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ENVIRONMENTAL CONSULTANTS

FEASIBILITY STUDY REPORT – REVISION 1

**STEVENS POINT FORMER MANUFACTURED GAS PLANT SITE
STEVENS POINT, WISCONSIN
WIN000509983**

Project No: 1177

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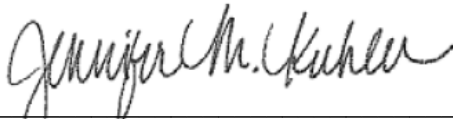
**Revision 1
May 31, 2011**



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ACRONYMS

µg/L	Micrograms Per Liter
µg/kg	Micrograms Per Kilogram
bgs	Below Ground Surface
ARAR	Applicable or Relevant and Appropriate Requirements
B(a)P	Benzo(a)pyrene
BLRA	Baseline Risk Assessment
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CERCLA ("Superfund")	Comprehensive Environmental Response, Compensation, and Liability Act
cfs	Cubic feet per second
COPCs	Contaminants of Potential Concern
CWG	Carbureted Water Gas
CWPC	Consolidated Water Power Company
EDI	Edi Engineering & Science, Inc
ES	NR 140 Enforcement Standard
FS	Feasibility Study
HHRA	Human Health Risk Assessment
ICIP	Institutional Control Implementation Plan
IBS	Integrays Business Support, LLC
MCL	Maximum Contaminant Level
MGP	Manufactured Gas Plant
MNA	Monitored Natural Attenuation
NCP	National Contingency Plan
NRT	Natural Resource Technology, Inc
PAHs	Polynuclear Aromatic Hydrocarbons
PRAP	Preliminary Remediation Action Plan
PRG	Preliminary Remediation Goal
ROD	Record of Decision
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RI/FS	Remedial Investigation and Feasibility Study
Settlement Agreement	Settlement Agreement and Administrative Order on Consent
SHS	Simon Hydro Search, Inc
SOW	Statement of Work
SSWP	Site-specific Work Plan
TBC	To Be Considered
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds
WDNR	Wisconsin Department of Natural Resources
WPSC	Wisconsin Public Service Corporation

1 INTRODUCTION

This Feasibility Study (FS) addresses the former manufactured gas plant (MGP) site located in Stevens Point, owned by Wisconsin Public Service Corporation (WPSC), a subsidiary of Integrys Energy Group. The Stevens Point site is the first of six former MGP sites to be addressed by WPSC using a common format and approach as set forth in the Statement of Work (SOW) to the Settlement Agreement and Administrative Order on Consent (Settlement Agreement), CERCLA Docket No. V-W-06-C-847 (May 5, 2006).

Under the Settlement Agreement/SOW, the United States Environmental Protection Agency (USEPA) calls for the preparation of "multi-site" documents used to support the FS analysis. USEPA approved the Multi-Site FS Support Document – Revision 1, dated March 26, 2010, on April 20, 2010. As allowed for in the SOW, elements of the Stevens Point FS called for in the Settlement Agreement/SOW were streamlined.

This FS is based on data and conclusions presented in the Remedial Investigation (RI) Report – Revision 1 (NRT, May 2011) and was completed in accordance with applicable federal regulations, including Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or "Superfund") as amended by SARA and the National Contingency Plan (NCP). Relevant guidance documents are referenced in Section 6.

1.1 Purpose and Organization of Report

The purpose of the FS is to develop, screen, and evaluate remedial alternatives to reduce unacceptable risks to human-health and ecological receptors as a result of the former MGP. The evaluation of remedial actions includes:

- Overall protection of human health and the environment
- Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility or volume
- Short-term effectiveness
- Implementability
- Cost

- State Acceptance
- Community Acceptance

FS Report is organized into the following sections:

- Section 1 – Introduction and Site Background Information
- Section 2 – Development of Remedial Action Objectives
- Section 3 – Development and Screening of Technologies
- Section 4 – Detailed Analysis of Remedial Alternatives
- Section 5 – Comparative Analysis of Remedial Alternatives
- Section 6 – References

1.2 Background Information

This section summarized background information presented in the Completion Report (NRT 2006), Site Specific Work Plan (SSWP) – Revision 1 (NRT, April 2007), and the RI Report – Revision 1 (NRT, May 2011). Refer to the SSWP for additional detail.

