




Third Five-Year Review Report

Coshocton Landfill

City of Coshocton, Coshocton County
Ohio

November, 2008

Prepared by:
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Region 5
Chicago, Illinois


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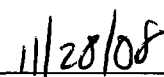

Date

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List of Acronyms

ARAR	Applicable or Relevant and Appropriate Requirement
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
FSR	Final Site Remedy
GCL	Geosynthetic Clay Liner
GWOU	Groundwater Operable Unit
HRL	Health Risk Limit
ICs	Institutional Controls
MCL	Maximum Contaminate Limit
NCP	National Contingency Plan
NPDES	National Pollutant Discharge Elimination
NPL	National Priority List
NOC	Notice of Compliance
Ohio EPA	Ohio Environmental Protection Agency
O & M	Operation and Maintenance
PAH	Polyaromatic Hydrocarbon
PPM	Parts Per Million
PCB	Polychlorinated Biphenyl
PCOR	Preliminary Close-Out Report
PRP	Potential Responsible Party
PSFD	Pilot Scale Field Demonstration
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RAO	Remedial Action Objective
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SCOU	Source Control Operable Unit
SVOC	Semi-Volatile Organic Compounds
UECA	Ohio Uniform Environmental Covenants Act
UU/UE	Unlimited Use/Unrestricted Exposure
VOC	Volatile Organic Compounds

**Third Five-Year Review Report
Executive Summary
November 2008**

**Coshocton Landfill Site
City of Coshocton, Coshocton County, Ohio**

This third five-year review assessment found that the remedy was implemented in accordance with the requirements of the Record of Decision (ROD). The United States Environmental Protection Agency (U.S. EPA) selected the remedy in June 1988. Major components of the selected remedy were: capping in accordance with State requirements, fencing and posting, "deed restrictions," runoff gradation, groundwater/surface water monitoring, and landfill gas monitoring. The trigger for this five-year review was the actual completion of the second five-year review on January 15, 2004.

The completion of this current five-year review confirms that the Coshocton Landfill Site (the Site) remains protective of human health and the environment. The remedy selected in the 1988 Site ROD has been implemented under the 1991 Consent Decree entered with the PRPs and U.S. EPA for the Site.

The remedy for the Coshocton Landfill Site, Coshocton, Ohio included covering the landfill with a low permeability cap and undertaking other actions required by State sanitary landfill closure requirements. The Site achieved construction completion with the signing of the Preliminary Close-Out Report on September 25, 1995. Landfill waste remains in place; hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure.

The remedy selected in the 1988 ROD continues to be protective of human health and the environment in the short term. The existing Site use is consistent with the objectives set forth in the ROD and the implemented remedial actions at the Coshocton Landfill Site are functioning as intended. Long-term protectiveness requires maintenance of the source control measures (a Site cap and a vegetative cover over the landfill) designed to significantly reduce both production of leachate and toxicity of the compounds released from the landfill. Also required for long-term protectiveness is compliance with land use restrictions that prohibit interference with the cap and restricts the Site to limited commercial/industrial uses and limits groundwater use to ensure that the remedy continues to function as intended. Since the cover was constructed, there has been a reduction in the contaminant concentrations in the groundwater.

Compliance with effective ICs will be ensured through long-term stewardship by implementing, maintaining, monitoring, and enforcing effective ICs, as well as maintaining the site remedy components. To that end, U.S. EPA will prepare an IC workplan to address the additional IC activities, including exploring implementation of a covenant under the Ohio Uniform Environmental Covenants Act (UECA), review of title work, mapping of ICs, and planning for long-term stewardship.

Third Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name (from WasteLAN): Coshocton Landfill		
EPA ID (from WasteLAN): OHD980509830		
Region: 5	State: OH	City/County: Coshocton County
SITE STATUS		
NPL status: Final <input checked="" type="checkbox"/> Deleted Other (specify)		
Remediation status (choose all that apply): <input type="checkbox"/> Under Construction <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Complete		
Multiple OUs?* YES NO <input checked="" type="checkbox"/> X	Construction completion date: 09 / 25/ 1995	
Has Site been put into reuse? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
REVIEW STATUS		
Lead agency: <input checked="" type="checkbox"/> EPA <input type="checkbox"/> State <input type="checkbox"/> Tribe <input type="checkbox"/> Other Federal Agency		
Author name: David Linnear		
Author title: Remedial Project Manager	Author affiliation: U. S. EPA, Region 5	
Review period:** 01 /01 /2008 to 10 /30 / 2008		
Date(s) of Site inspection: 11 / 12 /2008		
Type of review: <input checked="" type="checkbox"/> Post-SARA <input type="checkbox"/> Pre-SARA <input type="checkbox"/> NPL-Removal only <input type="checkbox"/> Non-NPL Remedial Action Site <input type="checkbox"/> NPL State/Tribe-lead <input type="checkbox"/> Regional Discretion		
Review number: <input type="checkbox"/> 1 (first) <input type="checkbox"/> (second) <input checked="" type="checkbox"/> 3 (third) <input type="checkbox"/> Other (specify)		
Triggering action: <input type="checkbox"/> Actual RA Onsite Construction at OU # _____ <input type="checkbox"/> Actual RA Start at OU# _____ <input type="checkbox"/> Construction Completion <input checked="" type="checkbox"/> Previous Five-Year Review Report <input type="checkbox"/> Other (specify)		
Triggering action date (from WasteLAN): 1/15/04		
Due date (five years after triggering action date): 01 / 21 / 2009		

* ["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, cont'd

Issues:

Long-term stewardship must be assured, which includes implementing, maintaining, monitoring and enforcing effective ICs. Based upon the IC evaluation activities, follow-up actions are required to assure that the remedy remains protective. Those activities include exploring implementation of a UECA covenant, review of title work, and completion of mapping to assure that the remedy continues to function as intended and review of the O & M plan to ensure that effective procedures are in-place for long-term stewardship at the Site.

Recommendation and Follow-up Actions:

U.S. EPA will prepare an IC workplan to address the additional IC activities, including exploring implementation of a covenant under the Ohio Uniform Environmental Covenants Act (UECA), review of title work, mapping of ICs, and planning for long-term stewardship.

