

**Five-Year Review Report
Goldisc Recordings, Inc. Superfund Site
Village of Holbrook
Town of Islip
Suffolk County, New York**



**Prepared by the
U.S. Environmental Protection Agency**

September 2008

EXECUTIVE SUMMARY

This is the second five-year review for the Goldisc Recordings, Inc. Superfund site (Site), located in the Village of Holbrook, Town of Islip, Suffolk County, New York. The selected remedy for the Site included: 1) excavation and off-site disposal of contaminated dry well sediments and soils; 2) excavation and off-site disposal of surface soils; 3) abandonment of the on-site production well, including excavation and off-site disposal of sediments and soils around and inside the well vault; and, 4) monitored natural attenuation (MNA) of the groundwater.

Based upon the results of this review, the U.S. Environmental Protection Agency (EPA) concludes that the remedies implemented at this Site adequately control exposures of Site contaminants, namely nickel, to human and environmental receptors to the extent necessary for the protection of human health and the environment. The continued monitoring at the Site ensures that there are no exposures of site-related hazardous materials to human or environmental receptors, while the natural physical processes of MNA restore the groundwater.

Five-Year Review Summary Form

SITE IDENTIFICATION

Site name (from WasteLAN): Goldisc Recordings

EPA ID (from WasteLAN): NYD980768717

Region: 2

State: NY

City/County: Town of Islip/Suffolk

SITE STATUS

NPL status: Final Deleted Other (specify)

Remediation status (choose all that apply): Under Construction Constructed Operating

Multiple OUs? YES NO

Construction completion date: 09/30/1998

Has site been put into reuse? YES NO N/A

REVIEW STATUS

Lead agency: EPA State Tribe Other Federal Agency

Author name: Damian Duda

Author title: Remedial Project Manager

Author affiliation: EPA

Review period:** 09/30/2003 to 08/30/2008

Date(s) of site inspection: 2/20/2008

Type of review: Post-SARA Pre-SARA NPL-Removal only Non-NPL Remedial Action Site
 NPL State/Tribe-lead Regional Discretion

Review number: 1 (first) 2 (second) 3 (third) Other (specify)

Triggering action: Actual RA Onsite Construction at OU # ____ Actual RA Start at OU# ____
 Construction Completion Previous Five-Year Review Report Other (specify)

Triggering action date (from WasteLAN): 09/30/2003

Is the site protective of public health? yes no not yet determined

Does the report include recommendation(s) and follow-up action(s)? yes no not yet determined

Is human exposure under control? yes no not yet determined

Is contaminated groundwater under control? yes no not yet determined

Is the remedy protective of the environment? yes no not yet determined

* ["OU" refers to operable unit.]

** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form (continued)

Issues, Recommendations and Follow-Up Actions

The remedy has been implemented and is functioning as intended by the decision documents for the Site. There are no additional actions required. The ongoing monitoring program is part of the selected remedy. This report includes a suggestion for decommissioning some of the Site monitoring wells (see Table 4).

Protectiveness Statement

The implemented remedy for OU-1 protects human health and the environment by eliminating all contaminant concentrations in Site soils that could result in unacceptable risks under reasonably anticipated exposure scenarios, including residential reuse of the Site. The implemented remedy for OU-2 monitors the concentrations of nickel in the groundwater in order to prevent unacceptable risk. The ongoing monitoring at the Site ensures that no exposures to human or environmental receptors will occur. Monitoring will continue until nickel levels in groundwater meet drinking water standards.

In the interim, exposure pathways that could result in unacceptable risks are being controlled by State and local governmental controls. Since the remedial actions associated with all OUs are protective, the Site is protective of human health and the environment.

LIST OF ACRONYMS

AEC	Area of Concern
AOC	Administrative Order on Consent
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CSW	Church Street Wellfield
EPA	(United States) Environmental Protection Agency
MCL	Maximum Contaminant Level
NPL	National Priorities List
NYSDEC	New York State Department of Environmental Conservation
OU	Operable Unit
PRPs	Potentially Responsible Parties
RA	Remedial Action
RAWP	Remedial Action Work Plan
RD	Remedial Design
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
VOC	Volatile Organic Compound

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U.S. Environmental Protection Agency
Region II
Emergency and Remedial Response Division
Five-Year Review (Type I)

Goldisc Recordings, Inc. Superfund Site
Village of Holbrook, Town of Islip, Suffolk County, New York

