WATI	ER WELL	REC	ORD	Form	WWC-5	Division of Water	r Resources App. No	<u>, </u>	
1 LOCATION OF WATER WELL:				Fraction		Section Number	Township No. T /5 S	Range Number	
County: Dave las SWN 5 & N SWN 5 WN 5 WN 5 WN 5 WN 5 WN 5 WN 5 W						Clobal Paritionian	Curtam (CPS) in	R /8 DE DW	
	from nearest town or intersection: If at owner's address, check here						Global Positioning System (GPS) information: Latitude: 3.8.7.6.8.3.3.1.2		
Konsos 6 & N 200 Reger Longitude: 15.368.0.8.15 (in decimal de								(in decimal degrees)	
1700' West Elevation:									
1 WATER WELL OWNER, ALAE & 24 ATTI									
2 WATER WELL OWNER: USAGE Konsos, City District RR#, Street Address, Box #: 601 E. 12 51.						Collection Method:			
l Cibe Sinta 710 Cada .						☐ GPS unit (Make/Model:) ☐ Digital Map/Photo, ☐ Topographic Map, 🔀 Land Survey			
Kansas City, MO 64/06 Est. Accuracy: [3] 3.5 m. [3.5 m. [3.15 m.] >15 m									
3 LO	3 LOCATE WELL								
1	WITH AN "X" IN 4 DEPTH OF COMPLETED WELL								
SEC	SECTION BOX: Depth(s) Groundwater Encountered (1)								
	, N	_ \							
1	Pump test data: Well water was								
w N									
"	WELL WATER TO BE USED AS: ☐ Public water supply ☐ Geothermal ☐ Injection well								
1 .	Demostia D Facilist D Oil field protes greatly Deputating DOILor (Specify below)								
Sw. SE									
Was a chemical/bucteriological sample submitted to Department? ☐ Yes ☐ No									
S If yes, mo/day/yr sample was submitted									
mile Water well disinfected? □ Yes □ No									
5 TYPE OF CASING USED: Steel PVC Other									
CASING JOINTS: Glued Clamped Welded Threaded									
Casing diameter									
	Casing height above land surface								
TYPE OF SCREEN OR PERFORATION MATERIAL: Steel Stainless Steel PVC Other (Specify)									
☐ Steel ☐ Stainless Steel ☐ PVC ☐ Other (Specify)									
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)									
Louvered shutter									
From									
GRAVEL PACK INTERVALS: From									
From									
6 GROUT MATERIAL: ☐ Neat cement ☐ Cement grout ☑ Bentonite ☐ Other									
Grout Intervals: From									
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									
<u> </u>	i Watertight se	ewer line	Cesspoor	pit	n Penilizer su	orage 🔲 Oil well/gas			
Dire	ction from w	eli	, Cl cesbage	h 🗀	Distance f	rom well			
FROM			LITHOLOG	GIC LOG	FROM	TO LITHO. LO	G (cont.) or PLU	GGING INTERVALS	
0	8	Bion	n Silty	Chy					
8	11		n Lines						
11	25		Brown Cl						
	ļ								
	<u> </u>			<u></u>					
	<u> </u>								
	 								
	 -								
-	I A COTOR	10 OF -	ANDONE	nie oppressor=	TON: This		ated December	ated on 51 stussed	
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). It is water well was completed on from knowledge and belief. Kansas Water Well Contractor's License No. 5.3.7 This Water Well Record was completed on from day/year).									
Kenter Weler Well Contractor's License No. 597 This Water Well Record was completed on Employeer) 7/17/20/5									
l under th	ie blisiness n	ame of	Co3699F.	WINING A		. by (signature)	CALARY A	TO SERVICE	
INSTRU	CTIONS: Use	e typewrite	er or ball point oc	o. PLEASE PRESS FIR	AILY and PRINT de	arly. Please fill in blanks	and check the correct a	enswers Send one copy to	
1	Kansas Department of Health and Environment, Bureau of Water, Geology Section, 1000 SW Jackson St., Suite 420, Topeka, Kansas 66612-1367. Telephone 785-296-3524. 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								
Telepho	nc /85-296-352	z4. Send c	nae copy to WAT		retain one for your f		YAW HOT EACH CONSUMER	DA MEN A DIN 62 SI	

Bureau of Water Geology and Well Technology Section 1000 SW Jackson St, Ste 420 Topeka, KS 86812-1367



