GEI Consultants

Geotechnical
Environmental and
Water Resources
Engineering

Quarterly Groundwater Monitoring Report
First Quarter (Q1) 2009

Sag Harbor Former MGP Site

Village of Sag Harbor
Suffolk County, Long Island, NY
Site ID No. 1-52-159

Submitted to:
National Grid
175 East Old Country Road
Hicksville, NY

Submitted by:
GEI Consultants, Inc.
110 Walt Whitman Road
Huntington Station, NY 11746
631-760-9300

June 2009
061140-18-2704

Table of Contents

Tables

Figures

H:\WPROC\Project\KEYSPAN\Sag Harbor\Quarterly Monitoring\2009\Q1 2009\Sag Harbor Q1 2009 GW Report Text.docx

1. Sag Harbor Site and Adjacent Off-Site Areas

Q1 2009 Groundwater Monitoring Event Summary

Event Date: March 16-17, 2009

Site Phase: Quarterly groundwater monitoring

Location: The location of the Sag Harbor Former MGP Site is depicted on **Figure 1**.

Monitoring Program:

Number of Wells: A total of 16 monitoring wells are currently located adjacent to the site (see **Figure 2**). MW-05 was destroyed sometime between March and June 2007. Monitoring wells MW-01, MW-02, MW-03, MW-04, MW-06, SHMW-01S, SHMW-01I, SHMW-02I, SHMW-02D, SHMW-04S, SHMW-04I, SHMW-05S, SHMW-05I, SHMW-06S, and SHMW-06I were abandoned prior to the Q1 sampling event due to the remediation activities being conducted at the site, and wells SHMW-07S, SHMW-07I, SHMW-08S, SHMW-08I, and SHMW-09S were inaccessible.

Hydrological Data: Groundwater levels were measured at 11 of the 16 remaining monitoring wells. Depth to groundwater and calculated groundwater elevations are shown on **Table 1**. The groundwater flow direction was generally to the west towards Sag Harbor Cove (see **Figures 3** through **6**). It is noted that dewatering in the vicinity of the site in support of remedial work was ongoing during the time the Q1 2009 water level measurements were recorded. The groundwater elevation data indicated that the dewatering process created temporary localized depressions in the shallow and intermediate zones immediately west and south of the site, respectively. The ranges in depth to water and water table elevation data, as well as calculated hydraulic gradients for the shallow and intermediate portions of the aquifer in Q1 2009 were as follows:

- Depth to the water table in shallow wells at high tide ranged from +**0.00** (SHMW-12S) to

6.36 (SHMW-03S) feet below the well measuring point.

- Water table elevations in shallow wells at high tide ranged from -**0.93** (SHMW-03S) to **4.31** (SHMW-13S) feet above mean sea level (MSL).
- Depth to the water table in shallow wells at low tide ranged from +**0.00** (SHMW-12S) to **6.47** (SHMW-03S) feet below the well measuring point.
- Water table elevations in shallow wells at low tide ranged from **-1.04** (SHMW-03S) to **4.27** (SHMW-13S) feet above MSL.
- The calculated shallow hydraulic gradient for high tide was **0.0052** feet/foot. The calculated shallow hydraulic gradient for low tide was **0.0060** feet/foot.
- Depth to groundwater in intermediate wells at high tide ranged from **2.08** (SHMW-13I) to **7.61** (SHMW-09I) feet below the well measuring point.
- Groundwater elevations in intermediate wells at high tide ranged from **-3.20** (SHMW-09I) to **2.62** (SHMW-13I) feet above MSL.
- Depth to groundwater in intermediate wells at low tide ranged from **2.51** (SHMW-13I) to **8.19** (SHMW-09I) feet below the well measuring point.
- Groundwater elevations in intermediate wells at low tide ranged from **-3.78** (SHMW-09I) to **2.19** (SHMW-13I) feet above MSL.
- The calculated intermediate hydraulic gradient for high tide was **0.0035** feet/foot. The calculated intermediate hydraulic gradient for low tide was **0.0049** feet/foot.

NAPL Thickness Data:

Table 2 provides a summary of historic non-aqueous phase liquid (NAPL) data. In Q1 2009, five monitoring wells (SHMW-03S, SHMW-10S, SHMW-11S, SHMW-12S, and SHMW-13S) were monitored for NAPL as part of the groundwater monitoring program. As shown in **Table 2**, light non-aqueous phase liquid (LNAPL) and dense non-aqueous phase liquid (DNAPL) were not found in these monitoring wells during Q1 2009.

Chemical Data:

A total of **5** monitoring wells were sampled for BTEX and MTBE (EPA Method 8260) and PAHs (EPA Method 8270). Well sampling was conducted on March 17, 2009 and included all shallow accessible wells on the quarterly sampling list. In Q1 2009, no intermediate wells were sampled.

Chemical data for Q1 2009 (see **Table 3**) indicate:

- Total BTEX concentrations ranged from less than method detection limits in 3 of 5 wells sampled to **111** micrograms per liter (µg/L) in SHMW-03S.
- Total PAH concentrations were less than method detection limits in all five wells sampled.

Data Trend Analysis:

In general, fairly consistent BTEX and PAH concentrations (see historical data in **Tables 4** and **5**) have been detected in shallow groundwater on and adjacent to the site when compared to previous sampling events.

In Q1 2009, BTEX concentrations were below laboratory detection limits in three of the five shallow wells sampled. BTEX concentrations have been below detection limits in two shallow wells (SHMW-11S and SHMW-13S) since these wells were installed in 2002. In one of the two shallow wells that had detectable BTEX concentrations (SHMW-12S), the BTEX concentration was lower than its respective mean. In the remaining well (SHMW-03S), the BTEX concentration was within the range of historical values.

Between Q4 2008 and Q1 2009, BTEX concentrations decreased in one of the two shallow wells (SHMW-12S). Although a BTEX increase was observed in the remaining shallow well (SHMW-03S), the increase was consistent with typical historical fluctuations.

In Q1 2009, PAH concentrations were below the laboratory detection limits in all five of the shallow wells sampled. Two wells (SHMW-03S and SHMW-12S) which had detectable PAH concentrations in Q4 2008 decreased to below laboratory detection limits in Q1 2009.

MTBE concentrations remained below laboratory detection limits in all of the wells sampled.

Water table elevations (see **Table 1**) at shallow wells during high tide conditions have decreased between Q4 2008 and Q1 2009 in all five wells measured. Decreases in these wells ranged from 0.13 to 2.94

feet. The average decrease over these wells was 0.87 feet. Water table elevations at shallow wells during low tide conditions have also decreased between Q4 2008 and Q1 2009 in all of the five wells measured. Decreases ranged from 0.22 to 2.94 feet. The average decrease over these wells was 0.83 feet. As previously mentioned, dewatering in support of the remedial work was ongoing during the water level measurements. The dewatering process has likely affected some of the measurements, specifically SHMW-03S, SHMW-03I, SHMW-09I, and SHMW-12I.

Variable dissolved constituent concentrations detected in shallow groundwater over the past events are likely due, in part to the rise and fall of the water table resulting in periods of both decreased and increased dissolution of adsorbed BTEX and PAHs trapped beneath the interface.

The historical NAPL data (see **Table 2**) indicate that measurable quantities of NAPL have primarily been found in two on-site shallow monitoring wells (MW-02 and MW-05), one on-site intermediate well (SHMW-02I), and one off-site shallow well (SHMW-04S). Historically, trace amounts of NAPL have been found in two on-site shallow wells (MW-03 and MW-04), and one off-site shallow well (SHMW-06S). All of the wells in which NAPL has been historically detected were either destroyed or abandoned prior to the Q1 2009 groundwater monitoring event. NAPL was not detected in any of the remaining wells.

Current Plans: Continue quarterly groundwater and NAPL monitoring at accessible monitoring wells. Remedial activities at the site began in late Q3 2008 and were completed in Q2 2009. The monitoring well network will be re-evaluated to determine which wells affected by the remediation activities need to be repaired or replaced.

