

CORRECTION(S) TO WATER WELL RECORD (Form WWC-5)

(to rectify lacking or incorrect information)

LOCATION OF WATER WELL: County: <u>Johnson</u>	Fraction <u>1/4 NW 1/4 NW 1/4</u>	Section <u>8</u>	Township T <u>13</u> S	Range R <u>22</u> ☒ E ☐ W
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Owner: USACE c/o Burns & McDonnell

Location was listed as:

Sec. _____ T _____ S R _____ ☐ E ☐ W

Fraction: _____

Location changed to:

Sec. _____ T _____ S R _____ ☐ E ☐ W

Fraction: _____

Other changes: Initial statements: HTW Drill Log Location: N 235484.4503 E 2853054.6492

Changed to: 38.941121536 -95.000646318

Comments: Converted State Plane 1501-Kansas North NAD 27 to Geographic Decimal Degrees NAD 83.

Verification method: Corpscon 6.0.1

initials: df date: 04/14/2014

Submitted by: Kansas Geological Survey, Data Resources Library, 1930 Constant Ave., Lawrence, KS 66047-3726
to: Kansas Dept of Health & Environment, Bureau of Water, 1000 SW Jackson, Suite 420, Topeka, KS 66612-1367.

[illegible]

T135 R22E Sec5 SW-SE-SW

HTW DRILLING LOG						HOLE NO. 96-80	
1. COMPANY NAME BURNS & McDONNELL			2. DRILLING SUBCONTRACTOR AQUADRILL			SHEET 1 OF 6 SHEETS	
3. PROJECT 94-800-4-020-01 USSFRFI			4. LOCATION SUNFLOWER ARMY AMMUNITION PLANT				
5. NAME OF DRILLER <i>Jeff Joslyn, Jay Joslyn</i>			6. MANUFACTURER'S DESIGNATION OF DRILL <i>Gus Peck - Prot-28B / mobile B-57</i>				
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT			8. HOLE LOCATION				
8 1/2" Hollow Stem Augers (HSA) - 10			N-235484.4503 E-2853054.0492				
Kelly Bit			9. SURFACE ELEVATION				
Chisel & Blade bit			941.4				
N92 Coic bore			10. DATE STARTED		11. DATE COMPLETED		
6" Tri-cone bit			8-27-96		9-9-96		
12. OVERBURDEN THICKNESS			15. DEPTH GROUNDWATER ENCOUNTERED				
12.5 ft			Not encountered				
13. DEPTH DRILLED INTO ROCK			16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED				
17.5 ft			17.1' pos 10 min after bailing				
14. TOTAL DEPTH OF HOLE			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)				
30.0 ft			14.86 ft. TOC 9-12-96, 1159				
18. GEOTECHNICAL SAMPLES		DISTURBED		UNDISTURBED		19. TOTAL NUMBER OF CORE BOXES	
0		0		0		1	
20. SAMPLES FOR CHEMICAL ANALYSIS		VOC		METALS		21. TOTAL CORE RECOVERY	
Will be collected from 96-85		NA		NA		55.7 %	
22. DISPOSITION OF HOLE		BACKFILLED		MONITORING WELL		23. SIGNATURE OF INSPECTOR	
Monitoring Well		NA		96-80/96-16		NA	
NA		NA		NA		Signature of Inspector	
NA		NA		NA		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	CLAY, SOME SILT, DARK GRAYISH BROWN (10YR 4/2)	BH=0ppm BZ=0ppm LEL=0% O2=210% S=0ppm	N/A	N/A	1515	1515 Started drilling with 8 1/2" I.D. HSAs. See log of 96-85 for soil descriptions logged from cuttings.
	1						
	2					N/A	
	3						
	4						
	5	Brown (10YR 4/3)					

HTW DRILLING LOG							HOLE NO. 96-8D
PROJECT 94-800-4-020-01 USSRFI			INSPECTOR M. Melvin			SHEET 2 OF 2 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	BROWN (10YR 4/3)					
	6			N/A	N/A	N/A	
	7						
	8		BZ=0ppm BH=0ppm S=0ppm (with 15) LCL=0% O ₂ =21.0%				
	9	CLAY, SOME SILT, SOME SAND GRAYISH BROWN (10YR 5/2)					
	10		BZ=0ppm BH=0ppm S=0ppm LCL=0% O ₂ =21.0%			1525 1532	Started aug. 2 hole is dry
	11			N/A	N/A	N/A	
	12	BECOMING YELLOWISH BROWN (10YR 5/4)					
	13	LIMESTONE				1537 1548 N/A	Refusal on bedrock. Driller said 12.5' 1548 Continue drilling to make socket for surface casing. (1.3')
	14		X 6m 5.2m	X 6m 5.2m		1553	

HTW DRILLING LOG

HOLE NO.

