

**WATER WELL RECORD Form WWC-5**

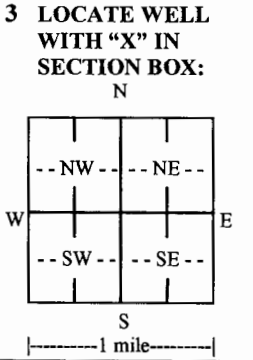
Division of Water Resources App. No.  

Well ID MW-48B

Original Record  Correction  Change in Well Use

<b>1 LOCATION OF WATER WELL:</b> County: Johnson	Fraction SE ¼ SE ¼ NW ¼ ¼	Section Number 36	Township Number T 13 S	Range Number R 23 <input checked="" type="checkbox"/> E <input type="checkbox"/> W
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**2 WELL OWNER:** Last Name:                      First:                       
 Business: The Boeing Company  
 Address: P.O. Box 7730 MC K29-29  
 Address:                       
 City: Wichita State: KS ZIP: 66210  
 Street or Rural Address where well is located (if unknown, distance and direction from nearest town or intersection): If at owner's address, check here:   
On Parkway Dr approximately 150 ft North from the intersection of Lane St and Parkway Dr



**4 DEPTH OF COMPLETED WELL:** 18 ft.  
 Depth(s) Groundwater Encountered: 1) ~6 ft. *(K-2)*  
 2)                      ft. 3)                      ft., or 4) Dr. Well  
 WELL'S STATIC WATER LEVEL: 5.69 ft.  
 below land surface, measured on (mo-day-yr) 6/19/17  
 above land surface, measured on (mo-day-yr)                       
 Pump test data: Well water was                      ft.  
 after                      hours pumping                      gpm  
 Well water was                      ft.  
 after                      hours pumping                      gpm  
 Estimated Yield:                      gpm  
 Bore Hole Diameter:                      in. to                      ft. and  
                     in. to                      ft.

**5 Latitude:** 38°52'38.0425" (decimal degrees)  
**Longitude:** -094°48'29.1914" (decimal degrees)  
 Horizontal Datum:  WGS 84  NAD 83  NAD 27  
 Source for Latitude/Longitude:  
 GPS (unit make/model:                     )  
 (WAAS enabled?  Yes  No)  
 Land Survey  Topographic Map  
 Online Mapper:                     

**6 Elevation:** 1044.70 ft.  Ground Level  TOC  
 Source:  Land Survey  GPS  Topographic Map  
 Other                     

**7 WELL WATER TO BE USED AS:**

1. Domestic: <input type="checkbox"/> Household <input type="checkbox"/> Lawn & Garden <input type="checkbox"/> Livestock 2. <input type="checkbox"/> Irrigation 3. <input type="checkbox"/> Feedlot 4. <input type="checkbox"/> Industrial	5. <input type="checkbox"/> Public Water Supply: well ID <u>                    </u> 6. <input type="checkbox"/> Dewatering: how many wells? <u>                    </u> 7. <input type="checkbox"/> Aquifer Recharge: well ID <u>                    </u> 8. <input checked="" type="checkbox"/> Monitoring: well ID <u>MW-48B</u> 9. Environmental Remediation: well ID <u>                    </u> <input type="checkbox"/> Air Sparge <input type="checkbox"/> Soil Vapor Extraction <input type="checkbox"/> Recovery <input type="checkbox"/> Injection	10. <input type="checkbox"/> Oil Field Water Supply: lease <u>                    </u> 11. Test Hole: well ID <u>                    </u> <input type="checkbox"/> Cased <input type="checkbox"/> Uncased <input type="checkbox"/> Geotechnical 12. Geothermal: how many bores? <u>                    </u> a) Closed Loop <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical b) Open Loop <input type="checkbox"/> Surface Discharge <input type="checkbox"/> Inj. of Water 13. <input type="checkbox"/> Other (specify): <u>                    </u>
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Was a chemical/bacteriological sample submitted to KDHE?  Yes  No If yes, date sample was submitted:                       
 Water well disinfected?  Yes  No

**8 TYPE OF CASING USED:**  Steel  PVC  Other                      CASING JOINTS:  Glued  Clamped  Welded  Threaded  
 Casing diameter 4 in. to 18 ft., Diameter                      in. to                      ft., Diameter                      in. to                      ft.  
 Casing height above land surface -0.37 in. Weight                      lbs./ft. Wall thickness or gauge No. Sch 40

TYPE OF SCREEN OR PERFORATION MATERIAL:  
 Steel  Stainless Steel  Fiberglass  PVC  Other (Specify)                       
 Brass  Galvanized Steel  Concrete tile  None used (open hole)

SCREEN OR PERFORATION OPENINGS ARE:  
 Continuous Slot  Mill Slot  Gauze Wrapped  Torch Cut  Drilled Holes  Other (Specify)                       
 Louvered Shutter  Key Punched  Wire Wrapped  Saw Cut  None (Open Hole)

SCREEN-PERFORATED INTERVALS: From 8 ft. to 18 ft., From                      ft. to                      ft., From                      ft. to                      ft.  
 GRAVEL PACK INTERVALS: From 6 ft. to 18 ft., From                      ft. to                      ft., From                      ft. to                      ft.

**9 GROUT MATERIAL:**  Neat cement  Cement grout  Bentonite  Other                       
 Grout Intervals: From 1 ft. to 6 ft., From                      ft. to                      ft., From                      ft. to                      ft.