Tables

Table 1
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Water Level Measurements and Calculated Water Elevations - Q1 2009

Well ID	Top of Casing Elevation (ft)	Tide	Time	3/16/2009		Notes
				Depth to Water (ft)	Groundwater Elevation (ft)	
MW-01	5.09	High	--	--	--	Well abandoned
		Low	--	--	--	
MW-02	4.48	High	--	--	--	Well abandoned
		Low	--	--	--	
MW-03	4.59	High	--	--	--	Well abandoned
		Low	--	--	--	
MW-04	4.13	High	--	--	--	Well abandoned
		Low	--	--	--	
MW-05	5.07	High	--	--	--	Well destroyed
		Low	--	--	--	
MW-06	5.38	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-01S	4.52	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-01I	4.47	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-02I	5.22	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-02D	5.19	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-03S	5.43	High	1518	6.36	-0.93	
		Low	927	6.47	-1.04	
SHMW-03I	5.43	High	1520	6.88	-1.45	
		Low	926	7.65	-2.22	
SHMW-04S	5.71	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-04I	5.71	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-05S	6.23	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-05I	6.14	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-06S	4.44	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-06I	4.43	High	--	--	--	Well abandoned
		Low	--	--	--	
SHMW-07S	5.05	High	--	--	--	Well inaccessible
		Low	--	--	--	
SHMW-07I	5.00	High	--	--	--	Well inaccessible
		Low	--	--	--	
SHMW-08S	5.26	High	--	--	--	Well inaccessible
		Low	--	--	--	
SHMW-08I	5.08	High	--	--	--	Well inaccessible
		Low	--	--	--	
SHMW-09S	4.36	High	--	--	--	Car parked over well during high and low tides and could not obtain water levels
		Low	--	--	--	
SHMW-09I	4.41	High	1500	7.61	-3.20	
		Low	912	8.19	-3.78	
SHMW-10S	5.91	High	1453	4.88	1.03	
		Low	929	5.46	0.45	
SHMW-10I	5.89	High	1453	5.52	0.37	
		Low	929	6.79	-0.90	
SHMW-11S	5.74	High	1457	5.57	0.17	
		Low	909	5.94	-0.20	
SHMW-11I	5.79	High	1458	5.60	0.19	
		Low	909	6.59	-0.80	
SHMW-12S	3.42	High	1503	0.00	3.42	Slightly artesian
		Low	916	0.00	3.42	
SHMW-12I	3.29	High	1505	6.27	-2.98	
		Low	914	6.78	-3.49	
SHMW-13S	4.68	High	1512	0.37	4.31	
		Low	921	0.41	4.27	
SHMW-13I	4.70	High	1512	2.08	2.62	
		Low	922	2.51	2.19	

-- Not Available

Table 2
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of Historic NAPL Observations

Well ID	May 2002 Observations	May 2004 Observations	August 2004 Observations	October 2004 Observations	November 2004 Observations	December 2004 Observations	January 2005 Observations	February 2005 Observations	March 2005 Observations	April/Q1 2005 Observations	June/Q2 2005 Observations	September/Q3 2005 Observations
MW-01	None Observed	Odor	None Observed	Not Checked	NR	NR	NR	NR	NR	NR	NR	NR
MW-02	Approx. 0.16' of DNAPL, sheen on surface	Approx. 0.15' of DNAPL, sheen on surface	Approx. 0.29' of DNAPL	Approx. 0.2' of DNAPL	Approx. 0.01' of DNAPL, 1.0' intermittent DNAPL	Approx. 0.1' of DNAPL	Approx. 0.11' of DNAPL	Approx. 0.16' of DNAPL	Approx. 0.15' of DNAPL	Approx. 0.15' of DNAPL	Trace DNAPL at bottom of tape	Approx. 0.13' of DNAPL
MW-03	Intermittent DNAPL for 1.5'	Approx. 0.03' of DNAPL, naphthalene-like odor	NR	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape	Trace DNAPL at bottom of tape
MW-04	None Observed	Approx. 0.02' of DNAPL, naphthalene-like odor	NR	Trace DNAPL at bottom of tape	None Observed	None Observed	Trace DNAPL at bottom of tape	Not Checked (under snow pile)	None Observed	None Observed	None Observed	Trace DNAPL at bottom of tape
MW-05	Blebs of LNAPL	Approx. 1.0' of DNAPL, naphthalene-like odor	Approx. 0.75' of DNAPL	Approx. 4.5' of LNAPL/NAPL	Approx. 0.35' of DNAPL, 3.6' intermittent DNAPL	Trace DNAPL at bottom of tape, bubbles in WC	Trace DNAPL at bottom of tape	Approx. 0.6' of DNAPL, approx. 0.02' of LNAPL	Sporadic DNAPL, approx. 0.1' of LNAPL.	Sporadic DNAPL, approx. 0.1' of LNAPL.	Approx. 3.0' of DNAPL	Approx. 0.75' of DNAPL, approx. 0.12' of LNAPL
MW-06	None Observed	Slight naphthalene-like odor	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-01S	None Observed	Slight naphthalene-like odor	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-01I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-02I	None Observed	Approx. 4.9' of DNAPL, sheen	Approx. 4.7' of DNAPL	Approx. 4.9' of DNAPL	Approx. 1.0' of DNAPL, 3.0' intermittent DNAPL	Approx. 0.6' of DNAPL	Approx. 0.65' of DNAPL	Approx. 0.5' of DNAPL	Approx. 0.45' of DNAPL	Approx. 1.1' of DNAPL	Approx. 0.75' of DNAPL	Approx. 0.4' of DNAPL
SHMW-02D	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Notes:
DNAPL - Dense Non-aqueous Phase Liquid
LNAPL - Light Non-aqueous Phase Liquid
WC - Water Column
NR - Gauging Not Required

Table 2
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of Historic NAPL Observations

Well ID	May 2002 Observations	May 2004 Observations	August 2004 Observations	October 2004 Observations	November 2004 Observations	December 2004 Observations	January 2005 Observations	February 2005 Observations	March 2005 Observations	April/Q1 2005 Observations	June/Q2 2005 Observations	September/Q3 2005 Observations
SHMW-03S	None Observed	Odor	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-03I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-04S	None Observed	Approx. 0.6' of DNAPL, naphthalene-like odor	NR	Approx. 0.7' of DNAPL, 2.3' intermittent DNAPL	Approx. 0.55' of DNAPL	Approx. 0.29' of DNAPL	Approx. 0.35' of DNAPL	Approx. 0.22' of DNAPL	Approx. 0.25' of DNAPL	Approx. 0.25' of DNAPL	Approx. 0.90' of DNAPL	Approx. 0.26' of DNAPL
SHMW-04I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-05S	None Observed	Blebs of DNAPL in purge water, odor	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-05I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-06S	Slight sheen and naphthalene-like odor	Naphthalene-like odor	NR	NR	NR	NR	NR	NR	NR	NR	NR	Trace DNAPL at bottom of tape
SHMW-06I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-07S	Sheen and naphthalene-like odor	Slight odor	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-07I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-08S	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Notes:
DNAPL - Dense Non-aqueous Phase Liquid
LNAPL - Light Non-aqueous Phase Liquid
WC - Water Column
NR - Gauging Not Required

Table 2
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of Historic NAPL Observations

Well ID	May 2002 Observations	May 2004 Observations	August 2004 Observations	October 2004 Observations	November 2004 Observations	December 2004 Observations	January 2005 Observations	February 2005 Observations	March 2005 Observations	April/Q1 2005 Observations	June/Q2 2005 Observations	September/Q3 2005 Observations
SHMW-08I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-09S	None Observed	Slight naphthalene-like odor	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-09I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-10S	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-10I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-11S	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-11I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-12S	None Observed	Sheen, strong sulfur-like odor	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-12I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-13S	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
SHMW-13I	None Observed	None Observed	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Notes:
DNAPL - Dense Non-aqueous Phase Liquid
LNAPL - Light Non-aqueous Phase Liquid
WC - Water Column
NR - Gauging Not Required

Table 2
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of Historic NAPL Observations

