WATER WELL RECORD Form WWC-5 KSA 82a-1212

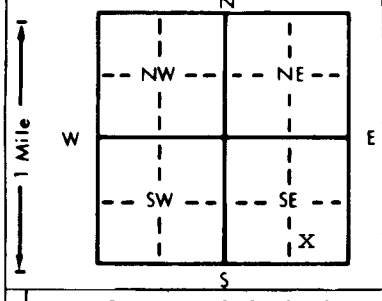
1 LOCATION OF WATER WELL:	Fraction	Section Number	Township Number	Range Number
County: Jackson	se ¼ ne ¼ se ¼	16	T 6 S	R 15 E/W

Distance and direction from nearest town or city street address of well if located within city?

2 WATER WELL OWNER: U.S.Army corp of Engineers
RR#, St. Address, Box # : P.O. Box 59 Louisville Ky.40201
City, State, ZIP Code :

Board of Agriculture, Division of Water Resources
Application Number:

3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX:



4 DEPTH OF COMPLETED WELL 25 ft. ELEVATION:
Depth(s) Groundwater Encountered 1. 15 ft. 2. ft. 3. ft.
WELL'S STATIC WATER LEVEL 21.47 ft. below land surface measured on mo/day/yr 4-03-02
Pump test data: Well water was n/a ft. after hours pumping gpm
Est. Yield gpm: Well water was ft. after hours pumping gpm
Bore Hole Diameter 8 in. to ft., and in. to ft.
WELL WATER TO BE USED AS: 5 Public water supply 8 Air conditioning 11 Injection well
1 Domestic 3 Feedlot 6 Oil field water supply 9 Dewatering 12 Other (Specify below)
2 Irrigation 4 Industrial 7 Lawn and garden only 10 Monitoring well
Was a chemical/bacteriological sample submitted to Department? Yes No X; If yes, mo/day/yr sample was submitted
Water Well Disinfected? Yes No X

5 TYPE OF BLANK CASING USED: 5 Wrought iron 8 Concrete tile CASING JOINTS: Glued Clamped
1 Steel 3 RMP (SR) 6 Asbestos-Cement 9 Other (specify below) Welded
2 PVC 4 ABS 7 Fiberglass Threaded X
Blank casing diameter 2 in. to ft., Dia in. to ft., Dia in. to ft.
Casing height above land surface in., weight lbs./ft. Wall thickness or gauge No. sch. 40

TYPE OF SCREEN OR PERFORATION MATERIAL: 7 PVC 10 Asbestos-cement
1 Steel 3 Stainless steel 5 Fiberglass 8 RMP (SR) 11 Other (specify)
2 Brass 4 Galvanized steel 6 Concrete tile 9 ABS 12 None used (open hole)

SCREEN OR PERFORATION OPENINGS ARE: 5 Gauzed wrapped 8 Saw cut 11 None (open hole)
1 Continuous slot 3 Mill slot 6 Wire wrapped 9 Drilled holes
2 Louvered shutter 4 Key punched 7 Torch cut 10 Other (specify)

SCREEN-PERFORATED INTERVALS: From 25 ft. to 15 ft., From ft. to ft.
From ft. to ft., From ft. to ft.
GRAVEL PACK INTERVALS: From 25 ft. to 13 ft., From ft. to ft.
From ft. to ft., From ft. to ft.

6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 3 Bentonite 4 Other cement/bentonite
Grout Intervals: From 11 ft. to 3 ft., From ft. to ft., From ft. to ft.

What is the nearest source of possible contamination:
1 Septic tank 4 Lateral lines 7 Pit privy 10 Livestock pens 14 Abandoned water well
2 Sewer lines 5 Cess pool 8 Sewage lagoon 11 Fuel storage 15 Oil well/Gas well
3 Watertight sewer lines 6 Seepage pit 9 Feedyard 12 Fertilizer storage 16 Other (specify below)
13 Insecticide storage
Direction from well? How many feet?

FROM	TO	LITHOLOGIC LOG	FROM	TO	PLUGGING INTERVALS
10	20	topsoil, fill			
20	25	till			

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed, (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/year) 3-30-02 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. 597 This Water Well Record was completed on (mo/day/yr) 4-19-02 under the business name of Prosonic Corporation by (signature)

INSTRUCTIONS: Use typewriter or ball point pen. *PLEASE PRESS FIRMLY* and *PRINT* clearly. Please fill in blanks, underline or circle the correct answers. Send top three copies to Kansas Department of Health and Environment, Bureau of Water, Topeka, Kansas 66620-0001. Telephone: 913-296-5545. Send one to WATER WELL OWNER and retain one for your records.

HTW DRILLING LOG

Hole No. MW-912

1. Company Name Ellis Environmental Group, LC	2. Drilling Subcontractor Prosonic
Sheet 1 of Sheets 4	
3. Project Forbes Atlas S-9	4. Location Holton, Kansas
5. Name of Driller Bear	6. Manufacturers Designation of Drill Hawk 70-150-Rotosonic
7. Sizes and Types of Drilling and Sampling Equipment: rotosonic rig; Sonic; 8 inch outer core, 6 inch inner core barrel; 6 inch stainless steel core barrel	8. Hole Location MW-912
	9. Surface Elevation 995
	10. Date started 3-30-02 / 11. Date Completed 3-30-02
12. Overburdened Thickness undetermined	15. Depth Ground Water Encountered 15 ft/bgs, 3-30-02
13. Depth Drilled into Rock 0	16. Depth to Water and Elapsed Time after Drilling Completed 21.47 ft, 4-3-02 @ 0730
14. Total Depth of Hole 25ft	17. Over Water Level Measurements (Specify)