Phone: 785-296-3565 Fax: 785-296-5509 pchaffee@kdheks.gov www.kdheks.gov

Susan Mosicr, MD, Secretary

Department of Health & Environmen

Sam Brownback, Governor

July 31, 2015

Joshua Boeckmann Corps of Engineers, KC District Department of the Army 635 Federal Building 601 E. 12th St Kansas City, MO 64106-2824

Subject:

Waiver Request – Flush-Mount Well Completion of Groundwater Monitoring Wells at the Former Forbes Atlas Missile Site S-2, E 750 Rd, Baldwin City, Douglas County, KS

Dear Mr. Boeckmann,

On July 16, 2015, the Kansas Department of Health and Environment, Bureau of Water (KDHE-BOW), received the above referenced request for waiver for five (5) shallow monitoring wells to be installed at the above referenced site. KDHE-BOW has reviewed the waiver request materials and provides approval to complete the proposed groundwater monitoring wells at grade (flush-mount).

In accordance with K.A.R. 28-30-6(s), please provide a scaled map showing the locations and latitude and longitude coordinates for each monitoring well to KDHE-BOW along with the water well record (WWC-5 Form) for one of the five wells completed under this waiver. Please include information on the flush-mount well completion method in appropriate areas of each WWC-5 Form as well as the name of the approving KDHE contact person.

While requests for waiver to allow less than the minimum grout interval of 20 feet (K.A.R. 28-30-6(b)(1)) are not required if the grout modification is based solely on targeting shallow groundwater, the reason for modifying the grout interval must be indicated on the WWC-5 Forms for the appropriate wells. Information provided in your request adequately justifies the shallow nature of the proposed monitoring wells.

If you have any questions concerning this letter or if you need assistance, feel free to contact me by telephone (785-296-3565), fax (785-296-5509), or email (pchaffee@kdheks.gov).

Sincerely,

Pamela K. Chaffee, P.G., Chief, Water Well Unit

Parala Kalleyfor

Geology & Well Technology Section, Bureau of Water

Kansas Department of Health and Environment

1000 SW Jackson, Suite 420

Topeka, KS 66612-1367

Copy: File - BOW-GWTS-Douglas County



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, KANSAS CITY DISTRICT 635 FEDERAL BUILDING 601 E 12™ STREET KANSAS CITY MO 64106-2824

July 14, 2015

Environmental Programs Branch Planning, Programs and Project Management Division

Kansas Department of Health and Environment (KDHE) Bureau of Water - Geology Section 1000 S.W. Jackson, Suite 420 Topeka, Kansas 66612-1367

Ms. Pamela Chaffee:

Submitted for your review is a request for a waiver to allow the installation of flush mount groundwater monitoring wells. The U.S. Army Corps of Engineers (USACE), Kansas City District and its subcontractors will be performing Remedial Investigation activities at the former Forbes Atlas Missile Site S-2 located in Douglas County, Kansas. Field activities are being conducted in accordance with a Work Plan (WP) approved by KDHE and Environmental Protection Agency (EPA). To complete the investigation, 5 shallow permanent groundwater monitoring wells will be installed by a KDHE-licensed Water Well Contractor (KS #597, Steve Johnson). The wells will be placed in the parcels identified in Figure 1 and as depicted on Figure 2. The shallow wells will have a target depth of 30 feet and will have 10-foot screens. The depth of the shallow monitoring wells and screen placement will be determined in the field based on the observed saturated zone in cores to be collected from the well boreholes and the depth of perched groundwater encountered during drilling. Previous studies at this site have measured the shallow groundwater levels ranging from 7 to 9 feet below ground surface (bgs). These conditions will likely result in screens being placed at shallow depths bgs that will not allow for a full 20 feet of grout to be placed in the remainder of the borings. The wells will be grouted from the bentonite seal above the screen and filter pack to approximately 1 foot bgs as shown in Figure 3. If settling occurs after removal of drilling tools, additional grout will be added. The shallow monitoring wells will be completed as flush-mount wells, each with a 8-inch diameter protective cover, a 2-foot x 2-foot square concrete pad, and expandable well plug. The flushmount installation was requested by the property owners.

Please see the next page for site information. If you have any questions, please contact me at (816) 389-3328 or by email at Joshua, R. Boeckmann@usace.army.mil.

Sincerely,

BOECKMANN.JOSHU

Digitally signed by BOECKMANNLJOSHUA.RYAN, 1385638406 DN: c=US, o=U.S. Government, ou=DoD, A.RYAN.1385638406 ODB CECKMANNJOSHUARYAN.1385638406 Date: 2015.07.14 12:10:51 - 05'00'

Josh R. Boeckmann Project Manager