Protectiveness Statement(s):

The remedy selected in the 1988 ROD continues to be protective of human health and the environment in the short term. The existing Site use is consistent with the objectives set forth in the ROD and the implemented remedial actions at the Coshocton Site are functioning as intended. Long-term protectiveness requires maintenance of the cover and compliance with land use restrictions that prohibit interference with the cap, restrict the Site to limited commercial/industrial uses, and limit the groundwater use to ensure that the remedy continues to function as intended. Compliance with effective ICs will be ensured through long-term stewardship by implementing, maintaining, monitoring and enforcing effective ICs, as well as maintaining the site remedy components. To that end, U.S. EPA will work with the PRPs to prepare an IC workplan to address the additional IC activities, including exploring implementation of a covenant under the Ohio Uniform Environmental Covenants Act (UECA), review of title work, mapping of ICs and planning for long-term stewardship.

All immediate threats at the Site have been addressed, and the remedy is protective in the short-term of human health and the environment.

**U.S. Environmental Protection Agency
Region 5
Third Five Year Review
Coshocton Landfill Site
Coshocton, Ohio
November 2008**

I. Introduction

The purpose of the five-year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review reports identify issues found during the review, if any, and identify recommendations to address them.

The Agency is preparing this Five-Year Review report pursuant to CERCLA §121 and the National Contingency Plan (NCP). CERCLA §121 states:

If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.

The Agency interpreted this requirement further in the NCP; 40 CFR §300.430(f)(4)(ii) states:

If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.

The United States Environmental Protection Agency (U.S. EPA), Region 5, conducted the third five-year review of the remedy implemented at the Coshocton Landfill Site in Coshocton, Ohio. This review was conducted by the Remedial Project Manager (RPM) for the Site from January 2008 through October 2008. This report documents the results of the review.

This is the third five-year review for the Site. The triggering action for this five-year review is the completion of the second Five Year Review on January 15, 2004. This five-year review is required due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. This review will be placed in the Sites files and local repository for the Coshocton Landfill Site in Coshocton, Ohio.

II. Site Chronology

Event	Date
Removal Assessment	8/14/92
Proposal to the NPL	12/30/82
NPL listing	9/08/83
Unilateral Administrative Order	3/30/84
PRP Search	9/30/84
RI/FS complete	6/17/88
ROD signature	6/17/88
RD/RA Consent Decree	7/22/91
Consent Decree	1/04/95
Remedial design start	2/23/90
Remedial design complete	12/03/93
Remedial action complete	9/18/95
Preliminary Close Out Report	9/25/95
Deletion from NPL	10/07/98
First five-year review	1/21/99
Second five-year review	1/15/04

III. Background

Physical Characteristics

The Coshocton Landfill is located on approximately 80 acres in the east half of Section 3, Franklin Township, Coshocton County, Ohio, 3.5 miles southeast of the City of Coshocton, Ohio. Coshocton County is on the western edge of the Appalachian Plateau. The area is characterized by considerable topographic relief with small streams situated between steep hills. The topography is steeply rolling; level land available for tillage is primarily in the river valley bottom lands.

The Coshocton Landfill is located between two small intermittent creeks that drain toward the southwest into the Muskingum River, 1.5 miles west of the Site. Within a quarter mile of the Site, topographic relief exceeds 200 feet; the elevation varies from about 800 to 1,000 feet.

Land and Resource Use

Active, abandoned, and reclaimed coal strip mines are scattered throughout the region. Coshocton Landfill is built on abandoned, strip-mined land. Until early 1986, an active coal strip mine was operating to the immediate east of the Site. Much of the land to the south and to the west of the Site has been mined and reclaimed.

The uplands area around the landfill is sparsely populated. Homes are generally associated with small farms. Drinking water in the area is supplied by individual private wells. The steep topography in the immediate vicinity of the landfill limits the use of the surrounding land for agriculture. Most of the land is either woodlands or pasture land used for cattle grazing. Livestock have been observed using the two small intermittent creeks in close proximity to the landfill as a source of drinking water.

History of Contamination

Portions of the landfill property were strip mined for further removal of the Middle Kittanning Coal from the mid-1950s until mid-1979. In July 1978, the City of Coshocton signed a coal lease with the Conotton Land Company, which subsequently relinquished the mineral rights to Cravat Coal Company. Cravat Coal Company has mined portions of the Coshocton Landfill property.

During strip mining, overburden and coal were removed to track the No. 6 coal seam into the hillside. The stripping operation removed material down to the base of the Middle Kittanning Coal seam that occurs across the Site at the approximate elevation of 870 to 860 feet msl. Historical air photos show that the overburden or mine spoils were deposited behind the active mining operation, in areas where overburden and coal had already been removed. This was typical practice for strip mining in the area.

Mining probably ceased at the Coshocton Site when the over-burden thickness rendered coal recovery uneconomical. When mining ceased, an exposed steep rock face known as the "high wall" remained.

At the conclusion of mining operations, portions of the gap between the spoil bank and high wall filled with water from groundwater or surface water, creating what are known as "spoil ponds." At least four spoil ponds existed along the abandoned high wall at the Coshocton Landfill Site as of 1965. One of these spoils ponds remains and is located west of the Site just outside of the City of Coshocton property line. During active operations, the landfill accepted a variety of industrial wastes, including hazardous substances from several local industries.

Hazardous substances that have been released at the Site in each media included:

