

Mr. Joshua Cook, P.E.  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau C, 625 Broadway, 11<sup>th</sup> Floor  
Albany, New York 12233-7014

ENVIRONMENT

Subject:  
Proposed Modifications to Scope of Remaining PDI Activities  
Port Jervis Former MGP Site  
City of Port Jervis, Orange County, New York  
Site No. 3-36-049

Date:  
November 2, 2010

Dear Mr. Cook:

Contact:  
Andrew Corbin, P.E.

This letter has been prepared on behalf of Orange and Rockland Utilities, Inc. (O&R) to propose certain modifications to the scope of the non-aqueous phase liquid (NAPL) and groundwater/hydrogeologic assessments at the Port Jervis former manufactured gas plant (MGP) site. These pre-design investigation (PDI) activities were originally proposed in Sections 2.6 and 2.7 of the *Remedial Design Work Plan* (RD Work Plan; ARCADIS 2010) and were initiated in April 2010.

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The modifications generally concern the PDI soil borings and monitoring wells to be installed at the privately-owned properties located to the south (across Pike Street) of the former MGP site – namely, Tax Parcels 18-14-8.2 and 18-14-9.11 (the Meder properties). The locations of these soil borings and monitoring wells were previously depicted on Figure 6 of the RD Work Plan. The modifications are depicted on the attached Figure 1 and are summarized as follows:

Our ref:  
B0043021

- Existing monitoring wells MW7 and MW8 (which were originally proposed to be overdrilled and replaced) will remain in place for the time being. Historically, monitoring well MW7 has not accumulated NAPL at thicknesses greater than 0.6 feet. These measurements were confirmed in April 2010 during the PDI NAPL gauging activities. Upgrading monitoring well MW7 to a larger diameter casing (and larger sump) is not appropriate at this time based on the minimal volume of NAPL observed at this location.

As previously discussed with the New York State Department of Environmental Conservation (NYSDEC), 1) the location of monitoring well MW8 (on the shoulder of Pike Street) makes access difficult and poses several health and safety risks to the drilling crew and vehicular/pedestrian traffic and 2) ARCADIS has obtained the necessary NAPL recharge rate information to proceed with future NAPL recovery design activities. In addition to the above, off-setting a replacement well for MW8 horizontally from its current location (in the direction of the sidewalk) does not appear feasible given the presence of overhead and several underground utilities (which were identified during the PDI utility survey). O&R will re-evaluate the need to decommission and re-install monitoring wells MW7 and MW8 as 6-inch stainless steel wells in the future as part of the NAPL recovery portion of the remedy following the completion of PDI activities.

- The proposed locations of soil borings PDI-SB10 (MW21) and PDI-SB16 have been moved slightly based on accessibility and to account for overhead/underground utilities. In the case of PDI-SB16, the location has been moved south (out of the shoulder of Pike Street) to the parking lot of Tax Parcel 18-14-9.11 to reduce health and safety concerns and minimize impacts to traffic along Pike Street.
- Three additional soil borings (identified as PDI-SB17, PDI-SB18, and PDI-SB19) will be drilled in the rear of Tax Parcel 18-14-9.11 to further define the southern extent of NAPL (if present). Soil boring PDI-SB17 will be drilled to a depth of approximately 50 feet below ground surface (bgs) and soil borings PDI-SB18 and PDI-SB19 (which are located near the river retaining wall) will be drilled to a depth of approximately 75 feet bgs. An additional monitoring well (identified as MW24) will be constructed at soil boring PDI-SB19 to gain additional information regarding groundwater flow and fluctuations along the river retaining wall. The well will be constructed using 2-inch-diameter, Schedule 40 PVC riser and screen (generally consistent with the anticipated construction of new monitoring wells MW21, MW22, and MW23).

The above activities will be performed in accordance with the applicable Standard Operating Procedures of the RD Work Plan. At this time, it is anticipated that the new wells will be constructed using 2-inch-diameter, Schedule 40 PVC; however, the drilling contractor will be prepared to install 6-inch-diameter stainless steel wells in the event that there are observations of significant NAPL impacts in these boring locations. Such decisions will be made with concurrence from NYSDEC. Also, in the event that 2-inch diameter PVC wells are installed and are later observed to accumulate significant quantities of NAPL, O&R acknowledges that these wells will likely need to be converted to 6-inch-diameter stainless steel wells to facilitate the NAPL recovery program.

