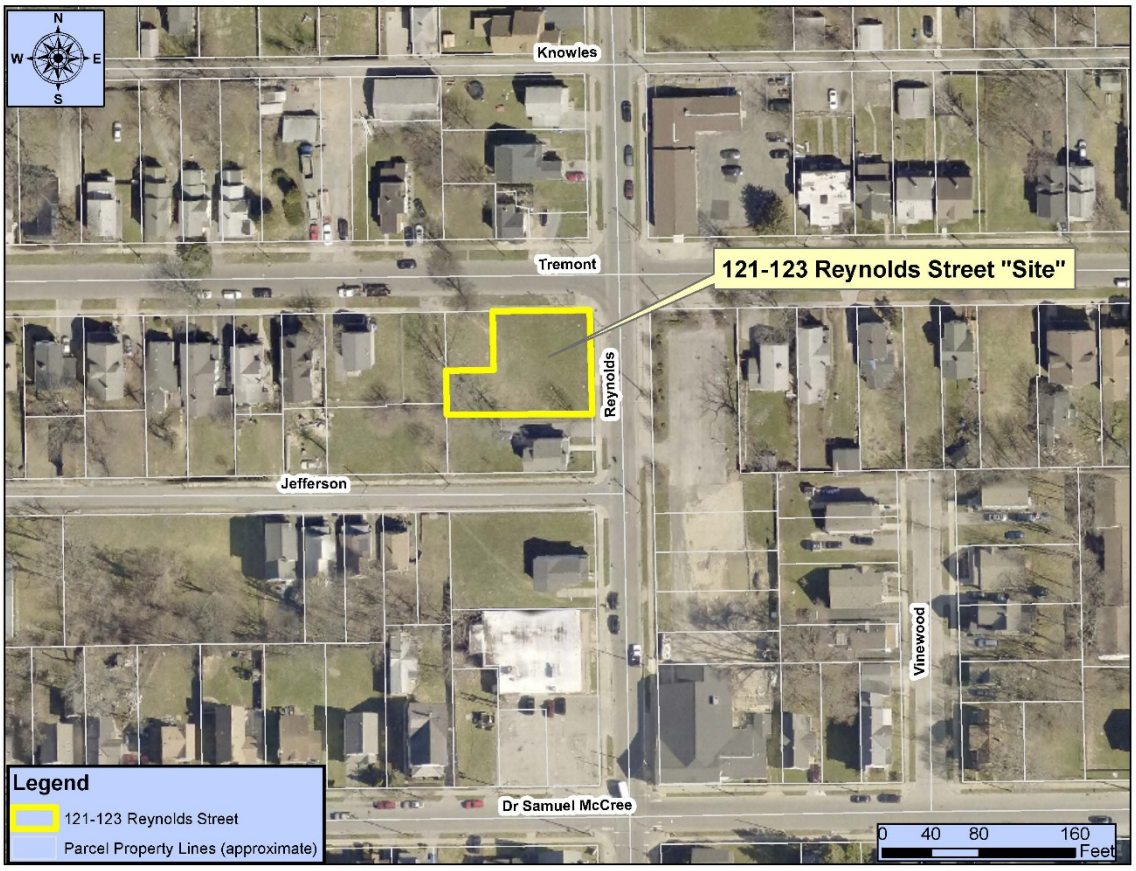
USEPA Brownfields Cleanup Grant
Final Technical Performance Report
October 2021

Petroleum-Impacted Soil and
Groundwater Cleanup Project

121-123 Reynolds St
Rochester, NY
NYSDEC Spill No. 1103833

USEPA Assistance ID No. BF 96261018



Prepared By:
City of Rochester
Division of Environmental Quality
Department of Environmental Services
30 Church Street
Rochester, New York 14614

This Technical Performance Report summarizes the remediation of petroleum-impacted soil and groundwater performed in July/August 2020 at the City of Rochester (City)-owned property located at 121-123 Reynolds Street Rochester, NY (hereinafter referred to as "the Site", see attached Figures).