Soil and Groundwater

Acetone	1,2-Dichloropropane	Fluoranthene
Benzene	cis-1,3-Dichloropropene	Florene
Dichlorobromomethane	trans-1,3-Dichloropropene	Hexachlorobenzene
Bromoform	Chlorodibromomethane	Xylene
Methyl Ethyl ketone	Ethylbenzene	1,2-Dichloroethylene
Carbon Disulfide	2-Hexanone	Acenaphthene
Carbon Tetrachloride	4-Methyl-2-Pentanone	Acenaphthylene
Chlorobenzene	Methylene Chloride	Anthracene
Chloroform	Styrene	Benzo (a) Anthracene
Chloromethane	1,1,2,2,-Tetrachloroethane	Benzo (a) Pyrene
1,1-Dichloroethane	Tetrachloroethene	Benzo (b) Fluoranthene
1,2-Dichloroethane	Toluene	Benzo (k) Fluoranthene
1,1-Dichloroethylene	1,1,1-Trichloroethane	Benzo (g,h,i) Perylene
trans-1,2-Dichloroethene	1,1,2-Trichloroethane	Bis (2-Chloroethoxy)-methana
Bis (2-Chloroethyl) Ether	Bis (-Chloroisopropyl)-Ether	3-Nitroaniline
Trichloroethene	Vinyl Chloride	4-Nitroaniline
Bis (2-ethylhexyl)-Phthalate	4-Bromophenyl Phenylether	Nitrobenzene
4-Chloro-3-Methylphenol	Carbazole	Chrysene
4-Chloroaniline	Pyrene	
2-Chloronaphthalene	1,2,4-Trichlorobenzene	Dibenzo (a,h) Anthracene
2-Chlorophenol	2,4,5-Trichlorophenol	Di-n-Octylphthalate
4-Chlorophenylphenyl-	2, 4,6-Trichlorophenol	Di-n-Butylphthalate
Diethylphthalate	Dibenzofuran	2,4-Dichlorobenzidine
2,4-Dimethylphenol	2-Methynaphthalene	3,3 Dichlorobenzidine
Dimethylphthalate	2-Methylphenol	1,3 Dichlorobenzene
2,4-Dinitrophenol	4-Methylphenol	1,2-Dichlorobenzene
2,4-Dinitrotoluene	Naphthalene	4-Nitrophenol
2,6-Dinitrotoluene	2-Nitrophenol	Esther
Hexachlorocyclopentadiene	Phenol	N-Nitroso-di-Phenylamin
Heachloroethane	N-Nitrosodi-n-Propylamine	Phenanthrene
Indeneo (1,2,3-cd) pyrene	Pentachlorophenol	
Isophorone		

Initial Response

U.S. EPA conducted a Remedial Investigation/Feasibility Study (RI/FS) which was completed in 1988. The Coshocton Landfill was releasing contaminants to the environment. The major release mechanism was leachate migration to surface water. Results of samples taken from leachate, groundwater, surface water and sediment identified approximately 30 chemical constituents.

Basis for Taking Action

These studies were reviewed and approved by the U.S. EPA. Results from RI/FS showed that the landfill was contaminated and was a potential health concern to people living near the Site. Information contained in the RI/FS and Baseline Risk Assessments were used as the basis for selecting a remedial alternative at the Site, which was identified by U.S. EPA in the ROD. The decision for remedial action is based on the analysis of Site risks. The decision relies on the implementation of institutional controls, so that contaminated land will not be used in a way that could pose significant risks and an operations and maintenance plan, so that monitoring will continue indefinitely. Results from previous investigations, activities and sampling showed that the contamination presented a potential risk to human health and the environment. The selected remedy for the Site was designed to minimize potential exposure to contamination by human and ecological receptors.

IV. Remedial Actions

Remedy Selection

The ROD signed by U.S. EPA on June 17, 1988, called for a landfill cap, grading, vegetating; groundwater, surface water, and landfill gas monitoring; and future land-use restrictions were to be placed on the property. Groundwater, surface water and landfill gas monitoring were to be used to determine the necessity of installing a leachate collection and treatment system, and a landfill gas collection and venting system. During the Remedial Design, U.S. EPA determined it was not necessary to install a leachate collection system or gas venting system. The ROD called for the preparation and submittal of an explosive gas monitoring plan to U.S. EPA and the Ohio Environmental Protection Agency (Ohio EPA) within 90 days of a Site inspection; the plan was required to note the presence of any residence, if there were residences within 1,000 feet of the landfill. An explosive gas monitoring plan was not prepared because residences were not within 1,000 feet at the time of the inspection.

Remedy Implementation

Six potentially responsible parties (PRPs) signed a remedial design/remedial action (RD/RA) Consent Decree (CD) with U.S. EPA to implement the response activities determined to be necessary in the 1988 ROD. The RD/RA CD was entered by the Court on July 22, 1991. The RD/RA Settling Defendants consisted of the following parties: the City of Coshocton, Ohio; General Electric Company; Steel Ceilings Division of Airtex Corporation; Stone Container Corporation; Excello, Inc.; Edmont-Wilson, Inc., a/k/a Becton Dickinson and Company; Buckeye Fabric Finishers, Inc.; and Shaw-Barton, Inc. Settling Defendants completed response activities required by the RD/RA CD and the ROD with U.S. EPA and Ohio EPA oversight. Although one of the major PRPs, Pretty Products, Inc., was not a signatory of the RD/RA CD and filed objections prior to its entry, the company subsequently entered into a cost recovery settlement with U.S. EPA, reimbursing U.S. EPA for past response costs.

Drummed liquid wastes were encountered in each of the four areas of the landfill during RA

construction. A total of 29 drums were transported to a hazardous waste incinerator for disposal. Analytical reports from samples of the drums indicated the presence of PCBs as high as 71,000 ppm. Methyl ethyl ketone was also present in the drums containing liquid waste. A total of 48 drums containing dried plastic resins were also encountered during RA construction. These drums were placed in overpack drums and placed in an approved area under the cap at the Site. On September 25, 1995, the Close-Out Report was signed. The Report documented that response actions were constructed consistently with the approved RD, and with the ROD.

Institutional Controls

Institutional controls (ICs) are required to ensure the protectiveness of the remedy, as it is described in the ROD and summarized below. Institutional controls are non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for exposure to contamination and protect the integrity of the remedy. The ROD required placing “deed restrictions” (ICs) on the property to control future land use. Compliance with ICs is required to assure long-term protectiveness for any areas which do not allow for unlimited use or unrestricted exposure (UU/UE).

The ROD states that a Notice for Coshocton Landfill will be recorded in the chain of title, designating the Site as a restricted use property, used to manage hazardous waste. The goal of this Notice, as set forth in the ROD, is to protect against direct contact with contaminated materials. The physical barriers include fencing along the Site.

As part of its compliance with the requirements of the RD/RA CD, the City of Coshocton filed a Quit Claim Deed on the Coshocton Landfill property, which attempts to restrict its use, as follows:

- There can be no development of any kind without the prior written approval of U.S. EPA.
- That there be no excavation, construction or drilling of any water, gas, or other mineral wells at the Site without prior written approval of U.S. EPA.

