

*Protecting Our Water Environment*



***Metropolitan Water Reclamation District of Greater Chicago***

*MONITORING AND RESEARCH  
DEPARTMENT*

***REPORT NO. 15-23***

***TUNNEL AND RESERVOIR PLAN***

***DES PLAINES TUNNEL SYSTEM***

***ANNUAL GROUNDWATER MONITORING REPORT***

***FOR 2014***

***July 2015***

# Protecting Our Water Environment



## Metropolitan Water Reclamation District of Greater Chicago

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June 29, 2015

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Ms. Marcia Willhite  
Bureau Chief  
Bureau of Water  
Illinois Environmental Protection Agency  
P. O. Box 19276  
Springfield, IL 62794-9276

Dear Ms. Willhite:

Subject: Tunnel and Reservoir Plan, Des Plaines Tunnel System, Annual  
Groundwater Monitoring Report for 2014

Attached are three copies of "Tunnel and Reservoir Plan, Des Plaines Tunnel System,  
Annual Groundwater Monitoring Report for 2014."

Very truly yours,

Thomas C. Granato, Ph.D., BCES  
Director  
Monitoring and Research

TCG:PL:cm

Attachment

cc/att: Ms. Sally K. Swanson (USEPA Region 5 - WC15J) - (2)

Dr. Zhang

Dr. Cox

Dr. Hundal

Dr. Lindo

cc: Mr. St. Pierre

Ms. Sharma

Mr. Cohen

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**TUNNEL AND RESERVOIR PLAN  
DES PLAINES TUNNEL SYSTEM  
ANNUAL GROUNDWATER MONITORING REPORT  
FOR 2014**

**Monitoring and Research Department**  
**Thomas C. Granato, Director**

**July 2015**

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## ANNUAL DATA FOR MONITORING WELLS

### Introduction

All monitoring wells are located along the 13A extension, south leg, middle leg, and north leg of the Des Plaines Tunnel System (Figure 1). Monitoring wells QD-21 through -26, -28 through -32, -35, -36, and -38 through -60 are sampled three times per year, while QD-27, -33, -34, and -37 are sampled six times per year (Illinois Environmental Protection Agency memoranda July 9, 2004, and February 23, 2006).

All monitoring wells in the Des Plaines Tunnel System were sampled at the required frequencies during 2014. All required samples from Wells QD-40 and -41 were retrieved during 2014 with the use of a higher-capacity generator. Only two of the required three samples were retrieved from Wells QD-39 and -49 during 2014. Both wells are classified as intermittently dry.

There are no observation wells in the Des Plaines Tunnel System. However, groundwater elevations in the monitoring wells were measured during each sampling event.

### Summary of Data for Monitoring Wells

The analytical data for groundwater sampled during 2014 from monitoring wells QD-21 through QD-60 are presented in Table 1. Physical characteristics, such as elevation, groundwater temperature, and estimated time of recharge for each well between initial drawdown and sampling, are also included. Fecal coliform counts for most wells were non-detectable, but there were detections in Wells QD-24, -31, -34, and -59. Table 2 lists the descriptive statistics for groundwater data of monitoring wells QD-21 through QD-60 for the year 2014.