Background

A portion of the Site had a history of use as a gas station and an auto repair facility. Multiple phases of environmental investigations performed by the City at the Site documented the presence of four abandoned underground storage tanks (USTs) and identified petroleum-related impacts to soil and groundwater. The four USTs and a limited amount of petroleum contaminated soil were removed from the Site in accordance with applicable regulations as an interim remedial measure (IRM) in August 2011. Due to the presence of petroleum contamination in soil and groundwater, the New York State Department of Environmental Conservation (NYSDEC) assigned Spill File No. 1103833 to the property. Previous work at the Site is detailed in the following reports:

- Data Package - Environmental Assessment and Remediation Services – Day Environmental Inc., 2011
- Phase I Environmental Site Assessment – Day Environmental Inc., 2015
- Phase II Environmental Site Assessment – Day Environmental Inc., 2016
- Supplemental Phase II Environmental Site Assessment – Day Environmental Inc., 2017
- Opinion of Probable Cost (OPC) – Day Environmental Inc., 2016

Brownfield Cleanup Project

The City subsequently received a Brownfield Cleanup Grant (Agreement No. BF-96261018) from the United States Environmental Protection Agency (USEPA), and the remedial project described in this report was undertaken to address the identified impacts. The City entered into a Stipulation Agreement with NYSDEC for cleanup at the Site, and NYSDEC provided technical review and approval of all work plans and reporting for the remediation project. The remedial program was jointly funded by the USEPA and the City. Though this project has been funded in, wholly or in part by the USEPA, the contents of this document do not necessarily reflect the views and policies of the USEPA.

Remedial actions were performed during the period July to August 2020 by TREC Environmental Inc. under the direction of Stantec Consulting Services, Inc. (Stantec). The remediation was performed in accordance with a Corrective Action Plan (CAP) approved by the NYSDEC. The primary elements of the program included:

- Excavation and offsite disposal of impacted soils from the Urban Fill Area, UST Source Area, and Plume Area excavations;
- Confirmatory soil sampling in excavations;
- Placement of a soil amendment, Oxygen Release Compound-Advanced (ORC-A®; manufactured by Regenesis) in excavations to facilitate *in situ* bioremediation of residual impacts;
- Installation of injection piping in the UST Source and Plume Area Excavations for future applications of ORC-A® powder in these areas, if needed;
- Installation of two bedrock sumps to remove potentially impacted groundwater from the bedrock;
- Site restoration including backfill with clean excavated soil and imported material; and
- Post-remediation groundwater monitoring.

Approximately 899 tons of petroleum-impacted soil and 957 tons of urban fill material was removed and disposed of offsite at a NYSDEC permitted disposal facility. The limits of the excavations were established based on PID readings and confirmatory soil sampling. In some instances, excavations were limited by the property line or proximity to the adjacent sidewalks/Right of Way (ROW). Results of the confirmatory soil sampling indicated that all post-excavation soil samples were either below laboratory detection limits (i.e., non detect) or at concentrations below NYSDEC's soil cleanup objectives (SCOs) and soil cleanup levels (SCLs). These results did identify minor residual concentrations of petroleum and urban fill-related compounds (but below applicable NYSDEC SCOs and SCLs) in a limited number of samples. Results of post

Excavation of plume area

remediation groundwater samples from the last three quarterly sampling events indicated that all groundwater samples were either below laboratory detection limits (i.e., non detect) or at concentrations below NYSDEC's groundwater quality standards. The remedial program was successful in removing the vast majority of the petroleum contaminant mass (likely more than 95% mass reduction and an approximate 99.4% reduction in dissolved phase volatile organic compounds (VOCs).

Covered stockpiles on-site

The cleanup work is documented in a Stantec report titled "Remedial Construction/Closure Report Petroleum-Impacted Soil and Groundwater, 121-123 Reynolds Street Rochester, NY, NYSDEC Spill No. 1103833, January 2021" (herein referred to as the RCCR). The RCCR report contains more detailed information, laboratory data, photos, tables, figures and other supporting documentation regarding the remediation of this Site. A copy of the January 2021 Stantec RCCR was previously submitted to USEPA Region 2 under separate cover.

