November 9, 2020

Ms. Megan Kuczka
Environmental Program Specialist
NYSDEC – Region 9
270 Michigan Avenue
Buffalo NY 14203-2915

Re: 1050-1088 Niagara Street Site C915277
SMP In-Situ Groundwater Treatment Work Plan

Dear Ms. Kuczka:
On behalf of our client, 9271 Group, LLC, TurnKey Environmental Restoration, LLC (TurnKey) in association with Benchmark Environmental Engineering and Science, PLLC (Benchmark), is submitting this letter work plan for completion of in-situ groundwater treatment at the 1050-1088 Niagara Street (C915277) Brownfield Cleanup Program (BCP) Site, as requested by the Department in its October 27, 2020 correspondence.

BACKGROUND

The 1050-1088 Niagara Street Site completed BCP investigation and remedial actions and the NYSDEC issued the Certificate of Completion (COC) in December 2017.

As detailed in the most recent 2020 Periodic Review Report, groundwater concentrations have decreased as a result of the completed remedial activities and on-going engineering controls. The most recent groundwater data collected in Juy 2020 shows that only benzene (32 ug/L vs GWQS of 1 ug/L), isopropylbenzene (57 ug/L vs GWQS of 5 ug/L) and xylene (9.6 ug/L vs GWQS of 5 ug/L) were elevated in MW-3. Tentatively Identified Compounds (TICs) were detected at 1,075 ug/L. All other well locations were below GWQS.

Details of the in-Situ treatment are provided below.

GROUNDWATER TREATMENT

Enhanced aerobic biodegradation is the process of adding oxygen to groundwater to increase the naturally occurring microorganisms population that is capable of breaking down residual petroleum contaminants. Oxygen is considered the primary growth limiting factor for petroleum degrading bacteria. Site conditions show low level dissolved oxygen concentration at MW-3 relative to the other well locations on-Site, with values around 1 mg/L during the recent sampling event.

PREPARATION ACTIVITIES

Prior to the application of treatment reagents into the subsurface, a US Environmental Protection Agency (USEPA) Underground Injection Control (UIC) permit will be submitted and approved. Copies of the approved UIC permit will be provided to the Department.

IN-SITU TREATMENT DETAILS

Based on the low-level residual petroleum contaminants, Regenesis RegenOx Part A was selected as the treatment reagent. RegenOx Part A is recommended for use without the catalyzer (Part B), which allows for slower release of the peroxide and breaks down to oxygen and water without the catalytic byproducts. RegenOx Part A has a moderate treatment residency between 2-3 months on average, and has been proven to treat petroleum hydrocarbons.

RegenOx Part A will be mixed with water in 250-gallon totes at each location, and applied directly to MW-3 and MW-5R. Based on Regenesis recommendations, approximately 240 lbs. total of reagent will be applied to the two (2) injection locations. Water level monitoring will be completed to determine the rate of reagent application to the wells. Wells will not be allowed to overflow, and any spilled reagent will be rinsed from ground surface with water. Regenesis RegenOx product information is attached for reference.

POST-INJECTION GROUNDWATER MONITORING

In accordance with the SMP, semi-annual groundwater monitoring will be completed at the Site during 2021, with the initial groundwater monitoring planned for Spring 2021. Groundwater field parameters, including pH, temperature, turbidity, dissolved oxygen, oxidation-reduction potential (ORP) and specific conductance, will also be collected.

REPORTING

Details of the injection activities and post-injection groundwater sampling results will be provided in the 2021 Periodic Review Report (PRR) for the Site.

SCHEDULE

In-Situ groundwater treatment will begin, approximately 3-4 weeks after the Department's approval of this work plan, and receipt of the USEPA UIC permit. Field activities will be coordinated with the Department, as weather permits.

Please let us know if the Department has any questions.