Further, as indicated in Section 2.7.1 of the RD Work Plan, if NAPL is found to be present at soil borings PDI-SB10, PDI-SB11, and/or PDI-SB12, new monitoring locations would need to be selected for the groundwater/hydrogeologic assessment (as the bioremediation treatment system would need to be installed down-gradient of NAPL-containing intervals to be most effective). As indicated above, monitoring wells MW21, MW22, and/or MW23 would still be installed if the quantity of NAPL is significant (i.e., source material as defined in the ROD), however, these wells could not be used for the shallow aquifer characterization/evaluation and bench/pilot scale studies.

NYSDEC will be notified a minimum of 2 weeks prior to the initiation of the off-site PDI work. In the meantime, please feel free to contact Ms. Maribeth McCormick of O&R at 845.783.5534 with any questions or comments regarding the information provided herein.

Sincerely,

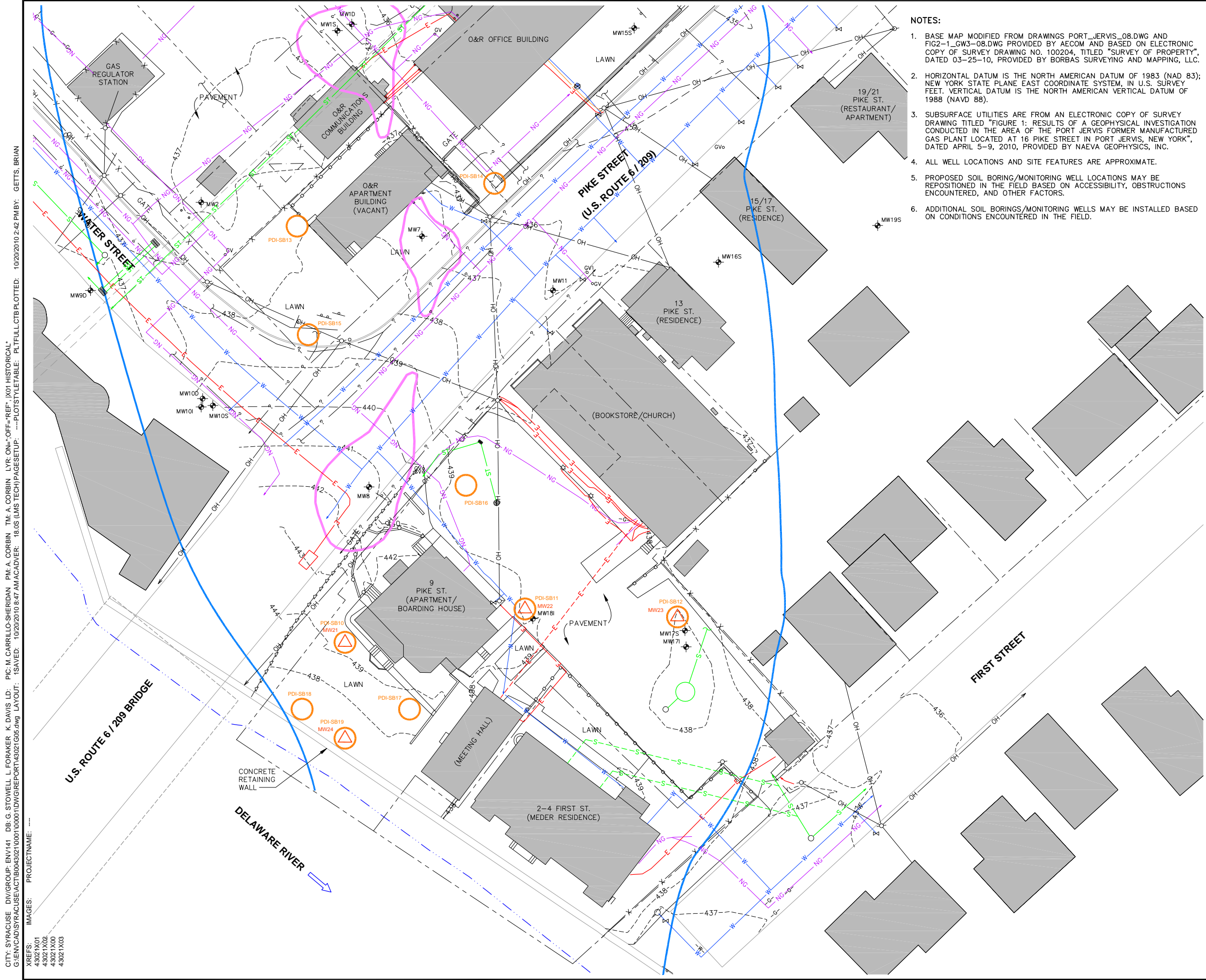
ARCADIS of New York, Inc.