Well ID	December/Q4 2005 Observations	March/Q1 2006 Observations	June/Q2 2006 Observations	September/Q3 2006 Observations	December/Q4 2006 Observations	March/Q1 2007 Observations	June/Q2 2007 Observations	September/Q3 2007 Observations	December/Q4 2007 Observations	March/Q1 2008 Observations	June/Q2 2008 Observations	September/Q3 2008 Obsevations	December/Q4 2008 Obsevations	March/Q1 2009 Observations
MW-01	NR	NR	NR	NR	NR	NR	NR	NR	None Observed	None Observed	Trace DNAPL	Trace DNAPL (at bottom of tubing)	Well Inaccessible or Abandoned	Well Abandoned
MW-02	Approx. 0.09' DNAPL, naphthalene-like odor	Approx. 0.01' DNAPL	Approx. 0.12 ' of DNAPL	Approx. 0.15' DNAPL	Approx. 0.10' DNAPL	Approx.0.20' DNAPL	Approx.0.07' DNAPL	Approx. 0.11' DNAPL	Approx. ~0.08'	Trace DNAPL	Moderate DNAPL; not measureable	Trace DNAPL	Well Inaccessible or Abandoned	Well Abandoned
MW-03	None, naphthalene-like odor	No DNAPL observed	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	No DNAPL observed	Trace DNAPL (coating on tubes)	None Observed	Trace DNAPL (coating on tubes)	Trace	Trace DNAPL (On bottom 1.5' of tubes)	Trace DNAPL	Trace DNAPL (0.05' at bottom of tubing)	Well Inaccessible or Abandoned	Well Abandoned
MW-04	Trace DNAPL at bottom of tape	Trace DNAPL	Trace DNAPL	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Approx. ~0.02'	NR	Trace DNAPL	Trace DNAPL (at bottom of tubing)	Well Inaccessible or Abandoned	Well Abandoned
MW-05	DNAPL blebs in purge H2O, 0.5' DNAPL coating on tubes	Approx. 0.15' of DNAPL, approx. 0.1' of LNAPL	Approx. 0.22' DNAPL; 0.05' of LNAPL	Approx. 0.55' DNAPL; 0.06' of LNAPL	Trace LNAPL; DNAPL in purge water (not measurable)	Trace LNAPL; DNAPL in purge water (not measurable)	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed	Well Destroyed
MW-06	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	None Observed	None Observed	None Observed	Well Inaccessible or Abandoned	Well Abandoned
SHMW-01S	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	None Observed	None Observed	None Observed	Well Inaccessible or Abandoned	Well Abandoned
SHMW-01I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned
SHMW-02I	Approx. 1.3' of DNAPL, naphthalene-like odor	Approx. 0.35' of DNAPL	Approx. 0.43' of DNAPL	Approx. 0.5' of DNAPL	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Approx. ~0.60'	Approx. 3' DNAPL	Approx. 1.5' DNAPL	Approx. 4' DNAPL	Well Inaccessible or Abandoned	Well Abandoned
SHMW-02D	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned

Notes:
DNAPL - Dense Non-aqueous Phase Liquid
LNAPL - Light Non-aqueous Phase Liquid
WC - Water Column
NR - Gauging Not Required

Table 2
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of Historic NAPL Observations

Well ID	December/Q4 2005 Observations	March/Q1 2006 Observations	June/Q2 2006 Observations	September/Q3 2006 Observations	December/Q4 2006 Observations	March/Q1 2007 Observations	June/Q2 2007 Observations	September/Q3 2007 Observations	December/Q4 2007 Observations	March/Q1 2008 Observations	June/Q2 2008 Observations	September/Q3 2008 Obsevations	December/Q4 2008 Obsevations	March/Q1 2009 Observations
SHMW-03S	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-03I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	None Observed	NR
SHMW-04S	Approx. 0.5' DNAPL, naphthalene-like odor	Approx. 0.25' of DNAPL	Approx. 0.5' of DNAPL	Approx. 0.25' of DNAPL	Approx. 0.30' of DNAPL	Approx.0.40' DNAPL	Approx.0.50' DNAPL	Approx. 0.5' DNAPL	Approx. ~0.61'	Approx. 1.05' DNAPL	Approx.0.6' DNAPL	Approx.0.75' DNAPL	Well Inaccessible or Abandoned	Well Abandoned
SHMW-04I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned
SHMW-05S	None Observed	No DNAPL observed	None Observed	None Observed	None Observed	None Observed	None Observed	NR	None Observed	None Observed	None Observed	None Observed	Well Inaccessible or Abandoned	Well Abandoned
SHMW-05I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned
SHMW-06S	Approx. 0.10' DNAPL, naphthalene-like odor	Trace DNAPL	Approx. 0.2' of DNAPL	Approx. 0.2' of DNAPL	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace DNAPL (coating on tubes)	Trace	Trace DNAPL (on tubing)	Trace DNAPL	Trace DNAPL (on tubing)	Well Inaccessible or Abandoned	Well Abandoned
SHMW-06I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Abandoned
SHMW-07S	NR	NR	NR	NR	NR	None Observed	NR	NR	Trace	NR	NR	Trace DNAPL (on side of tubing approx 1' off bottom)	Well Inaccessible or Abandoned	Well Inaccessible
SHMW-07I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Inaccessible
SHMW-08S	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	None Observed	None Observed	None Observed	Well Inaccessible or Abandoned	Well Inaccessible

Notes:
DNAPL - Dense Non-aqueous Phase Liquid
LNAPL - Light Non-aqueous Phase Liquid
WC - Water Column
NR - Gauging Not Required

Table 2
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of Historic NAPL Observations

Well ID	December/Q4 2005 Observations	March/Q1 2006 Observations	June/Q2 2006 Observations	September/Q3 2006 Observations	December/Q4 2006 Observations	March/Q1 2007 Observations	June/Q2 2007 Observations	September/Q3 2007 Observations	December/Q4 2007 Observations	March/Q1 2008 Observations	June/Q2 2008 Observations	September/Q3 2008 Obsevations	December/Q4 2008 Obsevations	March/Q1 2009 Observations
SHMW-08I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	Well Inaccessible or Abandoned	Well Inaccessible
SHMW-09S	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	Well Inaccessible
SHMW-09I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	NR	NR
SHMW-10S	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-10I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	NR	NR
SHMW-11S	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-11I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	NR	NR
SHMW-12S	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-12I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	NR	NR
SHMW-13S	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	None Observed	None Observed	None Observed	None Observed	None Observed
SHMW-13I	NR	NR	NR	NR	NR	None Observed	NR	NR	None Observed	NR	NR	NR	NR	NR

Notes:
DNAPL - Dense Non-aqueous Phase Liquid
LNAPL - Light Non-aqueous Phase Liquid
WC - Water Column
NR - Gauging Not Required

Table 3
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of BTEX, MTBE, and PAH Results - Q1 2009

Sample Name: **Sample Date:**	NYS AWQS	SHMW-03S 3/17/2009	SHMW-10S 3/17/2009	SHMW-11S 3/17/2009	Duplicate of: SHMW-11S 3/17/2009	SHMW-12S 3/17/2009	SHMW-13S 3/17/2009
BTEX (µg/L)							
Benzene	1	**13**	10 U	10 U	10 U	**28**	10 U
Toluene	5	**2 J**	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	5	**52**	10 U	10 U	10 U	10 U	10 U
Xylene, total	5	**44**	10 U	10 U	10 U	10 U	10 U
Total BTEX	NE	**111**	ND	ND	ND	**28**	ND
Other VOCs (µg/L)							
Methyl tert-butyl ether	10*	10 U	10 U	10 U	10 U	10 U	10 U
Non-carcinogenic PAHs (µg/L)							
Acenaphthene	20*	10 U	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	NE	10 U	10 U	10 U	10 U	10 U	10 U
Anthracene	50*	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[g,h,i]perylene	NE	10 U	10 U	10 U	10 U	10 U	10 U
Fluoranthene	50*	10 U	10 U	10 U	10 U	10 U	10 U
Fluorene	50*	10 U	10 U	10 U	10 U	10 U	10 U
Methylnaphthalene,2-	NE	10 U	10 U	10 U	10 U	10 U	10 U
Naphthalene	10*	10 U	10 U	10 U	10 U	10 U	10 U
Phenanthrene	50*	10 U	10 U	10 U	10 U	10 U	10 U
Pyrene	50*	10 U	10 U	10 U	10 U	10 U	10 U
Total Non-carcinogenic PAHs	NE	ND	ND	ND	ND	ND	ND
Carcinogenic PAHs (µg/L)							
Benz[a]anthracene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[a]pyrene	ND	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[b]fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U
Benzo[k]fluoranthene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U
Chrysene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U
Dibenz[a,h]anthracene	NE	10 U	10 U	10 U	10 U	10 U	10 U
Indeno[1,2,3-cd]pyrene	0.002*	10 U	10 U	10 U	10 U	10 U	10 U
Total Carcinogenic PAHs	NE	ND	ND	ND	ND	ND	ND
Total PAHs	NE	ND	ND	ND	ND	ND	ND

