

#### DECLARATION STATEMENT ENVIRONMENTAL RESTORATION RECORD OF DECISION

#### Dino & Artie's Transmission Shop Environmental Restoration Site Town of North Salem, Westchester County, New York Site No. B-00021

#### **Statement of Purpose and Basis**

The Record of Decision (ROD) presents the selected remedy for the Dino & Artie's Transmission Shop site, an environmental restoration site. The selected remedial program was chosen in accordance with the New York State Environmental Conservation Law and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (NYSDEC) for the Dino & Artie's Transmission Shop environmental restoration site, and the public's input to the Proposed Remedial Action Plan (PRAP) presented by the NYSDEC. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

#### Assessment of the Site

Actual or threatened releases of hazardous substances and/or petroleum products from this site, if not addressed by implementing the response action selected in this ROD, presents a current or potential significant threat to public health and/or the environment.

#### **Description of Selected Remedy**

Based on the results of the Site Investigation/Remedial Alternatives Report (SI/RAR) for the Dino & Artie's Transmission Shop site and the criteria identified for evaluation of alternatives, the NYSDEC has selected a two foot soil cover over vegetated areas and a six inch asphalt or concrete cover over non-vegetated areas. The components of the remedy are as follows:

- Covering all vegetated areas with two feet of clean soil and all non-vegetated areas with either concrete or a paving system.
- Development of a site management plan to address residual contamination and any use restrictions. Future development will be limited to restricted-residential use. Any occupied

structure constructed at the site will be required to have an active sub-slab vapor mitigation system to eliminate possible soil vapor impacts from residual soil contamination.

- Imposition of an environmental easement.
- Periodic certification of the institutional and engineering controls.
- A long term monitoring program will be instituted.

#### New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy selected for this site is protective of human health.

#### **Declaration**

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective.

MAR 3 1 2006

Date

Dale A. Desnoyers, Director Division of Environmental Remediation

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#### Environmental Restoration RECORD OF DECISION

Dino & Artie's Transmission Shop Site Town of North Salem, Westchester County, New York Site No. B-00021 March 2006

#### SECTION 1: SUMMARY OF THE RECORD OF DECISION

The New York State Department of Environmental Conservation (NYSDEC), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the Dino & Artie's Transmission Shop site. The presence of hazardous substances has created threats to human health and/or the environment that are addressed by this remedy.

The 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Under the Environmental Restoration (Brownfields) Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated the property can then be reused.

As more fully described in Sections 3 and 5 of this document, past site operations and releases from underground storage tanks have resulted in the disposal of hazardous substances, including volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and inorganics (metals). These hazardous substances have contaminated the soil and groundwater at the site, and have resulted in:

- a threat to human health associated with potential exposure to soils, soil vapor, and groundwater.
- an environmental threat associated with the impacts of contaminants to the groundwater.

To eliminate or mitigate these threats, the NYSDEC has selected the following remedy to allow for restricted-residential use of the site:

- Covering all vegetated areas with two feet of clean soil and all non-vegetated areas with either concrete or a paving system.
- Development of a site management plan to address residual contamination and any use restrictions. Future development will be limited to restricted-residential use. Any occupied structure constructed at the site will be required to have an active sub-slab vapor mitigation system to eliminate possible soil vapor impacts from residual soil contamination.

- Imposition of an environmental easement.
- Periodic certification of the institutional and engineering controls.
- A long term monitoring program will be instituted.

The selected remedy, discussed in detail in Section 8, is intended to attain the remediation goals identified for this site in Section 6. The remedy must conform with officially promulgated standards and criteria that are directly applicable, or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, criteria and guidance are hereafter called SCGs.

#### SECTION 2: SITE LOCATION AND DESCRIPTION

The Dino & Artie's site is approximately 0.8 acres in size and is located in the Town of North Salem, Westchester County (See Figure 1) The site is bordered on the east by Croton Falls Road (Route 22), on the north and south by residential properties, and on the west by rail lines and the Croton Falls station of the Metro North Railroad. The surrounding area is a mix of residential and commercial properties.

#### SECTION 3: SITE HISTORY

#### 3.1: Operational/Disposal History

Part of the commercial building on-site that housed the transmission service shop had existed since at least 1924. The building was expanded in the late 1970's. In addition to housing the transmission shop, the property was also reportedly used as a lumber yard and as a garage. Verbal reports indicated that waste oil was discharge into a septic tank and then pumped out onto the ground. The soil was reportedly so saturated with flammable materials that it caught on fire on more than one occasion. Other specific disposal history is unknown, but the contamination found is typical for what would be expected from an automotive garage with sloppy housekeeping.

#### 3.2: <u>Remedial History</u>

A preliminary investigation of the site was conducted in 1996 for a prospective purchaser of the property. The investigation included record reviews, excavations, soil borings and sampling, and monitoring well installation and sampling. The investigation identified contamination at the site related to petroleum products and solvents in soil and groundwater. Total VOCs in one monitoring well exceeded 6000 parts per billion (ppb), with the most notable contaminant being total xylenes at a concentration of 1730 ppb. The limited investigation scope did not identify the full extent of the contamination.

#### SECTION 4: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past owners and operators, waste generators, and haulers.

Since no viable PRPs have been identified, there are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. The Town of North Salem will assist the state in its efforts by providing all information to the state which identifies PRPs. The Town will also not enter into any agreement regarding response costs without the approval of the NYSDEC.

#### SECTION 5: SITE CONTAMINATION

The Town of North Salem has recently completed a site investigation/remedial alternatives report (SI/RAR) to determine the nature and extent of any contamination by hazardous substances at this environmental restoration site.

#### 5.1: <u>Summary of the Site Investigation</u>

The purpose of the SI was to define the nature and extent of any contamination resulting from previous activities at the site. The SI was conducted between September 1998 and July 2005. The field activities and findings of the investigation are described in the SI report.

The following activities were conducted during the SI:

- Research of historical information and interviews with local residents;
- Interior floor drain investigation;
- A septic system and dry well investigation;
- A geophysical survey using ground penetrating radar to determine the depth to bedrock;
- Installation of one soil boring and seven monitoring wells for analysis of soils and groundwater as well as physical properties of soil and hydrogeologic conditions;
- Collection of 34 discrete subsurface soil samples using a direct push technique;
- Collection of 47 discrete subsurface soils samples by other methods;
- Collection of 8 discrete surface soils samples;
- Area private well survey and sampling of ten new and existing on-site monitoring wells, the on-site former supply well, and one off-site private supply well.

To determine whether the soil and groundwater contain contamination at levels of concern, data from the investigation were compared to the following SCGs:

- Groundwater, drinking water, and surface water SCGs are based on NYSDEC "Ambient Water Quality Standards and Guidance Values" and Part 5 of the New York State Sanitary Code.
- Soil SCGs are based on the NYSDEC "Technical and Administrative Guidance Memorandum (TAGM) 4046; Determination of Soil Cleanup Objectives and Cleanup Levels".

Based on the SI results, in comparison to the SCGs and potential public health and environmental exposure routes, certain media and areas of the site require remediation. These are summarized below. More complete information can be found in the SI report.