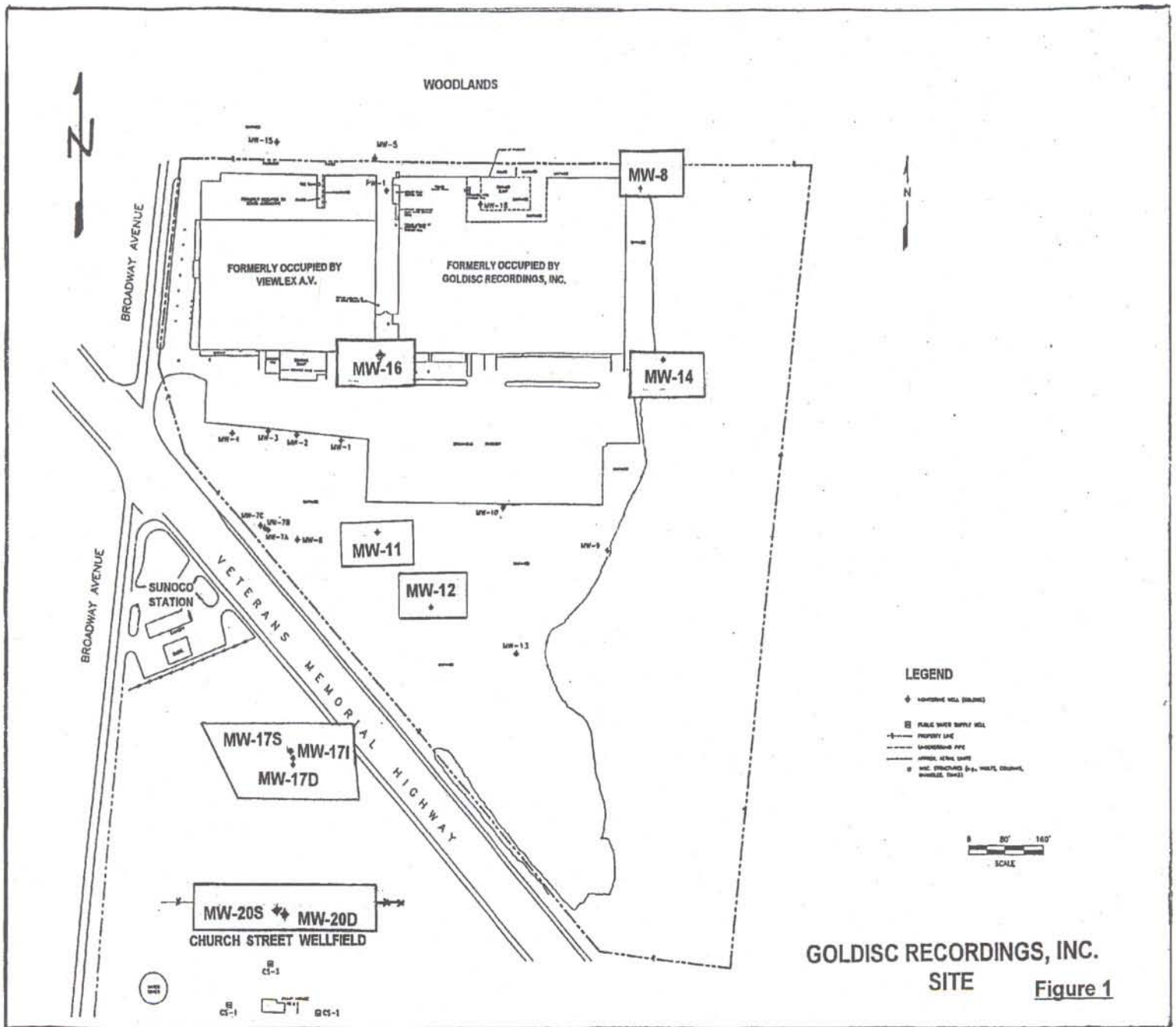
I. INTRODUCTION

This is the second five-year review for the Goldisc Recordings, Inc. site (Site) (see Figure #1), located in the Village of Holbrook, Town of Islip, Suffolk County, New York. The selected remedy for the Site included: 1) excavation and off-site disposal of contaminated dry well sediments and soils; 2) excavation and off-site disposal of surface soils; 3) abandonment of the on-site production well, including excavation and off-site disposal of sediments and soils around and inside the well vault; and, 4) monitored natural attenuation (MNA) of the groundwater.

This review was conducted by Damian Duda, the U.S. Environmental Protection Agency (EPA) Region II, Remedial Project Manager (RPM) for the Site, pursuant to Section 121(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, 42 U.S.C. §§9601-9675 and 40 CFR 300.403(f)(4)(ii). The five-year review was completed, in accordance with the Comprehensive Five-Year Review Guidance, OSWER Directive 9355.7-02B-P (June 2001). The purpose of a five-year review is to ensure that the implemented remedies protect human health and the environment and that they function as intended by the Site decision documents. This report will become part of the Site file.

A five-year review is required at this Site because hazardous substances, pollutants or contaminants remain at the Site above levels that do not allow for unlimited use and unrestricted exposure. This review covers the period from September 2003 to May 31, 2008. The trigger for this five-year review is the signature date of the last five-year review.

The lead agency for the Site is EPA Region II.



