

Table 3-2
Monitoring Well Construction Details and Groundwater Elevation Summary
Metropolitan Former MGP Site, Brooklyn, New York

Well ID	Date Installed	Coordinates				Ground Surface Elevation (ft)	Top of Casing Elevation (ft)	Well Diameter (inches)	Screened Interval (ft btoc)	Total Depth (ft btoc)	1-Jun-10		26-Jul-10		23-Aug-10		29-Sep-10		4-Oct-10		8-Oct-10		22-Oct-10		22-Nov-10		29-Apr-11		14-Mar-12	
		Northing	Easting	Latitude	Longitude						Depth to Water (ft btoc)	Groundwater Elevation (ft datum)	Depth to Water (ft btoc)	Groundwater Elevation (ft datum)	Depth to Water (ft btoc)	Groundwater Elevation (ft datum)	Depth to Water (ft btoc)	Groundwater Elevation (ft datum)	Depth to Water (ft btoc)	Groundwater Elevation (ft datum)	Depth to Water (ft btoc)	Groundwater Elevation (ft datum)	Depth to Water (ft btoc)	Groundwater Elevation (ft datum)	Depth to Water (ft btoc)	Groundwater Elevation (ft datum)	Depth to Water (ft btoc)	Groundwater Elevation (ft datum)	Depth to Water (ft btoc)	Groundwater Elevation (ft datum)
Tide Occurrence >											Mid-Tide (Incoming)		High Tide		High Tide		High Tide		Mid-Tide (Outgoing)		Mid-Tide (Incoming)		Low Tide		Low Tide		Mid-Tide (Outgoing)		Low Tide (Incoming)	
Activity >											Initial Groundwater Well Development		Monthly Gowanus Gauging (1st)		Monthly Gowanus Gauging (2nd)		Monthly Gowanus Gauging (3rd)		Initial Groundwater Sampling		Initial Aquifer Testing		Monthly Gowanus Gauging (4th)		Monthly Gowanus Gauging (4th)		Initial Groundwater Well Development (MW-4D1 & MW-4D2 only)		Initial Groundwater Sampling for new wells (MW-19S/I, MW-20S/I, MW21D, MW-22/D, MW-23D, MW-25S/I)	
Canal Surface	8/24/2010	184286.64	984929.73	NA	NA	9.11	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.05	-4.94	9.65	-0.54	N/A	N/A	16.3	-7.19	17.05	-7.94	12.04	-2.93	NM	NM	13.75	-4.64
Shallow Wells																														
MW-1S	4/8/2010	183754.21	985753.83	40-40-15.742	73-59-40.484	11.99	11.62	2	3 to 13	15.0	3.45	8.17	4.00	7.62	3.97	7.65	4.14	7.48	3.83	7.79	N/M	N/M	3.96	7.66	4.22	7.40	NM	NM	5.00	6.62
MW-3S	4/13/2010	183865.47	985269.49	40-40-16.842	73-59-46.769	8.61	8.05	2	3 to 13	15.0	2.49	5.56	2.95	5.10	3.01	5.04	2.57	5.48	1.9	6.15	2.16	5.89	2.53	5.52	2.92	5.13	NM	NM	3.11	4.94
MW-4S	4/28/2010	184145.24	984868.25	40-40-19.606	73-59-51.977	6.86	6.45	2	3 to 13	15.0	4.94	1.51	5.00	1.45	4.71	1.74	4.88	1.57	4.26	2.19	4.68	1.77	5.07	1.38	4.78	1.67	NM	NM	5.32	1.13
