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August 6, 2012

Jaspal Walia NYSDEC Project Manager 270 Michigan Ave. Buffalo, NY 14203-2915

Re: Work Plan – Well Decommissioning for 1001 Main Street and 818 Ellicott Street,

Buffalo, New York

Mr. Walia:

This letter outlines decommissioning monitoring wells on two sites in the City of Buffalo, New York. Development of the property bounded by Main, Goodrich, Ellicott and High Streets is being conducted for two proposed buildings on 1001 Main Street and 818 Ellicott Street. Hereinafter this letter will define "Site A" as 1001 Main Street and "Site B" as 818 Ellicott Street. Figure 1 illustrates the location of the two sites.

I. PROJECT DESCRIPTION

Site A is defined as the property bordered by Main, Goodrich and High Streets. Site A is currently under the Brownfield Cleanup Program for petroleum-impacted soil and groundwater. Remedial investigations have established multiple groundwater monitoring wells. Excavation of impacted soil will require the abandonment of forty-four (44) monitoring wells that range in depth from 35 feet below ground surface ("bgs") to 104 ft bgs.

Site B is bordered by Goodrich, Ellicott and High Streets. Environmental investigations established six (6) groundwater monitoring wells that range in depth between 35 ft bgs to 40 ft bgs that require abandonment for future development. Figure 1 shows the locations of the wells on each of the sites.

II. SCOPE OF WORK

Well decommissioning will take place on 50 wells across two sites. Wells on both sites are PVC single stem riser with various casing diameters (see tables below). The tables below detail the depth and casing size for each of the wells to be decommissioned.

Table 1: Well Decommissioning List for Site A

WELL ID	TOTAL DEPTH (ft bgs)	CASING (OD inches)
AS-01	37	2
GEO-9A	104	1
HVE-02*	40	4
HVE-03*	40	4

HVE-06	41	4
HVE-07	37	4
KW-01	35	2
MW-05	35	2
MW-06	35	2
MW-08	35	2
MW-12R	35.5	2
MW-13	35.5	2
MW-17*	35	2
MW-18	40	4
MW-19	36	4
MW-21	35	4
MW-27	39.5	2
MW-28	35	4
MW-29	37	4
MW-30	37	4
MW-31	39	4
MW-32	35	4
MW-33	41	4
MW-34	39	4
MW-35	39	4
MW-36	39.5	2
NW-1-BR	103	1
NW-I-1	70	1
RW-01	34	4
RW-02	54	4
SP-01*	38	2
SP-02*	38	2
SP-02S*	38	2
SP-03*	38	2
SP-03-2-S*	38	2
SP-03S	38	2
SP-04*	38	2
SP-05*	38	2
SP-05R*	38	2
SP-06*	38	2
SP-07*	38	2
SP-08*	38	2
SVE-01	35	4
SVE-02	35	4

^{*} No logs are available; data is estimated.

Table 2: Well Decommissioning List for Site B

WELL ID	TOTAL DEPTH (ft bgs)	CASING (OD-inches)
KW-02	40	2
KW-03	35	2
KW-04	35	2
KW-05	46	2
MW-07	35	2
MW-20	37	2

Contractors will follow the decommissioning procedures outlined in NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy. Well abandonment will follow the following criteria:

- 1. All wells will be trimie grouted with a trimie pipe from the bottom of the well.
- 2. Grout mixture will conform to NYDEC CP-43 standards
- 3. All casings and screens will be left in place.
- 4. All wells will be sounded prior to grouting and final depth to grout will be measured 24 hrs to ensure proper grout depth.

CP-43 outlines the following parameters for a standard mixture:

- one 94 pound bag Type I Portland cement,
- 3.9 pounds powdered bentonite and
- 7.8 gallons potable water.

Wells within Site A are undergoing excavation to 20 feet bgs. Grouting in these wells will be limited from the bottom of the well to 20 feet bgs. Wells within Site B must be completely filled with grout.

Contractors will be responsible for any inspection or documentation reports of well decommissioning activities. Inspection logs and reports are provided as appendices in NYSDEC CP-43.

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Sincerely,

C&S ENGINEERS, INC.

Mark Colmerauer

Regional Environmental Service Manager

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