II. SITE CHRONOLOGY

Event	Date
Site placed on NPL	June 1986
NYSDEC AOC with PRPs	1988
NYSDEC Requested that EPA take over the Goldisc Recordings site	1990
EPA entered into AOC for RI/FS with PRPs (First Holbrook and ElectroSound)	June 1991
Site Summary Report	October 1993
Phase II RI Report	August 1995
Final FS Report	August 1995
ROD for OU-1	September 29, 1995
RAWP	September 1996
Consent Decree with PRPs for RD/RA	September 1996
Notice to Proceed issued to PRPs' Contractor	May 1997
RA (soils excavation) completed [Final Inspection]	July 1997
RA Report for the Soil Remedy (EPA)	September 1997
RA Report for the Soil Remedy (PRPs)	January 1998
ROD for OU-2	September 30, 1998
Preliminary Close-Out Report	September 30, 1998
Five-Year Review Report	September 30, 2003

III. SITE BACKGROUND

Site Location and Physical Descriptions

The Site is located at the northeast corner of Veterans Memorial Highway and Broadway Avenue in the Village of Holbrook, Town of Islip, Suffolk County, New York. The 34-acre Site consists of the original two one-story buildings that occupy approximately six acres, three acres of pavement surrounding the buildings and twenty-five acres of remaining property. In 2000, a new

one-story building was built on a small portion of the undeveloped, southeastern part of the 34-acre property. Figure 1 identifies the Site area and the select monitoring wells that are included in the Site's groundwater monitoring program.

Geology/Hydrogeology

Three distinct aquifers underlie the Site: 1) the Lloyd Aquifer exists under highly confined conditions between the relatively impervious bedrock below and the Raritan Confining Unit above; 2) the Magothy Aquifer lies atop the Raritan Confining Unit and is widely used for water supply purposes; and 3) Upper Glacial Aquifer which is the most shallow and an unconfined aquifer which is highly susceptible to contamination from domestic septic systems and other manmade pollution sources. Depth from the surface to the water table ranges from 18 to 32 feet across the Site.

Land and Resource Use

Current zoning at the Site is commercial/industrial. The main tenant in the former Goldisc building is Consumers Kitchens and Baths. The primary tenants in the former Viewlex building include a ceramic tile company, a carton facility and a distribution center. There are other assorted dry-goods operations located throughout the building complex. The Federal Express dry-goods distribution center, including offices, operates on a portion of the formerly undeveloped Site property. Multi-building residential development is located around the Site.

The area surrounding the Site is characterized as residential, industrial and commercial. A municipal wellfield, the Church Street Wellfield (CSW), owned and operated by the Suffolk County Water Authority (SCWA), provides the public drinking water source to the Holbrook area and is located approximately 1200 feet south of the Site. The direction of groundwater flow from the Site is south, in the direction of the CSW. Residents of the Town of Islip depend on groundwater for their potable water supply. The closest residences (multi-unit) are located diagonally southeast of the Site across Veterans Highway. The Village of Holbrook has an estimated population of 28,000 people. The Site is bordered to the north and east by mixed forest growth.

History of Contamination

From 1968 to 1990, the two buildings on the Site were occupied by several different companies that generated, stored and disposed of hazardous materials on the Site. These companies included Goldisc Recordings, Inc., which produced phonographic records; the ElectroSound Group, Inc. (ElectroSound) [a.k.a., Viewlex Audio Visual Company], which manufactured audio visual and optical devices; and, Genco Auto Electric, Inc. (Genco), which rebuilt automotive engine parts.

The First Holbrook Company owned the property from 1973 to 1985. In 1985, the Red Ground Corporation became the owner of the property. In 1989, Red Ground Corporation sold the property to a partnership named the Red Ground Company. By October 1998, the property had been transferred to First Industrial, L.P., a successor to the Red Ground companies.

Between 1968 and 1990, the substances known to have been disposed of at the Site include wastewater from various production processes, waste oils, metals, solutions containing high concentrations of xylene and trichloroethylene and other degreasing agents. These substances were reportedly discharged to the environment through on-site dry wells, leaching pools, storm drains and leaking containers located in and around the buildings.

One of the CSW production wells (CS#2), downgradient of the Site, was found to contain elevated concentrations of nickel contamination, above the New York State (NYS) Maximum Contaminant Level (MCL) of 100 micrograms per liter ($\mu\text{g/l}$). There is no current Federal MCL for nickel. In January 1996, the nickel concentration was 112 $\mu\text{g/l}$ in CS#2. This elevated concentration appeared to be related to the disposal activities which were conducted at the Site.