FIGURE 1: MAP OF MONITORING WELLS IN THE DES PLAINES TUNNEL SYSTEM

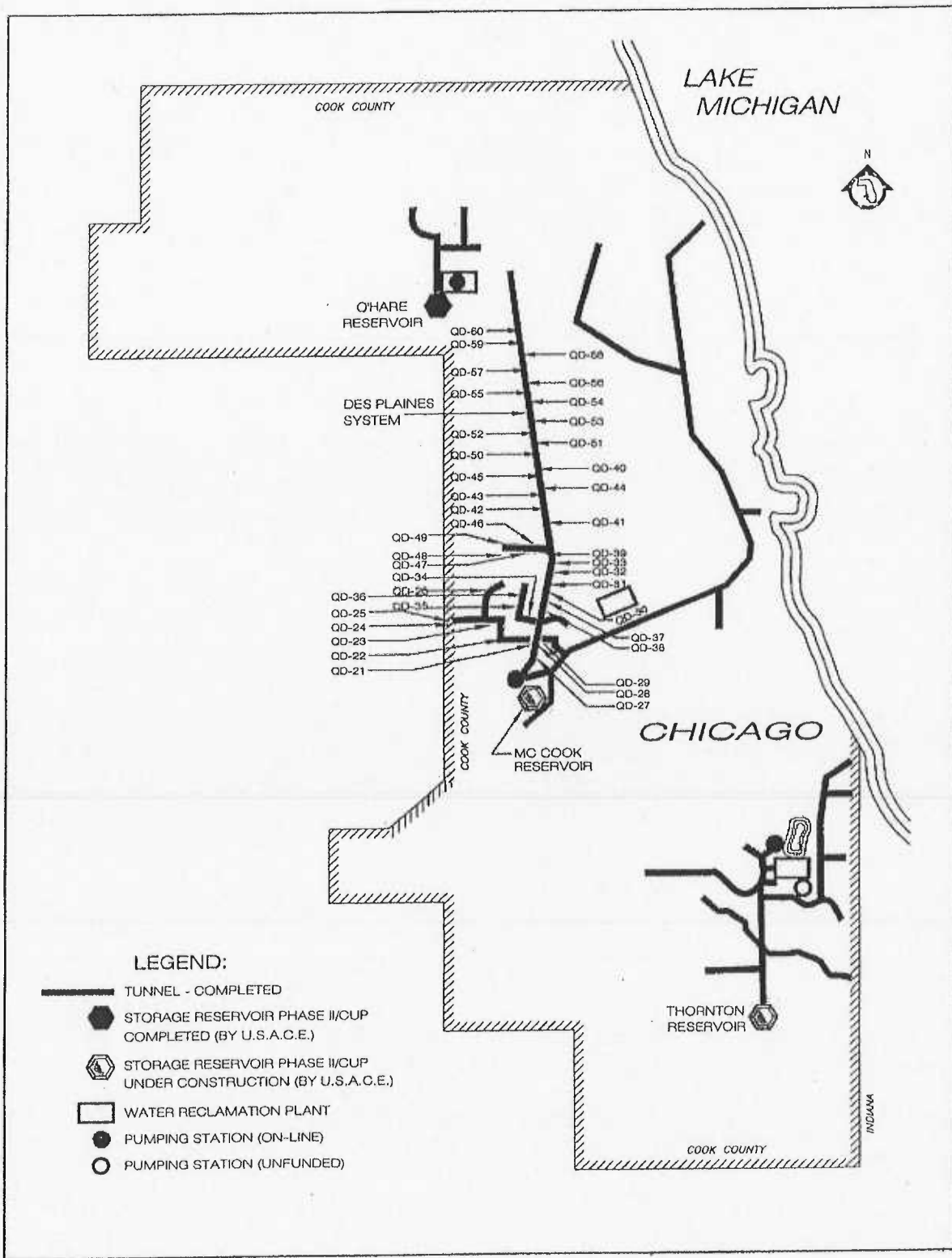




TABLE 1: ANALYSIS OF GROUNDWATER FROM MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN SAMPLED DURING 2014

Well	Date Sampled	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform	Temp	Water Elevation <sup>2</sup>	Recharge Time
			mS/m			mg/L				CFU/100 mL	°C	ft	hr
QD-21	05/13/14	6.7	150	1,404	1	254	371	0.25	698	<1	13.3	-56	<4
QD-21	08/26/14	7.2	132	1,682	<1	255	309	0.25	778	<1	13.9	-49	<4
QD-21	11/03/14	7.3	147	1,412	<1	269	417	0.25	770	<1	12.7	-53	<4
QD-22	05/13/14	6.8	109	1,122	1	125	290	0.43	680	<1	13.0	-22	<4
QD-22	08/26/14	7.6	128	1,404	1	132	266	0.43	739	<1	13.7	-19	<4
QD-22	11/03/14	7.3	117	1,116	1	130	351	0.44	710	<1	12.9	-20	<4
QD-23	05/15/14	6.9	139	1,332	2	197	391	0.57	760	<1	12.9	-26	<4
QD-23	08/28/14	7.1	131	1,434	1	239	325	0.55	871	<1	15.0	-25	<4
QD-23	11/05/14	7.2	150	1,640	4	251	328	0.56	820	<1	13.4	-27	<4
QD-24	05/15/14	7.0	103	814	2	112	164	0.51	456	<1	11.2	18	<4
QD-24	08/28/14	7.1	88	1,016	2	146	215	0.63	609	19	12.9	24	<4
QD-24	11/05/14	7.5	109	786	2	102	158	0.51	531	<1	12.2	22	<4
QD-25	05/15/14	6.9	177	1,486	2	509	204	0.73	528	<1	10.6	8	<4
QD-25	08/28/14	7.2	206	1,772	2	532	245	0.73	667	<1	11.9	33	<4
QD-25	11/05/14	7.3	187	1,698	2	532	255	0.76	681	<1	10.9	33	<4
QD-26	05/07/14	6.8	60	664	<1	10	95	0.50	389	<1	12.2	-9	<4
QD-26	08/20/14	7.4	65	654	<1	10	99	0.35	408	<1	13.3	-17	<4

TABLE 1 (Continued): ANALYSIS OF GROUNDWATER FROM MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN SAMPLED DURING 2014

Well	Date Sampled	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform	Temp	Water Elevation <sup>2</sup>	Recharge Time
			mS/m	----- mg/L -----					CFU/100 mL	°C	ft	hr	
QD-26	11/05/14	7.6	57	542	<1	11	102	0.38	415	<1	12.0	-14	<4
QD-27	01/23/14	6.6	138	992	13	237	6	18	449	<1	12.0	-222	<48
QD-27	03/19/14	7.5	124	1,280	16	369	45	31	492	<1	12.1	-215	<48
QD-27	04/30/14	7.1	65	1,370	15	414	38	33	492	<1	13.2	-211	<48
QD-27	07/24/14	7.5	197	1,268	13	382	35	30	525	3	12.9	-188	<48
QD-27	10/16/14	7.5	141	1,388	14	442	45	34	528	2	12.9	-150	<48
QD-27	12/11/14	7.5	195	1,354	16	381	38	32	489	<1	11.4	-183	<48
QD-28	05/28/14	7.1	128	1,130	2	197	232	0.60	538	<1	13.5	-115	<4
QD-28	08/27/14	7.5	116	1,260	<1	169	223	0.48	576	<1	14.8	-110	<4
QD-28	11/13/14	7.6	116	838	1	151	186	0.65	502	<1	13.3	-119	<4
QD-29	05/28/14	7.1	124	1,190	2	145	270	0.45	635	<1	13.9	-123	<4
QD-29	08/27/14	7.3	122	1,400	2	166	275	0.48	721	<1	13.7	-164	<4
QD-29	11/13/14	7.5	122	1,118	2	172	278	0.49	705	<1	12.1	-125	<4
QD-30	05/07/14	7.3	98	1,626	1	114	255	0.30	569	<1	12.6	-112	<4
QD-30	08/20/14	7.1	157	1,396	1	131	322	0.34	738	<1	13.4	-116	<4
QD-30	11/05/14	7.2	133	1,224	2	156	349	0.34	682	<1	12.6	-113	<4