Table 2: Institutional Controls Summary Table

Media, Engineered Controls, & Areas that Do Not Support UU/UE Based on Current Conditions.	IC Objective	Title of Institutional Control Instrument Implemented (note if planned)
Coshocton Landfill – constructed landfill cap. (Maps to be developed)	Prohibit residential, agriculture and commercial uses; Prohibit use except maintenance and assure integrity of the landfill cap; Prohibit installation of wells.	Quit Claim Deed (See Attachment) UECA Covenant Planned
Groundwater (at the Site beyond the landfill) – As a precautionary measure on property. There is a prohibition of groundwater well installment. (Maps to be developed)	Prohibit groundwater use for domestic or drinking water purposes or any uses that might impact the remedy	Quit Claim Deed UECA Covenant planned.

Current Compliance: Based on the Site inspection and data – no inappropriate land or groundwater use was observed. U.S. EPA is not aware of Site or media uses which are inconsistent with the stated objectives of the ICs and cleanup goals. Cleanup goals for soil are based on containment for soils. The Site is zoned for industrial use. The physical barriers remain in place and access is further restricted by use of warning signs. The integrity and effectiveness of the perimeter containment dikes is determined through routine monitoring of instrumentation clusters which measure both settlement and lateral movement. No waste material has been transported from off-Site and disposed of on the property.

IC Evaluation Activities: To assure that the ICs are effective and that long-term stewardship procedures are in place, U.S. EPA analyzed the effectiveness of the current land use restrictions. With regard to governmental controls, the Site is zoned commercial/industrial. A “Quit Claim Deed” was also recorded in the Site chain of title and attempts to restrict future Site uses. The City (contact – Joseph Skelton) owns the property and will continue to own the facility for the foreseeable future, and expects that ICs will remain in place and be maintained.

These IC evaluation activities have revealed that additional steps must be taken assure the protectiveness of ICs over time. Long-term protectiveness at the Site requires compliance with land and groundwater use restrictions, and maintaining, monitoring and enforcing effective ICs.

Although the current Quit Claim Deed which has been recorded in the Site chain of title serves the valuable function of notice, long-term protectiveness counsels that U.S. EPA seek an environmental covenant under the Ohio Uniform Environmental Covenants Act (UECA) that incorporates the necessary restrictions on future use of the Site. U.S. EPA will request the PRPS to explore the implementation of a UECA covenant which appropriately restricts Site land use. Maps (paper) which depict the current conditions of the Site and physical areas which do not allow for UU/UE, including the information contained in Table 2, will be developed as part of the IC implementation activities discussed below. U.S. EPA will review a Site title commitment to assure that no other existing property rights will interfere with the Site remedy. Title work will be reviewed to confirm proper recording of land use restrictions, and to confirm that no other existing property rights will interfere with the Site remedy or cause undue exposure to individuals or the environment.

To address the additional IC activities, U.S. EPA will prepare an IC workplan. The plan will require implementation of a covenant under the Ohio Uniform Environmental Covenants Act (UECA), review of title work, mapping of ICs and planning for long-term stewardship. Long-term stewardship must be assured, which includes maintaining and monitoring effective ICs, as part of Site O & M, as indicated below.

Long-term Stewardship: Long-term protectiveness at the Site requires compliance with land use restrictions to assure the remedy continues to function as intended. To assure proper maintenance and monitoring and effective ICs, long-term stewardship procedures will be reviewed and incorporated into the Site operations and maintenance plan (O & M). The O & M plan and the UECA covenant will call for regular inspection of ICs at the Site and annual certification to U.S. EPA that the required ICs are in place and effective. Additionally, U.S. EPA will oversee the

development of a communications plan and explore the use of a one-call system for long-term stewardship.

Operation and Maintenance (O & M)

There were a series of planned and ongoing operation and maintenance activities associated with this project. These activities fall into the following general categories:

1. Settlement/consolidation management
2. Vegetation management
3. Cover monitoring system

Settlement/consolidation of the waste underneath the cap and differential settling of the cover material may occur. As part of routine O & M activities, the Settling PRPs under the RD/RA Consent Decree will continue to inspect the landfill annually to determine if placement of additional fill material is needed in select locations. If necessary, additional cover material will be added.

Vegetation management includes reseeding/overseeding of areas on an “as needed” basis and the control of unwanted herbaceous vegetation. Unwanted herbaceous vegetation is generally controlled through periodic cutting/mowing, although other techniques may also be used.

Cover performance is monitored through a combination of periodic visual observations, such as measuring consolidation/settlement at strategically placed settlement platforms, and surveying the elevation of survey markers. These inspection activities may identify the need to perform routine maintenance activities such as grading, placement of additional soil material on the cover, reseeding, etc.

V. Progress Since the Last five-year Review

The previous five-year review recommended continuing the implementation of the approved O & M Plan, including the monitoring of groundwater, surface water, and leachate. Since the last five-year review, U.S. EPA, in addition, began the process of evaluating ICs at the Coshocton Site.

The previous five-year review also made the following recommendations:

- reducing surveying from twice to once annually
- reducing mowing from twice to once annually
- sampling for SVOCs and PCBs conducted every 5 years instead of annually
- changing the sampling method for PCBs from Method 8080 to 8082
- changing the sampling method for metals from Method 6010B/AA-GF to SW-846 6020

All recommendations were implemented, as set forth in the O & M plan. Also, the PRPs survey the Site twice a year to meet the requirements of the O & M Plan.

VI. Five-year Review Process

Administrative Components

The Coshocton Landfill Site five-year review was prepared by David Linnear, U.S. EPA Remedial Project Manager. Ohio EPA was notified of the five-year review in 2008.

From January 2008 to October 2008, the Project Manager reviewed documents, data, and developed the third five-year review.

Community Notification and Involvement

Community involvement and relations remain ongoing at the Site including the potential responding to local residents' general questions about the progress of the operation and maintenance of the remedy and conducting visits with affected community members when issues and/or concerns arise. Public notice is normally scheduled to inform the community of significant events and progress at the Site.

Notification was made to the public of this Five-Year Review Report on September 4, 2008, allowing further comments and informing the public how to locate a copy of this report if desired.