Table 3
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of BTEX, MTBE, and PAH Results - Q1 2009

Notes:

ug/L - micrograms per liter or parts per billion (ppb)
BTEX - benzene, toluene, ethylbenzene, and xylenes
VOCs - volatile organic compounds
PAHs - polycyclic aromatic hydrocarbons
Total BTEX and Total PAHs are calculated using detects only

NYS AWQS - New York State Ambient Water Quality Standards and Guidance Values for GA groundwater
* indicates the value is a guidance value and not a standard

NE- not established
ND - not detected; total concentration is listed as ND because no compounds were detected in the group

Bolding indicates a detected concentration
Shading and bolding indicates that the detected concentration is above the NYS AWQS objective it was compared to

Validation Qualifiers:

J - estimated value
U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis

Table 4
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of Historic Total BTEX Results

Well No.	Screen Interval (feet)	Total BTEX Concentrations (µg/L)																										
		Sampling Date																								Min	Max	Mean
		1995	2000			2002	2004		2005				2006				2007				2008				2009			
		Nov	Mar	Apr	May	May	May	Aug	Mar/Apr	June	Sept	Dec	March	June	Sept	Dec	March	June	Sept	Dec	March	June	Sep	Dec	March			
MW-01	1.50 - 7.32	2,720	10	68	9	4	0	0	12	67	0	21	47	310	190	160	240	150	270	337	141	208	--	--	0	2,720	236
MW-02	0.50 - 7.25	5,429	8,840	7,940	5,840	13,287	8,740	7,333	13,010	--	13,720	7,591	--	14,174	12,267	8,678	12,810	15,181	98	8,865	7,415	2,240	--	--	98	15,181	9,129
MW-03	2.17 - 10.17	1,222	668	1,553	1,363	2,573	--	2,050	2,867	560	2,622	4,880	1,971	4,965	2,398	1,680	2,930	3,225	2,831	2,842	2,241	2,875	--	--	560	4,965	2,416
MW-04	1.25 - 6.81	864	35	--	10	208	--	0	0	225	299	268	193	181	101	0	51	89	66	--	15	79	--	--	0	864	149
MW-05	2.46 - 7.46	9,100	170	5	102	11,600	2,938	2,697	18,900	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	18,900	5,689
MW-06	2.47 - 7.47	334	47	30	91	49	--	33	55	39	36	74	37	11	54	0	37	31	0	1	33	7	--	--	0	334	50
SHMW-01S	1.0 - 6.0	--	--	1,413	874	2,102	--	1,367	1,810	406	1,313	2,562	2,085	5,183	2,915	691	2,460	2,600	1,684	1,595	306	243	--	--	243	5,183	1,756
SHMW-01I	35.0 - 45.0	--	--	5	0	0	--	--	--	--	0	--	--	--	0	0	--	--	--	--	--	--	--	--	0	5	1
SHMW-02I	35.0 - 45.0	--	--	26	0	1,179	16	20	20	19	25	0	0	0	0	--	11	12	15	18	41	29	--	--	0	1,179	80
SHMW-02D	65.0 - 75.0	--	--	5	4	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	5	2
SHMW-03S	2.0 - 12.0	--	--	63	0	110	--	48	53	46	75	131	67	97	13	122	80	12	50	3	0	5	13	111	0	131	52
SHMW-03I	35.0 - 45.0	--	--	0	52	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	0	--	0	52	7
SHMW-04S	2.0 - 12.0	--	--	7,940	3,154	12,180	--	9,369	17,730	8,960	21,920	25,860	9,361	18,398	10,489	6,883	20,488	16,120	10,378	7,567	8,059	7,561	--	--	3,154	25,860	12,357
SHMW-04I	35.0 - 45.0	--	--	5	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	5	1
SHMW-05S	2.0 - 12.0	--	--	37	69	83	--	107	282	2,960	115	202	45	43	26	35	458	676	98	77	83	64	--	--	26	2,960	303
SHMW-05I	35.0 - 45.0	--	--	0	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	0	0
SHMW-06S	2.0 - 6.0	--	--	2,392	2,463	3,057	--	2,630	1,950	--	2,910	2,622	1,702	4,289	2,196	1,475	2,285	2,162	1,565	1,296	1,343	1,298	--	--	1,296	4,289	2,214
SHMW-06I	35.0 - 45.0	--	--	0	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	0	0
SHMW-07S	1.0 - 11.0	--	--	2,011	1,562	414	--	1,482	3,340	2,458	1,722	1,400	1,060	--	1,137	185	--	2,139	726	--	1,075	1,374	--	--	185	3,340	1,472
SHMW-07I	35.0 - 45.0	--	--	0	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	0	0
SHMW-08S	1.0 - 7.0	--	--	5	2	9	--	0	14	0	15	11	0	19	0	0	0	0	12	8	9	10	--	--	0	19	6
SHMW-08I	35.0 - 45.0	--	--	0	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	0	0
SHMW-09S	2.0 - 12.0	--	--	1,024	506	1,100	--	500	1,000	--	920	1,130	770	768	500	418	1,240	178	600	1,039	1,298	671	483	--	178	1,298	786
SHMW-09I	35.0 -45.0	--	--	0	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	0	--	0	0	0
SHMW-10S	5.0 -15.0	--	--	--	0	0	--	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
SHMW-10I	35.5 - 45.5	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	0	--	0	0	0
SHMW-11S	3.5 - 13.5	--	--	--	0	0	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHMW-11I	35.0 - 45.0	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	0	--	0	0	0
SHMW-12S	1.5 - 6.5	--	--	--	0	344	--	142	930	69	290	140	463	581	182	85	623	81	0	166	482	111	279	28	0	930	276
SHMW-12I	35.0 - 45.0	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	23	--	--	--	0	--	0	23	4
SHMW-13S	1.5 - 6.5	--	--	--	0	0	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHMW-13I	35.0- 45.0	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	0	--	0	0	0

NOTES:

-- not analyzed or not applicable

µg/L - micrograms per liter

BTEX - benzene, toluene, ethylbenzene, and xylene

Table 5
Sag Harbor Former MGP Site
Groundwater Monitoring Program
Summary of Historic Total PAH Results