Sincerely,
TurnKey Environmental Restoration, LLC

Nathan Munley
Project Manager

Michael Lesakowski
Principal / Sr. Project Manager

cc: W. Paladino (9271 Group)
L. Carbaugh, Esq.
E. Melnyk (NYSDEC)
A. Caprio (NYSDEC)
C. Staniszewski (NYSDEC)

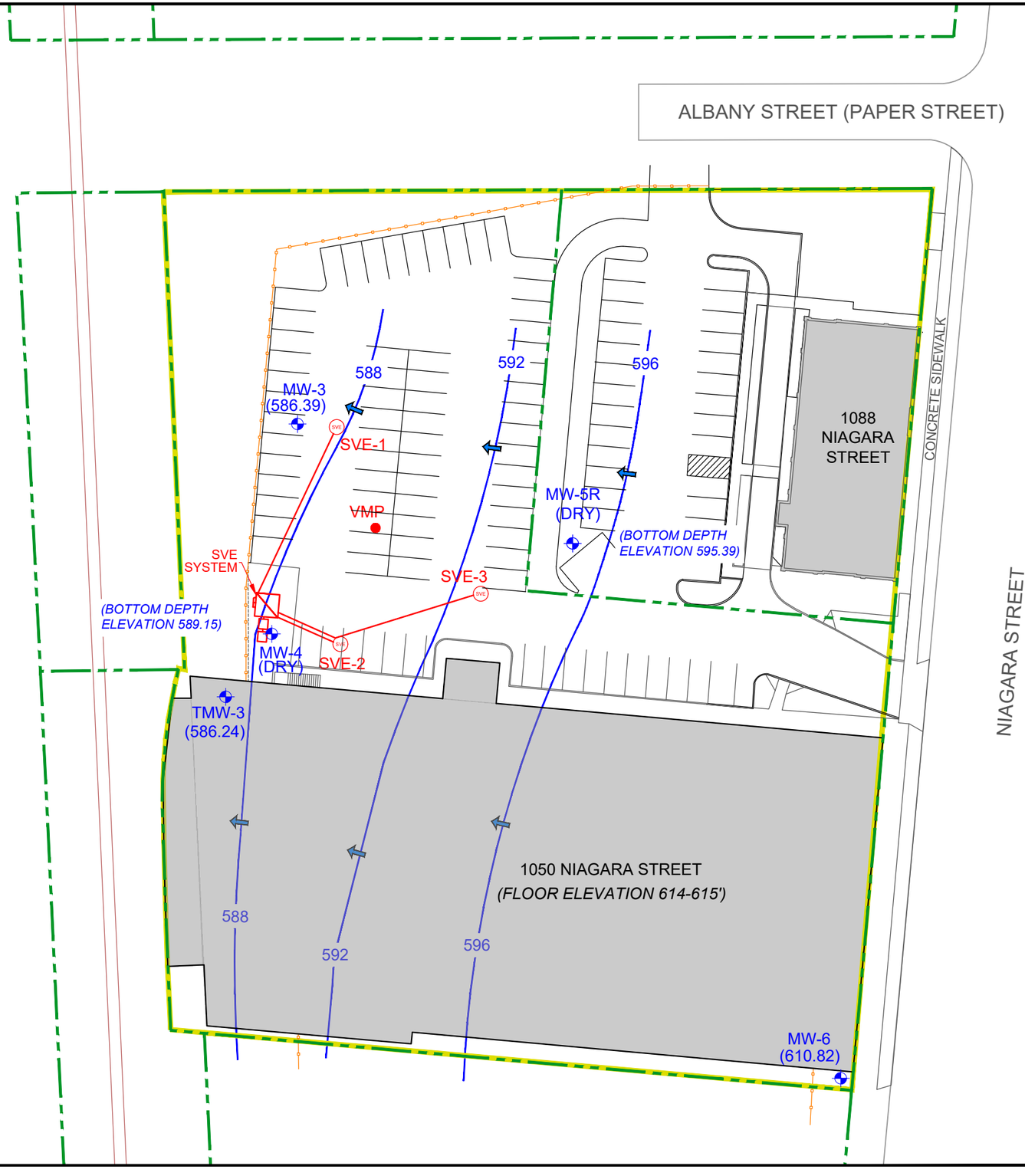
File: 0136-013-005

F:\CAD\TurnKey\Ellicott Development\1050-1088 Niagara St\PRR\2019-2020\Figure 4D; Groundwater and SVE Well Network_July 2020.dwg

LEGEND:

- BCP SITE BOUNDARY
- PARCEL BOUNDARY
- FENCE
- RAILROAD
- BUILDINGS ONSITE
- MW-1 — MONITORING WELL
- SVE-3 — SOIL VAPOR EXTRACTION WELL
- VMP — VACUUM MONITORING POINT
- 596 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER ELEVATION CONTOUR

NOTE: ELEVATIONS PER FIELD DATA TAKEN JULY 9, 2020



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50' 0' 50' 100'

SCALE: 1 INCH = 50 FEET
SCALE IN FEET
(approximate)