Owner/Operator: Wisconsin Public Service Corporation, a subsidiary of Integrys Energy Group, managed by Integrys Business Support, LLC (IBS)
Contact: Mr. Naren M. Prasad, P.E., MPH, LEED AP
Senior Environmental Engineer(312.240.4569)
130 East Randolph Drive, 22nd Floor
Chicago, Illinois 60601

Site Location: T24N, R8E, Section 32
1111 Crosby Avenue
Stevens Point, Wisconsin
Portage County (Figure 1)

USEPA ID WIN000509983
(WDNR BRRTS #) (02-50-000079)

As presented in the SSWP, the following definitions are used herein:

- Facility – Refers to the former WPSC MGP structures and related areas;
- Property – Refers to the land currently owned by WPSC (Figure 2); and
- Site – Refers to areas where contamination related to the former MGP has been discovered through site investigation activities completed to-date. These areas include the Facility and Property as well as portions of Pfiffner Pioneer Park, the City, and privately owned land south and west of the Property, and near shore sediments within the Wisconsin River.

1.2.1 Site Description and Surrounding Land Use

The former Stevens Point MGP is located on the Property in Stevens Point, Wisconsin (Figure 1) and encompasses approximately 3 acres (Figure 2).

The Site currently consists of an open grass covered field (Property), a portion of the adjacent City Park (Pfiiffner Pioneer Park which is a total of approximately 6 acres), a City asphalt parking lot (the parking lot is a total of approximately 1.5 acres), the northwest corner of the shopping mall parking lot, and adjacent streets. An open-air band shell and the Riverfront Art Center are located within the City Park adjacent to the Wisconsin River and the pond (Figure 2).

The former MGP-property is bounded by Crosby Avenue to the west; a City of Stevens Point parking lot to the south and east; and residential properties, West Street, and an apartment building to the north. Pfiiffner Pioneer Park, owned by the City, lies west of the Property across Crosby Avenue and is bordered on the west by the Wisconsin River. The western Property boundary is located approximately 300 feet east of the Wisconsin River (Figure 2). The majority of the former MGP structures were located between 300 and 500 feet east of the river, predominantly on the western side of the Property, situated on slightly more than 1.5 acres (Figure 3). Information obtained from the City of Stevens Point Zoning Department indicates land use around the Site includes single and multi-family housing, commercial, and recreational areas (Figure 2). The former Facility and Property are zoned "Commercial." Areas that border Water Street and Crosby Avenue to the east and south are zoned "Central Business," while Pfiiffner Park is zoned "Conservancy."

Thirty-three (33) monitoring wells are located in the vicinity of the site, covering approximately 40 acres (Figure 2). Wells are located on the WPSC property as well as on public and private property to the east, west, and south. Including the areas where MGP-affected soils and groundwater are located, the overall site size is less than seven acres. The Site includes areas adjacent to the Wisconsin River and a small decorative pond located off Property, adjacent to the Riverfront Art Center. The pond is located in the vicinity of the former mouth of the slough, but was not a feature of the former MGP and its base is approximately seven to 10 feet above the base of the former slough. The former slough was filled in to grade as part of the City's storm sewer reconstruction project between 1981 and 1985, with the exception of the western end of the slough which was partially filled to create the pond. The bottom of the pond is at approximately elevation 1082 and the bottom of the former slough is approximately elevation 1075 to 1072, as depicted in cross sections included in the RI Report – Revision1 (NRT, May 2011) on Sheet 1. The pond is hydraulically connected to the Wisconsin River by a narrow channel located under the former railroad tracks that was converted into a walking and bike path and parallels the Wisconsin River (Figure

2). There is no ready entry point to the pond, and the area surrounding the pond is maintained as park land with benches.

The Wisconsin River is approximately 900 feet across with a strong current, and water depths exceeding four feet occurring just off-shore in the vicinity of the Facility and the former slough (previously a storm sewer outfall to the Wisconsin River). Lawn is maintained up to the bank of the Wisconsin River, and there is no beach area or ready access the Wisconsin River. The Site includes approximately 0.6 acre in the Wisconsin River, extending a distance of approximately 200 feet along the river bank and 120 feet into the river.