96-8D

PROJECT

94-800-4-020-01

USSFRFI

INSPECTOR

J. Malin

SHEET 3

OF 4 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
							1600 Insert 15.2' casing in hole. 1 ft Stuck up. PC Schedule 40. 1605 Mixing grout: 3-94-18 bags Portland Cement (Lonsdale brand) 21 gal H₂O 14.5 lb bentonite (5%) [MIXED 2 BATCHES] Casing grouted to G.S. hole is dry.

PROJECT

94-800-4-020-01

USSFRFI

HOLE NO.

96-8D

HTW DRILLING LOG

HOLE NO. 96-8D

PROJECT 94-800-4-020-01 USSFRFI

INSPECTOR

Suzanne Briley

SHEET 7 OF 6 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
	14						9-9-96
	15	SHALE, dark yellowish orange (10YR 6/6), extremely weathered, very weak, sandy and silty with limestone fragments, wet			NO Recovery	0822	0822 Began Coring with Mobile B-57 rig, N&Z size core barrel at 14.2 ft bgs. C&G Driller stopped coring, brought up some extremely weathered shale and some moderately weathered limestone. Driller reports a lot of void space in the hole and formation taking a lot of water. Will continue run after putting more water in borehole.
	16					Run 1	
	17	LIMESTONE, pale yellowish brown (10YR 6/2) with dark yellowish orange (10YR 4/6) mottling on fractures, highly weathered, moderately strong, numerous fractures that have been caused by dissolution dendrites on fracture surfaces, limestone is composed of sparry calcite with a micro-crystalline matrix, fracture zones contain limestone fragments that are extremely weathered, actual thickness of limestone uncertain due to numerous void spaces and weathered zones, fossils noted at 30 ft from 18.1 ft to 30.0 ft include fusulinids, some brachiopods			various fracture fracture fracture	3.5 25.0 10.8	C&G's Retained Coring, added 5 ft of core barrel. 0902 Cored to 25.0 ft.
	18						NOTE: 14.2-16.7 ft. logged from cutting in mud tub.
	19				BOX 1		16.7 to 22.4, only 1.2 ft of limestone recovered
	20						23.0-25.0 only 1.5 ft of limestone recovered
	21	(STONER LIMESTONE UBR)					
	22						
	23				NO Recovery	NO Recovery	Driller reports weathered shale + limestone 22.4 to 23.0 ft.

PROJECT

MRK FORM 55-2 JUN 89

94-800-4-020-01

USSFRFI

HOLE NO.

96-8D

HTW DRILLING LOG

HOLE NO.
96-8D

PROJECT
94-800-4-020-01 USSRFI

INSPECTOR
Suzanne Bailey

SHEET 5
OF 6 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				23.0		
	24				1.5 SB 2.0 SB Box 1	Run 1 3.5 10.8	fracture → fracture → fracture →
	25	SHALE PARTING BECOMING more abundant, increased fractures and weathering from 24.7 to 30.0 ft.			25.0	end run 1	fracture 0902 END run 1 at 25.0 ft
	26	fractures			Box 1	Run 2	fracture → fracture and void space Fractures
	27	fracture fracture fracture fracture fracture				3 5.6 SB 5.0	fractures 0919 Driller stops to pull core out, still hitting many voids. Recovered 2.6 ft of limestone
	28	fracture					0926 Resume coring
	29	fracture fractures					NOTE: Recovery from 25.0-30.0 had core left over from Run 1 at the top, thus recovery over by 0.3 ft
	30	Bottom of hole = 30.0 ft.				0944	End Run 2 at 30.0 ft
	31						0952 Hole caved in to 26.0 ft bgs
	32						Driller reports we lost 120 gallons of water during coring 1009 Water at 17.1 ft. and rising

HTW DRILLING LOG

PROJECT
94-800-4-020-01 USSRFI

INSPECTOR
Hill Craft

HOLE NO.
968D
SHEET 6
OF 6 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
						4/9/96	1500 Bgs. reaming w/ 6" Tri-cone bit 1600 End reaming @ 27.0' bgs 1616 Install 2" PVC 0.20' PVC cap (Threaded) 5.00' 2" PVC 0.010" slot screen 22.50' 2" PVC Riser (2.50' stickup) 15' stainless steel centralizer at 12.0' bgs 1618 Begin adding filter pack Northern Gravel Company size 20 to 40 # 15-20 1630 Sand to 15.8' Begin surging 1640 End surging Add filter pack to 16.0' bgs. 1650 Add bentonite to 12.0' bgs. lost 250 gallons water during reaming & installation Total 380 gallons lost to formation

Not to Scale