#### 5.1.1: Site Geology and Hydrogeology

The soils at the site are silty sand with occasional gravel that overlie bedrock. The bedrock is a black schist that is found at a depth of 28 to 48 feet from the surface. The bedrock surface slopes down from east to west with a 30 foot change in elevation across the site.

Groundwater beneath the site generally flows from east to west following the surface topography and flowing toward the west branch of the Croton River in both the overburden and bedrock aquifers. Depth to water ranges from 20 to 30 feet across the site, with greatest depth to groundwater being on the western side of the site.

#### 5.1.2: <u>Nature of Contamination</u>

As described in the SI report, many soil and groundwater samples were collected to characterize the nature and extent of contamination. As summarized in Table 1, the main categories of contaminants that exceed their SCGs are volatile organic compounds (VOCs) and inorganics (metals).

The VOCs of primary concern are chlorobenzene, 1,2-dichlorobenzene, and 1,4-dichlorobenzene in soils and methylene chloride in groundwater. The inorganics of primary concern in soils are mercury and chromium.

#### 5.1.3: Extent of Contamination

This section describes the findings of the investigation for all environmental media that were investigated.

Chemical concentrations are reported in parts per billion (ppb) for groundwater and waste water, and parts per million (ppm) for soil and solid wastes. For comparison purposes, where applicable, SCGs are provided for each medium.

Table 1 summarizes the degree of contamination for the contaminants of concern in surface soil, subsurface soil, groundwater, waste, and wastewater and compares the data with the SCGs for the site. Figure 2 provides an overview of the site layout and the locations where samples were

taken during the investigation. The following are the media which were investigated and a summary of the findings of the investigation.

#### Waste Materials

Solid wastes from three septic tanks and a drywell contained low levels of inorganic contaminants with up to 11 different metals at each of the locations, and low levels of the VOCs chlorobenzene and 1,4-dichlorobenzene in the drywell. Waste water from the dry well was also analyzed and contained chlorobenzene at a concentration of 2200 ppb, 1,2-dichlorobenzene at a concentration of 230 ppb and 1,4-dichlorobenzene at a concentration of 140 ppb. The contents of the drywell and these three septic tanks, as well as the contents of seven underground storage tanks (USTs), the USTs themselves, and adjacent visibly contaminated soil were removed during a June 1999 UST interim remedial measure (IRM). Section 5.2 of this document provides additional information about this IRM.

Post-IRM soil samples revealed no significant residual contamination. One sample from the bottom of the drywell excavation did contain elevated levels of 1,2-dichlorobenzene and 1,4-dichlorobenzene despite excavation and removal of soils to a depth of approximately 10 feet. However the removal of liquid wastes from the USTs and grossly contaminated soils surrounding the USTs and drywell have resulted in the removal of the vast majority of the site contamination.

#### **Surface Soil**

Surface soils did not contain VOCs above SCGs, but did have slight SCG exceedances for four SVOCs in up to 9 of the 20 samples taken. Eleven inorganics exceeded SCGs in at least one location. The primary contaminants of concern are mercury and chromium. Mercury was present above the soil SCG of 0.1 ppm in 7 of the 8 samples taken, at a maximum concentration of 11.4 ppm. Chromium was present above the SCG of 10 ppm in 8 out of 8 samples, with a maximum concentration of 54 ppm. The SVOCs and inorganics present are typical of what might be found in an area where ash and cinders were used as fill materials.

#### Subsurface Soil

Subsurface soils exceeded SCGs for eight VOCs. The primary VOC contaminants of concern are chlorobenzene, 1,2,-dichlorobenzene, 1,4-dichlorobenzene, and methylene chloride. Chlorobenzene was present above the SCG of 1.7 ppm in 3 of the 81 samples taken. The maximum concentration of chlorobenzene was 180 ppm. 1,2-dichlorobenzene was present above the SCG of 7.9 ppm in 4 of the 81 samples at a maximum concentration of 650 ppm. 1,4-dichlorobenzene was present above the SCG of 8.5 ppm in 3 of 81 samples at a maximum concentration of 57 ppm. The highest concentrations of these three contaminants were found in soils below or near a drywell which was removed in the June 1999 IRM. Methylene chloride was present above the SCG of 0.1 ppm in 6 of 81 samples at a maximum concentration of 2.9.

Subsurface soils also exceeded SCGs for 13 inorganics. The primary inorganic contaminants of concern are mercury and chromium. Mercury concentrations exceeded the soil SCG of 0.1 ppm at

8 of 44 locations, with a maximum concentration of 2.36 ppm. Chromium was detected above the SCG of 10 ppm in 19 of the 44 samples, with a maximum concentration of 253 ppm.

Starting in June 2004 an IRM was implemented to demolish the on-site building in order to provide access to two additional USTs located beneath the buildings so they could be removed. Areas of contaminated soil were found beneath the southern residence building on the site, shown as Previous Building A on Figure 2, and beneath the transmission shop building (Previous Building B). The soil/UST removal was conducted in December 2004 to address these areas. Section 5.2 of this document provides additional information about this IRM.

Sub-surface soils also exceeded the SCGs for six SVOCs. However, the presence of these compounds is typical of what might be found in an area where ash and cinders were used as fill materials.

#### Groundwater

Ten monitoring wells, an on-site former supply well, and an off-site private supply well were sampled during the investigation. Six of the monitoring wells were shallow, 25 to 35 foot deep. The other four monitoring wells were deep wells at approximately 50 feet below ground surface. Three VOCs were present at concentrations that exceeded SCGs. The primary VOC contaminant of concern is methylene chloride due to the potential for impacts to soil vapor. Methylene chloride was detected above the SCG of 5 ppb in 4 of 15 samples, with a maximum concentration of 48 ppb. Seven inorganics exceeded SCGs in unfiltered groundwater samples, but five of those were likely due to sample turbidity since the filtered samples were below SCGs. The other two only exceeded SCGs by a small margin in filtered samples. None of the exceedances of groundwater standards were at concentrations great enough to warrant a groundwater remedy. The off-site private supply well met all drinking water standards and is not impacted by the site.

#### 5.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the SI/RAR.

In June of 1999 an IRM was performed to remove known USTs and related contaminated soil. During this process additional USTs were discovered. Eventually a total of seven USTs and three drywells were removed. The seven USTs, ranging in capacity from 550 gallons to 2000 gallons, appeared to have held petroleum based liquids such as gasoline or heating oil. The contents of the USTs, drywells, and three septic tanks were removed and properly disposed of off-site, including a total of 900 gallons of various petroleum wastes. The three septic tanks were left in place, after they were cleaned out. A total volume of 746 cubic yards of contaminated soil was also removed and disposed of off-site during this IRM. The areas of contaminated soil removed during this IRM are shown in Figure 3.

