LOW Loss 1.9 OL 1.6
	15						
		SH parting	0.0ppm	Box 1	NA	NA	
	16						
	17						
	18			18.6			
	19				19.2 MW03-SB-03 19.3		
		SH parting					
Highly fract'd	20			Box 2	NA		
	21						
Loss 0.8'	22						
			0.0ppm				
	23						

HTW DRILLING LOG

HOLE NO. MW-03

PROJECT Schilling S-1

INSPECTOR

SHEET 4 OF 10 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 COUNTS g	REMARKS h
	23	Same As Above					PULL 3 cont'd CD-21.5
		SANDSTONE ORANGISH BROWN SOFT	0.0 ppm	Box 2			PULL 4 4" Core Bench
	24	THEN TO MEDIUM BEDDED FINE GRAINED Moderately Cemented Shale partings			NA	NA	Start 0833 Stop 0853 Run 10.5 Rec'd 9.2 RQD 73% CP 31.5 LOW loss 10.3 UL- 0.8
	25						
		2" SH parting					
	26			26.3			
				Box 3			
	27						
		2" SH parting	0.0 ppm		27.8 MW-05-58-04		
	28				28.9		
	29						
					NA		
	30						
	31						
		31.5					CP
		SANDSTONE THEN TO THICK BEDDED ORANGISH BROWN					
	32						32.0

HTW DRILLING LOG

HOLE NO. MW-03

PROJECT Schilling 5-1

INSPECTOR

SHEET 5 OF 10 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 COUNTS g	REMARKS h
	32	Same As Above SANDSTONE ORANGISH BROWN SOFT FINE GRAINED THIN TO THICK BEDDED		Box 3	NA	NA	PULL 5 4" Core Barrel Start 0910 Stop 0923 Run 9.9 Rec'd 7.7 RQD 69% LD 41.1 LOW loss 0.2
	33		0.0ppm	33.4			
	34			Box 4			
	35						
	36						
	37						
	38				38.3		
Highly fract'd			0.0ppm		MW-03-SB-05		
	39				38.7		
					NA		
	40						
				40.6			
	41			Box 5			

Highly fract'd

HTW DRILLING LOG

HOLE NO. MW-03

PROJECT Schilling

INSPECTOR

SHEET 6 OF 10 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 COUNTS g	REMARKS h
Loss 1.1	41	Same As Above SANDSTONE ORANGISH BROWN 41.1		Box 5	NA	NA	PULL 5 Cont'd CD- 41.1 41.9
	42	SANDSTONE TAN SOFT THIN TO MEDIUM BEDDED FINE GRAINED Cemented	0.0 ppm		NA		PULL 6 4" Core Barrel Start 0945 Stop 1001 Run 9.6 Recd 7.5 Rec 62% CD 50.0 LDW 100 gr loss 2.1 02 = 1.2
	43						
	44						
	45						
	46						
	47						
	48				48.7 MW-03-SB-06 48.9		
	49		0.0 ppm	49.2 Box 6	NA		
	50	50.0					CD

PROJECT Schilling S-1

HOLE NO. MW-03

MRK FORM 55-2

HTW DRILLING LOG

HOLE NO. MW-03

PROJECT Schilling S-1

INSPECTOR

SHEET 7 OF 10 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 COUNTS g	REMARKS h
	50	SANDSTONE TAN SOFT FINE GRAINED					PULL 6 Cont'd CP - 50.0
	51		NS	NS	NS	NS	51.5
	52						PULL 7 4" Core Barrel Start 1140 Stop 1220 Run 7.0 Recd 0 RQD 0 CP 58.5 CDW * Loss 7.0 VL 8.5 * Lost 800-1300psi attempting to free barrel + clean Core Barrel stuck, has 4.5' of material above End 7/18/11 Begin 7/13/11 Attempt to remove core barrel with hammer, before using mud to flush out cuttings Removed core Barrel from bottom 7/13/11 @ 1649 Cleaned out with 7 7/8" TH core roller bit 7/14/11 Set 58.5' of 6" casing 7/14/11 Clean out with 5 5/8" roller bit.
Loss = 8.5'	53						
	54						
	55						
	56						
	57						
	58						58.5 CP
	59	SANDSTONE SOFT TAN FINE GRAINED THIN TO MEDIUM BEDDED					PULL 8 4" Core Barrel Start 1545 Stop 1552