Initial Response

In 1988, the New York State Department of Environmental Conservation (NYSDEC) entered into an Administrative Order on Consent (AOC) with two of the potentially responsible parties (PRPs), namely, First Holbrook and ElectroSound, which required the PRPs to conduct a remedial investigation/feasibility study (RI/FS) of nineteen specific areas of environmental concern (AECs) throughout the Site, *i.e.*, potential contamination areas. Groundwater and soil samples were collected and analyzed to determine the nature and extent of contamination in these areas. Elevated levels of nickel, lead and tetrachloroethylene were found in groundwater samples. Soil samples were found to contain elevated levels of several metals, including nickel, volatile organic compounds (VOCs) and semi-VOCs.

Basis for Taking Action

The Site was proposed for inclusion on the National Priorities List (NPL) in October 1984 and was listed on the NPL in June 1986.

Based on a review of results from the preliminary RI/FS under the NYSDEC AOC, EPA and NYSDEC determined that additional information was necessary in order to better define the extent of contamination at the Site. In late 1990, NYSDEC requested that EPA take over as lead agency for the Site. In 1991, EPA entered into an AOC with First Holbrook and ElectroSound to conduct a supplemental RI/FS (or Phase II RI/FS). This RI/FS was completed in August 1995. As a result of the further investigation conducted as part of the Phase II RI/FS, it was determined that nickel was the main contaminant of concern. The findings of the Phase II RI/FS were sufficient to select a source control remedy for the Site; however, it was decided that the selection of any groundwater remedy should be deferred until additional groundwater monitoring data could be obtained.

IV. REMEDIAL ACTIONS

Remedy Selection

In September 1995, EPA issued a Record of Decision (ROD) for Operable Unit One (OU-1), identifying the following selected remedy: 1) excavation via a vacuum truck and off-site disposal of approximately 56 cubic yards of sediments and soils from the six dry wells in AEC #2 and drywell DW-2 in AEC #14; 2) excavation and off-site disposal of approximately 215 cubic yards of surface soils within AEC #8; 3) abandonment of the on-site production well, including excavation and off-site disposal of sediments and soils around and inside the well vault; and 4) taking steps to secure the placement of deed restrictions on the property to limit it to a non-residential use.

The contaminant of concern in the six dry wells, the surface soils and the production well vault was nickel. The contaminants of concern in the dry well in AEC-14 were semi-VOCs, particularly benzo(a)anthracene and chrysene.

Remedy Implementation

In September 1996, EPA entered into a consent decree (CD) with the following PRPs: The ElectroSound Group, Inc., First Holbrook Company, Genco Auto Electric, Inc., Red Ground Company and Red Ground Corporation. The CD required ElectroSound to implement the remedial action selected in the OU-1 ROD, pursuant to the EPA-approved RAWP which was incorporated into the CD and provided additional details regarding the implementation of the selected remedy, namely the excavation of Site soils and sediments. EPA considered the RAWP to satisfy the requirements of a remedial design. The CD was lodged on February 12, 1997 and entered by the District Court on May 15, 1997.

As part of the CD requirements, ElectroSound, First Holbrook and Genco reimbursed a portion of EPA's past response costs. ElectroSound and First Holbrook were also to reimburse a portion of EPA's future response costs. Under the CD, Red Ground was required to provide EPA with access to the Site, to ensure that the Site would not be used for residential purposes and to prevent the installation or use of any groundwater wells at the Site.

The RAWP and the CD identified the various construction activities which were required to implement the selected remedy for the ROD. As indicated above, this included excavation of the dry well areas in AECs #2 and #14, the surface soils area in AEC #8 and the production well in AEC #12. Excavation activities were completed in June 1997.

Post-excavation sampling was performed in order to determine whether the post-excavation levels (cleanup criteria) identified in the RAWP, *i.e.*, 130 mg/kg for nickel, had been achieved. The data, as listed below, indicate that all contaminated soils and sediments above the cleanup criteria have been excavated and that residual levels are well below the cleanup criteria. The highest concentration of nickel for AEC #8 was 58.7 mg/kg; the highest concentration of nickel for the dry wells was 25.9 mg/kg; and, the highest concentration for nickel in the production vault was

13.7 mg/kg. All values are well below the cleanup criteria of 130 mg/kg for nickel. Sampling results in AEC #14 showed no semi-VOCs [benzo(a)anthracene and chrysene] above their detection limit of 10 µg/kg, indicating that all semi-VOCs, targeted for removal in this AEC, had been removed.

EPA conducted a post-excavation Site Inspection and public press event in June 1997. The excavated materials, tested using the Toxicity Characteristic Leaching Procedure, were found to be nonhazardous and were disposed of in the City of Albany Landfill. The decontamination pad was removed. The seven dry wells were subsequently backfilled with clean fill. All excavation and subsequent disposal activities were completed by July 1997.

In September 1998, EPA issued a second ROD for Operable Unit Two (OU-2), which called for Monitored Natural Attenuation (MNA) of the nickel contamination in the groundwater, since nickel concentrations in the groundwater had declined significantly in recent years.