A second IRM began in June of 2004, when the on-site buildings were demolished to allow access to two UST's beneath the buildings so they could be removed. Surface soil samples beneath the northern residence on the Property (Building A) and beneath the transmission shop building

(Building B) indicated the presence of contamination. The soil/UST removal was conducted in December 2004 to remove two USTs beneath the former footprint of the building and associated contaminated soil. Figure 4 shows the areas, depths, and volumes removed and disposed of off-site. During this IRM approximately 400 cubic yards of soil were excavated and disposed of off-site.

#### 5.3: <u>Summary of Human Exposure Pathways:</u>

This section describes the types of human exposures that may present added health risks to persons at or around the site. A more detailed discussion of the human exposure pathways can be found in Section 6.3.3 of the SI report.

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. An exposure pathway has five elements: [1] a contaminant source, [2] contaminant release and transport mechanisms, [3] a point of exposure, [4] a route of exposure, and [5] a receptor population.

The source of contamination is the location where contaminants were released to the environment (any waste disposal area or point of discharge). Contaminant release and transport mechanisms carry contaminants from the source to a point where people may be exposed. The exposure point is a location where actual or potential human contact with a contaminated medium may occur. The route of exposure is the manner in which a contaminant actually enters or contacts the body (e.g., ingestion, inhalation, or direct contact). The receptor population is the people who are, or may be, exposed to contaminants at a point of exposure.

An exposure pathway is complete when all five elements of an exposure pathway exist. An exposure pathway is considered a potential pathway when one or more of the elements currently does not exist, but could in the future.

Contact and incidental ingestion of metal and semi-volatile organic compound contaminated surface and sub-surface soil is a current and future potential exposure pathway for trespassers, construction workers and future residents at the site. However, the selected remedy includes the placement of two-feet of clean soil and/or pavement on the site and a soil management plan. Therefore, exposures are not expected in the future.

Ingestion of contaminated groundwater at the site is a current and future potential exposure pathway. However, the site is currently vacant and the property will be served with public water in the future. Therefore, exposure is not expected.

Inhalation of potentially contaminated soil vapor via vapor intrusion is a possible future exposure pathway for future residents at the site. However, the selected remedy includes the installation of an active sub-slab depressurization system beneath all buildings constructed at the site thereby minimizing potential future exposures.

#### 5.4: <u>Summary of Environmental Impacts</u>

This section summarizes the existing and potential future environmental impacts presented by the site. Environmental impacts include existing and potential future exposure pathways to fish and wildlife receptors, as well as damage to natural resources such as aquifers and wetlands.

The Dino and Artie's site has not had a significant impact on fish and wildlife receptors since the site is not a wildlife habitat and surface contamination has not migrated off-site.

Site contamination has impacted the groundwater resource in the water table aquifer. Concentrations of VOCs and inorganics slightly above SCGs have been found in on-site groundwater.

#### SECTION 6: <u>SUMMARY OF THE REMEDIATION GOALS AND THE PROPOSED USE</u> <u>OF THE SITE</u>

Goals for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375-1.10. At a minimum, the remedy selected must eliminate or mitigate all significant threats to public health and/or the environment presented by the hazardous substances disposed at the site through the proper application of scientific and engineering principles.

The proposed future use for the Dino & Artie's site is restricted-residential.

The remediation goals for this site are to eliminate or reduce to the extent practicable exposures of persons at or around the site to VOCs and inorganics in soils and groundwater.

Further, the remediation goals for the site include attaining to the extent practicable:

- ambient groundwater quality standards and
- soil cleanup SCGs.

#### SECTION 7: SUMMARY OF THE EVALUATION OF ALTERNATIVES

The selected remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements. Potential remedial alternatives for the Dino and Artie's site were identified, screened and evaluated in the RA report which is available at the document repositories created for this site.

A summary of the remedial alternatives that were considered for this site are discussed below. The present worth represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved.

#### 7.1: Description of Remedial Alternatives

The following potential remedies were considered to address the contaminated soils and groundwater at the site.

#### Soil Alternative 1: No Further Action with Administrative Controls and Groundwater <u>Monitoring</u>

Present Worth:	\$610 <b>,1</b> 000
Capital Cost:	\$0
OM&M Present Worth:	\$610,000

The No Further Action alternative recognizes remediation of the site conducted under previously completed IRMs. To evaluate the effectiveness of the remediation completed under the IRMs, only continued monitoring is necessary.

Under this alternative, institutional controls and a site management plan would be put in place to prevent site development that would permit direct access to the soil. Groundwater monitoring would be conducted until NYSDEC determines it is no longer needed.

This alternative combines the no action alternatives listed in the SI/RA under "Soils Not Affected by USTs" and "Subsurface Soil Affected by USTs" into one comprehensive alternative for all soils.

This alternative would leave the site in its present condition and would not provide any additional protection to human health or the environment.

#### Alternative 2: Two Foot Soil Cover Over Entire Site with Institutional Controls and Groundwater Monitoring

Present Worth:	662,000
Capital Cost:	\$52,000
OM&M Present Worth: \$	610, <b>1</b> 000

Under this alternative clean fill would be brought in and used to cover vegetated areas of the site with two feet of clean soil, underlain by an indicator to demarcate the cover soil from the subsurface soil. The clean soil would isolate the contamination from human contact, thus preventing exposures. Non-vegetated areas would be covered by a paving system or concrete at least 6 inches in thickness.

Institutional controls and a site management plan would be put in place to ensure the soil cover remains intact during any future development. Any new occupied buildings constructed on-site would be required to have an active sub-slab vapor mitigation system installed to control possible soil vapor impacts from contamination that remains in soils at depth. Groundwater monitoring would be conducted until NYSDEC determines it is no longer needed.

This alternative combines the containment alternatives listed in the SI/RA under "Soils Not Affected by USTs" and "Subsurface Soil Affected by USTs" into one comprehensive containment alternative for all soils.

#### <u>Alternative 3: Excavation and Disposal of All Remaining Contaminated Soils Affected by</u> <u>USTs, Removal of top Two Feet of Soil in All Other Areas, and Institutional Controls and</u> <u>Groundwater Monitoring</u>

Present Worth:	52,030,000
Capital Cost:	51,710,000
OM&M Present Worth:	\$315,000

Under this alternative the remaining deep soils impacted by the USTs would be excavated and removed. In addition, the top two feet of soil, which presumably were impacted by historic fill, would be excavated and removed to address the contamination near the surface. Shoring or sheet piling would be required on the east side of the site to prevent the excavation from undermining Route 22.

All vegetated areas would then be covered with two feet of clean soil and all non-vegetated areas with either concrete or a paving system, similar to Alternative 2.

Institutional controls and a site management plan would be put in place to ensure the soil cover remains intact during any future development. Any new occupied buildings constructed on-site would be required to have an active sub-slab vapor mitigation system installed to control possible soil vapor impacts from contamination that remains in soils at depth. Groundwater monitoring would be conducted until NYSDEC determines it is no longer needed.

This alternative combines the excavation alternatives listed in the SI/RA under "Soils Not Affected by USTs" and "Subsurface Soil Affected by USTs" into one comprehensive excavation alternative for all soils.