TABLE 1 (Continued): ANALYSIS OF GROUNDWATER FROM MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN SAMPLED DURING 2014

Well	Date Sampled	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform	Temp	Water Elevation <sup>2</sup>	Recharge Time
			mS/m			mg/L				CFU/100 mL	°C	ft	hr
QD-31	05/07/14	7.8	109	1,140	<1	112	168	0.23	243	<1	13.4	-190	<4
QD-31	08/20/14	7.5	112	1,014	<1	116	196	0.20	252	1	12.5	-192	<4
QD-31	11/05/14	7.7	110	912	<1	119	176	0.21	227	20	12.1	-193	<4
QD-32	05/07/14	9.4	243	3,078	<1	532	213	0.22	33	<1	13.7	-208	<48
QD-32	08/20/14	7.5	263	2,256	<1	534	227	0.27	38	<1	13.7	-208	<48
QD-32	11/05/14	9.1	243	2,024	1	543	233	0.25	30	<1	12.1	-212	<48
QD-33	01/23/14	5.9	196	1,632	<1	354	229	0.54	26	<1	10.8	-175	<48
QD-33	03/19/14	8.6	184	1,670	<1	348	207	0.27	28	<1	11.6	-176	<48
QD-33	04/30/14	8.3	192	1,614	<1	356	205	0.22	24	<1	12.4	-175	<48
QD-33	07/24/14	8.3	208	1,614	<1	364	207	0.25	36	<1	13.5	-179	<48
QD-33	10/16/14	8.6	205	1,436	<1	341	210	0.29	34	<1	12.8	-180	<48
QD-33	12/11/14	8.4	194	1,666	2	356	215	0.29	25	<1	11.5	-183	<48
QD-34	02/27/14	7.0	112	1,012	2	125	293	0.41	694	<1	10.7	-106	<4
QD-34	04/16/14	7.2	112	1,084	<1	124	304	0.42	739	<1	12.3	-92	<4
QD-34	06/12/14	6.9	119	1,308	2	136	274	0.45	656	<1	13.0	-89	<4
QD-34	09/30/14	7.2	101	1,274	2	140	236	0.43	705	6	12.7	-90	<4
QD-34	10/30/14	7.5	117	1,056	2	141	328	0.44	685	<1	11.3	-89	<4
QD-34	12/03/14	7.1	115	1,064	2	140	278	0.44	681	<1	12.7	-102	<4

TABLE 1 (Continued): ANALYSIS OF GROUNDWATER FROM MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN SAMPLED DURING 2014

Well	Date Sampled	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform	Temp	Water Elevation <sup>2</sup>	Recharge Time
			mS/m	----- mg/L -----				CFU/100 mL	°C	ft	hr		
QD-35	05/28/14	7.2	101	1,136	2	107	271	0.34	586	<1	13.1	-88	<4
QD-35	08/19/14	7.1	112	1,330	2	132	263	0.37	683	<1	13.6	-86	<4
QD-35	11/13/14	7.3	110	962	2	149	220	0.39	627	<1	11.9	-87	<4
QD-36	05/28/14	7.3	122	1,286	2	120	321	0.33	689	<1	12.9	-99	<48
QD-36	08/19/14	7.2	144	1,460	2	120	334	0.35	795	<1	13.9	-102	<48
QD-36	11/13/14	7.3	117	1,124	2	123	338	0.37	751	<1	10.9	-103	<48
QD-37	01/23/14	5.9	164	1,482	<1	263	295	0.48	540	<1	11.1	-208	<48
QD-37	03/19/14	7.7	161	1,516	<1	249	414	0.35	573	<1	12.2	-196	<48
QD-37	04/30/14	7.8	163	1,466	<1	250	402	0.35	553	<1	12.9	-210	<48
QD-37	07/24/14	7.7	166	1,392	<1	280	375	0.23	429	<1	13.6	-202	<48
QD-37	10/16/14	7.4	171	1,430	<1	257	393	0.31	440	<1	13.6	-195	<48
QD-37	12/11/14	7.4	173	1,478	<1	281	393	0.22	455	<1	13.1	-205	<48
QD-38	05/07/14	8.4	87	884	<1	163	97	0.38	250	<1	14.2	-197	<48
QD-38	08/20/14	7.9	95	910	<1	167	107	0.37	261	<1	13.6	-201	<48
QD-38	11/05/14	7.9	100	796	1	167	106	0.39	243	<1	12.8	-207	<48
QD-39	03/19/14	8.6	88	820	<1	26	100	<0.10	18	<1	11.0	-137	<48
QD-39	06/11/14	8.3	93	804	<1	27	97	<0.10	17	<1	11.8	-144	<48

TABLE 1 (Continued): ANALYSIS OF GROUNDWATER FROM MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN SAMPLED DURING 2014

