LOCATION OF WATER WELL:	Fraction	Section Number	Township Number	Range Number
county: Harvey	SE 1/4 SE 1/4 SE	½ 23	T 23 S	R 3 V
istance and direction from nearest town of the stance and direction from the stance and directio				
WATER WELL OWNER: City of V		Lake Roau		
	uth Spring Road		Poord of Agriculture Div	vinion of Motor December
,	d, Kansas 67056		Application Number:	vision of Water Resources
LOCATE WELL'S LOCATON WITH	, , , , , , , , , , , , , , , , , , , ,		Application Number.	
AN "X" IN SECTION BOX:	DEPTH OF COMPLETED WELL	247 ft. ELEV	ATION:	1439
N D	epth(s) Groundwater Encountered 1		2 ft.	
X X I I I W	VELL'S STATIC WATER LEVEL	ft. below land s	urface measured on mo/day	_{/yr} 08/30/2006
NW NE	Pump test data: Well water			pumping gpm
'	st. Yield gpm: Well water		. after hours	pumping gpm
	ore Hole Diameter 🛮 🖇 in. to /ELL WATER TO BE ับระบาลร: 5 คือ	247		n. to ft. 1 Injection well
		field water supply	•	2 Other (Specify below)
SVV SE	2 Irrigation 4 Industrial 7 La	wn and garden (domestic	:) 10 Monitoring well	
, <u>i x</u> w	as a chemical/bacteriological sample su	bmitted to Department?	Yes No X If yes	, mo/day/yr sample was
S su	ubmitted	Wa	ter Well Disinfected? Yes	No X
TYPE OF BLANK CASING USED:	5 Wrought Iron	8 Concrete tile	CASING JOINTS: Glue	d Clamped
1 Steel 3 RMP (SR	R) 6 Asbestos-Cement	9 Other (specify below	w) Weld	ded
2 PVC 4 ABS	7 Fiberglass		Thre	aded X
lank casing diameter 2 ir	n. to 227 ft., Dia	in. to	ft., Dia	in. to ft.
asing height above land surface	in, woight		Wall thickness or gauge No.	
YPE OF SCREEN OR PERFORATION N 1 Steel 3 Stainless		7 PVC	10 Asbestos-ceme	
2 Brass 4 Galvanize	•	8 RMP (SR) 9 ABS	11 Other (specify)12 None used (op	
CREEN OR PERFORATION OPENINGS		d wrapped	8 Saw cut	11 None (open hole)
1 Continuous slot (3) Mi		rapped	9 Drilled holes	()
	ey punched 7 Torch	247	10 Other (specify)	
CREEN-PERFORATED INTERVALS:	From 227 ft. to	247 ft. F		
CRAVEL BACK INTERVALS.	From ft. to	ft. F		
GRAVEL PACK INTERVALS:	From 223 ft. to	"		
GROUT MATERIAL: 1 Neat cen		ft. F	rom ft. i 4 Other Volclay gr	
rout Intervals From 0 ft.	005	ft. to	ft. From	ft. to ft.
/hat is the nearest source of possible con				andoned water well
	Lateral lines 7 Pit privy	11 Fuels	•	well/ Gas well
2 Sewer lines 5	Cess pool 8 Sewage Is	agoon 12 Fertiliz	er storage 16 Ott	ner (specify below)
_	Seepage pit 9 Feedyard	13 Insect	icide storage	
rection from well?		How many		
FROM TO CODE	LITHOLOGIC LOG	FROM TO	PLUGGING IN	NTERVALS
See a	attached log			
			~~~	
	The second section of the section of the second section of the section of the second section of the section of the second section of the se			
			Marks from a supplied to the s	
CONTRACTOR'S OR LANDOWNER'S	CERTIFICATION: This water well was	onstructed, (2) recons	tructed, or (3) plugged under	my jurisdiction and was
CONTRACTOR'S OR LANDOWNER'S mpleted on (mo/day/yr)	08/30/2006	and this record is tru	e to the best of my knowled	ge and bellef. Kansas
•	CERTIFICATION: This water well was 08/30/2006 102 Layne Christensen Comp	and this record is tru This Water Well Rec		ge and bellef. Kansas

## **TEST HOLE REPORT**

## LAYNE Western, a Div. of LAYNE Christensen Wichita, Kansas

Contract Name: Wichita ASR	Test Hole No.	RRW3 MN1
	Date:	August 30, 2006
	Driller:	Randy Crowl

Location of Test Hole:	Elevation of Test Hole:
	Static Water Level:
Page 1 of 3	Measured Hours After Completion

From	То	Description of Strata
0	5	brown, gray silty sandy clay, low to medium plastic
5	10	brown sandy silty clay, medium plastic
10	15	orange, gray silty sand, fine to coarse with gravel, clay lens
15	20	orange, gray silty sand, fine to coarse with gravel, clay lens
20	25	orange, olive sandy silty clay, medium plastic, sand lens
25	30	orange, olive sandy silty clay, medium plastic, sand lens
30	35	orange, olive sandy silty clay, medium plastic, sand lens
35	40	orange, olive sandy silty clay, medium plastic, sand lens
40	45	orange silty clayey sand, fine to coarse with gravel, clay lens
45	50	orange silty clayey sand, fine to coarse with gravel, clay lens
50	55	orange, olive silty clayey sand, fine to coarse with gravel
55	60	orange silty clayey sand, fine to coarse with gravel, clay lens
60	65	orange, olive silty sand, fine to coarse with gravel, clay lens
65	70	orange silty clayey sand, fine to coarse with gravel, clay lens
70	75	orange, olive silty sand, fine to coarse with gravel, clay lens
75	80	orange silty sand, fine to coarse with gravel, slight clay
80	85	orange, olive silty sand, fine to coarse with gravel, clay lens
85	90	orange, olive silty sand, fine to coarse with gravel, clay lens
90	95	olive silty sand, fine to coarse with gravel, clay lens

#### **TEST HOLE REPORT**

## LAYNE Western, a Div. of LAYNE Christensen Wichita, Kansas

Contract Name: Wichita ASR	Test Hole No.	RRW3 MN1
	Date:	August 30, 2006
	Driller:	Randy Crowl

Location of Test Hole:	Elevation of Test Hole:
	Static Water Level:
Page 2 of 3	Measured Hours After Completion

From	То	Description of Strata