#### Alternative 4: In-Situ Chemical Oxidation of Remaining Contaminated Soils with Institutional Controls and Groundwater Monitoring

Present Worth:	\$676,000
Capital Cost:	\$66,200
OM&M Present Worth:	\$610,000

Under this alternative the contaminated soils remaining on-site after the IRMs would be treated via in-situ chemical oxidation. The chemical oxidizers commonly used in this technology include Fenton's reagent and potassium permanganate, which would be injected into the contaminated soils. When the oxidizer comes into contact with organic compounds in the soils an oxidation reaction occurs breaking down the organic compounds to relatively benign compounds such as carbon dioxide and water. This reaction is exothermic, meaning heat is generated. This alternative would require bench scale testing before implementation.

All vegetated areas would be covered with two feet of clean soil and all non-vegetated areas with either concrete or a paving system, similar to Alternative 2.

Institutional controls and a site management plan would be put in place to ensure the soil cover remains intact during any future development. Any new occupied buildings constructed on-site would be required to have an active sub-slab vapor mitigation system installed to control possible soil vapor impacts from contamination that remains in soils at depth. Groundwater monitoring would be conducted until NYSDEC determines it is no longer needed.

It should be noted that this alternative would not reduce the remaining inorganic contamination at the site.

#### <u>Alternative 5: In-Situ Mechanical Treatment of Remaining Contaminated Soils with</u> <u>Institutional Controls and Groundwater Monitoring</u>

Present Worth:	0,000
Capital Cost: \$30	2,000
OM&M Present Worth: \$92	0,000

Under this alternative an in-situ mechanical treatment system, also know as a soil vapor extraction/air injection or SVE/AI, would be used to remove volatile and some semi volatile contaminants from the soil. The air injection system would include 6 injection wells installed to a depth of approximately 25 feet. Air would be injected into these wells and would enter the subsurface soils through screens at the bottom of these wells. Contaminants would be volatilized into the injected air as it rises up through the soils. The air containing volatile contaminants would then be captured by two soil vapor extraction wells once it rose nearer to the surface.

Piping would connect these wells to the treatment building where a vacuum would be applied to the system to draw air contaminated by VOCs from the subsurface soils. The air would be treated with activated carbon to remove the contaminants before the cleaned air is discharged.

All vegetated areas would be covered with two feet of clean soil and all non-vegetated areas with either concrete or a paving system, similar to Alternative 2.

Institutional controls and a site management plan would be put in place to ensure the soil cover remains intact during any future development. Any new occupied buildings constructed on-site would be required to have an active sub-slab vapor mitigation system installed to control possible soil vapor impacts from contamination that remains in soils at depth. Groundwater monitoring would be conducted until NYSDEC determines it is no longer needed.

It should be noted that this alternative would not reduce the remaining inorganic contamination at the site.

In addition to the five remedial alternatives listed above, the SI/RA report also considered three additional alternatives to address groundwater contamination. However, the July 2005 groundwater sampling results indicate only slight exceedances of groundwater standards which would not merit the implementation of an active groundwater remedy. Therefore, these groundwater remedial alternatives have been determined to be unnecessary and will not be further evaluated.

#### 7.2 Evaluation of Remedial Alternatives

The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375, which governs the remediation of environmental restoration projects in New York State. A detailed discussion of the evaluation criteria and comparative analysis is included in the RA report.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. <u>Protection of Human Health and the Environment.</u> This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

2. <u>Compliance with New York State Standards, Criteria, and Guidance (SCGs)</u>. Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the NYSDEC has determined to be applicable on a case-specific basis.

The next five "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. <u>Short-term Effectiveness</u>. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

4. <u>Long-term Effectiveness and Permanence</u>. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the reliability of these controls.

5. <u>Reduction of Toxicity, Mobility or Volume</u>. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

6. <u>Implementability</u>. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

7. <u>Cost-Effectivness</u>. Capital costs and operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision. The costs for each alternative are presented in Table 2.

This final criterion is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

8. <u>Community Acceptance</u> - Concerns of the community regarding the SI/RA reports and the PRAP are evaluated. The responsiveness summary (Appendix A) presents the public comments received and the manner in which the NYSDEC addressed the concerns raised.

In general, the public comments received were supportive of the selected remedy.

#### SECTION 8: SUMMARY OF THE SELECTED REMEDY

Based on the Administrative Record (Appendix B) and the discussion presented below, the NYSDEC has selected Alternative 2, Two Foot Soil Cover Over Entire Site with Administrative Controls and Groundwater Monitoring, as the remedy for this site. The elements of this remedy are described at the end of this section.

The selected remedy is based on the results of the SI and the evaluation of alternatives presented in the RAR, and recognizes the significant reduction in on-site contamination as a result of previous IRMs.

Alternative 2 is being selected because, as described below, it satisfies the threshold criteria and provides the best balance of the primary balancing criteria described in Section 7.2. It will achieve the remediation goals for the site by isolating the remaining contamination from human contact, thus preventing exposures. Administrative controls will prevent exposures to the remaining contamination at depth. Groundwater contamination concentrations have decreased dramatically since the original investigation of the site in 1996, and long term groundwater monitoring will ensure concentrations will not rebound again in the future. The requirement for an active sub-slab vapor mitigation system in any future occupied on-site buildings will eliminate the risk of potential soil vapor impacts to inhabitants of those buildings. Alternative 3 (excavation and removal) will also comply with the threshold criteria and will result in the removal of all soil with residual contamination. Alternatives 4 (chemical treatment), and 5 (mechanical treatment) would also comply with the threshold selection criteria but to a lesser degree or with lower certainty.

Because Alternatives 2, 3, 4, and 5 satisfy the threshold criteria, the five balancing criteria are particularly important in selecting a final remedy for the site.

Alternatives 2, 3, 4, and 5 all would have short-term impacts which can easily be controlled. The time needed to achieve the remediation goals would be shortest for Alternatives 2 and 3, somewhat longer for Alternative 4, and longest for Alternative 5.

Alternatives 2, 3, 4, and 5 would all be effective in the long-term in preventing exposures to residual contamination.

Alternative 2 is favorable in that it will be readily implementable. Alternative 5 would also be readily implementable. The close proximity to Route 22, uncertain depth of excavation required and

the need for significant shoring or sheet piling could result in implementation problems for Alternative 3. Though engineering methods exist to resolve these problems, those methods could greatly increase the estimated cost of this alternative or require that some areas of contamination be left behind. Alternative 4 would require bench scale testing as the suitability of this technology to the site has not yet been determined.

Alternative 3, excavation and removal, would remove the greatest amount of contamination from the site, though the possibility exists that some contamination might have to be left behind as impractical to excavate. Alternatives 4 and 5 have the potential to remove a significant amount of the VOC contamination, but would not address the inorganic contamination. Some of the soils that are a potential source of contamination would remain. Alternative 2 will not reduce the volume of the contamination remaining on-site but will isolate all residually contaminated soil from human contact.

Alternative 3 would greatly reduce the mobility of all the contaminants by shipping them off-site for disposal. Alternative 2 will somewhat reduce the mobility of the contaminants by reducing the risk of soil moving through surface runoff or erosion. Alternatives 4 and 5 would greatly reduce the reduce the mobility and toxicity of the VOC contamination by chemical/physical treatment, but would not reduce the mobility or toxicity of the inorganic contamination.