The following engineering controls and institutional controls (EC/IC) have been placed on the Site:

- A flag on the property was placed in the City's Building Information System (BIS) indicating it has undergone environmental cleanup, but still contains residual contamination. The BIS flag indicates that environmental restrictions exist for the property, and that the City must perform a site-specific environmental review before issuing any new City permits related to site development, construction or demolition, etc.
- A Soil and Groundwater Management Plan (herein referred to as the SGMP) for the Site was developed, which provides guidance for future Site activities that may result in disturbance of residual contamination.
- The Site was listed on the City Environmental Institutional Control (EIC) website (www.cityofrochester.gov/EICproperties). The IC website contains a listing of all properties located in the City for which the City or the NYSDEC have placed environmental ICs. The website also contains a PDF copy of the site-specific SGMP for the Site.

NYSDEC Spill # 1103833 was listed as closed by the NYSDEC as of September 3rd, 2021. A copy of the September 3rd, 2021 NYSDEC "No Further Action" letter is attached to this report.

For this cleanup project the City has expended a total of $334,782 which includes the EPA Brownfields Cleanup Grant of $200,000.

The City has established an Administrative Record for the 121-123 Reynolds St. cleanup project. Project documents are available for public review at the document repository located at the Phyllis Wheatley Branch library (33 Dr. Samuel McCree Way, Rochester, NY). Electronic copies of these documents are also available for public review and can be opened or downloaded at https://www.cityofrochester.gov/121-123reynoldscleanup/ The Administrative record includes the following:

- Data Package - Environmental Assessment and Remediation Services – Day Environmental Inc., 2011
- Phase I Environmental Site Assessment – Day Environmental Inc., 2015
- Phase II Environmental Site Assessment – Day Environmental Inc., 2016
- Supplemental Phase II Environmental Site Assessment – Day Environmental Inc., 2017
- Opinion of Probable Cost (OPC) – Day Environmental Inc., 2016
- Analysis of Brownfield Cleanup Alternatives - Stantec, 2020
- Corrective Action Plan (CAP) (includes Community Involvement Plan (CIP) as an Appendix)- Stantec, 2020
- NYSDEC Approval of CAP Letter - NYSDEC, 2020
- USEPA Action Memorandum - Stantec, 2020
- Remedial Construction Closure Report (RCCR) - Stantec, 2021
- Final Technical Performance Report – City of Rochester October 2021

In Summary, the City has completed an extensive source removal and in-situ groundwater remediation program resulting in a near complete removal of petroleum impacts from the 121-123 Reynolds St. site. The NYSDEC has removed the spill file for the Site from the Department's active spill files and does not require active remedial efforts at this time. The project accomplished all of the objectives identified in the EPA approved work plan and did so within the original project budget.

The objective of this Brownfield Cleanup Project to meet residential reuse criteria has been attained as documented in the Stantec RCCR (i.e., SCOs/SCLs/NYSDEC Groundwater Quality Standards achieved). This property is zoned R-1 - Low Density Residential and the City Department of Neighborhood and Business development (NBD) intends to market the site for single or two family residential development.

Lessons Learned

The section below discusses *Lessons Learned* by the City of Rochester that were critical in making this project a success.

- Coordination with neighbors and stakeholders – The City reached out to adjacent and nearby residents and community groups via in person visits and newsletters to inform them of the cleanup project. With the owner's permission, City and Stantec personnel accessed the basement of the adjoining property at 125 Reynolds St. prior to the start of the project to observe a sub-slab depressurization system previously installed at that residence.
- Delineation of impacted areas prior to start – The City performed extensive subsurface investigation and modelling work prior to the start of the cleanup to fully delineate the impacted areas leading to a successful remedial design.
- Aggressive Source removal – The remedial alternative selected included an aggressive source

removal program that in turn led to the site cleanup meeting NYSDEC groundwater quality standards. There was an approximate 99.4% reduction in dissolved phase VOCs in groundwater at the Site as the result of the cleanup project.