HTW DRILLING LOG

HOLE NO. MW-03

PROJECT Schilling S-1

INSPECTOR

SHEET 2 OF 10 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 COUNTS g	REMARKS h
	59	Same As Above					PULL 8 4" core Barrel
		SANDSTONE	0.0 AM	Box	NA	NA	Start 1545 Stop 1552
PEN		SOFT					Run 7.8 Rec'd 2.5
LOSS =0.5'	60	TAN		6			RQD 44% CD 61.5
PEN		FINE GRAINED					LOW 1055 1.3
		THIN TO MEDIUM BEDDED					UL -5
	61	Weakly Cemented					
							63.3
LOSS 9.2 -	62						PULL 9
							4" Core Barrel
	63		0.0 ppm				Start 1626 Stop 1645
							Run 9.7 Rec'd 7.1
							RQD CD 71.6
	64						LOW 7.5 1055 2.6
							UL 2.6
	65						
	66						
	67						
				67.7			
	68			Box 7			

HTW DRILLING LOG

HOLE NO. MW-05

PROJECT Schilling S-1

INSPECTOR

SHEET 9 OF 10 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 COUNTS g	REMARKS h
	68						PULL 9 Confirmed
		SANDSTONE SOFT TAN TO ORANGISH BROWN FINE GRAINED THIN TO MEDIUM BEDDED Moderately Cemented	0.0ppm	Box 7	NA	NA	5' core Barrel Start 1606 Stop 1645 Run 9.9 Recd 7.4 RQD 39% CDW 1055 3.6 UL 3.6
	70	Actual					
	71						<0 End 7/12/11
	72						TD 0
LOSS 1.5							PULL 10 4" Core Barrel Start 0804 Stop 0844 Run 9.5 Recd 4.5 RQD 53% CDW 7.6 1055 5.0 UL 5.5 Begin 7/13/11
	73						
	74						overnight water level 64.8' BGS
	75		0.0ppm				
	76						
	77						

HTW DRILLING LOG

HOLE NO. MW-03

PROJECT Schilling S-1 | INSPECTOR [illegible] | SHEET 10 OF 10 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 COUNTS g	REMARKS h
	77	Same As Above			NA	NA	PULL 10 Cont'd
		SANDSTONE					start 0824 Stop 0834
		SOFT		Box 7			Run 9.5 Rec'd 4.5
	78	TAN TO ORANGISH BROWN					RQD 53% CD 81.0
		FINE GRAINED					LOW 17.6 spm loss 5.0
		THIN TO MEDIUM BEDDED					UL 5.5
		Moderately Cemented					
	79						
			0.0 ppm				
	80			80.2			
				Box 8			
	81	81.0 BOH	81.0	81.0	81.0	81.0	CD
							81.5
		MW-03					
	82						Installed MW-03.
		2nd centralizer					
	83	38.6					
		51.0 Top of seal					
		54.0 Top of sand					
	84	58.6 1st centralizer					
		61.2 Top of screen					
		78.6					
	85	79.0					
	86						

Well Development Form

Project Name: Schilling S-1	Project Number:	Well Number: MW-03

Project Information	Elevation of Well
Facility Name: Schilling S-1	Ground Surface Elevation: 1385.014
Location: N 27 8937.277 E 1441577.017	Top of Casing Elevation (TOC): 1384.711
Well Information	**Borehole Volume Calculation:**
Date and Time Well Seal Installed: 7/19/2011	79.2 − 65.3 = 13.9 ; 13.9 · .0408 · 36 = 20.4 gal
Total Depth of Well: 79.0 feet from BGS	1 borehole volume (gallons) = initial height of water column (ft) x 0.0408 x (borehole diameter (in))^2
Depth to Top of Screen: 58.6 feet from BGS	initial height of water column = total depth (ft) – initial depth to water (ft)
Length of Casing Screened: 20' feet BGS	
Type of Formation Screened: Sandstone	**Volume of Water Lost During Drilling and Well Installation:**
Well development Method description	**Development Completion Criteria**
Surge: Surged with 1" surge block	Field parameter stabilized? (Y) N
Bail:	Turbidity < 50 NTU? (Y) N
Pump: Pumped with Grundfos submersible	Volume of water removed during development: 110 gallons
Other:	Other:

Observations During Well Development

Date	Start time	End time	Depth to water	Total depth	Water removed Gallons	Water removed Total	Temp (degree F)	pH (units)	S.C. (µS/cm)	Turbidity (NTU)	ORP (mV)	DO (mg/L)	Remarks (Color, Odor, Particulates)
8/3/11	1245	1300											Surged 15 min
	1306						21.46	7	.508		47	12.53	Light Brown
	1311						20.21	7.08	.478		83	12.6	
	1316						19.89	7.3	.472	650	73	12.53	
	1320	1335											Surged 15 min
	1346						21.72	7.27	.493		95	11.16	Light Brown
	1351						19.98	7.21	.461		104	12.04	
	1356						20.06	7.21	.447	589	103	11.98	
	1401						19.99	7.1	.433	118	121	11.93	
	1405	1420											Surged 15 min
	1433						20.06	7.1	.447		145	11.04	Light Brown
	1438						20.86	7.09	.418	>1000	146	11.77	
	1443						20.36	7.12	.404	.221	132	11.9	
	1448						20.67	7.07	.358	>56	136	11.6	
	1453						19.83	6.88	.402	40.9	112	12.01	Clear
	1458						19.95	6.99	.398	27.7	113	12.07	
	1503						19.92	6.88	.394	17.8	127	11.88	
	1508						19.72	6.82	3.95	13	121	12.24	
	1513				110		19.71	6.82	3.91	9.81	126	12.09	

Measurements from TOC unless otherwise noted.

1513

Office

Project

1 August 2011

INPUT	OUTPUT
State Plane, NAD83 1501 - Kansas North, U.S. Feet	Geographic, NAD83

MW-03

1/1

Northing/Y: 278937.79
Easting/X: 1441572.92

Latitude: 39.098315518
Longitude: 97.544611325

Convergence: 0 17 17.27185
Scale Factor: 0.999960370

Remark:

Table 1: MODFLOW Observation Data

Well	Northing	Easting	Ground Surface Elevation	TOC Corrected Elevation (USACE -0.49 ft)	Screen Mid Point Elevation	September 2011 Water Level Elevation
MW-02	279032.169	1441867.496	1397.73	1397.05	1316.95	1319.63
MW-03	278937.277	1441577.013	1385.01	1384.22	1315.62	1319.17
MW-04	279109.941	1441576.113	1389.43	1388.68	1312.68	1319.17
MW-05	279344.84	1441570.378	1384.18	1383.43	1313.78	1319.24
MW-06	279210.771	1442001.931	1405.08	1404.27	1312.87	1319.87
TH1-10	280513.40	1440693.08	1359.12	1361.58	1280.08	1315.79
TH2-10	278194.98	1440713.24	1355.61	1358.19	1278.19	1317.62
TH3-10	278198.09	1443127.10	1381.35	1383.58	1277.58	1321.05
TH4-10	280618.82	1443138.71	1377.74	1379.58	1276.58	1323.76
TH5-10	278778.84	1443158.88	1374.51	1377.21	1279.21	1321.72
TH6-10	278851.15	1442371.89	1388.27	1390.63	1285.63	1320.23
TH8-10	279917.13	1440699.72	1371.23	1373.77	1273.77	1316.68
TH9-10	279590.79	1440702.39	1363.79	1366.13	1275.13	1317.08
TH11-10	279108.87	1441553.16	1388.16	1390.93	1283.93	1319.36
TW10-10	279593.93	1440716.42	1364.36	1366.96	1275.96	1317.12
TW12-10	278201.09	1443112.03	1381.89	1384.31	1278.31	1321.07
TW13-10	279970.88	1440696.52	1371.57	1373.99	1277.99	1316.64
TW7-10	278797.28	1443161.43	1375.78	1378.21	1282.21	1321.76

Legend

- Missile Property Boundary
- Shallow Monitoring Well
- Deep Monitoring Well
- Other Monitoring Well
- PWS Well

LTM - Long Term Monitoring
Note: Cross-section A to A' shown on Figure 2-5

N

0 50 100 200 300 400 Feet

U.S. ARMY CORPS OF ENGINEERS
KANSAS CITY DISTRICT

Figure 2-4

LTM Network and Existing Wells
2023 Annual Report
Schilling Air Force Base Atlas Site S-01
Bennington, Kansas

DESIGNED BY: SMC	CHECKED BY: SS
DRAWN BY: SMC	REVIEWED BY: SS
DATE: DECEMBER 2023	