Well	Date Sampled	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform	Temp	Water Elevation <sup>2</sup>	Recharge Time
			mS/m	----- mg/L -----					CFU/100 mL	°C	ft	hr	
QD-40	02/06/14	8.4	85	750	2	17	366	0.18	53	<1	10.8	-107	<48
QD-40	06/11/14	9.4	87	746	1	15	404	<0.10	19	<1	12.9	-129	<48
QD-40	09/18/14	9.1	93	766	1	15	342	<0.10	26	<1	13.6	-121	<48
QD-41	02/06/14	7.1	37	724	2	14	350	0.35	420	<1	10.4	-81	<48
QD-41	06/11/14	7.6	78	784	1	15	347	0.31	405	<1	13.3	-134	<48
QD-41	09/18/14	7.8	79	842	1	15	312	0.31	429	<1	14.0	-144	<48
QD-42	02/06/14	7.1	41	738	1	19	296	0.37	364	<1	11.9	-120	<48
QD-42	06/11/14	8.0	80	784	1	19	300	0.31	380	<1	12.2	-120	<48
QD-42	09/18/14	7.8	79	784	1	19	269	0.26	402	<1	13.5	-124	<48
QD-43	02/06/14	7.2	76	656	1	42	217	0.37	453	<1	10.9	-139	<4
QD-43	06/12/14	7.4	83	766	1	47	227	0.36	447	<1	12.8	-139	<4
QD-43	09/18/14	7.6	83	810	<1	51	206	0.34	469	<1	13.2	-139	<4
QD-44	03/19/14	8.4	46	608	1	18	212	0.35	309	<1	11.1	-22	<48
QD-44	06/12/14	7.8	66	612	1	18	210	0.41	310	<1	11.9	-5	<48
QD-44	09/18/14	7.8	68	632	1	18	202	0.35	321	<1	12.5	-6	<48

TABLE 1 (Continued): ANALYSIS OF GROUNDWATER FROM MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN SAMPLED DURING 2014

Well	Date Sampled	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform	Temp	Water Elevation <sup>2</sup>	Recharge Time
			mS/m			mg/L				CFU/100 mL	°C	ft	hr
QD-45	03/19/14	8.4	57	584	1	17	223	0.34	94	<1	11.2	-17	<4
QD-45	06/12/14	8.3	67	578	1	17	214	0.38	100	<1	12.3	-9	<4
QD-45	10/16/14	9.1	63	564	1	18	217	0.35	108	<1	11.9	-3	<4
QD-46	05/28/14	8.2	70	612	<1	11	119	0.18	55	<1	12.3	-178	<48
QD-46	08/26/14	7.1	81	638	1	16	118	0.24	71	NRR <sup>3</sup>	13.2	-172	<48
QD-46	11/13/14	8.3	65	572	1	15	133	0.24	69	<1	11.3	-185	<48
QD-47	02/27/14	7.6	51	520	<1	19	159	0.27	248	<1	12.5	1	<48
QD-47	07/24/14	7.6	60	504	<1	15	152	0.22	246	<1	13.7	9	<48
QD-47	10/16/14	7.8	61	514	1	14	156	0.27	234	1	13.1	9	<48
QD-48	02/27/14	7.7	62	592	1	<10	299	0.11	324	<1	10.9	-176	<48
QD-48	07/24/14	8.6	61	534	1	<10	279	0.19	271	<1	14.6	-177	<48
QD-48	10/16/14	8.5	63	574	1	<10	288	0.11	NA <sup>4</sup>	<1	14.2	-176	<48
QD-49	02/27/14	7.9	60	586	1	13	277	<0.10	342	<1	9.1	-186	<48
QD-49	07/24/14	8.3	85	672	1	32	245	0.10	347	<1	14.8	-181	<48
QD-50	05/08/14	8.9	74	202	1	13	284	0.18	7	<1	13.1	-124	<48
QD-50	08/13/14	9.3	60	664	1	12	271	0.13	8	<1	13.1	-140	<48

TABLE 1 (Continued): ANALYSIS OF GROUNDWATER FROM MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN SAMPLED DURING 2014

Well	Date Sampled	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform	Temp	Water Elevation <sup>2</sup>	Recharge Time
			mS/m	----- mg/L -----					CFU/100 mL	°C	ft	hr	
QD-50	11/20/14	9.7	77	666	1	12	303	0.24	7	<1	10.9	-140	<48
QD-51	05/08/14	8.7	65	514	1	11	136	<0.10	6	<1	12.8	-88	<48
QD-51	08/13/14	9.4	66	534	1	11	122	<0.10	5	<1	12.4	-144	<48
QD-51	11/20/14	9.7	64	574	1	22	135	0.13	5	<1	11.3	-120	<48
QD-52	05/08/14	8.9	59	464	1	16	153	0.15	17	<1	14.2	-57	<48
QD-52	08/13/14	9.1	60	470	1	15	136	0.12	19	<1	13.5	-95	<48
QD-52	11/20/14	9.4	57	476	1	15	161	0.14	19	<1	12.4	-98	<48
QD-53	05/08/14	8.6	74	580	1	17	180	<0.10	11	<1	13.8	-163	<48
QD-53	08/13/14	8.8	72	578	1	19	159	<0.10	8	<1	13.8	-150	<48
QD-53	11/20/14	9.4	69	570	1	18	181	<0.10	10	<1	12.2	-167	<48
QD-54	05/08/14	9.0	54	388	1	17	140	0.24	22	<1	12.8	-33	<48
QD-54	08/13/14	9.0	60	422	<1	18	135	0.24	34	<1	13.3	-37	<48
QD-54	11/20/14	9.1	53	424	1	16	144	0.20	35	<1	11.8	-31	<48
QD-55	05/08/14	8.8	44	446	1	15	174	0.48	143	<1	13.1	-141	<48
QD-55	08/13/14	8.4	58	492	1	15	174	0.36	173	<1	13.2	-135	<48
QD-55	11/20/14	9.1	50	470	1	15	195	0.39	164	<1	10.1	-141	<48

TABLE 1 (Continued): ANALYSIS OF GROUNDWATER FROM MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN SAMPLED DURING 2014