Document Review

In order to prepare this Five-Year Review Report, the RPM reviewed the following Coshocton Landfill Site documents and data: the 1988 ROD, 2004 Five-Year Review, all Annual O&M Reports, the 2005 Expedited ICs Review, and the Coshocton / Ohio EPA correspondence file.

Data Review

In each year, June 2006, 2007 and 2008, the Annual O& M Report produced by the Coshocton PRPs' consultant showed that the contaminants contained in the landfill remain intact. Contaminants remain at levels below action levels. Settlement of the cap has not occurred. Normal O&M activities, such as mowing the cap, are on-going.

Site Inspections

The Site inspection was conducted in November 2008. U.S. EPA conducted the inspections. The landfill was in place and the Site cover was intact despite trees on the fence from hurricane Ike. Visual inspections of the Site revealed that the selected remedy had been successfully implemented, and the containment components remained satisfactory.

VII. Technical Assessment

The following questions address the issue of protection of human health and the environment by the remedy at the Coshocton Landfill Site.

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

Yes. The review of documents and the Site's risk assumptions, and the results of the Site inspection indicate that the remedy is functioning as intended by the ROD. The remedy has achieved the remedial objectives to minimize the migration of contaminants to groundwater and prevent direct contact with, or ingestion of, contaminants in soil. No Site uses which are inconsistent with the implemented ICs or the remedy objectives have been noted during the Site inspection or via interviews of local residents. Long-term protectiveness requires compliance with effective ICs. To that end, effective ICs, such as an appropriate UECA covenant, should be implemented, monitored, maintained and enforced. Additionally, compliance with effective ICs must be ensured through long-term stewardship.

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

Yes. The property is currently zoned for industrial use and is being used for commercial/industrial purposes. Industrial uses on adjacent parcels are not anticipated to impact the Site and no Site uses which are inconsistent with the implemented ICs or the remedy objectives have been noted during the Site inspection or via interviews.

There have been no changes in the physical conditions of the Site or the RAOs that would affect the protectiveness of the remedy.

Changes in Standards and To Be Considered Advisories:

There have been no changes in standards or "To Be Considered" advisories that would change the protectiveness of the remedy.

Changes in Exposure Pathways, Toxicity and Other Contaminant Characteristics:

There have been no changes in exposure pathways, toxicity or other contaminant characteristics that could affect the protectiveness of the remedy.

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

No. There is no other information that calls into question the protectiveness of the remedy.

Technical Assessment Summary

According to data reviewed by the RPM and the Site inspection, the remedy is functioning as intended by the ROD. There have been no changes in the physical conditions of the Site, exposure pathways or toxicity data cleanup levels that would affect the protectiveness of the remedy.

VIII. Issues

Table 3: Issues

Issues	Affects current Protectiveness (Y/N)	Affects future Protectiveness (Y/N)
Long-term stewardship must be assured, which includes implementing, maintaining, monitoring and enforcing effective ICs. Based upon the IC evaluation activities, follow-up actions are required to assure that the remedy remains protective. Those activities include: exploring implementation of a UECA covenant, review of title work, and completion of mapping to assure that the remedy continues to function as intended and review of the O & M plan to ensure that effective procedures are in-place for long-term stewardship at the Site.	N	Y

IX. Recommendations and Follow-up Actions

Table 4: Recommendations and Follow-up Actions

Issue	Recommendations and Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
Long-term stewardship must be assured which includes implementing, maintaining, monitoring and enforcing effective ICs. Based upon the IC evaluation activities, follow-up actions are required to assure that the remedy remains protective. Those activities include: exploring implementation of a UECA covenant, review of title work, and completion of mapping to assure that the remedy continues to function as intended and review of the O & M plan to ensure that effective procedures are in-place for long-term stewardship at the Site.	U.S. EPA will work with the PRPs to develop an IC to address the additional IC activities, including exploring implementation of a covenant under the Ohio Uniform Environmental Covenants Act (UECA), review of title work, mapping of ICs and planning for long-term stewardship.	PRPs/ U.S. EPA	U.S. EPA	October 2009	N	Y

X. Protectiveness Statement(s)

The remedy selected in the 1988 ROD continues to be protective of human health and the environment in the short term. The existing Site use is consistent with the objectives set forth in the ROD and zoning restrictions and the implemented remedial actions at the Coshocton City Landfill Site are functioning as intended. Long-term protectiveness requires compliance with land use restrictions that prohibit interference with the soil cap, restrict the Site to limited commercial/ industrial uses, and limit the groundwater use to ensure that the remedy continues to function as intended. Compliance with effective ICs will be ensured through long-term stewardship by implementing, maintaining, monitoring and enforcing effective ICs as well as maintaining the site remedy components. To that end, U.S. EPA will work with the PRPs to prepare an IC workplan to address the additional IC activities, including exploring implementation of a covenant under the Ohio Uniform Environmental Covenants Act (UECA), review of title work, mapping of ICs and planning for long-term stewardship.

XI. Next Review

The next five-year review for the Site will be completed five years from this report.

Bible Study: Mark Granger will lead the group. Coshocton Senior Center, 201 Brown's Lane, Coshocton. 11 a.m. 740-622-4852.

Blood Pressure Check: Senior citizens can have their blood pressure checked. Coshocton Senior Center, 201 Brown's Lane, Coshocton. 10 a.m. to noon. 740-622-4852.

Support Groups

Alcoholics Anonymous: Weekly meeting. First Baptist Church, 801 Chestnut St., Dresden. 7 p.m.

Overeaters Anonymous: Support groups for compulsive eaters to recover and reach healthy physical, emotional and spiritual states. Meeting times are 12:15 p.m. Monday, Wednesday and Friday; and 5:15 p.m. Tuesday and Thursday. Colonial Sports-n-Courts, 1101 Fairy Falls Drive, Coshocton.

Autism Support Group meeting: Monthly support meeting. Roscoe United Methodist Church, 475 High St., Coshocton. 6 p.m.

FRIDAY, SEPT. 5

Benefits Fundraisers

Coshocton Business and Professional Women Cake Auction: Deadline for cake registration is Aug. 8. Town Center Civic Hall, 331 Main St., Coshocton. 7:30 p.m.