The cost of the alternatives varies significantly. At a cost of 662,000 Alternative 2 will be the least less expensive of the alternatives that meet the threshold criteria. Alternative 3 would be the most expensive alternative (2,080,000), but that could be an underestimate if complications with excavating so close to Route 22 arise. Alternative 4 would cost 676,000. Alternative 5 would cost 1,220,000. Alternatives 3 and 4 would also have implementability concerns.

Alternative 2 is the most favorable option because it will be protective of public health and the environment, complies with SCGs, will have easily manageable short term impacts, will be easily implemented, will address all potential exposure threats to both VOCs and inorganics, and will be the most cost-effective.

The estimated present worth cost to implement the remedy is \$662,000. The cost to construct the remedy is estimated to be \$52,000 and the estimated present worth costs for a 30 year operation, maintenance, and monitoring plan is \$610,000.

The elements of the selected remedy are as follows:

1. A soil cover will be constructed over all vegetated areas to prevent exposure to contaminated soils. The two foot thick cover will consist of clean soil underlain by an indicator such as orange plastic snow fence to demarcate the cover soil from the subsurface soil. The top six inches of soil will be of sufficient quality to support vegetation. Clean soil will constitute soil with no analytes in exceedance of NYSDEC TAGM 4046 soil cleanup objectives or local site background. Non-vegetated areas (buildings, roadways, parking lots, etc) will be covered by a paving system or concrete at least 6 inches in thickness.

- 2. Development of a site management plan to: (a) address residual contaminated soils that may be excavated from the site during future redevelopment. The plan will require soil characterization and, where applicable, disposal/reuse in accordance with NYSDEC regulations; (b) ensure that any new occupied buildings constructed on-site will be required to have an active sub-slab vapor mitigation system installed to control possible impacts from contamination that remains in soils at depth; (c) identify any use restrictions; and (d) provide for the operation and maintenance of the components of the remedy.
- 3. Imposition of an institutional control in the form of an environmental easement that will (a) require compliance with the approved site management plan; (b) limit the use and development of the property to restricted-residential; (c) restrict the use of groundwater as a source of potable water, without necessary water quality treatment as determined by NYSDOH; and (d) require the property owner to complete and submit to the NYSDEC a periodic certification.
- 4. The property owner will provide a periodic certification, prepared and submitted by a professional engineer or such other expert acceptable to the NYSDEC, until the NYSDEC notifies the property owner in writing that this certification is no longer needed. This submittal will contain certification that the institutional controls and engineering controls are still in place; allow the NYSDEC access to the site; and that nothing has occurred that would impair the ability of the control to protect public health or the environment, or constitute a violation or failure to comply with the site management plan.
- 5. Since the remedy results in untreated hazardous substances remaining at the site, a long term monitoring program will be instituted. This will include periodic sampling and analysis of groundwater from the four wells on-site which are still in service, or suitable replacements for these wells. The results will be submitted to NYSDEC for review. This program will be continued until the NYSDEC notifies the property owner in writing that this monitoring is no longer needed

#### SECTION 9: HIGHLIGHTS OF COMMUNITY PARTICIPATION

As part of the Dino & Artie's Transmission Shop environmental restoration process, a number of Citizen Participation activities were undertaken to inform and educate the public about conditions at the site and the potential remedial alternatives. The following public participation activities were conducted for the site:

- Repositories for documents pertaining to the site were established.
- A public contact list, which included nearby property owners, elected officials, local media and other interested parties, was established.

- A fact sheet announcing the availability of the Proposed Remedial Action Plan and the public meeting was mailed to the public contact list.
- A public meeting was held on February 22, 2006 to present and receive comment on the PRAP.
- A responsiveness summary (Appendix A) was prepared to address the comments received during the public comment period for the PRAP.

TABLE 1
Nature and Extent of Contamination

WASTE	Contaminants of Concern	Concentration Range Detected (ppm) <sup>a</sup>	SCG <sup>b</sup> (ppm) <sup>a</sup>	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	chlorobenzene	ND - 16	1.7	1 of 7
	1,4- dichlorobenzene	ND-9.8	8.5	1 of 7
Inorganics	antimony	12.7 - 42.5	31	1 of 4
	barium	237 - 864	300	3 of 4
	beryllium	ND - 0.7	0.16	2 of 4
	cadmium	ND - 16.1	1	3 of 4
	chromium	35.2 - 65.6	10	4 of 4
	copper	228 - 3840	25	4 of 4
	iron	16,600 - 22,600	2000	4 of 4
	mercury	0.28 - 0.95	0.1	4 of 4
	nickel	29.3 - 107	13	4 of 4
	selenium	ND - 3.7	2	2 of 4
	zinc	284 - 2870	20	4 of 4

SURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm) <sup>a</sup>	SCG <sup>b</sup> (ppm) <sup>a</sup>	Frequency of Exceeding SCG
Semivolatile Organic	benzo (a) anthracene	ND - 1.2	0.224	7 of 20
Compounds (SVOCs)	benzo (a) pyrene	ND - 1.0	0.061	9 of <b>2</b> 0
	chrysene	ND - 1.1	0.4	6 of 20
	di-n-butyl phthalate	ND - 11	8.1	1 of 20

 TABLE 1

 Nature and Extent of Contamination (Continued)

SURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm) <sup>a</sup>	SCG <sup>b</sup> (ppm) <sup>a</sup>	Frequency of Exceeding SCG
Inorganics	arsenic	2.4 - 13.9	7.5	1 of 8
	barium	49 - 342	300	3 of 8
	cadmium	ND - 1.6	1	5 of 8
	chromium	15.5 - 54.7	10	8 of 8
	copper	35.3 - 118	25	8 of 8
	iron	15,000 - 22,600	2,000	8 of 8
	lead	98 - 640	400	1 of 8
	magnesium	3740 - 6680	5000	4 of 8
	mercury	ND - 11.4	0.ťl	7 of 8
	nickel	15.7 - 37.2	13	8 of 8
	zinc	105 - 533	20	8 of 8

SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm) <sup>a</sup>	SCG <sup>b</sup> (ppm) <sup>a</sup>	Frequency of Exceeding SCG
Volatile Organic	acetone	ND - 5.2	0.2	4 of 81
Compounds (VOCs)	chlorobenzene	ND - 180	1.7	3 of 81
	methylene chloride	ND - 2.9	0.tl	6 of 81
	xylenes (total)	ND - 34	1.2	6 of 81
	1,2-dichlorobenzene	ND - 650	7.9	4 of 81
	1,3-dichlorobenzene	ND - 33	1.6	4 of 81
	1,4-dichlorobenzene	ND - 57	8.5	3 of 81
	2-butanone	ND - 0.52	0.3	1 of 81

 TABLE 1

 Nature and Extent of Contamination (Continued)

