Site Management Plan

For

Schoepfel Chevrolet
Environmental Restoration Project
New York State Assistance
Contract No. C301397
New York State Site No. B00142-8

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Prepared for:

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Table of Contents

1.0 Overview and Objectives

The purpose for this Site Management Plan is to outline required restrictions and practices to be conducted by Owner's of the former Schoepfel Chevrolet property, located at 7106 East Ridge Road in Sodus, New York. The site is a 2.3 acre former automobile dealership property that, in 2006, was owned by Wayne County. The location of the property is shown on figure 1. Wayne County conducted a Site Investigation and Remedial Alternatives Analysis project as part of New York State Department of Environmental Conservation's (NYSDEC's) Environmental Restoration Project (ERP) brownfield program. The user should refer to the Site Investigation/ Remedial Alternatives Report for more detail, as needed.

The objective of this Soils Management Plan (SMP) is to set guidelines for management of soil material exposed during any future activities which would breach the cover system at the site. This SMP addresses environmental concerns related to soil management and has been reviewed and approved by the NYSDEC.

This SMP is a required action of the NYSDEC's Record of Decision for the site and the existing and future owners are bound to execute and certify annual compliance with this plan.

2.0 Nature and Extent of Contamination

Based on data obtained during the ERP Site Investigation and interim remedial projects conducted by Barton & Loguidice, P.C. (B&L), certain residual petroleum compounds remain in subsurface soils at the site. The site status is summarized in the Site Investigation/Remedial Alternatives Report (SIRAR), September 2003. Figure 2 shows the limits of impacts at the site.

The constituents of potential concern (COPCs) for soil consist primarily of petroleum derived volatile organic compounds (VOCs) and polynuclear aromatic hydrocarbons (PAHs). These compounds are residual in nature and associated with the former underground storage tanks removed during the Site Investigation. Results of ground water sampling indicate that constituents in the soil/fill material have slightly impacted groundwater quality. This groundwater contamination is expected to remediate via natural attenuation.

The VOCs of concern in soil are benzene, toluene, xylenes, and isopropyl benzene which were detected at concentrations within one to two orders of magnitude of the TAGM #4046 guidance values (DEC criteria). The VOC impacts are primarily situated surrounding the former location of UST's 1, 2, and 3 (Area 1). VOCs readily move into air in the form of vapors. Typical exposure pathways for VOCs include direct contact with impacted soil (absorption pathway), inhalation of vapors from impacted soil (inhalation pathway), or ingestion of soil-bound compounds (ingestion pathway). Exposure of these soils during construction and vapor intrusion into buildings are the likely exposure pathways for this site.

VOCs were also observed in groundwater at concentrations slightly above the NYS standards. These VOCs consist of benzene, 1,2-dichloroethane, and vinyl chloride and are found in the vicinity of USTs 1-3 (Area 1). Typical exposure pathways for groundwater VOCs include direct contact with impacted groundwater (absorption

pathway), inhalation of vapors from impacted groundwater (inhalation pathway), or ingestion of impacted groundwater (ingestion pathway). Since the area is served by public water, the only anticipated pathway for exposure is from direct contact (absorption) or exposure to vapors (inhalation).

Semi-volatile organic compounds (SVOC's) and PAHs including benzo(a)pyrene, benzo(ah)anthracene, benzo(b)fluoroanthene, chrysene, and dibenzofuran, were also detected in soils above the TAGM #4046 guidance values. The SVOCs are primarily situated surrounding the former location of USTs 4-7 (Area 2). SVOC compounds have limited solubility and, therefore, are not very mobile in the environment. The primary pathways that exist for this class of compounds are direct contact with impacted soil (absorption pathway) and ingestion of impacted soil (ingestion pathway). Exposure of these soils during construction is the likely pathway for the proposed use at this site.

3.0 Contemplated Use

As part of the brownfield project, the property has been deed restricted to commercial or industrial uses. Such uses include, but are not limited to:

- Research offices and laboratories
- Commercial businesses
- Offices
- Manufacturing

Residential use of the site is prohibited.