121-123 Reynolds St fully restored with bollards in place as photographed facing to the Northwest.

Attachment 1

Figures

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Legend:

- Site Location

0 1,000 2,000 4,000 Feet

1:24,000 (at original document size of 8.5x11)

Notes
1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.
3. Topo imagery provided by ESRI Online Services and USGS 7.5 Minute Quad of Rochester West, NY, dated 1995.
4. Key Map Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), Mapmyindia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Stantec

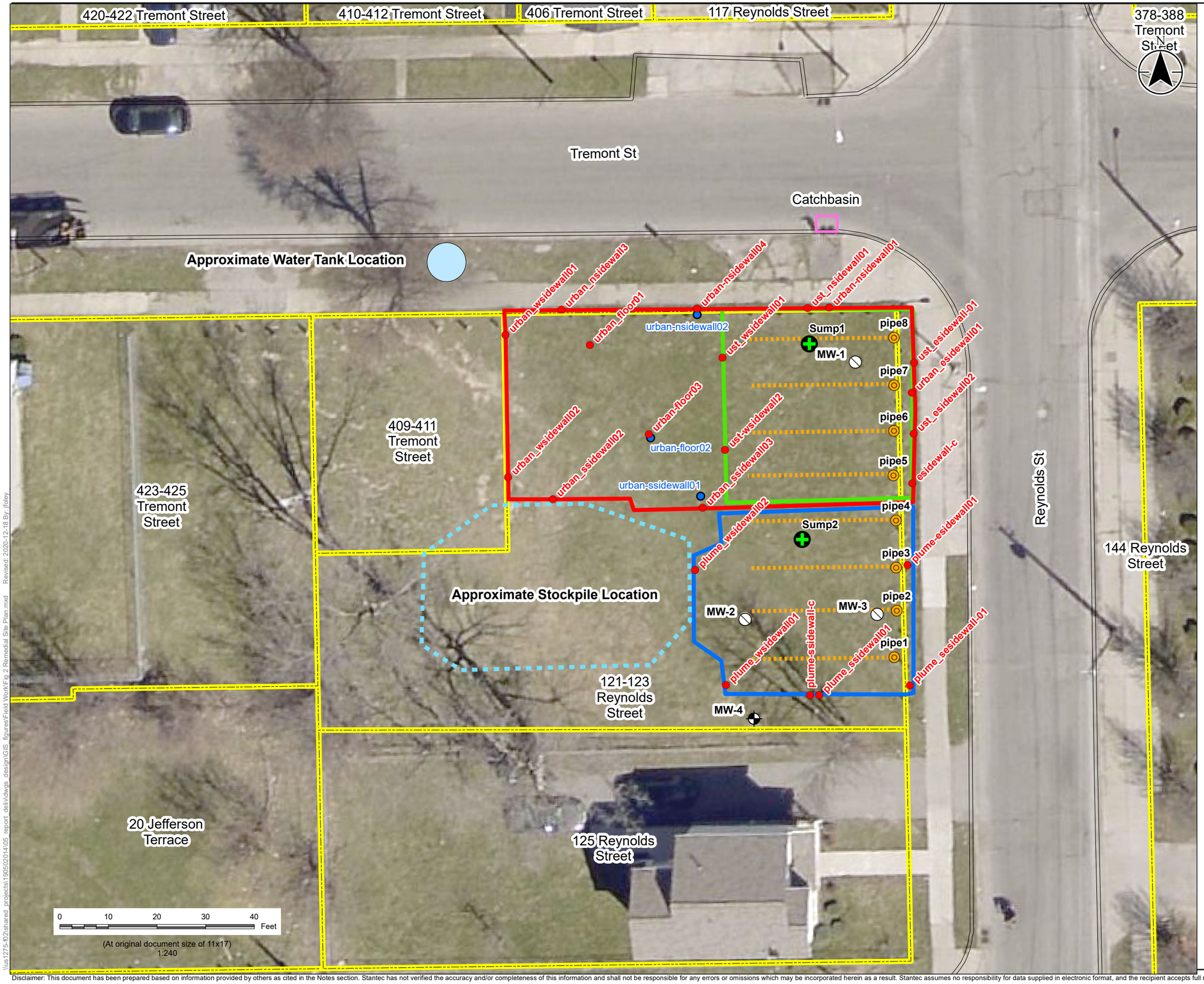
Project Location
121-123 Reynolds Street
Rochester, New York