SUBSURFACE SOIL	Contaminants of Concern	Concentration Range Detected (ppm) <sup>a</sup>	SCG <sup>b</sup> (ppm) <sup>a</sup>	Frequency of Exceeding SCG
Semivolatile Organic	benzo (a) anthracene	ND - 0.88	0.224	4 of 81
Compounds (SVOCs)	benzo (a) pyrene	ND - 0.9	0.061	8 of 81
	chrysene	ND - 0.9	0.4	4 of 81
	dibenzo (a,h) anthracene	ND - 0.21	0.014	1 of 81
	2-methylnaphthalene	ND - 56	36.4	2 of 81
	1,2,4-trimethylbenzene	ND - 58	50	1 of 81
Inorganics	arsenic	2 - 25.9	7.5	2 of 44
	barium	32.8 - 794	300	5 of 44
	cadmium	0.3 - 15.7	1	3 of 44
	chromium	6.5 - 253	10	19 of 44
	cobalt	5.1 - 39.1	30	1 of 44
	copper	14 - 740	25	8 of 44
	iron	10,200 - 23,900	2,000	17 of 44
	lead	1.4 - 901	400	1 of 44
	magnesium	2,030 - 7,130	5,000	2 of 44
	mercury	ND - 2.36	0.1	8 of 44
	nickel	8.1 - 216	13	15 of 44
	selenium	ND - 10.6	2	1 of 44
	zinc	ND - 174	20	21 of 44

 TABLE 1

 Nature and Extent of Contamination (Continued)

GROUNDWATER	Contaminants of Concern	Concentration Range Detected (ppb) <sup>a</sup>	SCG <sup>b</sup> (ppb) <sup>a</sup>	Frequency of Exceeding SCG
Volatile Organic Compounds (VOCs)	methyl tertiary butyl ether (MTBE)	ND - 17	10	1 of 15
	methylene chloride	ND - 48	5	4 of 15
	xylenes (total)	ND - 19	5	2 of 15
Inorganics	manganese	160 - 897	300	2 of 4
	thallium	ND - 3	2	2 of 4

WASTE WATER	Contaminants of Concern	Concentration Range Detected (ppb) <sup>a</sup>	SCG <sup>b</sup> (ppb) <sup>a</sup>	Frequency of Exceeding SCG
Volatile Organic	chlorobenzene	ND - 2200	57	1 of 3
Compounds (VOCs)	1,2-dichlorobenzene	ND - 230	88	1 of 3
	1,3-dichlorobenzene	ND - 51	36	1 of 3
	1,4-dichlorobenzene	ND - 140	90	1 of 3
	ethyl benzene	ND - 63	57	1 of 3
	toluene	ND - 240	80	1 of 3
	xylenes (total)	ND - 540	320	1 of 3
Semivolatile Organic Compounds (SVOCs)	naphthalene	ND - 130	59	1 of 3
Inorganics	barium	20 - 9800	1200	2 of 3

<sup>a</sup> ppb = parts per billion, which is equivalent to micrograms per liter, ug/L, in water;

ppm = parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

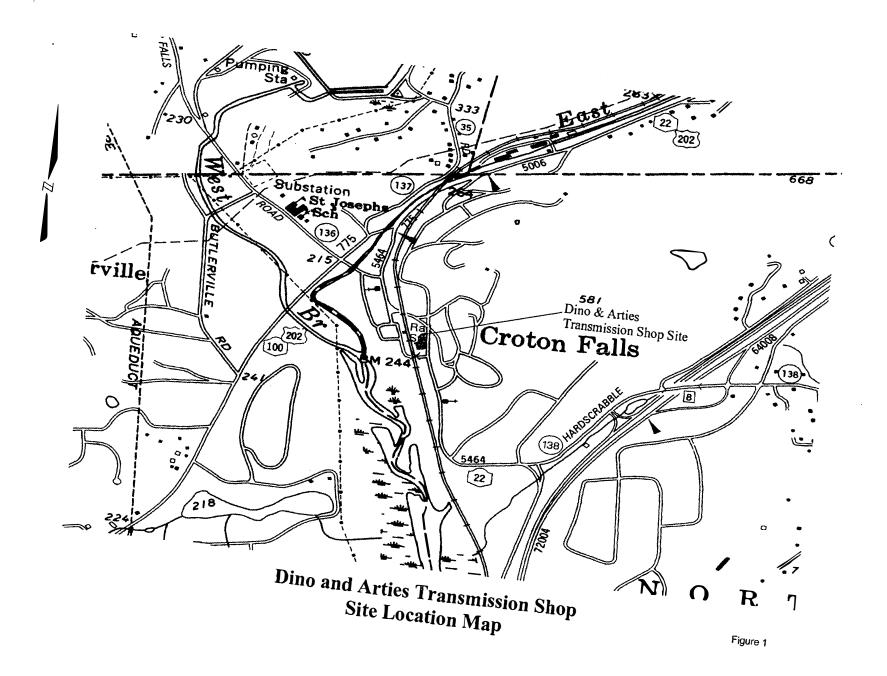
 $ug/m^3 = micrograms per cubic meter$ 

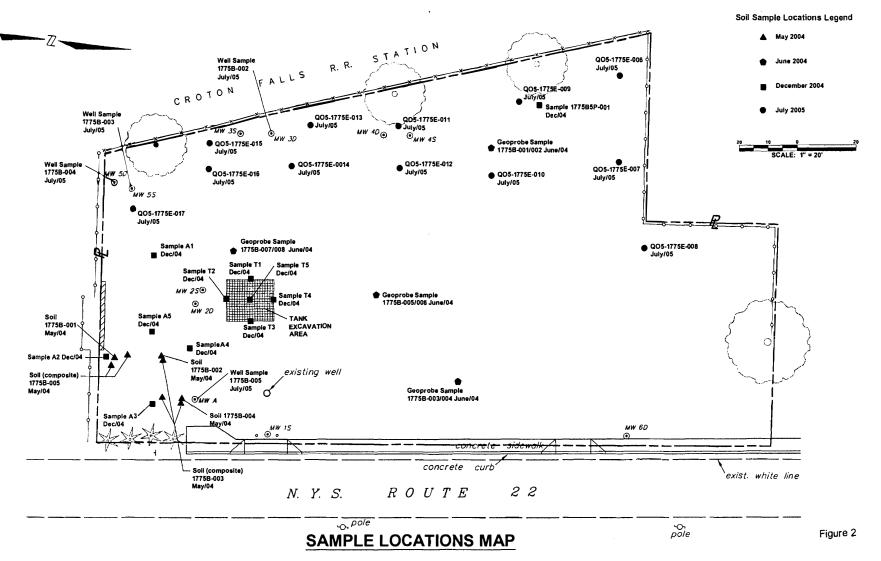
<sup>b</sup> SCG = standards, criteria, and guidance values; Technical and Administrative Guidance Memorandum (TAGM) 4046 for wastes and soils, Technical and Operational Guidance Series (TOGS) 1.1.1 for groundwater and wasterwater