Business Events

Newcomerstown Farmers Market: Fresh, seasonal foods, locally grown plants and pro-

Everything
Key Chain

LOR
& FINANCIAL

Coshocton, OH 43812
740-622-4442
9am - 5:30pm

a.m. 740-498-5438.

Fitness and Health Classes: Various topics and speakers. Colonial Sports & Courts Health Fitness Center, 1101 Fairy Falls Drive, Coshocton. 10 a.m. 740-623-8382.

PACE Group Class: People with Arthritis Can Exercise teaches arthritis sufferers exer-

Center, 201 Brown's Lane, Coshocton. 9:30 to 10:30 a.m.

Stretching and Toning: Exercises for senior citizens. Coshocton Senior Center, 201 Brown's Lane, Coshocton. 10:30 a.m.

FOR MORE CALENDAR OF THE WEEK
VISIT US ONLINE AT
www.coshoctontribune.com



EPA To Review Coshocton Landfill Superfund Site Franklin Township, Ohio



U.S. Environmental Protection Agency is conducting a status review of the Coshocton Landfill Superfund site. The Superfund law requires regular reviews of sites (at least every five years) where the cleanup is complete but hazardous waste remains managed on-site. These reviews are done to ensure that the cleanup continues to protect human health and the environment.

The review will include an evaluation of background information, cleanup requirements, effectiveness of the cleanup and any anticipated future actions.

The original cleanup selected in 1988 included a landfill cover, slopes to keep water out, ground-water, surface water and gas monitoring, fencing and deed restrictions. This is the third review of the Coshocton Landfill.

A five-year review report, detailing the site's progress, will be available in November.

Site-related documents are available for review at the Coshocton Public Library, 655 Main St.

Further information can be obtained from:

Susan Pastor

EPA Community Involvement Coordinator
pastor.suan@epa.gov

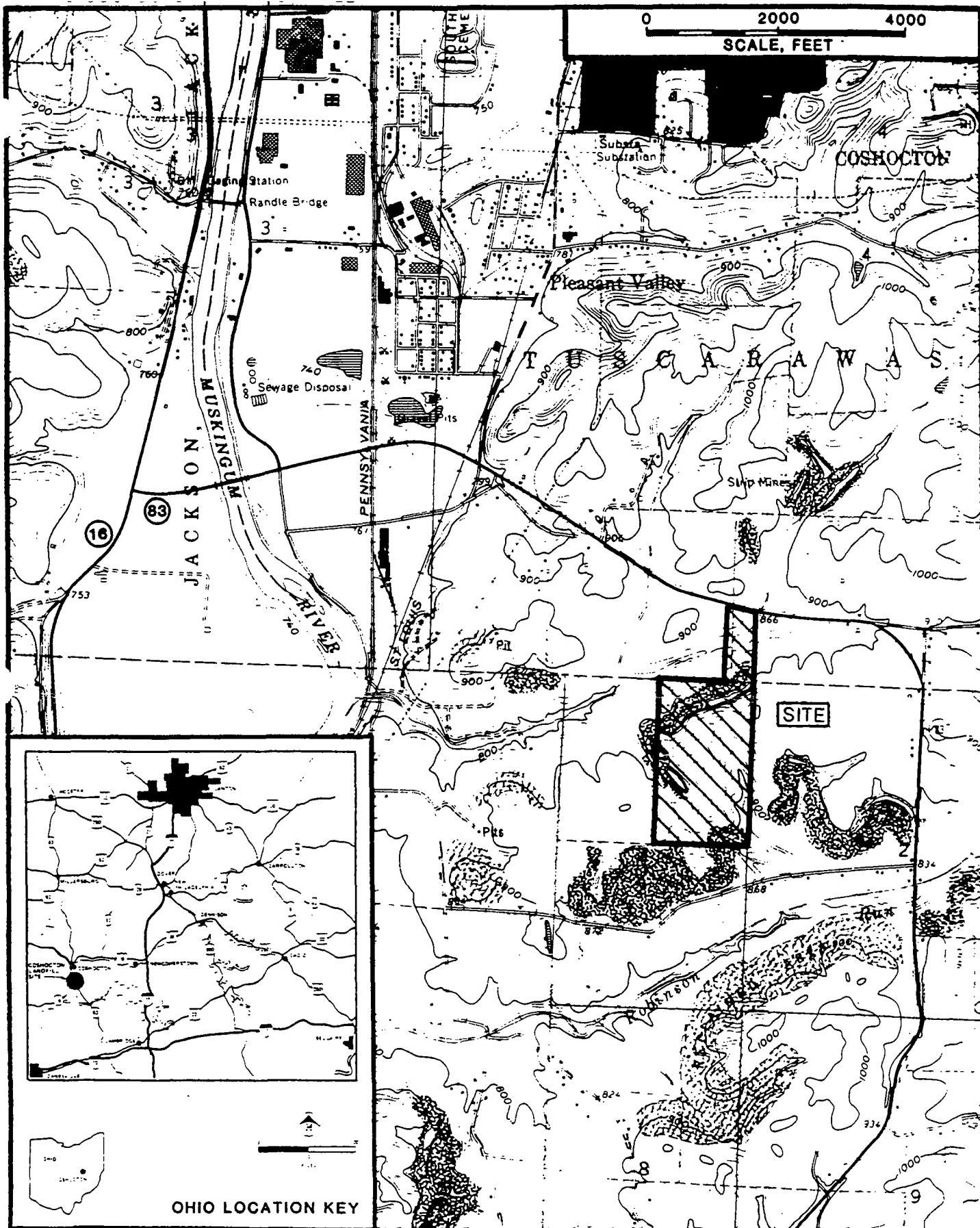
David Linnear

EPA Remedial Project Manager
linnear.david@epa.gov

800-621-8431, weekdays, 9:30 a.m. - 5:30 p.m.



9/4/08
Coshocton
Tribune



CITY OF COSHOCTON LANDFILL
COSHOCTON, OHIO

FIGURE 1
SITE LOCATION

Know all Men by these Presents

~~1866600583~~

That The City of Coshocton, a municipal corporation,
of Coshocton County, State of Ohio, by Charles A. Turner, its duly elected qualified
Mayor, and Ray T. Miskimens, its Service Director, for in the consideration the sum of One
Dollar, in hand paid conveys and quit claims to The City of Coshocton,
whose address is 760 Chestnut Street, Coshocton, Ohio
the following real property to wit:

PARCEL ONE:

Situated in the State of Ohio, County of Coshocton, and Township of Franklin,
Being the east half of the northeast quarter of Section Three (3), Township Four (4)
and Range Six (6), U.S.M. Lands, containing eighty (80) acres, be the same, more or
less.