Nearest source of possible contamination:  
 Septic Tank  Lateral Lines  Pit Privy  Livestock Pens  Insecticide Storage  
 Sewer Lines  Cess Pool  Sewage Lagoon  Fuel Storage  Abandoned Water Well  
 Watertight Sewer Lines  Seepage Pit  Feedyard  Fertilizer Storage  Oil Well/Gas Well  
 Other (Specify) Former Chemical Storage  
 Direction from well? SW Distance from well? ~850 ft.

10 FROM	TO	LITHOLOGIC LOG	FROM	TO	LITHO. LOG (cont.) or PLUGGING INTERVALS
0	1	Pavement and gravel			
1	3	Silty clay			
3	10	Mottled silt with clay			
10	12	Clay/weathered shale			
12	12.5	Silt with clay			
12.5	13.5	Weathered limestone			
13.5	14	Clay/weathered shale			Notes:
14	18	Weathered sandy shale			

**11 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION:** This water well was  constructed,  reconstructed, or  plugged under my jurisdiction and was completed on (mo-day-year) 5/17/17 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-year) 8/28/17 under the business name of Cascade. Signature Steve Johnson

**HALEY ALDRICH** TEST BORING REPORT **BORING NO. MW-48c**  
 Page 1 of 1

PROJECT: Former Chemical Commodities Inc. Site  
 LOCATION: Olathe, KS  
 CLIENT: The Boeing Company  
 CONTRACTOR: Cascade Drilling LP  
 DRILLER: Jason Drake  
 H&A FILE NO.: 129498-002  
 PROJECT MGR.: Mitchell Basel  
 FIELD REP.: J. Kutschky  
 DATE STARTED: 5/17/17  
 DATE FINISHED: 5/17/17

Elevation		Datum		Boring Location		Hammer Type		Drilling Mud		Casing Advance	
Item	Casing	Sampler	Core Barrel	Rig Make & Model	Hammer Type	Drilling Mud	Casing Advance	Type	Method	Depth	
Type				<input type="checkbox"/> Truck <input type="checkbox"/> Tripod <input type="checkbox"/> Cat-Head <input type="checkbox"/> Safety	<input type="checkbox"/> Safety	<input type="checkbox"/> Bentonite					
Inside Diameter (in.)				<input type="checkbox"/> ATV <input type="checkbox"/> Geoprobe <input type="checkbox"/> Winch <input type="checkbox"/> Doughnut <input type="checkbox"/> Polymer	<input type="checkbox"/> Doughnut <input type="checkbox"/> Polymer	<input type="checkbox"/> None					
Hammer Weight (lb.)				<input checked="" type="checkbox"/> Track <input type="checkbox"/> Air Track <input type="checkbox"/> Roller Bl <input type="checkbox"/> Automatic	<input type="checkbox"/> Automatic						
Hammer Fall (in.)				<input type="checkbox"/> Skid <input checked="" type="checkbox"/> Soudic <input type="checkbox"/> Cutting Head	<input type="checkbox"/> Cutting Head						

Depth (ft.)	Sampler Blows per 6 in.	Sample No. & Recovery (in.)	Sample Depth (ft.)	Well Diagram	Stratum Change (ft.)	USCS Symbol	Visual-Manual Identification & Description (density, consistency, color, GROUP NAME & SYMBOL, maximum particle size*, structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel					Sand					Field Test		
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fine	Dilatancy	Toughness	Plasticity	Strength			
0		0.5 ppm					Asphalt + Gravel													
		0.2 ppm					Dark brown silty clay, moist, stiff, plastic, no noticeable odor, some Fe mottling													
		1.0 ppm					Gray/brown mottled silt with clay, moist to very moist, medium stiff, medium plastic													
5		2.1 ppm					Very soft, moist to very moist, soft-slightly stiff, slightly plastic, no noticeable odor, becomes more stiff													
		0.5 ppm																		
10		0.0 ppm					Brown clay (weathered shale, some Fe nodules (small, < 3 mm diameter), becomes very wet													
		4.1 ppm					silt/clay, non-toxicity plastic, noticeable odor													
		13.4 ppm					0.25' gray weathered limestone, becomes more compact with depth													
							0.35' silty clay (weathered shale brown, moist, locally soft, slightly plastic, no noticeable odor													
15		6.2 ppm					0.14' Brown/yellow weathered sandy shale, some fossils, moist, medium stiff, medium plastic, no noticeable odor													
							Bottom of boring - 15'													

Water Level Data				Sample ID		Well Diagram		Summary	
Date	Time	Elapsed Time (hr.)	Depth in feet to:			<input type="checkbox"/> Riser Pipe	Overburden (Linear ft.)		
			Bottom of Casing	Bottom of Hole	Water	<input type="checkbox"/> Screen	Rock Cored (Linear ft.)		
						<input type="checkbox"/> Filter Sand	Number of Samples		
						<input checked="" type="checkbox"/> Cuttings	BORING NO.		
						<input type="checkbox"/> Grout			
						<input checked="" type="checkbox"/> Concrete			
						<input checked="" type="checkbox"/> Bentonite Seal			

Field Tests: Dilatancy: R - Rapid S - Slow N - None  
 Toughness: L - Low M - Medium H - High  
 Plasticity: N - Nonplastic L - Low M - Medium H - High  
 Dry Strength: N - None L - Low M - Medium H - High V - Very High  
 \*NOTE: Maximum Particle Size is determined by direct observation within the limitations of sampler size.  
 NOTE: Soil identifications based on visual-manual methods of the USCS system as practiced by Haley & Aldrich, Inc.

RECEIVED

JAN 31 2019