MW-5S	4/27/2010	183938.46	984811.01	40-40-17.563	73-59-52.719	9.79	9.44	2	3 to 13	15.0	7.43	2.01	7.40	2.04	7.29	2.15	7.30	2.14	6.9	2.54	7.30	2.14	7.5	1.94	7.55	1.89	NM	NM	8.00	1.44
MW-6S	4/21/2010	183755.76	985095.95	40-40-15.758	73-59-49.0216	9.81	9.59	2	3 to 13	15.0	5.62	3.97	5.80	3.79	5.78	3.81	5.79	3.80	5.35	4.24	5.38	4.21	5.59	4.00	5.72	3.87	NM	NM	6.13	3.46
MW-7S	4/29/2010	183682.08	985205.99	40-40-15.030	73-59-47.594	10.36	9.94	2	3 to 13	15.0	5.39	4.55	5.63	4.31	5.52	4.42	5.51	4.43	4.44	5.50	4.69	5.25	4.92	5.02	5.46	4.48	NM	NM	5.95	3.99
MW-8S	5/5/2010	184072.81	985056.75	40-40-18.890	73-59-49.530	7.46	7.23	2	3 to 13	15.0	3.08	4.15	4.65	2.58	4.74	2.49	4.63	2.60	4.51	2.72	4.10	3.13	4.68	2.55	4.53	2.70	NM	NM	5.12	2.11
MW-9S	9/17/2010	184284.23	984942.57	40-40-20.980	73-59-51.012	9.36	8.98	2	5 to 15	17.0	NS	NS	NS	NS	NS	NS	6.62	2.36	8.19	0.79	N/M	NM	10.93	-1.95	8.91	0.07	NM	NM	9.65	-0.67
MW-19S	10/2/2011	184233.97	984729.73	40-40-20.48	73-59-53.77	10.91	10.6	2	4 to 14	16.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	11.00	-0.40
MW-20S	10/16/2011	184310.69	984687.19	40-40-21.24	73-59-54.33	11.69	11.36	2	4 to 14	16.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8.78	2.58
MW-25S	10/13/2011	184592.24	985262.07	40-40-24.023	73-59-46.865	6.51	6.10	2	18 to 28	30.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.85	2.25
Intermediate Wells																														
MW-1I	4/8/2010	183751.96	985757.21	40-40-15.720	73-59-40.440	12.09	11.58	2	30 to 40	42.0	6.27	5.31	7.30	4.28	7.11	4.47	7.35	4.23	7.10	4.48	N/M	N/M	7.84	3.74	7.21	4.37	NM	NM	7.24	4.34
MW-3I	4/13/2010	183865.47	985269.49	40-40-16.842	73-59-46.769	8.61	8.07	2	25 to 50	52.0	3.99	4.08	4.44	3.63	4.35	3.72	4.39	3.68	4.03	4.04	4.23	3.84	4.44	3.63	4.49	3.58	NM	NM	4.76	3.31
MW-4I	4/28/2010	184145.24	984868.25	40-40-19.606	73-59-51.977	6.86	6.31	2	25 to 35	37.0	3.95	2.36	3.88	2.43	3.91	2.40	4.78	1.53	3.74	2.57	4.55	1.76	4.39	1.92	4.02	2.29	NM	NM	4.85	1.46
MW-5I	4/22/2010	183936.22	984812.02	40-40-17.541	73-59-52.706	9.79	9.5	2	38 to 48	50.0	7.09	2.41	7.05	2.45	7.18	2.32	6.91	2.59	6.68	2.82	7.64	1.86	7.5	2	7.21	2.29	NM	NM	7.77	1.73
MW-6I	4/21/2010	183755.76	985095.95	40-40-15.758	73-59-49.0216	9.81	9.21	2	30 to 40	42.0	6.72	2.49	6.78	2.43	6.77	2.44	6.66	2.55	6.45	2.76	7.32	1.89	7.14	2.07	6.78	2.43	NM	NM	7.33	1.88
MW-7I	4/29/2010	183682.08	985205.99	40-40-15.030	73-59-47.594	10.36	9.81	2	30 to 40	42.0	6.98	2.83	7.20	2.61	7.15	2.66	7.07	2.74	6.78	3.03	7.73	2.08	7.48	2.33	7.13	2.68	NM	NM	7.66	2.15