In 2008, Consolidated Water Power (CWP) Company (the dam operator) drew down the water level in the river to perform approximately 1,000 linear feet of repairs on the dam. As shown in Photo 1 in Appendix B-2, during the drawdown, there was no water in the pond. The bottom of the pond contained organic silts and clays, consistent with the sediment borings. The adjacent river at the pond location was also exposed (see Photo 2 in Appendix B-2). The river bottom at the pond/river intersection was dominated by sand, gravel, rip-rap and wood debris. Towards the center of the river and away from the pond, the river bottom was dominated by alluvial sand and wood chips and/or timber (see Photo 3 in Appendix B-2). No sheen or oil-wetted/coated material was observed. No debris, other than wood chips/timbers were observed. Photo 3 in Appendix B-2 also illustrates the river bottom adjacent to the pond drops off quickly and limits receptors from accessing sediment on the river bottom.

Since the drawdown of 2008, CWP has made a point to use divers to perform annual inspections and dam repairs. As a result of the annual inspections/maintenance with divers, future drawdown events are not anticipated.

1.2.2 Site History

The Stevens Point MGP operated from approximately the 1890s to the late 1940s or early 1950s, using the carbureted water/gas (CWG) method to produce gas primarily from oil (SHS, April 1993). The plant ceased production in the late 1940s to early 1950s when piped natural gas became readily available to the Stevens Point area (EDI, 1986). The former MGP process structures were located on the west side of the Facility (Figure 3). The east side of the Facility was used as storage and disposal of MGP process wastes and other materials.

MGP related structures at the Facility present on Sanborn maps from 1898, 1912, 1922, 1934, 1945, and 1960 (provided in the Completion Report (NRT, June 2006)) included the following:

- Materials storage building and garage;

- A purifier;
- Two tar wells of unknown size; and,
- Eight gas holders (capacities of 4,500 ft³, 10,000 ft³, two at 19,500 ft³, 40,000 ft³, 200,000 ft³, and two of unknown volumes).

All historic MGP-related structures have been removed from the site surface. Some former structure foundations were noted during subsurface environmental investigations and the soil remedial action. For instance, during site investigations throughout the 1990s, the only portion of the former purifier structure that remained was the base/foundation. The concrete base was located at a depth of less than two feet bgs and the test pit information from the various investigations in the vicinity of this structure did not find any other purifier related structures. Therefore, it was concluded that there is no source related to the purifier. Similarly during prior remediation work, only concrete debris was found in the vicinity of former tar wells (no intact structures) and all of this debris was removed and disposed off-site during soil remediation. Additional discussion on the fate of the former MGP structures is discussed in Section 2.2 and 3.6.1 of the Site-Specific Work Plan- Revision 1 (NRT, April 2007)

A slough was also formerly located along the south property boundary (Figure 2), which served as a storm water outfall to the Wisconsin River.

Between 1981 and 1985 the City of Stevens Point filled the slough as part of a storm sewer reconstruction project.

1.2.3 Site Utilities

A storm sewer line is located just south of the Property (Figure 4). The line runs north-south and then angles to the northeast. The storm sewer lines were installed by the City in the 1980s. The City perforated three sections of sewer to facilitate placement of the pipe in the trench at the planned elevation. A video scan of the storm sewers in May 2000 confirmed the perforations. The diameter and lengths of perforated storm sewer are listed below and the locations are shown on Figure 4.

Pipe Diameter (inches)	Approximate Length (feet)	Sewer Segment (Manholes)
18	117	Upstream of MH-4A
24	190	MH-4A to MH-4
27	154	MH-4 to MH-3

The influence of this perforated sewer line on Site conditions is discussed in detail in Section 4.2.3 of the RI Report – Revision 1 (NRT, May 2011). Between July 2007 and January 2008, water levels were monitored continuously in monitoring well MW-06 using a pressure transducer. Groundwater elevations

at OW-6 exceeded the elevation of the storm sewer perforations near MH-4 on approximately 11 days between August 20 through August 31, 2007, and were close in elevation before and after this period, confirming that groundwater can enter the sewer when groundwater elevations are above the elevation of the perforations.

Seven storm sewer samples were collected at MH-1, MH-3, MH-4, and MH-5 between May 2000 and November 2003 (Appendix I of the Completion Report, NRT, June 2006). As part of the RI activities, storm sewer samples were collected three times between July 2007 and January 2008. PVOC and PAH concentrations in the storm sewer samples were low compared to the concentrations within the groundwater plume. No PAH MCLs/ESs were exceeded and the benzene MCL/ES was only slightly exceeded. Groundwater elevation data at the closest water table well, OW-6, indicates the water table was above the storm sewer perforation elevation on five of 33 groundwater sampling events since 2000. The site geology is dominated by highly permeable alluvial sand and gravel (refer to Section 2.1. of the RI Report – Revision 1 (NRT, May 2011), and there is no preferential pathway for groundwater to follow the sewer.