Site Location Map REVA
Prepared by AJK on 2017-10-12
Technical Review by KI on 2017-10-13
Independent Review by MPS on 2017-10-13

Client/Project
City of Rochester
Remedial Construction Closure Report
Petroleum Impacted Soil and Groundwater

Figure No.
1

Title
Site Location Map



\\us1275-fil02\shared_projects\190502014\05_report_dev\vdwps_design\GIS_figures\Field\Work\Fig 2 Remedial Site Plan.mxd Revised: 2020-12-18 By: jfoley

Stantec

Legend

- Existing Monitoring Well
- Decommissioned Monitoring Well
- Edge of Pavement
- Intermediate Soil Samples
- Confirmatory Soil Samples
- Injection Piping Run and Riser - Well
- Injection Piping Run and Riser - Piping
- Sumps
- Urban Fill Area Excavation Limits
- UST Area Excavation Limits
- Plume Area Excavation Limits
- Water Tank Location

Notes

1. Coordinate System: NAD 1983 StatePlane New York West FIPS 3103 Feet
2. Data Sources:
3. Background: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
4. All feature and sample locations are approximate only, as established using a Trimble GPS with sub-meter accuracy and adjusted using field measurements as appropriate. Stockpile location not surveyed.
5. Injection pipe headers and sumps are flush-mounted.
6. The parcel at 409-411 Tremont Street is owned by the City of Rochester and was used for access to the 121-123 Reynolds Street parcel, as well as material storage and temporary stockpiling.
7. Intermediate soil samples were superseded by final confirmatory samples after further excavation.
8. See accompanying report for detailed description of program and all sampling results.

Project Location
121-123 Reynolds Street
Rochester . NY

Prepared by APL on 2020-08-10
TR by JF on 2020-08-10
IR Review by BM on 2020-08-10

Client/Project
City of Rochester
Environmental Remediation
Remedial Construction/Closure Report

190502014

Figure No.
2

Title
Remedial Site Plan

Appendix 2

NYSDEC “No Further Action” Letter

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Spill Prevention and Response Program, Region 8
6274 East Avon-Lima Road, Avon, NY 14414-9516
P: (585) 226-5433 I F: (585) 226-8139
www.dec.ny.gov

September 3, 2021

Mr. Joseph Biondolillo
Associate Environmental Specialist
City of Rochester
Division of Environmental Quality
30 Church Street, Room 300-B
Rochester, New York 14614

Dear Mr. Biondolillo:

Re: NYSDEC Spill # 1103833
121-123 Reynolds Street
Rochester (c), Monroe County

The Department is in receipt of the August 30, 2021 Soil & Groundwater Management Plan (SGMP), prepared by Stantec Consulting Services, for the above referenced spill location. Upon review of the aforementioned SGMP and previously submitted information, the residual impacts identified in the subsurface do not appear to pose a threat to human health and safety or the environment in their current location and state. The Department does not require active remedial efforts at this time. This spill has been removed from the Department's active case files. However, be aware that this ruling does not preclude reactivation of this case should new information become available, an impact to a receptor be discovered and/or the residual petroleum impacts are encountered/unearthed in the future. Should the latter occur, the Department must be notified and the SGMP must be followed.

If there are any questions or comments, feel free to contact me at either the above address or by telephone at 585-226-5438.

Sincerely,

Michael F. Zamiarski

Michael F. Zamiarski, P.E.
Professional Engineer II
Regional Spill Engineer
Division of Environmental Remediation

cc: Mike Storonsky, Stantec