MW-8I	5/5/2010	184072.81	985056.75	40-40-18.890	73-59-49.530	7.46	7.12	2	30 to 40	42.0	4.51	2.61	4.70	2.42	4.68	2.44	4.52	2.60	4.41	2.71	5.22	1.90	5.04	2.08	4.77	2.35	NM	NM	5.12	2.00
MW-9I	9/17/2010	184280.34	984939.39	40-40-20.941	73-59-51.053	9.29	8.81	2	30 to 45	47.0	NS	NS	NS	NS	NS	NS	7.22	1.59	6.07	2.74	N/M	N/M	6.76	2.05	6.5	2.31	NM	NM	6.90	1.91
MW-19I	10/2/2011	184233.97	984729.73	40-40-20.48	73-59-53.77	10.91	10.54	2	28 to 38	40.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	9.18	1.36
MW-20I	10/16/2011	184310.69	984687.19	40-40-21.24	73-59-54.33	11.69	11.34	2	28 to 38	40.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10.09	1.25
MW-22I	10/6/2011	184316.19	985224.90	40-40-21.295	73-59-47.348	8.12	7.68	2	25 to 35	37.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.30	2.38
MW-25I	10/13/2011	184592.24	985262.07	40-40-24.023	73-59-46.865	6.51	6.10	2	34 to 44	46.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.86	2.24
Deep Wells																														
MW-1D	4/8/2010	183751.96	985757.21	40-40-15.720	73-59-40.440	12.09	11.46	2	60 to 70	72.0	7.42	4.04	7.83	3.63	7.75	3.71	7.88	3.58	7.69	3.77	N/M	N/M	7.11	4.35	7.77	3.69	NM	NM	7.69	3.77
MW-2D	4/9/2010	183753.85	985474.32	40-40-15.739	73-59-44.111	10.26	9.97	2	60 to 70	72.0	7.17	2.80	7.22	2.75	7.12	2.85	7.15	2.82	6.80	3.17	7.70	2.27	7.45	2.52	7.16	2.81	NM	NM	7.61	2.36
MW-4D1	4/28/2011	184130.65	984874.52	40-40-19.462	73-59-51.895	6.85	6.40	2	115 to 120	120.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.20	3.20	5.49	0.91
MW-4D2	4/27/2011	184145.26	984879.53	40-40-19.606	73-59-51.830	6.80	6.07	2	142 to 147	150.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3.20	2.87	2.18	3.89
MW-5D	4/22/2010	183936.22	984812.02	40-40-17.541	73-59-52.706	9.79	9.42	2	60 to 70	72.0	7.01	2.41	6.95	2.47	7.10	2.32	6.79	2.63	6.58	2.84	7.54	1.88	7.41	2.01	7.13	2.29	NM	NM	7.67	1.75
MW-9D	9/17/2010	184280.34	984939.39	40-40-20.941	73-59-51.053	9.29	8.83	2	60 to 70	72.0	NS	NS	NS	NS	NS	NS	6.21	2.62	6.08	2.75	N/M	N/M	6.74	2.09	6.50	2.33	NM	NM	6.89	1.94
MW-21D	10/18/2011	184246.62	985321.01	40-40-20.608	73-59-46.101	10.07	9.73	2	60 to 70	72.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7.09	2.64
MW-22D	10/6/2011	184316.19	985224.90	40-40-21.295	73-59-47.348	8.12	7.68	2	60 to 70	72.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5.51	2.17
MW-23D	10/4/2011	184572.54	985157.21	40-40-23.83	73-59-48.23	5.22	4.64	2	60 to 70	72.0	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	2.54	2.10

