GANNETT FLEMING ENGINEERS, P.C.
100 Crossways Park Drive West
Suite 300
Woodbury, NY 11797

Office: (516) 671-4140
Fax: (516) 921-1565
Internet:www.gannettfleming.com

November 14, 2012
Project # 53319.008

Ainura Doronova, Environmental Engineer 1
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 2
47-40 21st Street
Long Island City, NY 11101-5407

Re: Status Report
Completion of Remedial Action
NYSDEC Spill No. 1100020
Cooper Tank and Welding Corporation
225 Moore Street, Brooklyn, NY

Dear Ms. Doronova:

Gannett Fleming Engineers, P.C. (GF), on behalf of Cooper Tank and Welding Corporation (Cooper), has prepared this Status Report to document the completion of a remedial injection program that was implemented at Cooper, 225 Moore Street, Brooklyn, New York (the "Site") from September 17 through September 28, 2012. The remedial injection at the Site was completed in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Remedial Action Work Plan (RAWP) dated May, 2012.

Introduction and Background

Remedial field work was performed from September 17 through September 28, 2012. The objective of the remedial program as detailed in the RAWP was to remediate an Area of Concern (AOC) on Site as defined by an approximate 400 square foot area in the southeast corner of Lot 47, from a depth of 3 feet below ground surface (BGS) to a depth of 15 feet BGS, that exhibited elevated concentrations of gasoline-related Constituents of Concern (COCs) in groundwater. The scope of work involved a subsurface injection program that utilized two phases of injection; In-situ Chemical Oxidation (ISCO) to address an approximate 20'x20' area of primary concern that exhibited the highest concentrations of COCs in groundwater, and Oxygen Release Compound (ORC) to address an approximate 60'x60' area of secondary concern that surrounds the primary AOC.

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Feasibility Testing and Baseline Analysis

A second geophysical investigation was conducted on July 6, 2012 to re-mark all utility lines in the AOC prior to any intrusive work. Soil borings required for feasibility testing were advanced on July 23, 2012. Feasibility testing included the chemical analysis of soil collected from four boring locations (SB-SE-12, FB-1, FB-2, and FB-3) and groundwater from four monitoring wells (MW-SE-7, MW-SE-9, MW-SE-11, and MW-SE-12) to determine the volume and concentration of ISCO and ORC required to remediate the AOC. In addition to the feasibility testing parameters, groundwater samples were collected from the four monitoring wells and MW-SE-8 on the sidewalk to the east of Lot 47 for volatile organic compounds (VOC) listed in Table 2 of CP-51 SCG, by USEPA Method 8260 analysis to provide a baseline to determine the future effectiveness of the remedy. Groundwater sampling was performed on August 7, 2012. All analytical results from the feasibility testing and the baseline analysis were transmitted electronically on August 29, 2012 to your attention.

Technical Approach and Remedial Design

The final site-specific remedial design was developed after evaluating the following:

- Analytical results from the feasibility testing and baseline analysis,
- COC concentrations documented from previous studies in the primary and secondary AOCs,
- Subsurface soil physical characteristics in the AOCs, and;
- Underground utility interferences in the AOCs.

GF concluded that a combined application of RegenOx A® (RegenOx) and Oxygen Release Compound Advanced® (ORC) would be a feasible remedial technique for the Site. The remedial scope for the primary AOC consisted of the injection of a 6% solution of RegenOx at six locations from 3 feet BGS through 17 feet BGS. At the secondary AOC, the scope of work consisted of injecting a 30% slurry of ORC at 34 locations from 3 feet BGS through 17 feet BGS. Each RegenOx injection point required approximately 300 gallons of the 6% solution, or approximately 22 gallons per vertical foot. Each ORC injection point required approximately 25 gallons of the 30% slurry, or approximately 1.75 gallons per vertical foot. A lateral spacing of approximately 9 feet between injection points was used for the optimal delivery of RegenOx and ORC due to the soil texture. Adjacent points spaced more than 15 feet apart due to the layout of utilities beneath the building floor were injected with twice the volume.