Given the low frequency of affected groundwater entering the storm sewer and the storm sewer not a preferential flow path, this pathway is considered insignificant and will not require a remedial action. Addressing the groundwater at the site will ultimately address affected groundwater occasionally entering the storm sewer.

A natural gas line, installed just prior to soil remediation activities in 1998, crosses the Property (Figure 4). This line crossed through Excavation Area #3 (Figure 2 in Appendix A). Excavated soils from the installation of the gas line were disposed off-site, and the line was left undisturbed during the 1998 soil excavation and remediation activities. An underground water line services two hydrants (one near OW-3R/PZ-3B) at the north end of the Property (Figure 4).

Within the river, a fiber-optic communications line crosses approximately 80 feet upstream of the US Highway 10 (Hwy 10) bridge. A safe-guard area approximately 40 feet wide extends across the river to protect this line. The approximate line location, as well as the safe-guard area, is shown on Figures provided in Appendix B-2.

1.2.4 Topography and Drainage

The Site is generally flat with a mild slope towards the Wisconsin River. Ground surface elevation ranges from approximately 1,090 feet near Water Street (east of the Property) to about 1,087 feet in the vicinity of the pond (south of the Property). Surface water flow is to the river and/or the local storm sewer

system. Only precipitation that falls directly onto the park flows to the river. The remaining runoff from the paved surfaces, roads, and grass areas is intercepted by storm sewers located around the Site.

Storm water within the sewers from the northeast, south, and southeast flows to a primary 84-inch line that discharges to the east, and joins with drainage from the north part of City of Stevens Point. Storm water eventually discharges to the river below the dam, in the vicinity of the railroad bridge. No wetlands are present in the vicinity of the Site.

1.2.5 Site Hydrology

The groundwater flow direction in both the water table wells and the piezometers is generally eastward, away from the Wisconsin River.

Easterly flow direction at the Site is a result of the pool behind the Main Street dam, one half (0.5) mile downstream of the Site. As conceptualized in the RI Report, two groundwater flow systems may exist at the Site: a semi-circular flow system caused by seepage of river water around the dam, and the natural flow system where groundwater flows west toward the river. These two flow systems converge so the natural flow system is influenced by the dam flow system. The area of convergence between the two flow systems may move closer to and farther from the river (west and east) in response to changes in pool elevation or to changes in the hydraulic heads driving the natural system.

Groundwater monitoring wells are screened in sand and gravel or highly weathered bedrock with the exception of piezometer PZ-14B. Piezometer PZ-14B is screened in fairly competent granite bedrock and yields very little water. This is a distinctly different zone and results in an approximate 20 foot difference in head at piezometer PZ-14B compared to any other groundwater monitoring well in the network.

1.2.6 Surface Water Flow

As discussed in the RI Report (NRT, May 2011) there is little correlation between rainfall at Stevens Point and flowage discharge and river elevation. There is also little correlation between river elevation and the discharge, and at times these two variables are inversely related.

River discharge and elevation data at the dam for 2006 and 2007 was obtained from the Consolidated Water Power Company (CWPC), which operates the dam located just downstream of the Site. (see Section 2.4 of the RI Report, NRT, May 2011). These daily river discharge data correspond to the investigation period and the prior year. Daily discharge values for 2006/2007 range from 897 cubic feet per second (cfs) to over 19,700 cfs.

CWPC also provided the hourly elevation data for the period from January 1, 2007 through January 31, 2008. These data show that the hourly river elevation fluctuated between 1086.72 and 1087.52 feet; the average daily pool elevations ranged from 1,086.87 to 1,087.33 feet. These data indicate the overall stability of the flowage pool.

1.2.7 Previous Investigations Performed

The Completion Report (NRT, 2006) contains a full bibliography of the reports and summaries issued for the Site. Site investigation and remediation activities were undertaken since the mid-1980s.

Investigations completed prior to the soil remediation activities in 1998 focused on determining the presence of former MGP structures, identifying source areas and an initial groundwater assessment. Investigations included soil borings, test pits, surface soil samples, Hydro Punch™ water samples, and groundwater sampling from monitoring wells and piezometers. The 1998 remedial efforts were performed under the WDNR's voluntary cleanup program as, discussed in Section 1.2.8.