Institutional Controls Implementation

As discussed above, the OU-1 ROD included the placement of a deed restriction on the property. The deed restriction, identified in the OU-1 ROD, was necessary if contaminants remained in the site soils above residential standards. The OU-2 ROD further clarified that the placement of deed restrictions on the Site would be undertaken by the PRPs if EPA so requested. This clarification was necessary since, at the time of the OU-2 ROD, residential soil standards were achieved and the only remaining concern was the groundwater.

Suffolk County Department of Health Services (SCDHS) regulations require new residences and businesses to connect to public water supplies whenever public water mains are reasonably available. Where such mains are not available, the SCDHS regulations require proposed wells for new residences and businesses be tested for water quality prior to use and provide treatment, if necessary. Suffolk County is expected to adequately enforce its regulations for at least as long as the groundwater is impacted by site-related contamination. This governmental control meets the objectives of the use restriction included in the OU-2 ROD.

In November 2003, EPA opened a discussion with the SCDHS regarding the local groundwater use restrictions for the Long Island area in New York. The SCDHS informed EPA that under the current NYS law:

No person or public corporation shall hereafter install or operate any new or additional wells in the counties of Kings, Queens, Nassau or Suffolk to withdraw water from underground sources for any purpose or purposes whatsoever where the installed pumping capacity of any such new well or wells singly or in the aggregate, or the total installed pumping capacity of old and new wells on or for use on one property, is in excess of forty-five gallons a minute without a permit pursuant to this title. (see NYS ECL 15-1527 (2003)).

Based upon the current Site conditions, *i.e.*, 1) a decreasing trend in nickel concentrations, 2) the remedial action that was completed in 1998, and 3) the State and local laws governing the withdrawal of groundwater in Suffolk County, New York, which also includes the Suffolk County Sanitary Code, EPA sees no reason to place a deed restriction on the parcel.

Operations, Maintenance and Monitoring

There are no ongoing operation and maintenance requirements for the Site; however, an ongoing monitoring program for nickel contamination remains in place. This program includes the sampling of five select monitoring wells [MW-12, MW-16, MW-17D, MW-20S and MW-20D]. These monitoring wells were selected by NYSDEC and EPA, subsequent to the OU-2 ROD, since these wells showed both historical and current nickel concentrations of concern. The most recent monitoring event occurred in June 2007.

As part of the monitoring program, EPA and NYSDEC will also review the groundwater data available from the CSW over the next five-year review period to monitor the nickel concentrations. In particular, a continuing downward trend in the nickel concentrations found in CS#2 will be the best long-term indicator, showing the success of the MNA remedy.

V. PROGRESS SINCE LAST FIVE-YEAR REVIEW

The first five-year review concluded that the remedies implemented at this Site adequately control exposures of Site contaminants, namely nickel, to human and environmental receptors to the extent necessary for the protection of human health and the environment. Continued monitoring at the Site ensures that no exposures to human or environmental receptors will occur in the future.

The deed restriction recommended in the OU-1 ROD was not put into place. In the OU-2 ROD, EPA determined that the placement of a deed restriction should be dependent on the results of the monitoring program. As noted above, EPA has determined that deed restrictions are not needed. In accordance with the requirements of both RODs, the selected remedy was implemented and is protective of human health and the environment. Further discussion on this is included in the Institutional Controls paragraph above.

VI. THE FIVE-YEAR REVIEW PROCESS

Five-Year Review Team

EPA's five-year review team consists of Damian Duda (RPM), Rob Alvey (regional hydrogeologist), Julie McPherson (regional risk assessor), Lora Smith (regional risk assessor), Angela Carpenter (supervisor) and Marla Wieder (Site attorney).

Community Notification and Involvement

The EPA Community Relations Coordinator for the Site, Cecilia Echols, published a notice in March 2008 in the Holbrook/Bohemia Suffolk Life, a local newspaper, notifying the community of the five-year review process. The notice indicated that EPA is conducting a second five-year review of the remedy for the Site in order to ensure that the implemented remedy remains protective of public health and the environment and is functioning as intended. Once the five-year review has been completed, the report will be made available in the local Site repositories. In addition, the notice included the RPM's address, telephone number and e-mail address for questions related to the five-year review process for the Site. There have been no comments received from the public or from stakeholders during this review.

Document Review

A list of documents that were reviewed in the preparation of this report is included in Table 2 at the end of this report.

Monitoring and Data Review

As referenced above, the select group of five monitoring wells that are sampled, based on historical levels of the nickel concentrations in groundwater, are located both on-site and off-site. The majority of the Site's original monitoring wells (MW-11, MW-12, MW-14, MW-16, MW-17S, MW-17I and MW-17D) are all downgradient. MW-8 is side-gradient. Based on the additional groundwater investigation conducted during the OU-2 phase of the project, EPA installed an additional downgradient monitoring cluster of two wells to monitor both the shallow and deeper groundwater (MW-20S and MW-20D) in order to ensure that the CSW continues to supply drinking water that meets the New York State (NYS) drinking water standard for nickel (an applicable or relevant and appropriate requirement, or ARAR), of 100 $\mu\text{g/l}$. The installation of this additional well cluster was recommended by SCDHS. In the OU-2 ROD, EPA codified the installation of this well cluster, since the original plan for development of this well cluster began prior to the issuance of the OU-2 ROD.