Parcel One being a part of the premises described in deed from Esther Dolamore and
Glenn Dolamore to Sinclair Mines, Inc., dated March 18, 1955, and recorded in
Volume 215, Page 263, Coshocton County Deed Records.

PARCEL TWO

Situated in the State of Ohio, County of Coshocton, and Township of Tuscarawas,
Being all that part of the premises hereinafter described lying south of the center line of
the public highway known as State Route #76.

Being a part of Lot Seventeen (17) in the Fourth (4th) Quarter of Township Five (5),
Range Six (6) United States Military Lands beginning at an iron pin on the north line
of said Lot Seventeen (17), said iron pin being north 86° 00' west three hundred sixty
eight and five tenths (368.5) feet from the southwest corner of Lot Ten (10), said iron
pin also being north 86° 00' west 42.65 chains from the northeast corner of Lot Sixteen
(16) as the same is described in deed recorded in Volume 100, Page 584, Coshocton
County Deed Records; thence from said iron pin south 4° 05' west two thousand five
hundred thirty five (2535.0) feet along the lands of John Roahrig to an iron pin in the
Franklin-Tuscarawas Township line; thence north 86° 00' west three hundred forty
three and seven tenths (343.7) feet along said township line to an iron pin; thence north
4° 05' east two thousand five hundred thirty five (2535.0) feet to an iron pin; thence
south 86° 03' east three hundred forty three and seven tenths (343.7) feet to the place
of beginning containing twenty (20) acres, more or less.

The acreage intended to be conveyed as Parcel Two is eight and fifty-six hundredths
(8.56) acres, more or less.

Parcel Two being the same premises described indeed from Esther Dolamore, et. al. to
Sinclair Mines, Inc., dated April 14, 1955, and recorded in Volume 215, Page 490,
Coshocton County Deed Records.;

Reserving, however any easements which that Grantor now has or might have over and
upon the premises for public utility purposes.

The property herein described is subject to the following restrictions as to its use:

1. There shall be no excavation of any kind whatsoever on the property,
including but not limited to, the installation of wells, water, oil, gas or other mineral
well, installation of septic or other waste disposal facilities, building foundation or
basement, roads or any other disturbances of the surface or subsurface of the property
unless prior written approval is first received from a duly authorized representative of
the United States Environmental Protection Agency.

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2. There shall be no development of any kind on the property unless prior written approval is first received from a duly authorized representative of the United States Environmental Protection Agency.

This deed is given pursuant to and by authority of a consent decree entered by United States District Corp. the Southern District of Ohio, Eastern Division on July 22, 1991, in a case styled The United States of America vs. The City of Coshocton, et. al.. Being civil action #C2-90-196. Said consent decree among other things calls for the above restrictions to be placed upon said land. A map of said restricted area is attached hereto and marked as Exhibit "A".

Prior Instrument Reference: Volume 274, Page 103, Coshocton County Deed Records.
Volume 17, Page 81, Coshocton County Official Records

In Witness where The City of Coshocton has caused its name to be signed hereto and its seal affixed by Charles A. Turner, its Mayor and Ray T. Miskimens, its Service Director each a duly qualified representative of the City of Coshocton this 26th day of February, 1996.

Signed and acknowledged in presence of

Robert A. Skelton
Robert A. Skelton

Mary D. Fritz
Mary D. Fritz

City of Coshocton

BY: Charles A. Turner
Charles A. Turner, Its Mayor

BY: Ray T. Miskimens
Ray T. Miskimens, Its Service Director

Attest by:

Carol Miller
Carol Miller, Clerk of City Council

TRANSFERRED NO. E 115

FEE PAID \$ -0-
CONVEYANCE EXAMINED
SEC. 319.202 COMPLIED WITH

FEB 27 1996

State of Ohio, } ss. Before me, a Notary Public
Coshocton County, in and for said County and State, personally appeared, Charles A. Turner, Mayor of the City of Coshocton and Ray T. Miskimens, Service Director of the City of Coshocton Richard J. Tompkins
who acknowledged that they did sign the foregoing instrument and that the same is their free act and deed as such representatives. Paterson

In Testimony Whereof I have hereunto set my hand and official seal, at Coshocton, Ohio
this 26th day of February February A.D. 1996.

Robert A. Skelton
Notary Public

ROBERT A. SKELTON, LAWYER
NOTARY PUBLIC STATE OF OHIO
My Commission Expires No Expiration Date
SECTION 447.05100

This instrument prepared by:
Timothy L. France
Assistant Law Director
760 Chestnut Street
Coshocton, Ohio 43812