ND = Not detected at method detection limit

Table 2				
<b>Remedial Alternative</b>	Costs			

Remedial Alternative	Capital Cost	OM&M Present Worth	Total Present Worth
No Further Action	\$0	\$610,000	\$610,000
Two Foot Soil Cover Over Entire Site with Institutional Controls and Groundwater Monitoring	\$52,000	\$610,000	\$662,000
Excavation and Disposal of All Remaining Contaminated Soils Affected by USTs, Removal of top Two Feet of Soil in All Other Areas, and Institutional Controls	\$1,710,000	\$315,000	\$2,030,000
In-Situ Chemical Oxidation of Remaining Contaminated Soils with Institutional Controls and Groundwater Monitoring	\$66,200	\$610,000	\$676,000
In-Situ Mechanical Treatment of Remaining Contaminated Soils with Institutional Controls and Groundwater Monitoring	\$302,000	\$920,000	\$1,220,000





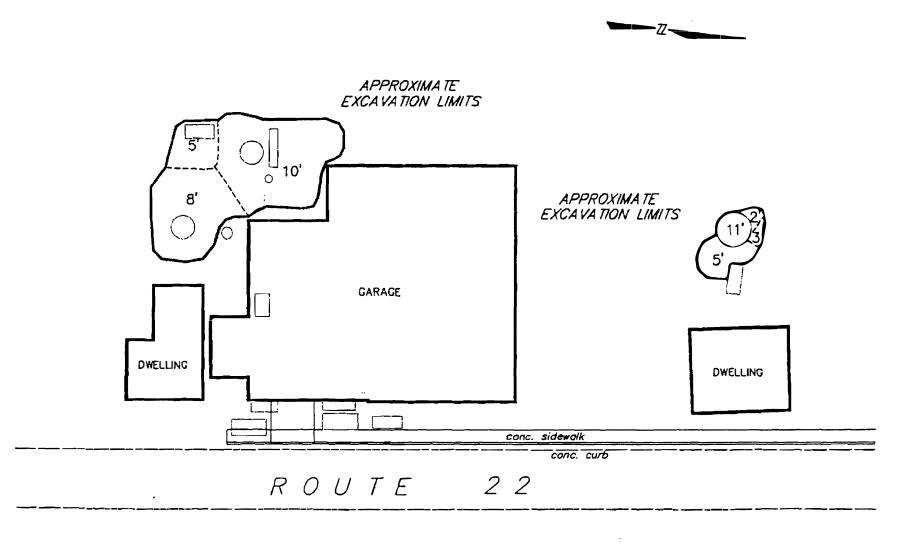
DINO & ARTIE'S TRANSMISSION SHOP, TOWN OF NORTH SALEM, NY

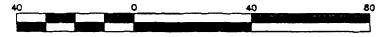
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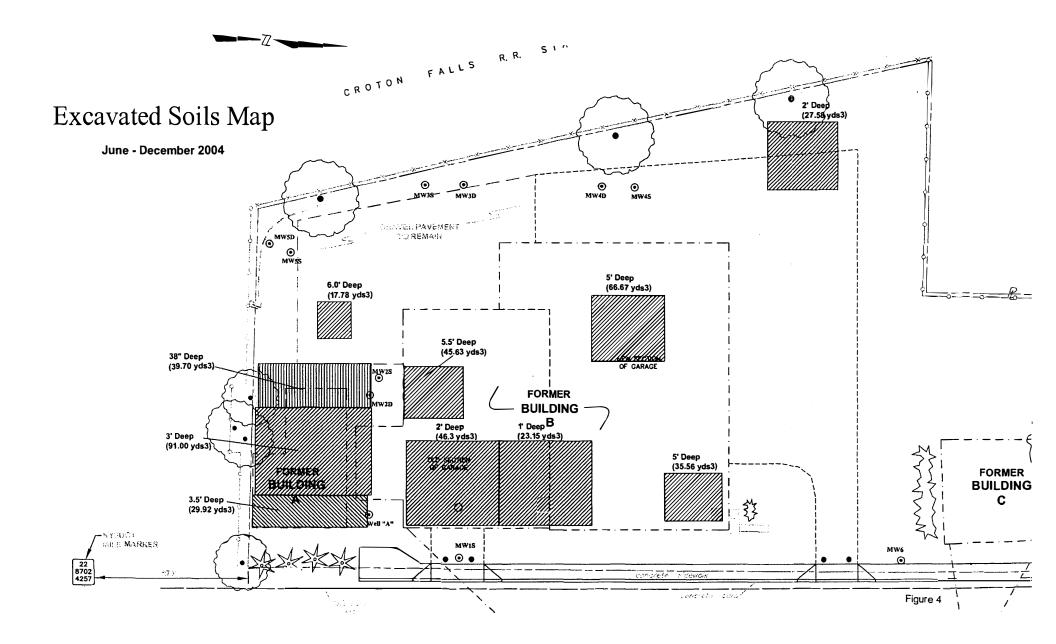
### Figure 3: Excavated Areas June 1999

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Depths shown are approximate excavation depths in that area.







# **APPENDIX A**

**Responsiveness Summary** 

## **RESPONSIVENESS SUMMARY**

#### Dino and Artie's Transmission Shop Environmental Restoration Site Town of North Salem, Westchester County, New York Site No. B-00021

The Proposed Remedial Action Plan (PRAP) for the Dino & Artie's Transmission Shop site, was prepared by the New York State Department of Environmental Conservation (NYSDEC) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 4, 2006. The PRAP outlined the remedial measure proposed for the contaminated soils at the Dino & Artie's Transmission Shop site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on February 22, 2006, which included a presentation of the Site Investigation (SI) and the Remedial Alternatives Report (RAR) as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 21, 2006.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the NYSDEC's responses:

**COMMENT 1:** How long will the monitoring wells have to be sampled?

**RESPONSE 1:** The monitoring wells will be sampled until the contaminant concentrations in the groundwater decrease to a point where NYSDEC and NYSDOH consider further monitoring unnecessary. For the purpose of cost estimation, it is assumed that groundwater monitoring will continue for 30 years. However, at this site such a long period of monitoring is unlikely given the relatively low levels of current groundwater contamination and the fact that much of contaminated soils, which could have continued to impact groundwater, have been removed during the IRM.

COMMENT 2: Where will the monitoring wells be located on-site?

**RESPONSE 2:** Several of the monitoring wells that have previously been installed will likely be used in the groundwater monitoring program. Most of those wells are located near the western site boundary. However, it is possible that some of the wells will interfere with construction in their current location and will have to be relocated.

**COMMENT 3:** There is a public water supply well near this site. How can you say that there is no impact on our drinking water?

**RESPONSE 3:** The public water supply well across the street is hydraulically upgradient of the site, meaning groundwater flows from the vicinity of the well toward the site, rather than from the site toward the well, and any contamination in on-site groundwater would move away from the public well. That being the case, it is extremely unlikely that site contamination might reach the public water supply well.

**COMMENT 4:** MTBE was found in our drinking water from that water supply well. How long ago was it found, is it still there, and could it have come from this site?