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Remedial Execution

The remedial work was performed from September 17 through September 28, 2012 under continuous oversight by GF. Each injection location was excavated by hand to a minimum depth of at least 5 feet BGS, then backfilled to 1 foot BGS using the excavated soils, and sealed with concrete prior to injection. Zebra Environmental Corp. (Zebra) was contracted by GF and provided a Geoprobe®, pumping equipment, and manpower for hand excavation of shallow soils at the injection locations.

RegenOx and ORC were provided by Regenesis and delivered to the Site by Zebra in sealed-un-opened bags and buckets. All RegenOx and ORC were mixed in clean 55 gallon steel drums on Site with potable water to the required concentrations and in accordance with manufacturer's specifications prior to being injected into the subsurface. RegenOx and ORC were pumped using an injection assembly of 1.5 inch outer-diameter steel casings and a double diaphragm pump with a pressure gauge that continuously monitored backpressure and indicated potential resistance in the subsurface. A Geoprobe® direct-push rig was used to advance the injection assembly to the required depths for remediation.

Figure 1 illustrates the injection program on Site. A total volume of approximately 2,400 gallons of 6% RegenOx solution was injected in AOC-1, from 3 feet BGS through 17 feet BGS, at 6 injection points (R-1 through R-6). Two (2) ORC injection points (R-2 and R-4) received a double-volume (600 gallons) of the RegenOx solution. A total volume of approximately 1,150 gallons of 30% ORC slurry was successfully injected in AOC-1 and AOC-2 from 3 feet BGS through 17 feet BGS, at 34 injection points (O-1 through O-34). 12 ORC injection points (O-2, O-3, O-12, O-13, O-14, O-16, O-17, O-19, O-21, O-25, O-26, and O-34) received a double-volume (50 gallons) of the ORC slurry.

Following injection each point was restored with a bentonite seal and a concrete patch to grade. No liquid or solid wastes were generated by the injection program. The inspections were successfully completed in accordance with the NYSDEC - approved May 2012 RAWP and all remedial chemicals were prepared and applied in accordance with manufacturer's specifications.

Performance Monitoring

As per the RAWP, performance monitoring will be conducted to monitor the effectiveness of the remedial action. The monitoring will be conducted in January, 2013, approximately three months after completion of the remedial injection event, and in April 2013 thereafter. A total of two performance monitoring sampling events are scheduled to evaluate the effectiveness

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of the remedial action. Following each performance monitoring event, a letter report will be prepared by GF and provided to NYSDEC to detail the results of the groundwater quality.

Summary

The NYSDEC approved remedial action consisting of the subsurface injection of 2,400 gallons of RegenOx solution and 1,150 gallons of ORC® Advanced solution was performed in September 2012. The first of two performance monitoring events to evaluate the effectiveness of the remedial action is scheduled in January 2013. The results of the monitoring will be summarized and evaluated by GF in a letter report that will be sent to you.