DESCRIPTION INADEQUATE
FREDERICK T. WACHTEL

DESCRIPTION REVIEWED
FREDERICK T. WACHTEL
COSHOCTON COUNTY ENGINEER

93 PAGE 458

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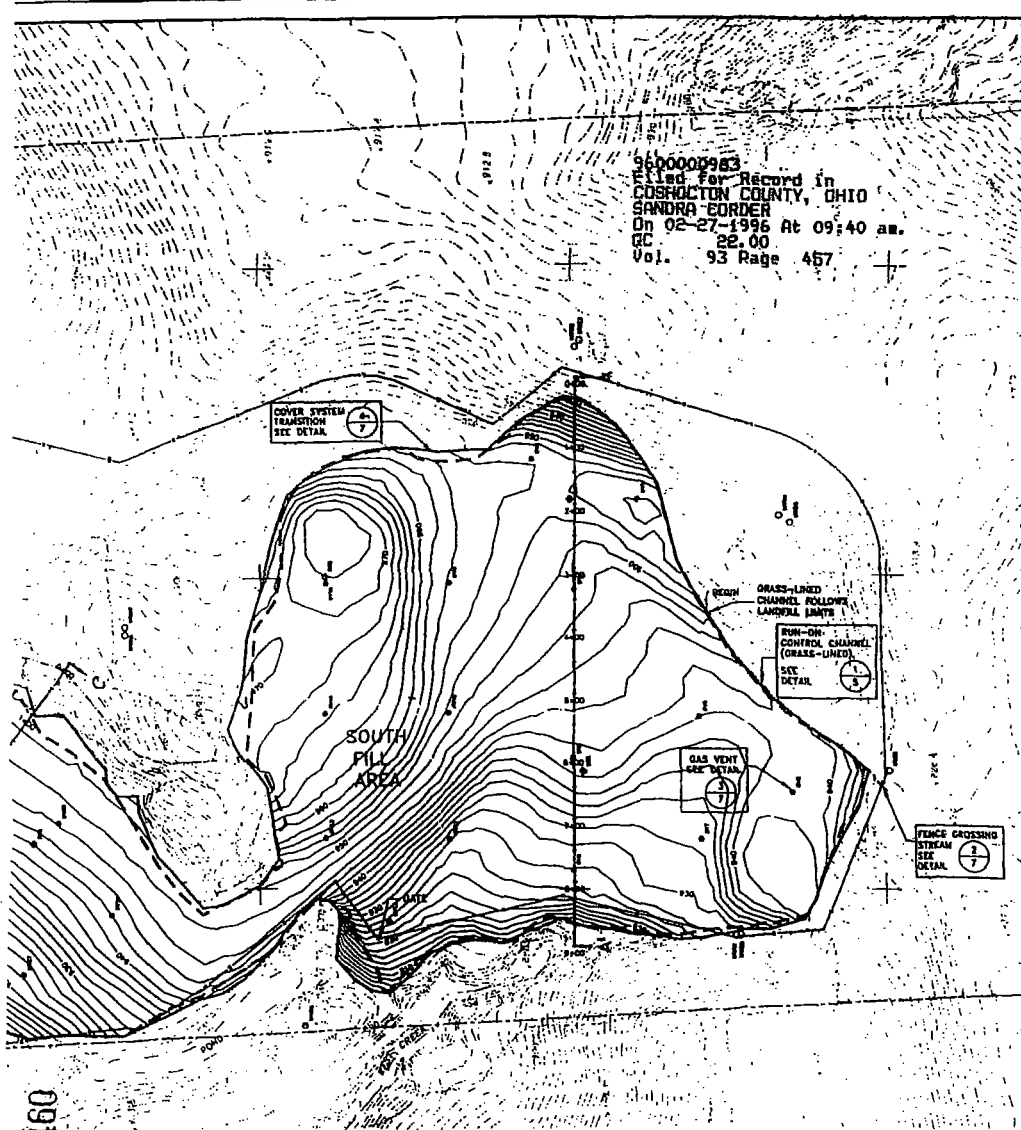
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Exhibit "A"



960000983
 Filed for Record in
 COSHOCTON COUNTY, OHIO
 SANDRA EORDER
 On 02-27-1996 At 09:40 am.
 GC. 22.00
 Vol. 93 Page 467

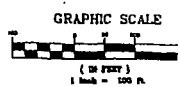
460

12. FOLLOWING COMPLETION OF THE VEGETATIVE COVER, GAS VENTS ARE INSTALLED AT THE LOCATIONS DEPICTED ON DRAWING 5. THE GAS VENTS ARE CONSTRUCTED OF 4-INCH DIAMETER SCHEDULE 40 POLYVINYL CHLORIDE PIPE THAT IS PERFORATED NEAR THE BOTTOM. THE GAS VENTS SHALL BE INSTALLED IN AN APPROXIMATELY 12-INCH DIAMETER BORING THAT WILL BE DRILLED OR BORED THROUGH THE APPROVED LANDFILL COVER. THE BORING ANNULES WILL BE BACKFILLED WITH GRAVEL FILL TO THE BASE OF THE IMPROVED COVER. THE GRAVEL WILL BE COVERED WITH A 2-INCH BENTONITE SEAL, AND THE REMAINDER OF THE BORING SHALL BE BACKFILLED WITH A CEMENT/BENTONITE GROUT. ONCE THE GROUT HAS SET FOR AT LEAST 24 HOURS, ADDITIONAL VEGETATIVE COVER EDGES SHALL BE MOUNDING AROUND THE PIPE TO FURTHER INHIBIT SURFACE WATER INFILTRATION.
13. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE FERTILIZED, SEEDING, AND MULCHED IN ORDER TO CREATE A DENSE VEGETATIVE COVER. WITHIN 48 HOURS OF COMPLETION OF FINAL VEGETATIVE COVER DRAINAGE, ALL DISTURBED AREAS SHALL BE FERTILIZED, SEEDING, AND MULCHED IN ACCORDANCE WITH GOOD SPECIFICATIONS. THE SEED MIXTURE SHALL BE CONSISTENT WITH URBAN/RESIDENTIAL DEVELOPMENT. MULCH SHALL CONSIST OF STRAW OR HAY AND BE SECURED IN PLACE WITH AN ASPHALT EMULSION OR POLYPROPYLENE NETTING STAPLED TO THE GROUND.
14. THE PERIMETER FENCING SHALL BE INSTALLED AROUND THE LIMITS OF THE CONSTRUCTION TO THE APPROXIMATE LOCATION DEPICTED UPON DRAWING 5, OR AS OTHERWISE DIRECTED BY THE OWNER. ALL GATES SHALL BE EQUIPPED WITH AN ENGINEER-APPROVED, RUST-PROOF INDUSTRIAL GRADE PADLOCK WITH DOUBLE LOCKING BOLT, LAMINATED STEEL CASE, AND A BRASS CYLINDER. ALL PADLOCKS SHALL BE KEYS ALIKE.

I, the undersigned, hereby certify that this mapping represents "as built" conditions based on field surveys performed by Lion Engineering, Inc., and other data provided by Heritage Environmental and Geos & Associates.

Timothy K. Lion
 Registered Survey No. 7115

Lion Engineering, Inc. 616-442-7400
 Civil Engineering Consultants
 P.O. Box 8077 Columbus, Ohio 43268-8077



CITY OF COSHOCTON LANDFILL
 COSHOCTON, OHIO
 PROJECT NO: HERI-833

DRAWING 5
 AS-BUILT
 FINAL COVER PLAN