NYSEG

January 12, 2007

Charles Post
Remedial Bureau C, 11th Floor
Division of Environmental Remediation
New York State Department of Environmental Remediation
625 Broadway
Albany, New York 12233-7014

Subject: Dansville Former MGP Site
Results of OU-1 and OU-2 NAPL Gauging

Dear Mr. Post:

Enclosed for your review is a copy of the report memo from Ish Inc. detailing the results of NAPL gauging performed at the above-referenced site on December 27, 2006.

Please contact me at (607) 762-8787 if you have any questions or comments regarding this information.

Sincerely,

NYSEG

John J. Ruspantini, CHMM
Environmental Analyst
Site Investigation & Remediation

Enclosure

Cc: J. M. Simone
I. P. Murarka - Ish Inc.
G. Heitzman – NYSDEC Albany

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Environmental Consultants
804 Salem Woods Drive, Suite 201B, Raleigh, NC 27615-3343
Phone (919) 844-9890 Fax (919) 844-0917 Cell/VM (408) 892-3233
Web site: www.ishincusa.com Email: Ishwar@ishincusa.com
Alternative Email: ishinc@earthlink.net

MEMORANDUM

January 12, 2007

To: John Ruspantini, NYSEG
From: Ish Murarka, Ish Inc.
Subject: NAPL Gauging On December 27, 2006 at Dansville, NY

NAPL (non-aqueous phase liquid) gauging was conducted in Dansville, NY on December 27, 2006. During a teleconference on December 20, 2006 (Please see the minutes memo on the teleconference dated December 21, 2006 from Ish Inc.), the New York State Department of Environmental Conservation (NYSDEC) requested that this additional NAPL (both light non-aqueous phase liquid [LNAPL] and dense non-aqueous phase liquid [DNAPL]) gauging be performed to determine if there has been any NAPL accumulation suggestive of DNAPL mobility, in particular, since the last groundwater sampling event. Ish Inc. field staff had noted trace amounts of DNAPL in some wells and piezometers at the Dansville site during a previous groundwater sampling event in November 2005.

Selected wells and piezometers at the Dansville former MGP site OU1 and OU2 were checked for NAPL accumulation according to the work plan dated December 21, 2006 and approved by NYSDEC. Several locations that did not have any DNAPL during November 2005 were also scheduled for the current gauging to shed additional light on NAPL mobility issue at the site. The NAPL gauging was conducted by David Mauro of the Ish Inc. team and was observed by Charles Post of the NYSDEC.

Methods

The following piezometers and monitoring wells were scheduled for inspection:

PZ02, PZ05, PZ06, PZ18, PZ19, PZ32 and PZ36
MW03S, MW04S, MW05S, MW06S, and MW07S

All wells and piezometers were inspected except for PZ36 which couldn't be located. It appeared that the driveway of the day care center on Battle Street had been re-stoned and graded and that PZ36 has either been destroyed or covered up.

Each piezometer or well was opened and the presence of LNAPL tested with an oil/water interface probe. The depth to groundwater also was recorded. Then, a 2-foot threaded steel rod was lowered to the bottom of the well, allowed to sink into any soft material at the bottom, and then carefully retrieved. If DNAPL was present, its height on the rod was measured with a tape measure.

Results

The results are summarized in Table 1. No LNAPL was detected in any well or piezometer using the interface probe. No accumulation of DNAPL was noted in any well or piezometer. Two wells, MW04S and MW07S exhibited sheens and in the case of MW07S, visible droplets of DNAPL (i.e., no free phase DNAPL) on the rod were observed.

The water levels and DNAPL observations were generally the same as in the October 2005 Synoptic groundwater sampling event at the Dansville site. Table 1 also compares the 2006 observations to the 2005 observations. In 2005, if sheens were noted during well purging, then NAPL was recorded as present. However, in 2006 a measurable thickness of LNAPL (by interface probe) or DNAPL (by weighted rod) had to be observed for NAPL to be considered as present. Sheens and strong odors were recorded as such in 2006.

Conclusions

Previous field observations and the current gauging measurements are consistent with our interpretation that the bulk of the DNAPL at the former Dansville MGP site (OU-1 and OU-2) is not mobile. An essential condition for mobility of DNAPL is that it must be present above the residual saturation limit of the soils, which would be demonstrated by a significant accumulation of free flowing liquid phase NAPL in the monitoring wells and/or piezometers after they have been installed. The minimum level of coal tar DNAPL in soil required to exceed the residual saturation limit for soil similar to that found in the Dansville area would be more than 1% of DNAPL by weight, which is not the case for soil samples that were analyzed and described in the OU-1 and OU-2 SRI reports by Ish Inc. The droplets and sheens observed at the two monitoring wells are mostly a result of sediment accumulation due the slot size of the well screens.

References

Ish Inc. Memorandum dated December 21, 2006 regarding schedule and work plan for NAPL gauging at the Dansville site.

Ish Inc. Memorandum dated December 21, 2006. summarizing the Conference call between NYSDEC, NYSEG and Ish Inc regarding the Dansville former MGP Site OU 1feasibility study comments.

Table 1 Dansville Former MGP NAPL Monitoring; December 27, 2006

Well ID	Depth to Water (ft) Dec. 2006	Depth to Water (ft) Nov. 2005	LNAPL (2006/2005)	DNAPL (2006/2005)	Observations
PZ05	10.20	10.40	N/N	N/N	Strong odor, about 10” silt in bottom of well
PZ06	9.15	9.33	N/N	N/N	Strong odor
PZ19	11.25	11.12	N/N	N/N	Slight odor
PZ32	9.20	10.40	N/N	N/N	Moderate odor
PZ36	NM	9.75	NM/N	NM/N	Piezometer not found in 2006
MW04S	10.62	11.01	N/N	N/trace	Sheens and strong odors were noted during well purging in 2005 and on the rod in 2006; no measurable thickness of DNAPL was present however
PZ18	9.77	10.05	N /N	N/N	Faint odor
MW06S	10.16		N	N	Faint odor; well cap broken; no J-plug (replaced with new
PZ02	9.50	9.79	N/N	N/trace	In 2005, sheens were noted during initial well purging (first 0.5 well volumes), then no sheen. No sheens were noted in 2006, but very strong odors were present
MW05S	10.08	10.52	N/N	N/N	Strong odor
MW03S	9.71	9.80	N/N	N/Y	Moderate odor; broken well cap; no J-plug
MW07S	9.41	9.46	N/N	Y/trace	In 2006, four inches of silt and water with stringers and small droplets of medium brown NAPL were noted; no thickness of dark DNAPL covered the rod, however a translucent jelly-like mixture of water, silt, and sheens coated the lower four inches of the rod. The material appeared to be mostly water, but created sheens when shaken onto the plastic sheeting protecting the ground.

Depth to Water is from top of casing
NM – not measured