Investigations occurring between 1999 and 2002 evaluated other portions of the Site and assessed the overall effect of the remediation. Supplemental site investigation activities focused on the former slough, Wisconsin River sediment, groundwater monitoring, and issues related to groundwater infiltration into the perforated the storm sewer.

Groundwater monitoring is on-going and reports were prepared on an annual basis through 2007. Since initiating the RI under the SAS program, data is submitted to the USEPA annually through the GEOS Data Coordinator and/or monthly progress reports.

Additional soil, groundwater, sediment and surface and storm water data were collected between June 2007 and January 2008 in accordance with the SSWP – Revision 1, approved by the USEPA on July 11, 2007. These RI activities focused on off Property soil quality, groundwater interaction with the perforated storm sewer, the potential for contaminant source areas in the vicinity of Pfiffner Pioneer Park Pond and the Wisconsin River, the distribution of MGP-residuals in sediment and surface water, and potential for vapor migration. Following submittal of the RI Report – Revision 0 (NRT, June 2008), additional monitoring wells were installed in October 2008 and January 2011 to further refine the down gradient extent of affected groundwater. Figure 2 includes the location of the groundwater monitoring wells. The January 2011 investigation also included installation of soil vapor probes to assess potential for vapor intrusion. The soil vapor probe locations are provided in Appendix B-4.

These results are presented in the RI Report – Revision 1, submitted to USEPA on May 31, 2010, and are included in Appendix B.

1.2.8 Previous Remedial Actions Performed

In 1998 a number of response actions were previously performed at the Site (see Completion Report, NRT, 2006 and Remedial Action Documentation Report, NRT, 1998, and Appendix A). These response actions included:

- Surface Soil Removal. Property-wide scrape of the top four inches of surface material which was used as backfill.
- Source Area Excavation and Management. Over 16,000 tons of contaminated soil and debris were excavated from the Site between February and June 1998. Areas targeted for removal were the former MGP operations area and vicinity where potential sources of coal tar and/or other MGP residuals were identified by previous investigation work. Soil and debris was either thermally treated or disposed off-site.
- Former Underground Structure Removal. Removal of former underground structures or remnants of structures with visible evidence of MGP residuals in soil/debris surrounding or within the former structures.
- Excavation Dewatering and Treatment. Temporary groundwater extraction during the course of the source area excavation work to maximize excavation depths and to control water containing MGP contamination. Water was treated on-site and discharged to the local public wastewater treatment facility.
- Backfilling, Cover and Surface Restoration. Site restoration activities included:
 - Backfilling of clean and thermally treated soil within in the excavation areas;
 - Placement of 2 feet of clean imported fill over the backfilled excavation areas, including both the Property and disturbed portions of Pfiffner Pioneer Park;
 - Re construction and paving of excavated sections of Crosby Avenue; and
 - Placement of 4 inches of imported fine grained topsoil cover, seeding and mulching of the Property and placement of sod over imported clean backfilled portions of Pfiffner Pioneer Park.

1.2.9 Nature and Extent of Contamination

Constituents of Potential Concern (COPC) were identified in the Multi-Site Risk Assessment Framework (Exponent, 2007) and refined for the Stevens Point Site using previously collected data, as described in the Site Specific Work Plan – Revision 1 (NRT, April 2007). COPC concentrations were evaluated as part of the Baseline Risk Assessment (BLRA) submitted as part of the RI Report – Revision 0 (NRT, 2008). The BLRA relied on screening level assessments as described in the USEPA-approved Multi-Site Risk Assessment Framework (RAF). Screening values were used to conservatively identify media and

chemicals of potential concern within these media. This is an appropriate approach given that source removal has been performed and the current and reasonably foreseeable future land use is park/recreational and parking area. Areas of concern were identified based on the screening level risk evaluations performed within the BLRA.

Since submittal of RI Report – Revision 0, the risk-based screening levels used to perform the human health risk assessment component of the BLRA have been updated (Exponent, April 2011) to include Regional Screening Levels (RSLs) in the hierarchy. The BLRA included in RI Report – Revision 1 (NRT, May 2011) includes a side-by-side comparison of the former and revised human health risk based screening levels which did not change the media of concern to be considered in the FS.

The range of concentrations for select constituents of concern identified in the BLRA is summarized below. The sample locations and analytical results are included in Appendix B.