Well	Date Sampled	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform	Temp	Water Elevation <sup>2</sup>	Recharge Time
			mS/m			mg/L				CFU/100 mL	°C	ft	hr
QD-56	05/15/14	8.4	36	290	<1	<10	13	0.25	59	<1	11.0	-67	<48
QD-56	08/28/14	8.9	41	376	<1	10	15	0.26	52	<1	13.2	-67	<48
QD-56	11/25/14	7.5	38	284	<1	10	15	0.26	50	<1	11.2	-94	<48
QD-57	05/15/14	8.4	42	362	<1	11	54	0.26	17	<1	11.1	-114	<48
QD-57	08/28/14	8.9	45	420	<1	12	61	0.26	19	<1	11.8	-93	<48
QD-57	11/25/14	8.8	42	352	1	12	61	0.24	18	<1	9.9	-114	<48
QD-58	05/15/14	7.9	32	256	<1	10	<5	0.34	108	<1	11.3	-100	<48
QD-58	08/28/14	8.6	32	322	<1	11	NRR	0.32	114	<1	11.9	-90	<48
QD-58	11/25/14	8.1	31	242	<1	10	<5	0.34	109	<1	9.7	-120	<48
QD-59	05/15/14	7.8	52	438	<1	95	38	0.35	238	<1	11.6	-36	<48
QD-59	08/28/14	9.0	55	354	1	100	25	0.28	150	21	12.5	-33	<48
QD-59	11/25/14	8.3	47	412	1	96	41	0.35	242	<1	10.6	-56	<48
QD-60	05/15/14	7.7	48	408	<1	42	106	0.42	232	<1	11.8	-56	<48
QD-60	08/28/14	8.1	51	478	<1	43	109	0.39	250	<1	13.0	-102	<48
QD-60	11/25/14	8.1	48	408	<1	43	107	0.36	248	<1	10.7	-110	<48

<sup>1</sup>EC = electrical conductivity; TDS = total dissolved solids; TOC = total dissolved organic carbon.

<sup>2</sup>Relative to Chicago city datum (579.48 ft above mean sea level) at intersection of Madison and State Streets.

<sup>3</sup>No reportable result: QD-46 FC (6,900 MPN/100 mL) and QD-58 SO<sub>4</sub> (15,208 mg/L) possibly due to contamination.

<sup>4</sup>No analysis; sample insufficient for re-run.



TABLE 2: DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----						CFU/100 mL
QD-21	Minimum	6.7	132	1,404	<1	254	309	0.25	698	<1
	Mean	7.1	143	1,499	1	259	365	0.25	749	<1
	Maximum	7.3	150	1,682	1	269	417	0.25	778	<1
	Std. Dev.	0.3	10	158	0.0	8	54	0.00	44	NA <sup>3</sup>
	Median	7.2	147	1,412	1	255	371	0.25	770	<1
	Coeff. of Var. (%)	4.7	7	11	0.0	3.2	15	0.00	6	NA
QD-22	Minimum	6.8	109	1,116	1	125	266	0.43	680	<1
	Mean	7.2	118	1,214	1	129	303	0.43	710	<1
	Maximum	7.6	128	1,404	1	132	351	0.44	739	<1
	Std. Dev.	0.4	9	165	0.1	4	44	0.01	30	NA
	Median	7.3	117	1,122	1	130	290	0.43	710	<1
	Coeff. of Var. (%)	5.6	8	14	5	3	15	1.3	4	NA
QD-23	Minimum	6.9	131	1,332	1	197	325	0.55	760	<1
	Mean	7.1	140	1,469	2	229	348	0.56	817	<1
	Maximum	7.2	150	1,640	4	251	391	0.57	871	<1
	Std. Dev.	0.2	10	157	1	28	38	0.01	56	NA
	Median	7.1	139	1,434	2	239	328	0.56	820	<1
	Coeff. of Var. (%)	2.6	7	11	59	12	11	1.8	7	NA

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>	
			mS/m	----- mg/L -----							CFU/100 mL
QD-24	Minimum	7.0	88	786	2	102	158	0.51	456	<1	
	Mean	7.2	100	872	2	120	179	0.55	532	2	
	Maximum	7.5	109	1,016	2	146	215	0.63	609	19	
	Std. Dev.	0.3	11	125	0.2	23	31	0.07	77	NA	
	Median	7.1	103	814	2	112	164	0.51	531	<1	
	Coeff. of Var. (%)	3.8	11	14	10	19	17	13	14	NA	
QD-25	Minimum	6.9	177	1,486	2	509	204	0.73	528	<1	
	Mean	7.1	190	1,652	2	524	235	0.74	625	<1	
	Maximum	7.3	206	1,772	2	532	255	0.76	681	<1	
	Std. Dev.	0.2	14	148	0.4	13	27	0.02	85	NA	
	Median	7.2	187	1,698	2	532	245	0.73	667	<1	
	Coeff. of Var. (%)	3.0	8	9	22	3	11	2.3	14	NA	
QD-26	Minimum	6.8	57	542	<1	10	95	0.35	389	<1	
	Mean	7.3	60	620	<1	10	99	0.41	404	<1	
	Maximum	7.6	65	664	<1	11	102	0.50	415	<1	
	Std. Dev.	0.4	4	68	0.0	1	4	0.08	13	NA	
	Median	7.4	60	654	<1	10	99	0.38	408	<1	
	Coeff. of Var. (%)	5.8	7	11	0.0	6	4	19	3	NA	