Notes:
NA - Not Applicable
NS - Not Sampled due to well not installed.
NM - Not Measured

ft btoc - feet below top of casing
Top of casing elevations in feet above North American Vertical Datum of 1988 (NAVD-88).
Canal surface reference adjacent to MW-9 location.

Table 3-4
Summary of Location Coordinates and Elevations
Metropolitan Former MGP Site, Brooklyn, New York

Location	Northing ¹	Easting ¹	Ground Surface Elevation (feet)	Top of Casing Elevation (feet)
Monitoring Wells				
MW-1S	183754.21	985753.83	11.99	11.62
MW-1I	183751.96	985757.21	12.09	11.58
MW-1D	183751.96	985757.21	12.09	11.46
MW-2D	183753.85	985474.32	10.26	9.97
MW-3S	183865.47	985269.49	8.61	8.05
MW-3I	183865.47	985269.49	8.61	8.07
MW-4S	184145.24	984868.25	6.86	6.45
MW-4I	184145.24	984868.25	6.86	6.31
MW-4D1	184130.65	984874.52	6.85	6.40
MW-4D2	184145.26	984879.53	6.80	6.07
MW-5S	183938.46	984811.01	9.79	9.44
MW-5I	183936.22	984812.02	9.79	9.5
MW-5D	183936.22	984812.02	9.79	9.42
MW-6S	183755.76	985095.95	9.81	9.59
MW-6I	183755.76	985095.95	9.81	9.21
MW-7S	183682.08	985205.99	10.36	9.94
MW-7I	183682.08	985205.99	10.36	9.81
MW-8S	184072.81	985056.75	7.46	7.23
MW-8I	184072.81	985056.75	7.46	7.12
MW-9S	184284.23	984942.57	9.36	8.98
MW-9I	184280.34	984939.39	9.29	8.81
MW-9D	184280.34	984939.39	9.29	8.83
MW-19S	184233.97	984729.73	10.91	10.60
MW-19I	184233.97	984729.73	10.91	10.54
MW-20S	184310.69	984687.19	11.69	11.36
MW-20I	184310.69	984687.19	11.69	11.34
MW-21D	184246.62	985321.01	10.07	9.73
MW-22I	184316.19	985224.90	8.12	7.68
MW-22D	184316.19	985224.90	8.12	8.11
MW-23D	184572.54	985157.21	5.22	4.72
MW-25S	184592.24	985262.07	6.51	6.10
MW-25I	184592.24	985262.07	6.51	6.50
Canal Surface Water				
Canal Surface	184286.64	984929.73	9.11	N/A
Surface Soil				
SS-1	184280.34	984939.39	9.29	N/A
SS-2	184318.98	984965.19	9.23	N/A
SS3	184355.01	984987.59	9.12	N/A
Soil Borings				
SB-10	184036.07	984854.61	9.27	N/A
SB-11	183894.18	985046.09	9.44	N/A
SB-12	183799.95	985224.56	9.56	N/A
SB-13	183907.34	985201.02	8.42	N/A
SB-14	183823.32	985369.96	9.23	N/A
SB-15	183846.84	985308.07	11.46	N/A
SB-16	184031.03	985121.90	7.58	N/A
SB-17	184108.26	985000.39	7.15	N/A
SB-18	183946.83	985147.27	7.00	N/A
SB-24	184457.01	985320.02	8.16	N/A
SB-26	184167.47	984390.53	12.35	N/A
Test Pits				
TP-01	183906.71	985196.05	8.38	N/A
TP-01	183906.53	985193.11	8.40	N/A
TP-01	183890.52	985193.75	8.85	N/A
TP-01	183890.69	985196.72	8.81	N/A
TP-02	183857.82	985285.54	8.74	N/A
TP-02	183856.13	985286.15	8.70	N/A
TP-02	183856.78	985291.32	8.79	N/A
TP-02	183858.96	985290.11	8.74	N/A
TP-02	183861.43	985292.91	8.53	N/A
TP-02	183852.20	985307.03	8.74	N/A
TP-02	183848.10	985304.96	11.40	N/A

Notes:

1 - Horizontal datum: New York State Plane, NAD 83 Feet. Vertical datum: NAVD 1988.