DATE: JULY 2020
DRAFTED BY: CMS

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
TURNKEY ENVIRONMENTAL RESTORATION, LLC
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JOB NO.: 0136-013-005

GROUNDWATER AND SVE WELL NETWORK (JULY 2020)

PERIODIC REVIEW REPORT

1050-1088 NIAGARA STREET SITE
BCP SITE NO. C915277
BUFFALO, NEW YORK

PREPARED FOR
9271 GROUP, LLC

FIGURE 4D

Attachment

RegenOx® Technical Description

RegenOx is an advanced chemical oxidation technology that destroys contaminants through powerful, yet controlled chemical reactions. This product maximizes *in situ* chemical oxidation (ISCO) performance through use of a two-part product system; a sodium percarbonate oxidizer complex activated by a patented surface catalyst system. The technology degrades pollutants through direct oxidation, as well as through the generation of a suite of free radical compounds which in turn oxidize recalcitrant contaminants. RegenOX rapidly and effectively destroys a range of target contaminants including petroleum hydrocarbons and chlorinated compounds.

Close up of RegenOx

RegenOx is especially effective in destroying target contaminants present in high concentration source areas within the saturated and vadose zones. For petroleum hydrocarbon treatment, RegenOx produces oxygen as a result of its reactions, providing seamless transition from ISCO to enhanced aerobic bioremediation. RegenOx produces minimal heat when applied, and continues to destroy contaminants for up to 30 days on a single application. RegenOx is safe for use in direct contact with underground utilities, since it is non-corrosive to concrete and most metals.

$$C_2Cl_4 + 4/3\ Na_2CO_3 \bullet 2H_2O_2 + 4NaOH \rightarrow 2CO_2 + 4NaCl + 4H_2O + 4/3\ Na_2CO_3$$

- Free Radical Oxidation via production of:
  - Perhydroxyl Radical ($HO_2\bullet$)
  - Hydroxyl Radical ($OH\bullet$)
  - Superoxide Radical ($O_2^-\bullet$)

For a list of treatable contaminants with the use of RegenOx, view the Range of Treatable Contaminants Guide

Chemical Composition – Part A Oxidant

- Sodium Percarbonate – CAS #15630-89-4
- Sodium Carbonate Monohydrate - CAS #5968-11-6
- Silicic Acid – CAS #7699-11-6
- Silica Gel – CAS #63231

Chemical Composition – Part B Activator Complex

- Silicic Acid, Sodium Salt, Sodium Silicate - CAS#1344-09-08
- Silica Gel – CAS #63231
- Ferrous Sulfate – CAS #7720-78-7
- Water – CAS#7732-18-5

Properties

- Bulk Density – Part A 0.9-1.2 g/cm3; Part B – 1.39 g/cm3
- pH - 10-11 per recommended mixing ratios (3-5% oxidant in solution)
- Solubility – Oxidant - 14.5 g/100 g water; Activator – miscible in water
- Appearance – Brown to orange-brown when mixed with water
- Odor – Not detectable
- Vapor Pressure – None
- Non-hazardous

RegenOx® Technical Description

Storage and Handling Guidelines

Storage
Store in a cool, dry place out of heat/direct sunlight
Store at temperatures not to exceed 40°C/104°F
Store in original tightly closed container
Store in a well-ventilated place
Do not store near combustible materials
Store away from incompatible materials
Protect from contamination
Provide appropriate exhaust ventilation in places where dust is formed

Handling
Minimize dust generation and accumulation
Observe good industrial hygiene practices
Keep away from clothing and combustible materials
Take any precaution to avoid mixing with combustibles
Avoid contact with eyes
Do not taste or swallow
Do not eat, drink or smoke nearby
Wear appropriate personal protective equipment
Wash hands thoroughly after handling
Avoid release to the environment

Applications

RegenOx is applied using direct-injection techniques or wells. The application process enables the two- part product to be combined, then pressure-injected into the zone of contamination and moved out into the aquifer media. Application instructions for this product are contained in the RegenOx Application Instructions Guide.

Health and Safety

Material is relatively safe to handle; however, we recommend avoiding contact with eyes, skin and clothing. OSHA Level D personal protection equipment including vinyl or rubber gloves, eye protection and dust mask are recommended when handling this product. Please review the Material Safety Data Sheet for additional storage, packaging, usage, and handling requirements here: RegenOx Part A SDS and RegenOx Part B SDS.

REGENESIS

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