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----						CFU/100 mL
QD-27	Minimum	6.6	65	992	13	237	6	18	449	<1
	Mean	7.3	143	1,275	15	371	35	30	489	1
	Maximum	7.5	197	1,388	16	442	45	34	525	2
	Std. Dev.	0.4	49	147	1	71	15	5.8	27	NA
	Median	7.5	140	1,317	15	382	38	32	492	1
	Coeff. of Var. (%)	4.9	34	12	9	19	42	19	6	NA
QD-28	Minimum	7.1	116	838	<1	151	186	0.48	502	<1
	Mean	7.4	120	1,076	1	172	214	0.58	539	<1
	Maximum	7.6	128	1,260	2	197	232	0.65	576	<1
	Std. Dev.	0.2	7	216	0.4	23	25	0.09	37	NA
	Median	7.5	116	1,130	1	169	223	0.60	538	<1
	Coeff. of Var. (%)	3.0	6	20	28	13	12	15	7	NA
QD-29	Minimum	7.1	122	1,118	2	145	270	0.45	635	<1
	Mean	7.3	123	1,236	2	161	274	0.47	687	<1
	Maximum	7.5	124	1,400	2	172	278	0.49	721	<1
	Std. Dev.	0.2	1	147	0.1	14	4	0.02	46	NA
	Median	7.3	122	1,190	2	166	275	0.48	705	<1
	Coeff. of Var. (%)	3.3	1	12	3	9	1	4.4	7	NA

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----						CFU/100 mL
QD-30	Minimum	7.1	98	1,224	1	114	255	0.30	569	<1
	Mean	7.2	129	1,415	1	134	309	0.33	663	<1
	Maximum	7.3	157	1,626	2	156	349	0.34	738	<1
	Std. Dev.	0.1	30	202	0.3	21	48	0.02	86	NA
	Median	7.2	133	1,396	1	131	322	0.34	682	<1
	Coeff. of Var. (%)	1.5	23	14	20	16	16	7.1	13	NA
QD-31	Minimum	7.5	109	912	<1	112	168	0.20	227	<1
	Mean	7.6	110	1,022	<1	116	180	0.21	241	3
	Maximum	7.8	112	1,140	<1	119	196	0.23	252	20
	Std. Dev.	0.2	2	114	0.0	4	15	0.02	13	NA
	Median	7.7	110	1,014	<1	116	176	0.21	243	<1
	Coeff. of Var. (%)	2.3	1	11	0.0	3	8	7.2	5	NA
QD-32	Minimum	7.5	243	2,024	<1	532	213	0.22	30	<1
	Mean	8.7	249	2,453	<1	536	224	0.25	34	<1
	Maximum	9.4	263	3,078	<1	543	233	0.27	38	<1
	Std. Dev.	1.0	11	554	0.0	6	11	0.03	4	NA
	Median	9.1	243	2,256	<1	534	227	0.25	33	<1
	Coeff. of Var. (%)	12	5	23	0.0	1	5	10	12	NA

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----						CFU/100 mL
QD-33	Minimum	5.9	184	1,436	2	341	205	0.22	24	<1
	Mean	8.0	196	1,605	2	353	212	0.31	28	<1
	Maximum	8.6	208	1,670	2	364	229	0.54	36	<1
	Std. Dev.	1.0	9	86	0.4	8	9	0.12	5	NA
	Median	8.3	195	1,623	2	355	208	0.28	26	<1
	Coeff. of Var. (%)	13	4	5	25	2	4	37	17	NA
QD-34	Minimum	6.9	101	1,012	<1	124	236	0.41	656	<1
	Mean	7.1	112	1,133	2	134	286	0.43	695	1
	Maximum	7.5	119	1,308	2	141	328	0.45	739	6
	Std. Dev.	0.2	6	125	0.1	8	31	0.01	31	NA
	Median	7.2	113	1,074	2	138	286	0.44	694	<1
	Coeff. of Var. (%)	2.8	6	11	7	6	11	3.4	4	NA
QD-35	Minimum	7.1	101	962	2	107	220	0.34	586	<1
	Mean	7.2	108	1,143	2	129	251	0.37	632	<1
	Maximum	7.3	112	1,330	2	149	271	0.39	683	<1
	Std. Dev.	0.1	6	184	0.2	21	28	0.03	49	NA
	Median	7.2	110	1,136	2	132	263	0.37	627	<1
	Coeff. of Var. (%)	1.7	6	16	10	16	11	6.9	8	NA

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----						CFU/100 mL
QD-36	Minimum	7.2	117	1,124	2	120	321	0.33	689	<1
	Mean	7.3	128	1,290	2	121	331	0.35	745	<1
	Maximum	7.3	144	1,460	2	123	338	0.37	795	<1
	Std. Dev.	0.1	14	168	0.1	2	9	0.02	53	NA
	Median	7.3	122	1,286	2	120	334	0.35	751	<1
	Coeff. of Var. (%)	1.0	11	13	4	1	3	5.7	7	NA
QD-37	Minimum	5.9	161	1,392	<1	249	295	0.22	429	<1
	Mean	7.3	166	1,461	<1	263	379	0.32	510	<1
	Maximum	7.8	173	1,516	<1	281	414	0.48	573	<1
	Std. Dev.	0.7	5	44	0.0	14	43	0.10	64	NA
	Median	7.6	165	1,472	<1	260	393	0.33	540	<1
	Coeff. of Var. (%)	10	3	3	0.0	5	11	30	13	NA
QD-38	Minimum	7.9	87	796	<1	163	97	0.37	243	<1
	Mean	8.1	94	863	1	166	103	0.38	251	<1
	Maximum	8.4	100	910	1	167	107	0.39	261	<1
	Std. Dev.	0.3	7	60	0.0	2	5	0.01	9	NA
	Median	7.9	95	884	1	167	106	0.38	250	<1
	Coeff. of Var. (%)	3.6	7	7	0.0	1	5	2.6	4	NA