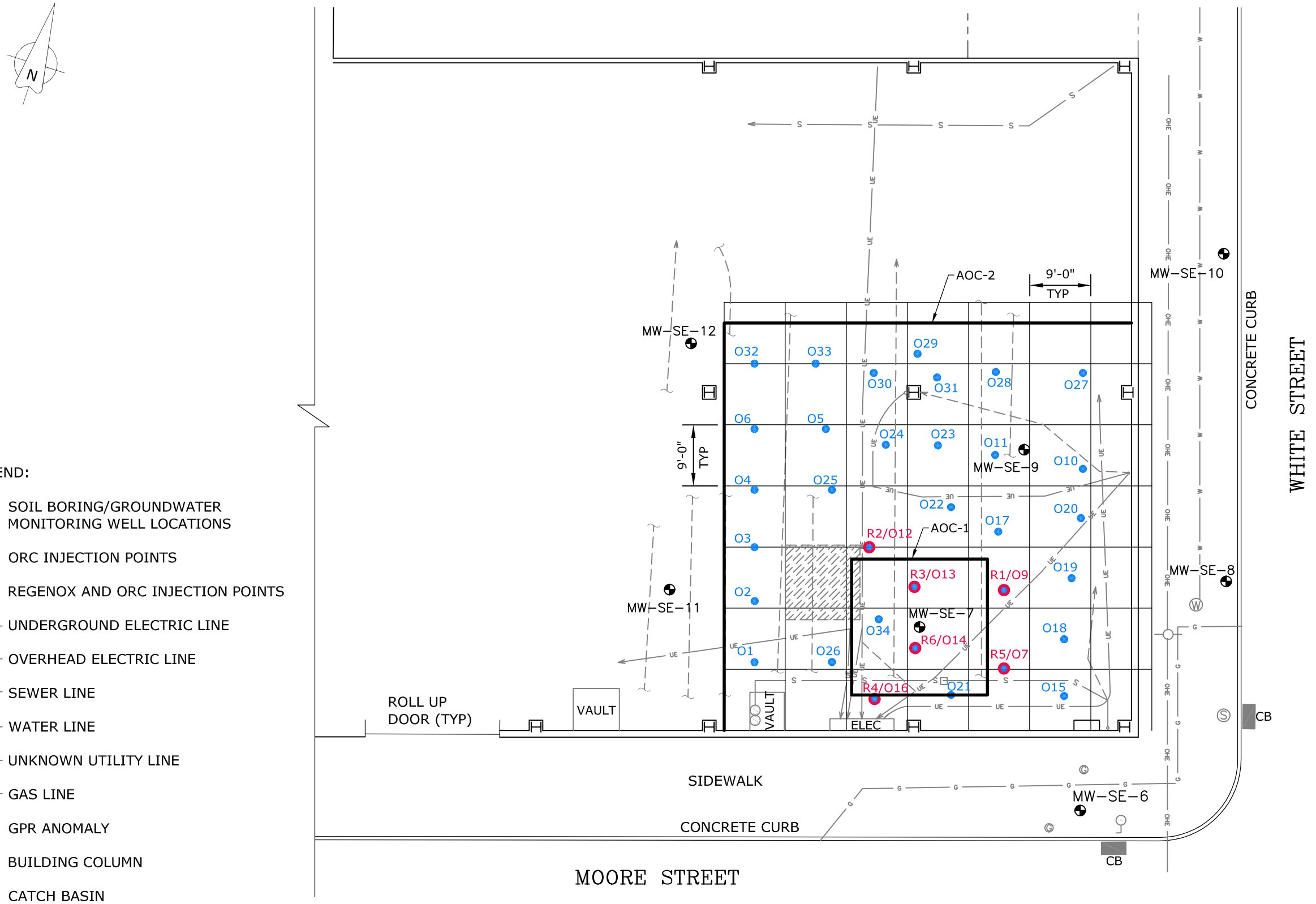
Please contact me if you have any questions, or if you would like to discuss this report in further detail.

Very truly yours,

GANNETT FLEMING ENGINEERS, P.C.

VINCENT FRISINA, P.E.
Vice President/Director of Environmental Services

cc: David Hillcoat – Cooper Tank and Welding Corp.



LEGEND:

- SOIL BORING/GROUNDWATER MONITORING WELL LOCATIONS
- O1 ORC INJECTION POINTS
- REGENOX AND ORC INJECTION POINTS
- UE UNDERGROUND ELECTRIC LINE
- OVERHEAD ELECTRIC LINE
- S SEWER LINE
- W WATER LINE
- UNKNOWN UTILITY LINE
- G GAS LINE
- GPR ANOMALY
- BUILDING COLUMN
- CB CATCH BASIN
- ELEC ELECTRIC PANEL
- STREET LIGHT
- AOC AREA OF CONCERN

0 8 32

SCALE: 1/16" = 1'-0"

REMEDIAL INJECTION POINTS

COOPER TANK & WELDING CORP.
215 MOORE STREET, BROOKLYN, NY

10/23/12 11:10am FILE= K:\PROJECTS\53000\53319\008\F1-Injection pts.dwg by LKAMORNIK XREF FILE = NONE