Well No.	Screen Interval (feet)	Total PAH Concentrations (µg/L)																										
		Sampling Date																								Min	Max	Mean
		1995	2000		2002	2004		2005				2006				2007				2008				2009			
		Nov	Mar	Apr	May	May	Aug	Mar/Apr	June	Sept	Dec	March	June	Sept	Dec	March	June	Sept	Dec	March	June	Sep	Dec	March			
MW-01	1.50 - 7.32	4,906	1,548	257	402	30	24	0	61	200	0	0	0	97	95	0	54	87	39	145	2	35	--	--	0	4,906	380
MW-02	0.50 - 7.25	6,991	5,511	5,114	10,729	25,167	4,414	5,809	10,504	--	6,919	5,209	--	0	8,617	3,150	7,421	5,398	165	400	3,455	3,488	--	--	0	25,167	6,235
MW-03	2.17 - 10.17	7,034	3,065	3,433	3,774	3,522	--	2,272	4,557	516	92	1,256	565	4,831	6,212	349	489	463	2,904	508	96	1,109	--	--	92	7,034	2,352
MW-04	1.25 - 6.81	3,612	75	--	0	90	--	0	22	1,098	103	11	37	66	31	0	66	238	6	--	0	22	--	--	0	3,612	304
MW-05	2.46 - 7.46	16,386	779	101	1,160	431,600	2,049	918	188,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	101	431,600	80,149
MW-06	2.47 - 7.47	5,416	894	653	258	33	--	90	79	204	0	22	0	0	645	35	46	17	0	0	0	10	--	--	0	5,416	420
SHMW-01S	1.0 - 6.0	--	--	4,147	2,663	2,424	--	1,989	2,185	840	0	42	115	3,989	3,874	0	1,058	1,691	42	0	0	0	--	--	0	4,147	1,392
SHMW-01I	35.0 - 45.0	--	--	32	0	0	--	--	--	--	0	--	--	--	0	--	--	--	--	--	--	--	--	--	0	32	6
SHMW-02I	35.0 - 45.0	--	--	266	0	580,200	41	185	124	271	30	74	32	91	89	0	10	175	32	8	42	209	--	--	0	580,200	30,625
SHMW-02D	65.0 - 75.0	--	--	308	76	89	--	--	--	--	0	--	--	--	0	--	--	--	15	--	--	--	--	--	0	308	81
SHMW-03S	2.0 - 12.0	--	--	422	0	295	--	79	130	117	339	0	0	147	118	430	191	12	154	0	0	17	29	0	0	430	124
SHMW-03I	35.0 - 45.0	--	--	2	320	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	0	--	0	320	46
SHMW-04S	2.0 - 12.0	--	--	4,275	5,107	5,965	--	3,959	6,669	4,684	5,879	2,364	3,572	4,196	6,250	2,632	3,999	4,693	4,305	0	1,328	1,868	--	--	0	6,669	3,986
SHMW-04I	35.0 - 45.0	--	--	18	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	18	3
SHMW-05S	2.0 - 12.0	--	--	13	170	94	--	82	91	26	53	17	11	11	110	0	0	14	8	2	0	31	--	--	0	170	41
SHMW-05I	35.0 - 45.0	--	--	0	17	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	17	3
SHMW-06S	2.0 - 6.0	--	--	4,130	4,694	3,024	--	3,162	2,366	--	4,157	120	201	3,900	4,062	1,703	3,574	4,368	380	0	44	5,848	--	--	0	5,848	2,690
SHMW-06I	35.0 - 45.0	--	--	2	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	2	0
SHMW-07S	1.0 - 11.0	--	--	7,211	6,585	2,708	--	3,224	4,604	6,187	3,507	2,004	3,119	--	3,721	0	--	3,902	4	--	54	3,252	--	--	0	7,211	3,339
SHMW-07I	35.0 - 45.0	--	--	0	0	0	--	--	--	--	0	--	--	--	2,212	--	--	--	0	--	--	--	--	--	0	2,212	369
SHMW-08S	1.0 - 7.0	--	--	110	71	94	--	25	70	33	83	112	57	77	99	13	90	10	13	14	21	55	--	--	10	112	58
SHMW-08I	35.0 - 45.0	--	--	13	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	--	--	0	13	2
SHMW-09S	2.0 - 12.0	--	--	1,787	2,472	1,697	--	1,463	1,600	--	2,609	94	1,935	1,138	2,737	48	206	2,246	130	0	92	485	503	--	0	2,737	1,180
SHMW-09I	35.0 -45.0	--	--	3	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	0	--	0	3	0
SHMW-10S	5.0 -15.0	--	--	--	22	6	--	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	22	2
SHMW-10I	35.5 - 45.5	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	0	--	0	0	0
SHMW-11S	3.5 - 13.5	--	--	--	0	3	--	173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173	9
SHMW-11I	35.0 - 45.0	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	4	--	--	--	0	--	0	4	1
SHMW-12S	1.5 - 6.5	--	--	--	60	218	--	71	600	230	260	110	470	310	280	15	560	0	155	9	137	259	280	0	0	600	212
SHMW-12I	35.0 - 45.0	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	20	--	--	--	0	--	0	20	3
SHMW-13S	1.5 - 6.5	--	--	--	0	0	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHMW-13I	35.0- 45.0	--	--	--	0	0	--	--	--	--	0	--	--	--	0	--	--	--	0	--	--	--	0	--	0	0	0

NOTES:

-- not analyzed or not applicable
µg/L - micrograms per liter
PAHs - polycyclic aromatic hydrocarbons

Figures

SOURCE: Map created with TOPO! ® ©2001 National Geographic (www.nationalgeographic.com/topo)"

SAG HARBOR FORMER MGP SITE
SAG HARBOR, NEW YORK

nationalgrid

GEI Consultants

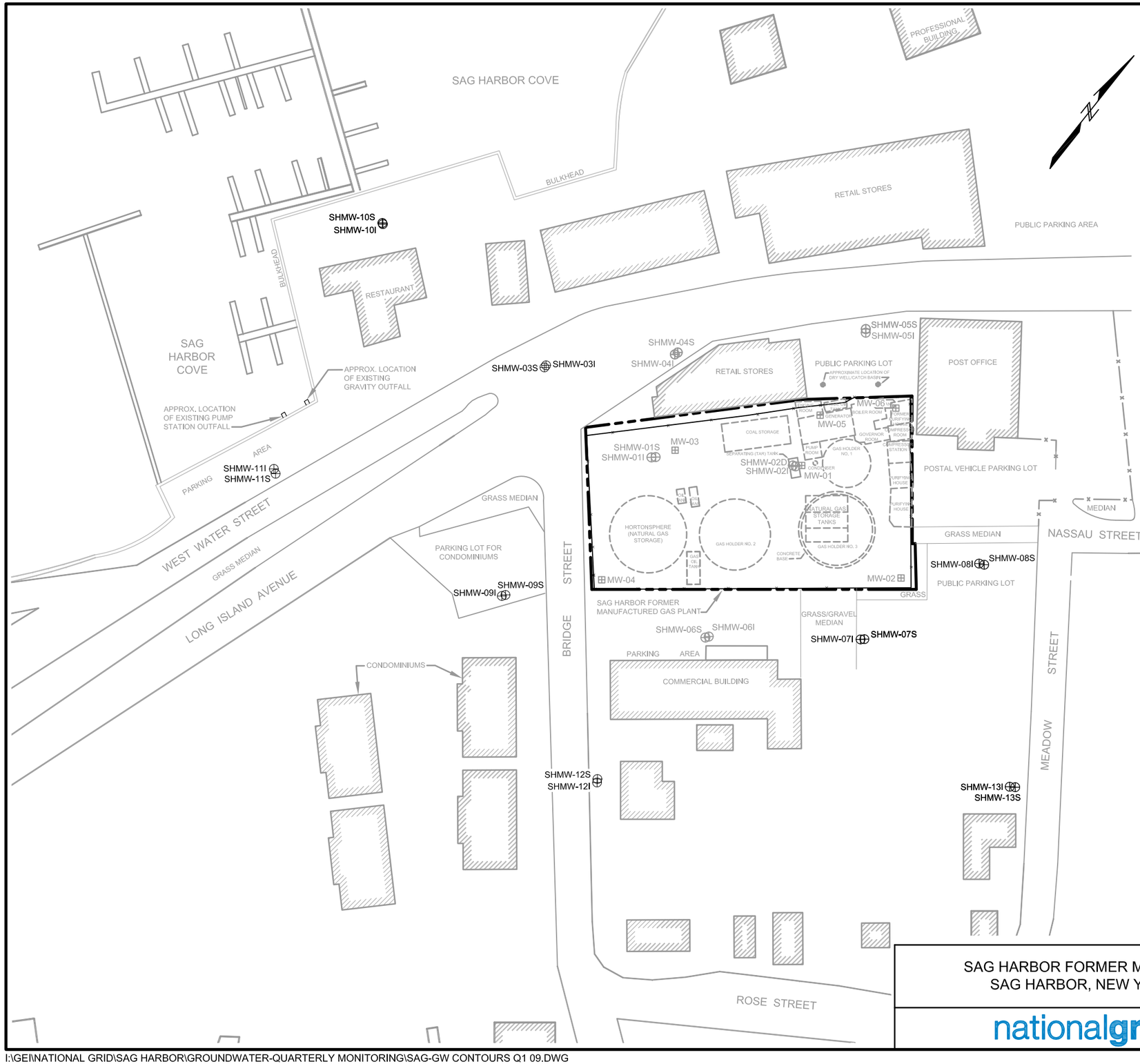
Project 061140-18-2704

SITE LOCATION MAP

June 2009

Figure 1

KEYSPAN\SAG HARBOR\GROUNDWATER-QUARTERLY MONITORING\2008\SAG-LOC.CDR



LEGEND

- APPROXIMATE LOCATION OF FORMER MGP STRUCTURE
- LOCATION OF EXISTING STRUCTURE
- CURRENT SITE BOUNDARY
- FENCE
- SHMW-05S — FORMER MONITORING WELL (WELL ABANDONED OR DESTROYED)
- SHMW-03S — MONITORING WELL LOCATION