95	100	olive silty sand, fine to coarse with gravel
100	105	olive silty sand, fine to coarse with gravel, slight clay
105	110	olive silty sand, fine to coarse with gravel, slight clay
110	115	olive silty sand, fine to coarse with gravel, slight clay
115	120	olive silty sand, fine to coarse with gravel, slight clay
120	125	olive silty clayey sand, fine to coarse with gravel, medium plastic
125	130	olive silty clayey sand, fine to coarse with gravel, medium plastic
130	135	olive silty clayey sand, fine to coarse with gravel, medium plastic
135	140	olive silty clayey sand, fine to coarse with gravel, medium plastic
140	145	olive, gray silty sand, fine to coarse with gravel, clay lens
145	150	olive, gray silty sand, fine to coarse with gravel, clay lens
150	155	olive, gray silty sand, fine to coarse with gravel, clay lens
155	160	olive, gray silty sand, fine to coarse with gravel, clay lens
160	165	olive, gray sandy silty clay, medium plastic, sand lens
165	170	olive, gray sandy silty clay, medium plastic, sand lens
170	175	olive, gray sandy silty clay, medium plastic, sand lens
175	180	olive, gray sandy silty clay, medium plastic, sand lens
180	185	olive, gray sandy silty clay, medium plastic, sand lens
185	190	olive, gray red sandy silty clay, medium plastic

## **TEST HOLE REPORT**

# LAYNE Western, a Div. of LAYNE Christensen Wichita, Kansas

Contract Name: Wichita ASR	Test Hole No.	RRW3 MN1
	Date:	August 30, 2006
	Driller:	Randy Crowl

Location of Test Hole:	Elevation of Test Hole:	
	Static Water Level:	
Page 3 of 3	Measured Hours After Completion	

То	Description of Strata
195	olive gray red sandy silty clay, medium plastic
200	olive gray red sandy silty clay, medium plastic
205	olive, red silty sand, fine to coarse with gravel, clay lens
210	olive, red silty sand, fine to coarse with gravel, clay lens
215	olive, red silty sand, fine to coarse with gravel, clay lens
220	olive, red silty sand, fine to coarse with gravel, clay lens
225	olive, gray silty sand, fine to coarse with gravel, clay lens
230	olive, gray silty sand, fine to coarse with gravel, slight clay
235	olive silty sand, fine to coarse with gravel
240	olive silty send, fine to coarse with gravel, slight clay
245	olive silty send, fine to coarse with gravel, slight clay
250	olive silty send, fine to coarse with gravel, slight clay
255	olive, gray weathered shale to shale
260	shale
	195 200 205 210 215 220 225 230 235 240 245 250 255

PRW3MN!



RODERICK L. BREMBY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

DEPARTMENT OF HEALTH AND ENVIRONMENT

August 17, 2006

Burns McDonnell Patrick Higgins 9400 Ward Parkway Kansas City, MO 64114-3319

Re: Waiver request for flush mount monitoring well for **City of Wichita ASR Project.**Located in the NE 1/4 of the SE 1/4 of the SE 1/4 of the SE 1/4 of Section 23,
Township 23 South, Range 3 West, Reno County.

Dear Mr. Higgins:

In accordance with Kansas Administrative Regulations (K.A.R.) 28-30-9, appealing regulations as stated in Article 30, your request for an exception to K.A.R. 28-30-6(b)(1) and (e) for authorization of 1 geotechnical wells to be constructed less than 12 inches above the finished ground level and less than 20 feet of grout if ground water encountered less than 20' below the surface, at the above-mentioned site is hereby granted subject to the following stipulations:

- 1. Monitoring wells included in this request will be grouted from a maximum of two feet below a ground surface to within one foot above the screened section.
- 2. The wellhead will be encased in an approved water resistant/proof manhole. The manhole will be encased in cement, which is to be domed or sloped to allow drainage away from the manhole, (refer to the attached diagram page 2).

- 3. The casing of the monitoring well will be sealed with an approved water- tight lock able monitoring well caps (refer to the attached diagram).
- 4. A copy of this KDHE letter, approving your request for waiver of **K.A.R. 28-30-6(e)**, will be sent to KDHE attached to the water well record (WWC-5 Form) of the first well drilled under the granted waiver.
- 5. Upon completion of the project the wells covered by the waiver shall be plugged in accordance with K.A.R. 28-30-7 (d).

The decision to grant this waiver is based almost entirely on the data provided in your request. This waiver is to cover only the 1 wells mentioned and reportedly will be drilled by **Layne**. Kansas Water Well Contractor License **Number 102**. This waiver will become null and void if any of the information submitted in the request is found to be false or if the wells are not constructed in strict conformity to Kansas rules and regulations and the above mentioned, stipulations. Please contact Don Taylor, (785) 296-5522, if you have any questions or concerns pertaining to this matter.

Sincerely,

Don Taylor

**Environmental Technician** 

Bureau of Water Geology Section

DT: if

cc: Cochran/Harper 1

South Central District Office