In amplification of these use restrictions, the County has processed an environmental easement ("Contract") with the State of New York which further defines the use and restrictions of the property. The environmental easement, which is filed with the property deed, requires the following institutional and engineering controls:

- The NYSDEC approved Site Management Plan is adhered to (this document).

- Groundwater use is restricted against use for potable or process water, without necessary water quality treatment as determined by the New York State Department of Health.

- Any soil on the property must be covered by a barrier layer approved by NYSDEC such as concrete, asphalt or structures or must be covered with a 1 foot layer of clean soil and this barrier layer must be maintained.

- Any proposed soil excavation on the property below the cover requires adherence to the Site Management Plan (this document) approved by NYSDEC for this Controlled Property and the excavated soil must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.

- The potential for vapor intrusion into any buildings developed on the site must be evaluated, including provisions for mitigation of any impacts identified.

4.0 Purpose and Description of Surface Cover System

The purpose of the surface cover system is to eliminate the potential for human contact with fill material and eliminate the potential for contaminated runoff from the property. The existing cover system consists of the following materials:

- Soil: A soil cover is in place in the areas where the USTs were removed. A minimum of 1-foot of soil is in place in this area. This cover shall be maintained unless replaced by one of the following cover types.

- Asphalt: An existing asphalt surface is present on the remainder of the site. This surface will remain in place except where future construction requires its removal and replacement with any of the cover types identified in this section.

- Concrete: Former building foundation slabs cover portions of the site. As with the existing asphalt pavement, the concrete slabs prevent contact with underlying subsurface soils.

5.0 Management of Soils/Fill and Long-Term Maintenance of Cover System

The purpose of this section is to provide environmental guidelines for management of subsurface soils/fill and the long-term maintenance of the cover system during any future intrusive work which breaches the cover system.

The SMP includes the following conditions:

- Any breach of the cover system, including for the purposes of construction or utilities work, must be replaced or repaired using an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. The repaired area must be covered with clean soil and reseeded or covered with impervious product such as concrete or asphalt, as described in Section 4, to prevent erosion in the future.
- Control of surface erosion and run-off from the property during periods when construction activities are occurring.
- Site soil that is excavated and is intended to be removed from the property must be managed, characterized, and properly disposed of in accordance with NYSDEC regulations and directives.
- Soil excavated at the site may be reused as backfill material on-site provided it contains no visual or olfactory evidence of contamination and it is placed beneath a cover system component as described in Section 4.
- Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination. Off-site borrow sources should be subject to collection of one representative composite

sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, and TAL metals plus cyanide. The soil will be acceptable for use as cover material provided that all parameters meet the NYSDEC recommended soil cleanup objectives included in TAGM 4046.

- Prior to any construction activities, workers are to be notified of the site conditions with clear instructions regarding how the work is to proceed. Invasive work performed at the property will be performed in accordance with all applicable local, State, and Federal regulations to protect worker health and safety. The NYSDOH Generic Community Air Monitoring Plan (CAMP) shall be implemented when intrusive activities occur in the areas of known residual contamination. A copy of the generic CAMP is attached (attachment A).

- The Owner shall complete and submit to the Department an annual report by January 15th of each year. Such annual report shall contain certification that the institutional controls put in place, pursuant to the Record of Decision and described in this SMP, are still in place, have not been altered, and are still effective; that the remedy and protective cover have been maintained; and that the conditions at the site are fully protective of public health and the environment.

If the cover system has been breached during the year covered by that Annual Report, the owner of the property shall include the following in that annual report:

- A certification that all work was performed in conformance with this SMP.

In addition, deed restrictions have been implemented in accordance with the requirements of the Environmental Restoration Program, limiting the future use of the property to commercial or industrial development.

5.1 Excavated and Stockpiled Soil/Fill Disposal

Soil/fill that is excavated as part of future site development which cannot be used as fill below the cover system shall be further characterized prior to transportation off-site for disposal at a permitted facility. Characterization of the excavated soils shall meet the analytical and sampling requirements of the disposal facility. Stockpiled soil cannot be transported off-site until the analytical results are received.