0 80 160

SCALE, FEET

SOURCE:

BASE MAP SITE SURVEY DATA PROVIDED BY KEYSPAN ENERGY SURVEY DIVISION. APPROXIMATE LOCATIONS OF FORMER MGP STRUCTURES BASED ON: 1916 SITE PLAN (DWG 2907); 1915 SURVEY BY THE TITLE GUARANTEE & TRUST CO. OF N.Y. (DWG 2290); AND SANBORN MAPS; SAG HARBOR FORMER MGP SITE DRAFT FINAL REMEDIAL INVESTIGATION REPORT, PREPARED BY DVIRKA & BARTILUCCI, DATED DECEMBER 2002.

SAG HARBOR FORMER MGP SITE
SAG HARBOR, NEW YORK

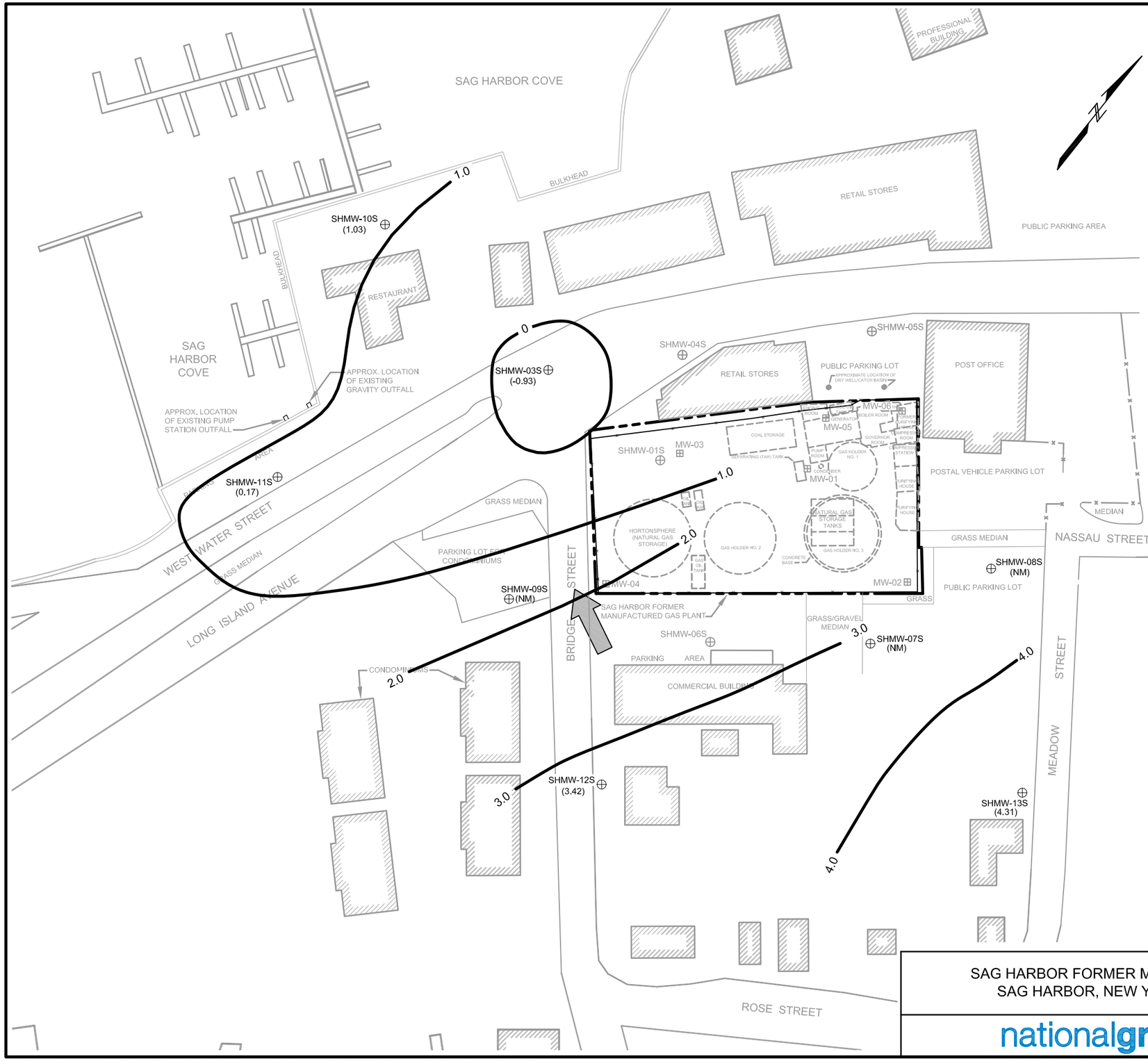
nationalgrid

GEI Consultants

MONITORING WELL LOCATION MAP

Project 061140-18-2704 | June 2009 | Figure 2

I:\GE\NATIONAL GRID\SAG HARBOR\GROUNDWATER-QUARTERLY MONITORING\SAG-GW CONTOURS Q1 09.DWG



LEGEND

- APPROXIMATE LOCATION OF FORMER MGP STRUCTURE
- LOCATION OF EXISTING STRUCTURE
- CURRENT SITE BOUNDARY
- FENCE
- SHMW-05S ⊕ FORMER MONITORING WELL (WELL ABANDONED OR DESTROYED)
- SHMW-03S ⊕ MONITORING WELL LOCATION
- (1.03) GROUNDWATER ELEVATION IN FEET
- (NM) NOT MEASURED (WELL INACCESSIBLE)
- 2.0 GROUNDWATER CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTE: DEWATERING IN THE VICINITY OF THE SITE WAS ONGOING AT THE TIME OF WATER LEVEL MEASUREMENTS

SOURCE:

BASE MAP SITE SURVEY DATA PROVIDED BY KEYSPAN ENERGY SURVEY DIVISION. APPROXIMATE LOCATIONS OF FORMER MGP STRUCTURES BASED ON: 1916 SITE PLAN (DWG 2907); 1915 SURVEY BY THE TITLE GUARANTEE & TRUST CO. OF N.Y. (DWG 2290); AND SANBORN MAPS; SAG HARBOR FORMER MGP SITE DRAFT FINAL REMEDIAL INVESTIGATION REPORT, PREPARED BY DVIRKA & BARTILUCCI, DATED DECEMBER 2002.