18. Geotechnical Samples	Disturbed	Undisturbed	19. Total Number of Core Boxes			
MW-912-G1, 24-25 ft	0	0	0			
20. Samples for Chemical Analysis	VOC	Metals	Other (Specify)	Other (Specify)	Other (Specify)	21. Total Core Recovery 100%
MWS-912-01,02, 03	3	0			0	
22. Disposition of Hole	Backfilled	Monitoring Well	Other (Specify)	23. Signature of Inspector		
Converted to monitoring well	NO	MW-912	Forbes Atlas S-9			

Elev a	Depth b	Lith	Descriptions of Materials c	Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Pocket Penetrometer g	Remarks h
998.0	0.0		TOPSOIL: CL, rounded to subangular rock fragments throughout, dry, silty clay, dark grayish brown, 7.5YR 4/3, homogeneous, roots throughout, no odor.		Run #1,100% recovered, 0-5 ft		1.40 TFS	
997.0	1.0					MWS-912-01, 3-30-02 @ 0915		
996.0	2.0		FILL-CL: dry to moist, medium plasticity, blocky, soft, silty clay, yellowish brown 10 YR 5/6 mottled with light yellowish brown 10YR 6/4 and brown 10YR 4/3, small rounded pebbles throughout, occassional calcareous nodules, no odor.	Headspace: 7.1 ppm			.50 TFS	
995.0	3.0						1.50 TFS	
994.0	4.0		FILL-CH: moist, high plasticity, stiff, silty clay, very dark gray 10YR 3/1, slickensides, no odor			MWS-912-02, 3-30-02 @ 0930		
993.0	5.0			Headspace: 324.00 ppm	Run #2, 100% recovered, 5-15 ft		2.50 TFS	
992.0	6.0		TILL-CH: moist, high plasticity, stiff, silty clay, light olive brown 2.5Y 5/4, occassional rock fragments (rounded to subangular), odor.			MWS-912-03, 3-30-02 @	3.00 TFS	
							1.25 TFS	

HTW DRILLING LOG

Hole No. MW-912

1. Project Forbes Atlas S-9

2. Inspector Jeffrey Finn

Sheet 2 of Sheets 4

Elev a	Depth b	Descriptions of Materials c	Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Pocket Penetrometer g	Remarks h
991.0	7.0				3-30-02 @ 0950	2.50 TFS	
		TILL-CH: black stained, silty clay, solvent odor.					
990.0	8.0						
		TILL-CH: moist, high plasticity, silty clay, brown 10YR 4/3 mottled with yellowish brown 10YR 5/4, also traces of dark brown 7.5YR 3/4, small rounded pebbles throughout, occasional rose quartz fragments, occasional sand lenses.				2.50 TFS	
989.0	9.0						
988.0	10.0					2.75 TFS	
						4.00 TFS	
987.0	11.0						used 1 bag of std. 60 medium bentonite chips, top of bentonite @ 10.85 ft/bgs, grouted to top with portland cement/ bentonite/ water.
986.0	12.0		Headspace: 8.20 ppm				
985.0	13.0		Headspace: 53.00 ppm				Used 7 bags of #5 quartz sand pack from 25.25 to 12.90 ft
984.0	14.0						
983.0	15.0			Run #3, 100%			groundwater was first

HTW DRILLING LOG

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Sheet 3 of Sheets 4

Elev a	Depth b	Descriptions of Materials c	Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Pocket Penetrometer g	Remarks h
				recovered, 15-25 ft			encountered at approximately 15 ft/bgs
982.0	16.0						
981.0	17.0	TILL-CH: dry to moist, high plasticity, stiff, silty clay, light olive brown 2.5 Y 5/3 mottled with light brownish gray 2.5Y 6/2 and also yellowish brown 10YR 5/8, rounded to subrounded rock fragments throughout, occassional calcareous nodules, no odor.				2.00 TFS	
980.0	18.0		Headspace: 373.00 ppm				
979.0	19.0					1.75 TFS	
978.0	20.0	TILL-SP: wet to saturated, fine sand with coarser sand and gravel increasing with depth, brownish yellow 10YR 6/6, well graded, poorly sorted	Headspace: 225.00 ppm			1.50 TFS	
977.0	21.0					2.75 TFS	
976.0	22.0	TILL-CH: dry to moist, high plasticity, hard, silty clay, dark yellowish brown 10 YR 4/6 mottled with yellowish brown 10YR 5/6 and light olive gray 5Y 6/2, small rounded pebbles throughout, vertical sand stringers that are stained with iron oxide, no odor.	Headspace: 146.00 ppm			4.50 TFS	well set @ 25.25 ft/bgs, 3.10 ft. of riser, screened from 25.25 to 15.25 ft/bgs.
975.0	23.0						used a total of 165 gallons of water during drilling. recovered 75 gallons in drilling tub, recovered 80 gallons from annulus during grouting.
974.0	24.0						

HTW DRILLING LOG

Hole No. MW-912

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Sheet 4 of Sheets 4

Elev a	Depth b	Descriptions of Materials c	Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Pocket Penetrometer g	Remarks h
973.0	25.0	TILL-GP: wet, Gravel with coarse grain sand, rounded to subrounded, no odor.		collected MW-912-61, 3-30-02, 24-25 ft/bgs, coarse sand and gravel		3.75 TFS 4.20 TFS	a total of 10 gallons lost in borehole. Boring terminated @ 25 ft/bgs