If excavated soils from the site are obtained from areas outside of the known impacted soil areas, or if soil from these areas appears to be visually free of stains and does not exhibit volatile vapors as determined by field photoionization detector (PID) instrumentation, and the owner wishes to dispose of soils off-site as unrestricted spoil, then the following procedures must be followed:

- For excavated soil/fill that does not exhibit visual evidence of contamination but must be sent for off-site disposal, one composite sample and a duplicate sample will be collected for each 2,000 cubic yards of stockpiled soil, and a minimum of one sample will be collected for volumes less than 2,000 cubic yards.

- The composite sample will be collected from five locations within each stockpile. A duplicate composite sample will also be collected. PID measurements will be recorded for each of the five individual locations. One grab sample will be collected from the individual location with the highest PID measurement. If none of the five individual sample locations exhibit PID readings, one location will be selected at random. The composite sample will be analyzed by a NYSDOH ELAP-certified

laboratory for pH (EPA Method 9045C), Target Compound List (TCL) SVOCs, pesticides, and PCBs, and TAL metals, and cyanide. The grab sample will be analyzed for TCL VOCs.

- Soil samples will be composited by placing equal portions of fill/soil from each of the five composite sample locations into a pre-cleaned, stainless steel (or Pyrex glass) mixing bowl. The soil/fill will be thoroughly homogenized using a stainless steel scoop or trowel and transferred to pre-cleaned jars provided by the laboratory. Sample jars will then be labeled and a chain-of-custody form will be prepared.

- Additional characterization sampling for off-site disposal may be required by the disposal facility.

- If sampling documents that the soils do not contain COPCs above DEC guidance values (TAGM 4046 or DER-10), then the soils may be disposed of as unrestricted spoil.

5.2. Subgrade Material

Subgrade material used to backfill excavations or placed to increase site grades or elevation shall meet the following criteria.

- Any off-site fill material brought to the site for filling and grading purposes shall be from an acceptable borrow source free of industrial and/or other potential sources of chemical or petroleum contamination.

- Excavated on-site soil/fill which appears to be visually impacted shall be sampled and analyzed. If analytical results indicate that the contaminants, if any, are present at concentrations below TAGM 4046, the soil/fill can be used as backfill on-site.

- Off-site soils intended for use as site backfill cannot otherwise be defined as a solid waste in accordance with 6 NYCRR Part 360-1.2(a).

- If the contractor designates a source as "virgin" soil, it shall be further documented in writing to be native soil material from areas not having supported any known prior industrial or commercial development or agricultural use.

- Virgin soils should be subject to collection of one representative composite sample per source. The sample should be analyzed for TCL VOCs, SVOCs, pesticides, PCBs, arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, and cyanide. The soil will be acceptable for use as backfill provided that all parameters meet TAGM 4046.

- Non-virgin soils will be tested via collection of one composite sample per 500 cubic yards of material from each source area. If more than 1,000 cubic yards of soil are borrowed from a given off-site non-virgin soil source area and both samples of the first 1,000 cubic yards meet TAGM 4046, the sample collection frequency will be reduced to one composite for every 2,500 cubic yards of additional soils from the same source, up to 5,000 cubic yards. For borrow sources greater than 5,000 cubic yards, sampling frequency may be reduced to one sample per 5,000 cubic yards, provided all earlier samples met TAGM 4046.

6.0 Vapor Intrusion

Design of structures to be constructed on the site shall incorporate a slab vapor barrier and vapor suppression system to prevent petroleum impacted soil vapor from entering and/or accumulating within building spaces. Vapor intrusion systems are similar in design to radon mitigation systems and incorporate components including sub-slab vapor space, vapor transmission conduit/piping, and in-line fans.

7.0 Annual Certification

A certification report will be prepared annually documenting the inspection of the site cover controls and overall compliance with the site management plan and the Record of Decision for the site. This report shall be prepared by either a licensed professional engineer or other environmental professional determined to be acceptable to the NYSDEC. This report shall be submitted to the NYSDEC by January 15th.

Attachment A

NYSDOH Generic Community Air Monitoring Plan

New York State Department of Health
Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well

cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a **continuous** basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored **continuously** at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring partculate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The

equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.

June 20, 2000