GSI ENVIRONMENTAL

TABLE 2
CHLOROBENZENE SITE R CALIBRATION RESULTS

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	Chlorobenzene Observed Concentration (mg/L)	Chlorobenzene Simulated Concentration (mg/L)
1980s				
SHU (LAYER 1 IN MODEL)				
B-101	2291144	703204.6	1.44E+00	Dry
B-24A	2290763	703551.4	6.18E+00	3.03E+00
B-25A	2291275	703337.7	1.89E+01	2.69E+01
B-28A	2290369	702642.9	1.51E+00	9.64E-01
B-29A	2290783	702410.1	1.97E+00	Dry
GM-25A	2291284	703356.6	1.40E-02	2.25E+01
P-1	2290176	702580.8	1.11E+00	7.05E-01
P-10	2290644	703588.9	5.21E+00	2.84E+00
P-11	2290698	703722.9	1.66E+00	2.86E+00
P-12	2290790	703957.7	3.74E+01	1.07E+01
P-13	2290896	704250.6	5.53E+00	1.12E+01
P-14	2290887	704223.3	1.58E+02	1.44E+01
P-2	2290261	702742.1	1.81E+00	9.00E-01
P-3	2290390	702908.1	3.46E-01	1.03E+00
P-6	2290486	703125.2	1.00E+01	1.54E+00
P-7	2290568	703446.5	9.00E+00	2.67E+00
P-8	2290552	703435.9	4.91E+00	2.67E+00
SHU (Layer 1 in Model) RMS Error (mg/L)				**38.35**
SHU (Layer 1 in Model) Mean Residual Error (mg/L)				**-10.45**
MHU (LAYER 2 IN MODEL)				
B-25B	2291275	703338	1.31E+01	2.69E+01
B-27B	2290436	702325	4.74E+00	3.01E+00
B-29B	2290793	702429	1.71E+00	2.03E+00
B-30B	2291085	702865	2.35E+00	3.71E+00
GM-27B	2290909	704333	6.02E+01	5.50E+01
GM-28B	2290376	702660	6.13E+00	5.94E+00
SHU (Layer 1 in Model) RMS Error (mg/L)				**6.10**
SHU (Layer 1 in Model) Mean Residual Error (mg/L)				**1.39**
DHU (LAYER 3 IN MODEL)				
GM-27C	2290906	704326	2.03E+00	6.73E+00
GM-28C	2290373	702654	5.13E+00	4.87E+00
GM-55C	2290166	702602	4.03E+00	3.64E+00
GM-56C	2290549	703412	3.98E+00	6.50E+00
GM-57C	2290739	703820	7.38E+00	6.60E+00
SHU (Layer 1 in Model) RMS Error (mg/L)				**2.42**
SHU (Layer 1 in Model) Mean Residual Error (mg/L)				**1.16**

TABLE 2 CONT'D
CHLOROBENZENE SITE R CALIBRATION RESULTS

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	Chlorobenzene Observed Concentration (mg/L)	Chlorobenzene Simulated Concentration (mg/L)
1990s				
SHU (LAYER 1 IN MODEL)				
P-13	2290896	704250.6	6.40E+00	9.64E+00
P-14	2290887	704223.3	6.47E+01	1.22E+01
P-2	2290261	702742.1	3.67E+00	7.34E-01
P-6	2290486	703125.2	9.98E-01	1.28E+00
P-7	2290568	703446.5	4.86E+00	2.26E+00
P-8	2290552	703435.9	5.28E+00	2.26E+00
			SHU (Layer 1 in Model) RMS Error (mg/L)	**21.58**
			SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**-9.59**
MHU (LAYER 2 IN MODEL)				
GM-27B	2290909	704333	1.08E+01	4.65E+01
GM-28B	2290376	702660	3.56E+00	4.94E+00
			SHU (Layer 1 in Model) RMS Error (mg/L)	**25.25**
			SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**18.53**
DHU (LAYER 3 IN MODEL)				
GM-27C	2290906	704326	2.44E+00	5.65E+00
GM-28C	2290373	702654	3.58E+00	4.03E+00
GM-55C	2290166	702602	2.99E+00	2.98E+00
GM-56C	2290549	703412	4.62E+00	5.29E+00
GM-57C	2290739	703820	5.85E+00	5.36E+00
			SHU (Layer 1 in Model) RMS Error (mg/L)	**1.50**
			SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**0.77**

GSI ENVIRONMENTAL

TABLE 2 CONT'D
CHLOROBENZENE SITE R CALIBRATION RESULTS

Regional Groundwater Fate and Transport Model
American Bottoms Aquifer

Well	X-Model	Y-Model	Chlorobenzene Observed Concentration (mg/L)	Chlorobenzene Simulated Concentration (mg/L)
2000s				
SHU (LAYER 1 IN MODEL)				
AA-R-1	2290570	703254.9	2.00E+00	6.38E-01
B-22A	2291090	704158.4	6.10E+00	5.74E+00
B-24A	2290763	703551.4	4.00E+00	1.00E+00
B-25A	2291275	703337.7	1.40E+01	1.90E+01
B-25B	2291275	703337.7	1.20E+01	1.90E+01
B-26A	2290555	703088	2.80E+00	4.73E-01
B-28A	2290369	702642.9	3.40E-01	4.29E-01
B-29A	2290783	702410.1	2.40E+00	Dry
B-29B	2290793	702429	1.20E+00	1.44E+00
SA-Q-1	2290516	702120.7	1.20E+00	Dry
			SHU (Layer 1 in Model) RMS Error (mg/L)	**3.37**
			SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**0.67**
MHU (LAYER 2 IN MODEL)				
AA-Q-1	2290064	702409	2.40E-01	3.99E-01
AA-R-1	2290570	703255	1.30E+01	7.23E+00
B-21B	2291508	703947	1.60E+01	1.90E+01
B-24C	2290774	703571	8.80E+00	1.12E+01
B-25B	2291275	703338	1.60E+01	1.90E+01
B-26B	2290583	703032	5.90E+00	4.03E+00
B-28B	2290377	702660	2.80E+00	3.53E+00
B-29B	2290793	702429	1.60E+00	1.44E+00
GM-27B	2290909	704333	1.10E+01	3.44E+01
PSMW-16M	2291110	704392	2.10E-02	2.31E+01
			SHU (Layer 1 in Model) RMS Error (mg/L)	**10.68**
			SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**4.80**
DHU (LAYER 3 IN MODEL)				
AA-Q-1	2290064	702409	1.10E+00	3.81E-01
AA-R-1	2290570	703255	4.30E+00	3.04E+00
GM-27C	2290906	704326	1.70E+00	3.32E+00
GM-56C	2290549	703412	1.40E-01	2.66E+00
PSMW-16D	2291107	704396	2.30E+00	2.13E+00
PSMW-17	2290245	702674	9.20E-01	2.18E+00
			SHU (Layer 1 in Model) RMS Error (mg/L)	**1.45**
			SHU (Layer 1 in Model) Mean Residual Error (mg/L)	**0.54**

Notes:
1. All coordinates in State Plane feet, Illinois West, NAD 1983.
   Dry = well lies in model dry cell
   mg/L = milligram per liter
   RMS = Root mean square error