SAG HARBOR FORMER MGP SITE
SAG HARBOR, NEW YORK

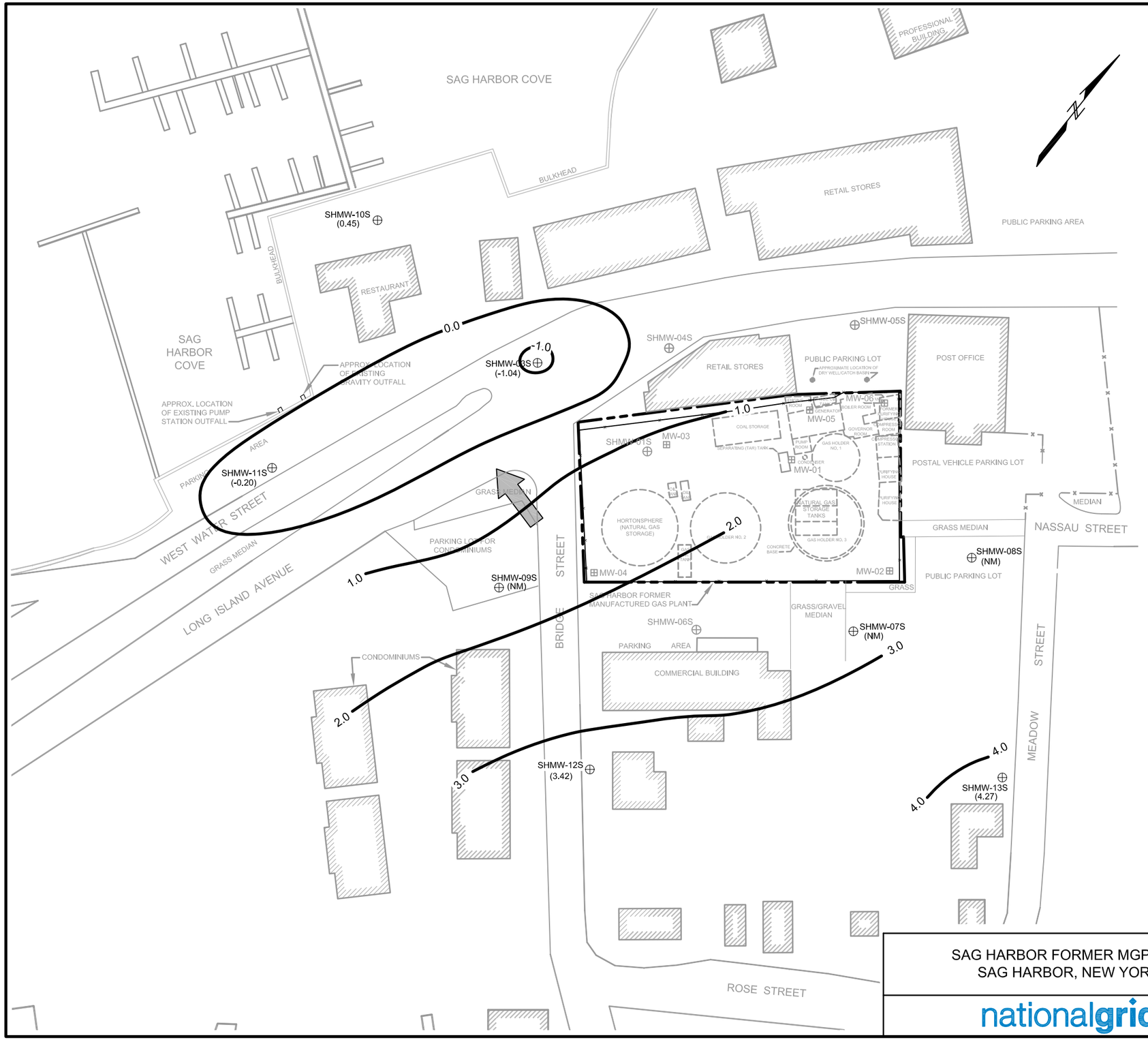
nationalgrid

GEI Consultants

SHALLOW GROUNDWATER CONTOURS - HIGH TIDE 3/16/09

Project 061140-18-2704 | June 2009 | Figure 3

I:\GEI\National Grid\Sag Harbor\Groundwater-Quarterly Monitoring\ SAG-GW CONTOURS Q1 09.dwg \Jul 01, 2009



LEGEND

- APPROXIMATE LOCATION OF FORMER MGP STRUCTURE
- LOCATION OF EXISTING STRUCTURE
- CURRENT SITE BOUNDARY
- FENCE
- SHMW-05S ⊕ — FORMER MONITORING WELL (WELL ABANDONED OR DESTROYED)
- SHMW-03S ⊕ — MONITORING WELL LOCATION
- (3.42) — GROUNDWATER ELEVATION IN FEET
- (NM) — NOT MEASURED (WELL INACCESSIBLE)
- 2.0 — GROUNDWATER CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTE: DEWATERING IN THE VICINITY OF THE SITE WAS ONGOING AT THE TIME OF WATER LEVEL MEASUREMENTS

0 80 160

SCALE, FEET

SOURCE:

BASE MAP SITE SURVEY DATA PROVIDED BY KEYSPAN ENERGY SURVEY DIVISION. APPROXIMATE LOCATIONS OF FORMER MGP STRUCTURES BASED ON: 1916 SITE PLAN (DWG 2907); 1915 SURVEY BY THE TITLE GUARANTEE & TRUST CO. OF N.Y. (DWG 2290); AND SANBORN MAPS; SAG HARBOR FORMER MGP SITE DRAFT FINAL REMEDIAL INVESTIGATION REPORT, PREPARED BY DVIRKA & BARTILUCCI, DATED DECEMBER 2002.

SAG HARBOR FORMER MGP SITE
SAG HARBOR, NEW YORK

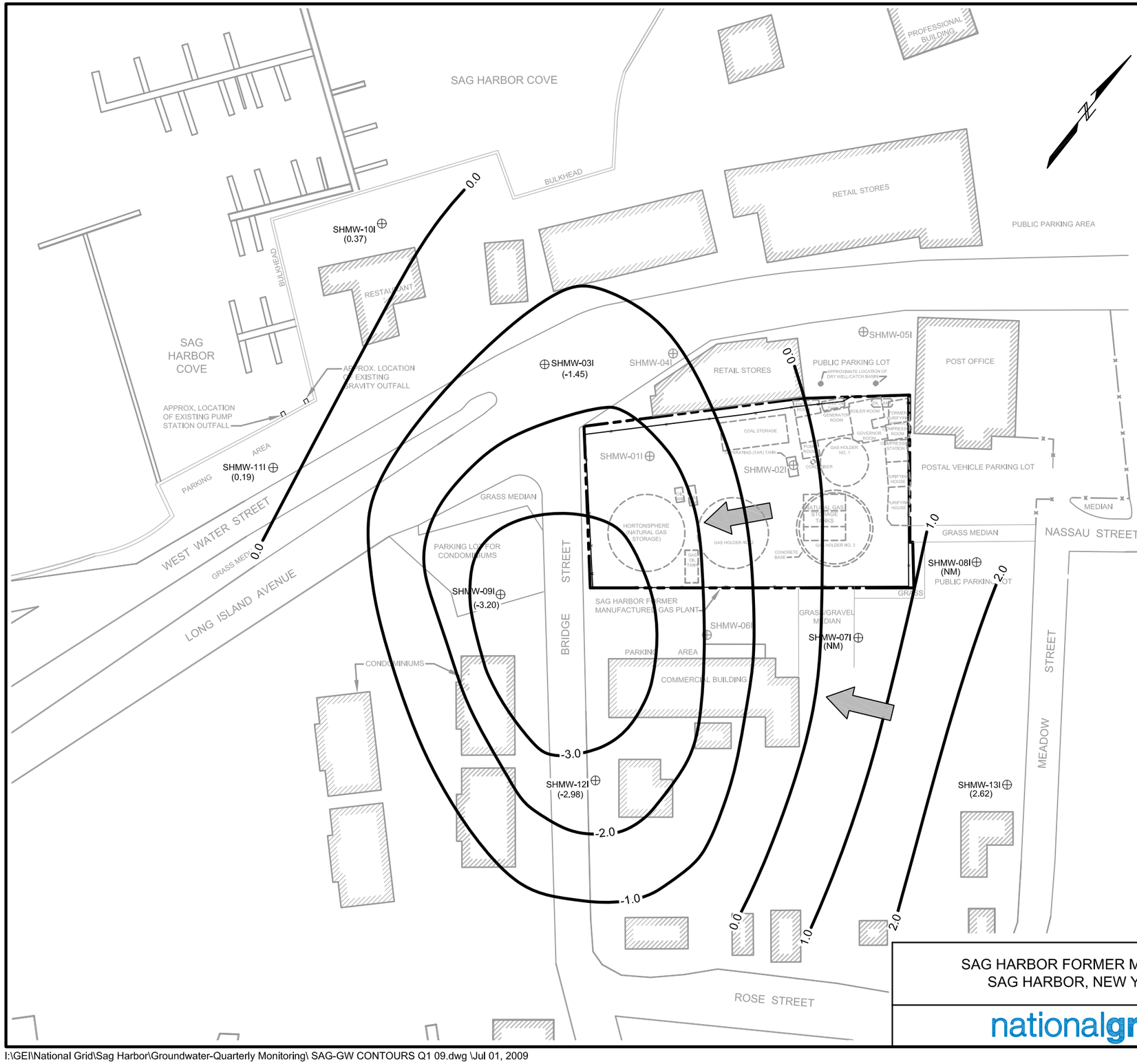
nationalgrid

GEI Consultants

SHALLOW GROUNDWATER CONTOURS - LOW TIDE 3/16/09

Project 061140-18-2704 | June 2009 | Figure 4

I:\GEI\National Grid\Sag Harbor\Groundwater-Quarterly Monitoring\ SAG-GW CONTOURS Q1 09.dwg \Jul 01, 2009