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----						CFU/100 mL
QD-39	Minimum	8.3	88	804	<1	26	97	<0.10	17	<1
	Mean	8.5	91	812	<1	27	99	<0.10	18	<1
	Maximum	8.6	93	820	<1	27	100	<0.10	18	<1
	Std. Dev.	0.2	4	11	0.0	1	2	0.00	1	NA
	Median	8.5	91	812	<1	27	99	<0.10	18	<1
	Coeff. of Var. (%)	2.6	4	1	0.0	3	2	0.00	4	→ NA
QD-40	Minimum	8.4	85	746	1	15	342	<0.10	19	1
	Mean	9.0	88	754	1	16	370	0.13	33	<1
	Maximum	9.4	93	766	2	17	404	0.18	53	<1
	Std. Dev.	0.5	4	11	0.3	1	31	0.06	18	NA
	Median	9.1	87	750	1	15	366	0.18	26	<1
	Coeff. of Var. (%)	6.1	5	1	24	7	8	46	55	NA
QD-41	Minimum	7.1	37	724	1	14	312	0.31	405	<1
	Mean	7.5	64	783	1	15	336	0.32	418	<1
	Maximum	7.8	79	842	2	15	350	0.35	429	<1
	Std. Dev.	0.3	24	59	0.1	1	21	0.02	12	NA
	Median	7.6	78	784	1	15	347	0.31	420	<1
	Coeff. of Var. (%)	4.6	37	8	8	4	6	7.1	3	NA

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----						CFU/100 mL
QD-42	Minimum	7.1	41	738	1	19	269	0.26	364	<1
	Mean	7.6	66	769	1	19	288	0.31	382	<1
	Maximum	8.0	80	784	1	19	300	0.37	402	<1
	Std. Dev.	0.5	22	27	0	0	17	0.06	19	NA
	Median	7.8	79	784	1	19	296	0.31	380	<1
	Coeff. of Var. (%)	6.5	34	3	14	0	6	18	5	NA
QD-43	Minimum	7.2	76	656	<1	42	206	0.34	447	<1
	Mean	7.4	80	744	1	47	217	0.36	456	<1
	Maximum	7.6	83	810	1	51	227	0.37	469	<1
	Std. Dev.	0.2	4	79	0.0	5	11	0.02	11	NA
	Median	7.4	83	766	1	47	217	0.36	453	<1
	Coeff. of Var. (%)	3.1	5	11	0.0	10	5	4.3	2	NA
QD-44	Minimum	7.8	46	608	1	18	202	0.35	309	<1
	Mean	8.0	60	617	1	18	208	0.37	313	<1
	Maximum	8.4	68	632	1	18	212	0.41	321	<1
	Std. Dev.	0.3	12	13	0.2	0	5	0.03	7	NA
	Median	7.8	66	612	1	18	210	0.35	310	<1
	Coeff. of Var. (%)	3.9	20	2	17	0	2	9.4	2	NA



TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>	
			mS/m	----- mg/L -----							CFU/100 mL
QD-45	Minimum	8.3	57	564	1	17	214	0.34	94	<1	
	Mean	8.6	62	575	1	17	218	0.36	97	<1	
	Maximum	9.1	67	584	1	18	223	0.38	100	<1	
	Std. Dev.	0.4	5	10	0.2	1	5	0.02	4	NA	
	Median	8.4	63	578	1	17	217	0.35	97	<1	
	Coeff. of Var. (%)	4.7	8	2	12	3	2	5.8	4	NA	
QD-46	Minimum	7.1	65	572	<1	11	118	0.18	55	<1	
	Mean	7.8	72	607	1	14	123	0.22	65	<1	
	Maximum	8.3	81	638	1	16	133	0.24	71	NRR <sup>4</sup>	
	Std. Dev.	0.6	8	33	0.3	3	8	0.03	9	NA	
	Median	8.2	70	612	1	15	119	0.24	69	<1	
	Coeff. of Var. (%)	8.1	11	5	24	19	7	16	13	NA	
QD-47	Minimum	7.6	51	504	<1	14	152	0.22	246	<1	
	Mean	7.7	57	513	1	16	156	0.25	247	<1	
	Maximum	7.8	61	520	1	19	159	0.27	248	1	
	Std. Dev.	0.1	6	8	0.0	3	4	0.03	1	NA	
	Median	7.6	60	514	1	15	156	0.27	247	<1	
	Coeff. of Var. (%)	1.6	10	2	0.0	17	2	11	1	NA	

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>	
			mS/m	----- mg/L -----							CFU/100 mL
QD-48	Minimum	7.7	61	534	1	<10	279	0.11	271	<1	
	Mean	8.2	62	567	1	<10	289	0.14	298	<1	
	Maximum	8.6	63	592	1	<10	299	0.19	324	<1	
	Std. Dev.	0.5	1	30	0.1	0	10	0.05	37	NA	
	Median	8.5	62	574	1	<10	288	0.11	298	<1	
	Coeff. of Var. (%)	6.1	2	5	9	0	3	34	13	NA	
QD-49	Minimum	7.9	60	586	1	13	245	<0.10	342	<1	
	Mean	8.1	73	629	1	23	261	0.10	345	<1	
	Maximum	8.3	85	672	1	32	277	0.10	347	<1	
	Std. Dev.	0.3	17	61	0.1	13	23	0.00	4	NA	
	Median	8.1	73	629	1	23	261	0.10	345	<1	
	Coeff. of Var. (%)	3.5	24	10	6	60	9	0.00	1	NA	
QD-50	Minimum	8.9	60	202	1	12	271	0.13	7	<1	
	Mean	9.3	70	511	1	12	286	0.18	7	<1	
	Maximum	9.7	77	666	1	13	303	0.24	8	<1	
	Std. Dev.	0.4	9	267	0.1	1	16	0.06	1	NA	
	Median	9.3	74	664	1	12	284	0.18	7	<1	
	Coeff. of Var. (%)	4.6	13	52	5	5	6	30	8	NA	