Andrew Corbin, P.E.  
Principal Engineer

Copies:

Kristin Kulow, NYSDOH  
Maribeth McCormick, O&R  
Margaret Carrillo-Sheridan, P.E., ARCADIS  
Michael Benoit, E.I.T., ARCADIS



- NOTES:**
1. BASE MAP MODIFIED FROM DRAWINGS PORT\_JERVIS\_08.DWG AND FIG2-1\_GW3-08.DWG PROVIDED BY AECOM AND BASED ON ELECTRONIC COPY OF SURVEY DRAWING NO. 100204, TITLED "SURVEY OF PROPERTY", DATED 03-25-10, PROVIDED BY BORBAS SURVEYING AND MAPPING, LLC.
  2. HORIZONTAL DATUM IS THE NORTH AMERICAN DATUM OF 1983 (NAD 83); NEW YORK STATE PLANE EAST COORDINATE SYSTEM, IN U.S. SURVEY FEET. VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
  3. SUBSURFACE UTILITIES ARE FROM AN ELECTRONIC COPY OF SURVEY DRAWING TITLED "FIGURE 1: RESULTS OF A GEOPHYSICAL INVESTIGATION CONDUCTED IN THE AREA OF THE PORT JERVIS FORMER MANUFACTURED GAS PLANT LOCATED AT 16 PIKE STREET IN PORT JERVIS, NEW YORK", DATED APRIL 5-9, 2010, PROVIDED BY NAEVA GEOPHYSICS, INC.
  4. ALL WELL LOCATIONS AND SITE FEATURES ARE APPROXIMATE.
  5. PROPOSED SOIL BORING/MONITORING WELL LOCATIONS MAY BE REPOSITIONED IN THE FIELD BASED ON ACCESSIBILITY, OBSTRUCTIONS ENCOUNTERED, AND OTHER FACTORS.
  6. ADDITIONAL SOIL BORINGS/MONITORING WELLS MAY BE INSTALLED BASED ON CONDITIONS ENCOUNTERED IN THE FIELD.

- LEGEND:**
- PROPERTY LINE
  - EDGE OF WATER (APPROXIMATE)
  - 436--- GROUND SURFACE CONTOUR (1-FOOT INTERVAL)
  - EXISTING STRUCTURE/BUILDING
  - X EXISTING CHAIN-LINK FENCE
  - EXISTING WOOD FENCE
  - EXISTING WIRE FENCE
  - EXISTING GUARDRAIL
  - 60-INCH-DIAMETER STORM SEWER LINE (APPROXIMATE)
  - OH OVERHEAD WIRES
  - ? UNKNOWN/SUSPECTED UTILITY LINE
  - E ELECTRICAL UTILITY LINE
  - NG NATURAL GAS UTILITY LINE
  - T TELEPHONE UTILITY LINE
  - W WATER UTILITY LINE
  - S SANITARY SEWER UTILITY LINE
  - ST STORM SEWER UTILITY LINE
  - UTILITY POLE
  - LIGHT POLE
  - G- GAS MARK-OUT BY OTHERS
  - GV GAS VALVE
  - W- WATER MARK-OUT BY OTHERS
  - WV WATER VALVE
  - HYDRANT
  - MANHOLE
  - GRATE
  - INLET
  - BOLLARD
  - SIGN
  - MW145 MONITORING WELL LOCATION
  - PDI-SB10 PROPOSED PDI SOIL BORING LOCATION (SEE NOTES 5 AND 6)
  - MW21 PROPOSED PDI MONITORING WELL LOCATION (SEE NOTES 5 AND 6)
  - NAPL OR TAR-LIKE MATERIAL (AS DEPICTED IN THE ROD)
  - LIMIT OF GROUNDWATER IMPACTS (AS DEPICTED IN THE ROD)

PORT JERVIS FORMER MGP SITE  
ORANGE AND ROCKLAND UTILITIES, INC.  
PORT JERVIS, NEW YORK

**SITE PLAN**