Monitoring wells MW-20S and MW-20D were first sampled in March 2000 and were found to contain somewhat elevated levels of nickel, at or above the NYS standard. Table 3 shows the nickel concentrations that have been found in the various monitoring wells over the last 14 years.

After the issuance of the OU-2 ROD, EPA and NYSDEC developed a groundwater sampling program to define the nickel contamination at the Site which was expected to reflect the downward trend of nickel concentrations. The most recent sampling was conducted in January 2007 by the PRPs and their contractor, ERM Northeast, and in June 2007 by EPA. All sampling was conducted in accordance with an EPA-approved Field Operations Plan, *i.e.*, Sampling and Analysis Plan, the Quality Assurance Project Plan and the Site Health and Safety Plan.

Both the January and June sampling reports mostly confirmed that the nickel levels have, in general, decreased over the last several years. The localized area of increased nickel levels detected at the MW-20 sentinel wells is believed to be a small “slug” of remaining nickel-impacted groundwater. These wells serve as an important indicator of nickel contamination and will continue to be sampled in future. Prior to the next five-year review, EPA will perform two additional rounds of sampling at the five select wells.

In addition to sampling the five select monitoring wells, EPA also monitors the nickel concentrations at the CSW. Since 1996, the levels of nickel in CS#2 have been below the NYS standard of 100 $\mu\text{g/l}$ and have been decreasing since that time. SCWA’s January and February 2008 sampling results show nickel levels in CS#2 to be in the 30 $\mu\text{g/l}$ range, which is below the NYS standard of 100 $\mu\text{g/l}$. Since CS#3 consistently reports levels of nickel below the analytical detection limit, SCWA blends the water from CS#2 with the water from CS#3 in order to reduce further the nickel concentrations in its distribution water. The CSW drinking water supply continues to meet Federal and state drinking water standards, as required under the Safe Drinking Water Act. EPA will continue to assess CSW monitoring results, as supplied by the SCWA.

Site Inspection

A Site visit and inspection was conducted on February 20, 2008. EPA representatives included Damian Duda (RPM), Robert Alvey (hydrogeologist) and Julie McPherson and Lora Smith (regional risk assessors). Kuldeep Gupta represented the NYSDEC. The team performed a walk-through of the property and inspected a number of the select monitoring wells. The new dry wells, which were installed in 1997 under the OU-1 ROD, remain in place and are functioning. The monitoring wells on-site that are part of the ongoing monitoring program are accessible and in good condition. Monitoring wells, MW-20S and MW-20D, located on the SCWA CSW property, were also inspected and were found to be in good condition. Some of the other Site monitoring wells that are not part of the current monitoring program were also inspected and found to be in poorer condition, as noted in Table 4.

VII. REMEDY ASSESSMENT

Question A: Is the remedy functioning as intended by the decision documents?

The selected remedy for the OU-1 ROD required the excavation and off-site disposal of surface soils, sediments/soils from dry wells and soils in and below an on-site production well vault, followed by its abandonment. These remedial activities were necessary in order to reach the remedial action objective (RAO) of minimizing contaminant leaching, particularly nickel, in the subsurface soils and sediments to groundwater. The 1995 Risk Assessment superseded the original 1988 Risk Assessment and concluded that the Site does not pose a significant risk to human health or the environment. The 1998 Remedial Action Report concluded that post-excavation sampling in these areas showed that remaining sediments/soils were well below the remediation cleanup goals, i.e., NYSDEC residential soils standards of 130 milligrams per kilogram (mg/kg) for nickel, 224 mg/kg for benzo(a)anthracene (semi-VOC) and 400 mg/kg for

chrysene (semi-VOC). Since the contaminated sediments/soils were removed and the confirmatory sampling results showed levels well below the established cleanup goals, the remedy is functioning and protective under current uses, as well as residential use. EPA sees no reason to place a deed restriction on the Site property.

The OU-2 ROD called for MNA of contaminated groundwater at the Site. The RAO, identified in the OU-2 ROD, indicates that ingestion of drinking water containing nickel concentrations above the NYS ARAR of 100 $\mu\text{g}/\text{l}$ will be prevented, since the nickel levels in the SCWA CSW are below the NYS standard.

Both the data from the Site monitoring wells and the latest data from SCWA's CSW indicate that, in general, over the last 13 years, nickel levels have decreased and are decreasing; that natural attenuation is occurring; and, that the removal of the contaminated sediments and soils, as part of the OU-1 selected remedy, was effective.