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----					CFU/100 mL	
QD-51	Minimum	8.7	64	514	1	11	122	<0.10	5	<1
	Mean	9.3	65	541	1	15	131	0.11	5	<1
	Maximum	9.7	66	574	1	22	136	0.13	6	<1
	Std. Dev.	0.5	1	31	0.1	6	8	0.02	1	NA
	Median	9.4	65	534	1	11	135	0.13	5	<1
	Coeff. of Var. (%)	5.2	2	6	5	43	6	18	11	NA
QD-52	Minimum	8.9	57	464	1	15	136	0.12	17	<1
	Mean	9.1	59	470	1	15	150	0.14	18	<1
	Maximum	9.4	60	476	1	16	161	0.15	19	<1
	Std. Dev.	0.3	1	6	0.1	1	13	0.02	1	NA
	Median	9.1	59	470	1	15	153	0.14	19	<1
	Coeff. of Var. (%)	2.8	2	1	6	4	9	11	6	NA
QD-53	Minimum	8.6	69	570	1	17	159	<0.10	8	<1
	Mean	8.9	72	576	1	18	173	<0.10	10	<1
	Maximum	9.4	74	580	1	19	181	<0.10	11	<1
	Std. Dev.	0.4	3	5	0.1	1	12	0.00	2	NA
	Median	8.8	72	578	1	18	180	<0.10	10	<1
	Coeff. of Var. (%)	5.0	4	1	8	6	7	0.00	16	NA

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----						CFU/100 mL
QD-54	Minimum	9.0	53	388	<1	16	135	0.20	22	<1
	Mean	9.0	55	411	1	17	140	0.23	30	<1
	Maximum	9.1	60	424	1	18	144	0.24	35	<1
	Std. Dev.	0.1	4	20	0.0	1	4	0.02	7	NA
	Median	9.0	54	422	1	17	140	0.24	34	<1
	Coeff. of Var. (%)	0.8	7	5	0.0	6	3	10	24	NA
QD-55	Minimum	8.4	44	446	1	15	174	0.36	143	<1
	Mean	8.8	50	469	1	15	181	0.41	160	<1
	Maximum	9.1	58	492	1	15	195	0.48	173	<1
	Std. Dev.	0.4	7	23	0.1	0	12	0.06	15	NA
	Median	8.8	50	470	1	15	174	0.39	164	<1
	Coeff. of Var. (%)	4.5	14	5	5	0	6	15	10	NA
QD-56	Minimum	7.5	36	284	<1	10	13	0.25	50	<1
	Mean	8.2	38	317	<1	10	14	0.26	54	<1
	Maximum	8.9	41	376	<1	10	15	0.26	59	<1
	Std. Dev.	0.7	2	51	0.0	0	1	0.01	5	NA
	Median	8.4	38	290	<1	10	15	0.26	52	<1
	Coeff. of Var. (%)	8.5	6	16	0.0	0	7	2.2	9	NA

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----					CFU/100 mL	
QD-57	Minimum	8.4	42	352	<1	11	54	0.24	17	<1
	Mean	8.7	43	378	1	12	59	0.25	18	<1
	Maximum	8.9	45	420	1	12	61	0.26	19	<1
	Std. Dev.	0.2	2	37	0.0	1	4	0.01	1	NA
	Median	8.8	42	362	<1	12	61	0.26	18	<1
	Coeff. of Var. (%)	2.8	4	10	0.0	5	7	4.6	6	NA
QD-58	Minimum	7.9	31	242	<1	10	<5	0.32	108	<1
	Mean	8.2	32	273	<1	10	<5	0.33	110	<1
	Maximum	8.6	32	322	<1	11	<5	0.34	114	<1
	Std. Dev.	0.4	0.3	43	0.0	1	0	0.01	3	NA
	Median	8.1	32	256	<1	10	<5	0.34	109	<1
	Coeff. of Var. (%)	4.5	1	16	0.0	6	0	3.5	3	NA
QD-59	Minimum	7.8	47	354	<1	95	25	0.28	150	<1
	Mean	8.4	51	401	1	97	35	0.33	210	<1
	Maximum	9.0	55	438	1	100	41	0.35	242	21
	Std. Dev.	0.6	4	43	0.0	3	8	0.04	52	NA
	Median	8.3	52	412	1	96	38	0.35	238	<1
	Coeff. of Var. (%)	7.5	9	11	0.0	3	24	12	25	NA

TABLE 2 (Continued): DESCRIPTIVE STATISTICS FOR GROUNDWATER DATA OF MONITORING WELLS QD-21 THROUGH QD-60 IN THE DES PLAINES TUNNEL SYSTEM OF THE TUNNEL AND RESERVOIR PLAN MEASURED DURING 2014

Well	Statistic	pH	EC <sup>1</sup>	TDS <sup>1</sup>	TOC <sup>1</sup>	Cl <sup>-</sup>	SO <sub>4</sub> <sup>2-</sup>	NH <sub>3</sub> -N	Hardness	Fecal Coliform <sup>2</sup>
			mS/m	----- mg/L -----						CFU/100 mL
QD-60	Minimum	7.7	48	408	<1	42	106	0.36	232	<1
	Mean	8.0	49	431	<1	43	107	0.39	243	<1
	Maximum	8.1	51	478	<1	43	109	0.42	250	<1
	Std. Dev.	0.2	2	40	0.0	1	1	0.03	10	NA
	Median	8.1	48	408	<1	43	107	0.39	248	<1
	Coeff. of Var. (%)	3.0	3	9	0.0	1	1	7.7	4	NA

<sup>1</sup>EC = electrical conductivity; TDS = total dissolved solids; TOC = total dissolved organic carbon.

<sup>2</sup>Geometric mean calculated.

<sup>3</sup>Not applicable for Fecal Coliform data.

<sup>4</sup>No reportable result.