1.2.9.1 Soil Analytical Result Summary

Soil samples were collected as part of remedial investigations as discussed in Section 1.2.7. Sampling locations and analytical results are provided in Appendix B-1. Benzene, naphthalene and benzo(a)pyrene (for the polynuclear aromatic hydrocarbons (PAHs)), arsenic, and lead are the parameters most often identified. The general range of concentrations observed for these compounds is summarized below.

Parameter	Maximum Conc. micrograms per kilogram (µg/kg)	Occurrence
Benzo(a)pyrene	200	Surface Soil
Arsenic	4,400	
Benzene	5,600	Subsurface Soil
Benzo(a)pyrene	7,640,000	
Naphthalene	260,000	
Arsenic	2,600	
Lead	1,700,000	

1.2.9.2 Groundwater Analytical Result Summary

Groundwater samples were collected as part of remedial investigations and on-going groundwater monitoring events. Sampling locations and analytical results are provided in Appendix B-3.

Several PAHs exceeded the MCLs. Naphthalene is typically the PAH of concern in Site groundwater, although B(a)P, benzo(b)fluoranthene, and chrysene are also present at low levels. Recent groundwater

results from the past four years indicate naphthalene, B(a)P, benzo(b)fluoranthene, and chrysene are above the maximum contaminant level (MCL) and/or WDNR enforcement standard (ES) in certain Site wells (Appendix B-3). Other PAHs exceeding the MCLs in the past include fluoranthene and pyrene.

1.2.9.3 Surface Water Analytical Result Summary

Surface water results (Appendix B-4) from the Wisconsin River show only elevated silver (0.15 micrograms per liter (µg/L)) at one sample location. All remaining metals, as well as volatile organic compounds (VOCs) and PAHs were detected at very low levels or not at all.

Pond samples were low for most parameters. Only three COPCs identified included the following:

- Benz(a)anthracene (maximum concentration of 0.18 µg/L);
- Benzo(a)pyrene (maximum concentration of 0.25 µg/L); and
- Lead (maximum concentration of 5.8 µg/L).

1.2.9.4 Sediment Analytical Result Summary

Analytical results and sampling locations for sediments are provided in Appendix B-2. Elevated concentrations of COPCs were detected in sediment samples from the pond and in the river immediately adjacent to the pond. Generally, contaminants were higher in the surface samples in the river with the exception of T3-A1, T3-A2, and T4-A1, which reported the highest concentrations in the near surface samples (18-30 inches below mudline). Concentrations in the pond were the highest in the near surface samples (6-18 inches below mudline). As discussed in Section 1.2.1, the pond was created after the MGP ceased operation and the City created the pond while filling the former slough, the base of which is approximately seven to ten feet below the pond bottom.

The range of COPCs detected above the screening levels is summarized below.

Parameter	River Maximum Conc. (µg/kg)	Pond Maximum Conc. (µg/kg)
Xylene	790	Below Levels
Total PAHs	17,990,000	53,000
Cadmium	2,600	1,300
Copper	91,000	
Lead	69,000	350,000
Mercury	1,600	490
Nickel	23,000	Below Levels
Zinc	Below Levels	230,000

1.2.9.5 Soil Vapor Analytical Result Summary

Analytical results and sampling locations for soil vapor are provided in Appendix B-4. The range of benzene detections that exceeded the screening level are summarized below:

Point	Sample Date	Benzene (µg/m3)	Point	Sample Date	Benzene (µg/m3)
SV1S	01/25/11	3.2	SV9S	01/18/11	38
SV5S	01/19/11	33		03/16/11	13
SV6S	03/15/11	3.3	SV10S	01/18/11	9.0
SV7S	01/20/11	9.3		03/16/11	3.4
SV8S	01/17/11	4.7	SV12S	01/25/11	6.8
				03/16/11	9.3

Soil vapor concentrations exceed the residential exposure scenario for benzene at eight locations east of Water Street where there were no MGP operations. Two of these locations also exceed the industrial/commercial screening value for a 1×10^{-6} risk. However, there are no exceedances of soil gas screening levels for benzene in deeper soil gas samples collected near the water table, indicating the soil gas exceedances in shallow soil vapor samples are likely associated with a surficial source of benzene and are not related to the former MGP. In addition, soil vapor sample SV-13, collected adjacent to the groundwater monitoring well OW-9, with the highest concentrations, benzene did not exceed the most conservative soil gas screening level.

Naphthalene was not detected above the screening levels at any location or depth.