During the most recent sampling event (June 2007), only two monitoring wells had nickel at or above the NYS drinking water standard of 100 $\mu\text{g}/\text{l}$. One of these wells (MW-16) has declined considerably since it was first sampled in 1994 and is currently just above the NYS standard, *i.e.*, 106 $\mu\text{g}/\text{l}$; the other was MW-20D with a nickel level of 219 $\mu\text{g}/\text{l}$. This represents a localized area of increased nickel levels detected at the MW-20 sentinel wells; however, the nickel levels 1) continue to remain below the action level necessary for contingency planning and 2) are believed, as discussed above, to be a "slug" of remaining nickel-impacted groundwater.

While the concentrations of nickel in MW-16 and MW-20D have exceeded their respective NYS standard, the concentrations are far below their respective EPA Region 9 Preliminary Remediation Goal (PRG) for nickel. The Region 9 PRG is a risk-based value developed to protect human health. Although the two wells are currently above the NYS standard for nickel, the remedy is functioning as intended and remains protective since the exposure has been eliminated.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy still valid?

There have been no physical changes to the Site that would affect the protectiveness of the remedy.

Land use assumptions, exposure assumptions and pathways, cleanup levels and RAOs considered in the decision documents remain valid. Although specific parameters may have changed since the risk assessment was completed, the process that was used remains valid. In addition, given that contaminated soils/sediments have been removed, the direct contact exposure pathway has been interrupted.

Evaluation of Site soils focused on three primary exposure pathways, in accordance with the OU-1 ROD: dermal absorption, direct contact and inhalation of fugitive dust. With the removal of contaminated Site soils, and subsequent low levels of contaminants present in post-excavation

samples, the dermal absorption, direct contact and inhalation of dust pathways remain incomplete.

The OU-2 groundwater investigation focused on two exposure pathways: direct ingestion and inhalation of volatiles by nearby residents using the CSW as the exposure point. Since there are no private wells in use on-site or in the plume area and the CSW consistently produces potable water with nickel concentrations below the groundwater remedial goal, *i.e.*, NYS ARAR of 100 $\mu\text{g/l}$, the direct ingestion pathway is incomplete for nickel. While VOCs have been detected in the most recent SCWA production well results (February 2008) at the CSW, all VOC concentrations remain below drinking water standards, thus eliminating the inhalation of volatiles exposure pathway. In addition, after further assessment of groundwater data, EPA concludes that VOCs detected in the CSW are not contaminants of concern at the Site.

Soil vapor intrusion (SVI) was identified as a potential exposure pathway in the last five-year review (2003). SVI is evaluated when soils and/or groundwater are known or suspected to contain VOCs. While historical activities at the Site resulted in disposal of certain VOCs, the baseline human health risk assessment (HHRA) did not identify any volatiles as contaminants of concern. Vapor intrusion guidance established since the HHRA provides new toxicity data, *e.g.*, target groundwater concentrations for VOCs at the most protective risk level (1×10^{-6}). A comparison of maximum detected concentrations of VOCs obtained in the OU-2 ROD with the most protective values obtained in the draft Evaluating the Vapor Intrusion into Indoor Air guidance document (USEPA 2002) indicate VOCs are not of concern at the Site. Further comparison of Phase II (1988) with Phase I (1993) groundwater data indicated that VOC concentrations had decreased. In Phase II, the only VOC detected above the drinking water standard was carbon disulfide in MW-17D, screened at 137-157' below ground surface. Analytical results for the split sample at MW-17D did not indicate the presence of carbon disulfide above its drinking water standard; therefore, it was determined to be a laboratory artifact and not a contaminant of concern. As a result of low concentrations of VOCs on the Site, EPA concludes the vapor intrusion pathway is incomplete at the Site and is not of concern.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No.

VIII. ISSUES, RECOMMENDATIONS AND FOLLOW-UP ACTIONS

The remedy has been implemented and is functioning as intended by the Site decision documents. There are no additional actions required. The ongoing monitoring program is part of the selected remedy. This report includes a suggestion for decommissioning some of the Site monitoring wells that are not included in the current monitoring network (see Table 4).

IX. PROTECTIVENESS STATEMENT

The implemented remedy for OU-1 protects human health and the environment by eliminating all contaminant concentrations in Site soils that could result in unacceptable risks under reasonably anticipated exposure scenarios, including residential reuse of the Site. The implemented remedy for OU-2 monitors concentrations of nickel in the groundwater in order to prevent unacceptable risk. The ongoing monitoring at the Site ensures that no exposures to human or environmental receptors will occur. Monitoring will continue until nickel levels in groundwater meet drinking water standards.

In the interim, exposure pathways that could result in unacceptable risks are being controlled by State and local governmental controls. Since the remedial actions of all OUs are protective, the Site is protective of human health and the environment.