LEGEND

- APPROXIMATE LOCATION OF FORMER MGP STRUCTURE
- LOCATION OF EXISTING STRUCTURE
- CURRENT SITE BOUNDARY
- FENCE
- SHMW-02I ⊕ FORMER MONITORING WELL (WELL ABANDONED OR DESTROYED)
- SHMW-03I ⊕ MONITORING WELL LOCATION
- (2.62) GROUNDWATER ELEVATION IN FEET
- (NM) NOT MEASURED (WELL INACCESSIBLE)
- 2.0 GROUNDWATER CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTE: DEWATERING IN THE VICINITY OF THE SITE WAS ONGOING AT THE TIME OF WATER LEVEL MEASUREMENTS

0 80 160

SCALE, FEET

SOURCE:

BASE MAP SITE SURVEY DATA PROVIDED BY KEYSPAN ENERGY SURVEY DIVISION. APPROXIMATE LOCATIONS OF FORMER MGP STRUCTURES BASED ON: 1916 SITE PLAN (DWG 2907); 1915 SURVEY BY THE TITLE GUARANTEE & TRUST CO. OF N.Y. (DWG 2290); AND SANBORN MAPS; SAG HARBOR FORMER MGP SITE DRAFT FINAL REMEDIAL INVESTIGATION REPORT, PREPARED BY DVIRKA & BARTILUCCI, DATED DECEMBER 2002.

SAG HARBOR FORMER MGP SITE
SAG HARBOR, NEW YORK

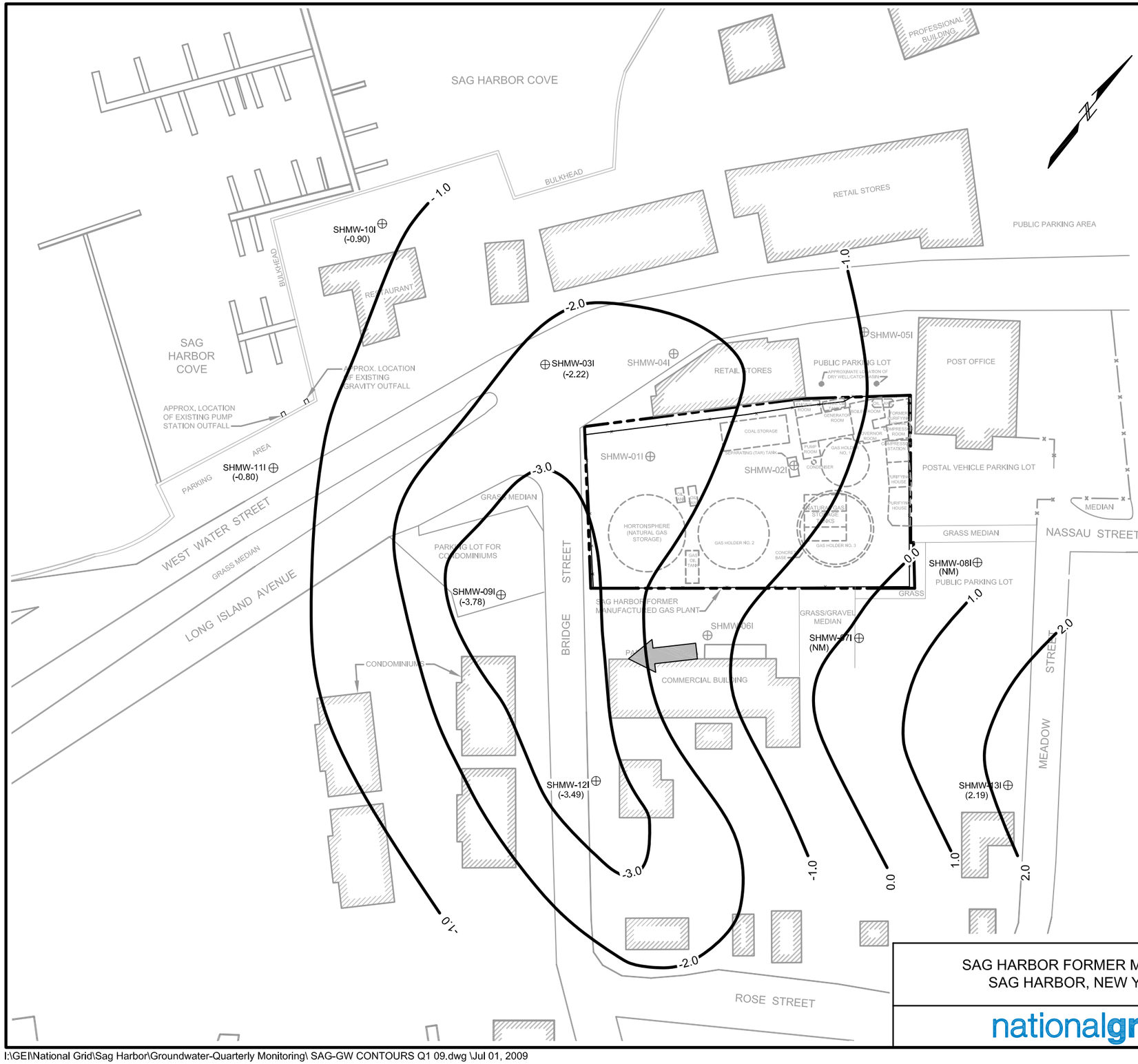
nationalgrid

GEI Consultants

INTERMEDIATE GROUNDWATER CONTOURS HIGH TIDE 3/16/09

Project 061140-18-2704 | June 2009 | Figure 5

I:\GEI\National Grid\Sag Harbor\Groundwater-Quarterly Monitoring\ SAG-GW CONTOURS Q1 09.dwg \Jul 01, 2009



LEGEND

- APPROXIMATE LOCATION OF FORMER MGP STRUCTURE
- LOCATION OF EXISTING STRUCTURE
- CURRENT SITE BOUNDARY
- FENCE
- SHMW-02I ⊕ — FORMER MONITORING WELL (WELL ABANDONED OR DESTROYED)
- SHMW-03I ⊕ — MONITORING WELL LOCATION
- (2.19) — GROUNDWATER ELEVATION IN FEET
- (NM) — NOT MEASURED (WELL INACCESSIBLE)
- 2.0 — GROUNDWATER CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION

NOTE: DEWATERING IN THE VICINITY OF THE SITE WAS ONGOING AT THE TIME OF WATER LEVEL MEASUREMENTS

0 80 160

SCALE, FEET

SOURCE:

BASE MAP SITE SURVEY DATA PROVIDED BY KEYSPAN ENERGY SURVEY DIVISION. APPROXIMATE LOCATIONS OF FORMER MGP STRUCTURES BASED ON: 1916 SITE PLAN (DWG 2907); 1915 SURVEY BY THE TITLE GUARANTEE & TRUST CO. OF N.Y. (DWG 2290); AND SANBORN MAPS; SAG HARBOR FORMER MGP SITE DRAFT FINAL REMEDIAL INVESTIGATION REPORT, PREPARED BY DVIRKA & BARTILUCCI, DATED DECEMBER 2002.

SAG HARBOR FORMER MGP SITE
SAG HARBOR, NEW YORK

nationalgrid

GEI Consultants

Project 061140-18-2704

INTERMEDIATE GROUNDWATER CONTOURS LOW TIDE 3/16/09

June 2009 Figure 6

I:\GEI\National Grid\Sag Harbor\Groundwater-Quarterly Monitoring\ SAG-GW CONTOURS Q1 09.dwg \Jul 01, 2009