**RESPONSE 4:** Methyl tertiary butyl ether, more commonly known as MTBE, is a gasoline additive that was not found on the Dino & Artie's site with the exception of a low concentration in one groundwater sample that was presumably due to the same upgradient source that impacted the water supply well. Also, the water supply well is upgradient of the site. Therefore, it does not appear the Dino & Artie's site could be a source of MTBE contamination in the public water supply well. We were able to obtain the 2004 Annual Water Quality Report for the Croton Falls Water District which reports that MTBE was not detected in the drinking water distributed by this system during the 2004 reporting period. For additional information regarding historic data from this water district, please contact the Westchester County Health Department or the Town of North Salem.

**COMMENT 5:** Will the on-site groundwater monitoring plan include monitoring of the public water supply well?

**RESPONSE 5:** No, not as a part of the site's groundwater monitoring program. However, all public water supply wells in the State are required to test the water quality on a regular basis, typically quarterly.

**COMMENT 6:** During site development, how can a two foot soil cover be maintained when excavations will be required for perc tests, septic tanks, leach fields, footing drains, catch basins, the sub-slab vapor intrusion system, etc.?

**RESPONSE 6:** The Site Management Plan will detail the procedures for such excavations. If the developer needs to begin some of these excavations prior to the completion of the Site Management Plan, he or she can submit a written request describing the work to be performed to NYSDEC for approval.

COMMENT 7: Where will the sub-slab ventilation system be vented?

**RESPONSE 7:** The sub-slab ventilation system will be vented to the outdoor air, where it will quickly disperse. Venting requirements are the same as for a radon mitigation system and are detailed in the United States Environmental Protection Agency's Radon Mitigation Standards, which are available online at www.usepa.gov. The New York State Department of Health's draft Guidance for Evaluating Soil Vapor Intrusion in the State of New York is available at www.health.state.ny.us/nysdoh/gas/svi\_guidance/.

**COMMENT 8:** How will this project impact our air quality, both during the remedial construction and when the vapor system is operational? Will the emissions from the sub-slab ventilation system be treated?

**RESPONSE 8:** During construction activities the Community Air Monitoring Program will require that air monitoring be conducted on the property during intrusive activities. Action levels will be set prior to any intrusive activities, and if these action levels are exceeded, appropriate corrective measures will be implemented (e.g., wetting agents may be used to control fugitive dust). The vents from the sub-slab vapor system have little potential for significant impacts on air quality due to the very low air flow rates and low VOC contaminant concentrations expected from beneath the floor slab. Therefore, the NYSDEC will not require treatment of emissions from the sub-slab ventilation system.

**COMMENT 9:** Would the fact that residential units will be placed on this site in the very near future impact the remedy you are proposing for the site?

**RESPONSE 9:** The remedy was selected in anticipation of restricted residential development on the site.

**COMMENT 10:** I'm the planning consultant for this project and I've been ready to submit the environmental impact statement for the development project for several months, but I first need more information about the Dino & Artie's site. When will more information be available?

**RESPONSE 10:** This Record of Decision (ROD) document describes the selected remedy for the Dino & Artie's site, so that information is now available. Any further details of development would be up to the future developer.

COMMENT 11: Is there any timeline as to when this work will be done? What is the next step?

**RESPONSE 11:** With the issuance of this ROD the next step is dependent on the Town to submit an application for remediation of the site under the Environmental Restoration Program. The Town would also then prepare work plans to implement the remedy and submit them for State approval. It will likely take several months for these steps to occur. Beyond that, the schedule will be largely dependent on the town and/or the future developer.

**COMMENT 12:** Who would be liable if the site caused environmental impacts in the future after the remedy was implemented?

**RESPONSE 12:** If the future site owners/occupants continue to comply with the requirements of the environmental easement, including the site management plan, and there were environmental impacts resulting from the site contamination remaining after implementation of the remedy, the State would pay 100% of resulting remedial costs.

COMMENT 13: Have the Interim Remedial Measures to remove contaminated soils already been completed?

**RESPONSE 13:** Yes.

**COMMENT 14:** What are the cost estimates for the other alternatives?

**RESPONSE 14:** The estimated costs of each alternative are shown in Section 7.1 and Table 2 of this document.

**COMMENT 15:** Would the chemical oxidation alternative increase the chance of mobilizing the contamination causing it to migrate?

**RESPONSE 15:** Though chemical oxidation was not the selected remedy, it is not considered likely that the chemical oxidation alternative would have significantly increased the risk of mobilizing site contamination if it had been selected.

**COMMENT 16:** If you see low levels of contamination in the groundwater isn't that indicative of low levels of contamination in the soils?

**RESPONSE 16:** Generally speaking, there is likely to be some correlation between concentrations of contaminants in soils and in groundwater, though there are exceptions to that rule at some sites based on site specific conditions. At the Dino & Artie's site, the concentrations of contaminants in both groundwater and soil are relatively low.

**COMMENT 17:** Once the remedy is implemented to the State's satisfaction, will there be a formal sign-off the site has been remediated in accordance with the ROD?

**RESPONSE 17:** Upon the completion of the remedy, the Town or developer would submit a final report to the State describing the work done. Once NYSDEC determines that the remedy was in fact satisfactorily implemented, it would then issue a document stating that the site has been remediated in compliance with the Record of Decision.

COMMENT 18: Once that letter has been issued, do you believe a bank will finance this property?

**RESPONSE 18:** Based on past experience, NYSDEC anticipates bank financing for this property will be attainable.

**COMMENT 19:** Whose responsibility will it be to see that the site management plan is complied with?

**RESPONSE 19:** It will be the responsibility of the current owners of the site, and the responsibility may be transferred to future site owners. NYSDEC will require periodic certifications that the institutional controls and engineering controls identified in the site management plan are still in place.

## **APPENDIX B**

**Administrative Record** 

## **Administrative Record**

#### Dino & Artie's Transmission Shop Site No. B-00021

- 1. Proposed Remedial Action Plan for the Dino & Artie's Transmission Shop site, dated February 2006, prepared by the NYSDEC.
- 2. "Interim Remedial Measure Underground Storage Tank Closure Program Dino & Artie's Transmission Shop", April 1999, prepared by Hahn Engineering
- 3. "SI & RA Report Dino & Artie's Transmission Shop", February 2001, prepared by Hahn Engineering
- 4. "SI & RA Report Dino & Artie's Transmission Shop", Appendices Volume 1, February 2001, prepared by Hahn Engineering
- 5. "SI & RA Report Dino & Artie's Transmission Shop", Appendices Volume 2, February 2001, prepared by Hahn Engineering
- 6. "Specifications for Building Demolition for Dino and Artie's Transmission Shop, Volume 2, February 2002, prepared by Hahn Engineering
- 7. "Specifications for Building Demolition for Dino and Artie's Transmission Shop, Volume 1, February 2002, prepared by Hahn Engineering
- 8. "Site Investigation/Remedial Alternatives Report Appendices", October 2005, prepared by Quality Environmental Solutions & Technologies
- 9. "Site Investigation/Remedial Alternatives Report", January 2006, prepared by Quality Environmental Solutions & Technologies
- 10. Fact Sheet: Remedy Proposed for the Dino & Artie's Site, February 2006, prepared by NYSDEC