X. NEXT FIVE-YEAR REVIEW

The next five-year review for the Site should be completed before September 10, 2013.

Approved:

for John S. Frioco
George Pavlou, Acting Director
Emergency and Remedial Response Division

9/10/08
Date

TABLE 2

Documents Reviewed for Five-Year Review

Administrative Order on Consent - Former Goldisc Recordings Facilities, NYSDEC, May 1988.

Remedial Investigation Report - Former Goldisc Recordings Facilities, Holbrook, New York, ERM-Northeast, November 1988.

Administrative Order on Consent for Remedial Investigation/Feasibility Study, CERCLA-#10218, USEPA, June 27, 1991.

Final Phase II Work Plan - Remedial Investigation and Feasibility Study, Former Goldisc Recordings Facility, Holbrook, New York (two volumes), ERM-Northeast, December 1991.

Final Field Operations Plan - Phase II Remedial Investigation - Former Goldisc Recordings Facility, Holbrook, New York, ERM-Northeast, November 1992.

Site Summary Report - Former Goldisc Recordings Facility, Holbrook, New York, ERM-Northeast, October 1993.

Final Baseline Risk Assessment - Former Goldisc Recordings Facility, Holbrook, New York ERM-Northeast, August 1995.

Phase II Remedial Investigation Report - Former Goldisc Recordings Facility, Holbrook, New York, ERM-Northeast, August 1995.

Final Feasibility Study Report - Former Goldisc Recordings Facility, ERM-Northeast, Holbrook, New York, August 1995.

Record of Decision - Operable Unit One - Goldisc Recordings Site, USEPA, September 29, 1995.

Remedial Action Report for the Soil Remedy at the Former Goldisc Recordings Facility, ERM-Northeast, Holbrook, New York, January 19, 1998.

Record of Decision - Operable Unit Two - Goldisc Recordings Site, USEPA, September 30, 1998.

Reports on Groundwater Sampling Results - Goldisc Recordings Site, ERM Northeast, 1998-2007.

Sampling Report for the Goldisc Recordings Site, EPA Region 2 Superfund Support Team, June 28, 2007.

TABLE #3

MONITORING WELL DATA FOR THE GOLDISC RECORDINGS SUPERFUND SITE
[CONTAMINANT OF CONCERN - NICKEL]

MW NO.	SCREEN INTERVAL (FT)*	MONITORING WELL SAMPLING DATES and NICKEL CONCENTRATIONS ($\mu\text{g/l}$)											
		9/94	9/94	5/97	12/97	8-9/98	3/00	6/00	10/00	4/01	4/02	1/07	6/07
MW-8	20 to 30	40.8J	42	42.8	ND	16.3 A	ND	NS	12.1 A	NS	NS	NS	NS
MW-11	23 to 33	140J	127	ND	ND	2.8 A	ND	ND	5.6 A	2.4 A	NS	NS	NS
MW-12	24.5 to 34.5	959	980	394	300	54.8	209	341	181	142	120	ND	17.4
MW-14	23 to 33	NS	NS	24.3	ND	1.3 A	ND	NS	10.2 A	NS	NS	NS	NS
MW-16	30.7 to 40.7	278	277	94.6	81.1	85.2	148	229	193	187	116	146	106
MW-17S	18 to 38	13.3 BJ	ND	ND	23.5	4.5 A	ND	ND	ND	4.6 A	NS	NS	NS
MW-17I	69 to 89	16.2 BJ	ND	ND	ND	3.5 A	ND	NS	2.3 A	NS	NS	NS	NS
MW-17D	137 to 157	ND	ND	ND	ND	1.5 A	ND	ND	2.4 A	2.7 A	12.8	ND	3.96
MW-20S	50 to 60	[Shaded Area]					77.4	121	124	115	99.6	66.4	59.5
MW-20D	80 to 90						106	180	59.4	66.8	56.7	192	219

* Monitoring wells are screened in the Upper Glacial Aquifer.

$\mu\text{g/l}$ - Micrograms per liter
 NS - Not sampled
 ND - Non-detect
 J - Estimated
 B - Detected in blank
 A - Between IDL and CRDL

Notes:

MW-20 sentinel wells installed by EPA [10/98] on CSW property.
 NYS MCL for nickel - 100 $\mu\text{g/l}$.
MW-12,16,17D,20S,20D (shaded) are monitoring wells sampled under current monitoring program.

TABLE 4: Other Comments and Suggestions on Maintenance and Monitoring

<u>Comment</u>	<u>Suggestions</u>
Some of the existing monitoring wells, not included in the current monitoring program, are in questionable condition; some wells are no longer necessary for monitoring purposes; and, the maintenance and security for some wells has been compromised.	Inspect the monitoring well network to determine which wells should be decommissioned. Wells that are considered useful for continued monitoring should be re-developed, properly secured and re-surveyed.