

IOWA FALLS COAL GAS SITE
(Iowa Falls, Iowa)

GENERAL DESCRIPTION

The Iowa Falls Coal Gas Site occupies 0.35 acre in the SE 1/4 of the NW 1/4 of Section 18, T89N, R20W, Hardin County, Iowa Falls, Iowa. The property is owned by IES Utilities (formerly Iowa Electric Light and Power Company). The site was entered on the Registry in May 1990.

SITE CLASSIFICATION

In 2017: The site was re-classified to the status of “d” closed requires continued management in accordance with 455B.427.3.

TYPE AND QUANTITY OF HAZARDOUS WASTE

A coal gasification plant was operated at the site from 1909 to 1949. During its operation, coal tar, iron oxide waste, and associated coal gasification wastes were generated at the plant. Unknown quantities of these wastes have been disposed of at the site. During December 1986 constituents of coal tar waste were found in a storm sewer and in an unnamed creek south of the site. An analysis of the waste sludge identified twelve polynuclear aromatic hydrocarbons (PAHs) for a combined total concentration of PAHs of 106,690 ug/l. A groundwater investigation was conducted during October 1988. Analytical results of on-site monitoring wells showed a total PAH concentration of 3,061 ug/l, benzene at 1,200 ug/l, xylenes at 1,300 ug/l, ethylbenzene at 1,600 ug/l, arsenic at 28 ug/l, and total cyanide at 490 ug/l.

SUMMARY OF PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

The site is located within the city limits of Iowa Falls, Iowa. The city obtains its water from six municipal wells located northwest of the site. The nearest city well is located approximately 3,000 feet from the site.

Surface drainage from the site is from the north to the south, with discharge into a small unnamed creek just south of the site. This unnamed creek begins at a storm sewer that crosses beneath the site. The creek flows south approximately 1,000 feet and discharges into the Iowa River. The Iowa River flows west to east through Iowa Falls. Local fishermen have reported that fish taken in the Iowa River below the site's storm sewer outfall have a creosote taste and odor.

SUMMARY OF ASSESSMENT, MONITORING OR REMEDIAL ACTIONS

The state is the lead agency at the site. A Feasibility Study (FS) was submitted to the department that outlined the completed and planned activities for the site.

Coal tar waste has been excavated and removed from the tar separator, septic tank, and storm sewer. Contaminated sediment has been removed from the creek bed on the south side of the site. The remedial action plan for contaminated soil removal and groundwater treatment was submitted to the department in 1994.

Other activities included the excavation of shallow contaminated soil and the placement of a cap over the site to reduce surface water infiltration. Off-site groundwater monitoring and periodic surface water sampling are being conducted. There will also be periodic inspections and repairs, if required, to the storm sewer.

2007: An evaluation of the practicability of recovering dense non-aqueous phase liquids from the subsurface is currently being completed. After completion of this evaluation and any subsequent actions, it is expected that ground water monitoring in support of site closure will begin. The department will continue to work closely with the owner to ensure proper monitoring and cleanup of the site.

2010, the following site assessment activities were completed in association with the Iowa Falls MGP site:

- Monitoring wells were installed based on the 2009 ground water probing results and sampled.
- A summary report of the 2009 soil and ground water probing and 2010 ground water sampling fieldwork was prepared.
- A feasibility study to address the storm sewer was prepared.

2011 the following site activities were completed in association with the Iowa Falls MGP site.

- DNAPL monitoring was conducted semi-annually.
- The environmental covenant for the railroad property was drafted.

2012 the following site activities were completed

- Measurement and recovery of free product DNAPL, including additional monitoring wells
- Vapor intrusion assessment and site investigation was completed
- Remedial Investigation Feasibility (RI/FS) addendum report completed

2013: the following activities were completed

- Storm sewer inspection and sampling and remedial plan prepared

2014: the following activities were completed

- Implementation of remedial action for storm sewer and an Environmental Covenant will be implemented on MGP site and neighboring railroad property.

2015: the following activities were completed:

- The storm sewer remedial action (sewer cleaning and grouting) was conducted.
- A report summarizing the storm sewer remedial action was prepared.
- The storm sewer was inspected and sediment, surface, and groundwater sampling was conducted.
- A report summarizing field activities was prepared.

2016: The following activities were completed:

- A screening level Ecological Risk Assessment was conducted and an annual field work summary report prepared that included groundwater closure monitoring plan

2017: The following site activities were completed:

- The 2016-17 Groundwater Monitoring Report was received and approved by Iowa DNR
- A Soil Exposure Risk Assessment was conducted
- The Environmental Covenant Supporting Documentation was received in preparation of completing the Covenant in 2018 and de-listing the site.

2018: The following site activities were completed:

- The 2017 Storm Sewer Inspection Report was submitted and approved by Iowa DNR
- The 2017/2018 Groundwater Monitoring Report was submitted

2019: The following site activities were completed

- Completion of 2018-19 bi-annual inspection of storm water drain and technical memo report

2021:

- The biannual Storm Sewer Inspection Report was completed to monitor for coal tar breakthrough

2023: Adjacent Railroad Sampling Work Plan submitted and approved by Iowa DNR. Sampling proposed offsite to eliminate need of Environmental Covenant. Railroad offsite drilling access requested and granted. Soil sampling completed in the 4th quarter along with biennial storm sewer inspection.

2024: Right of Way soil sampling report submitted to DNR. Recommended that no Environmental Covenant is necessary on ROW property.

2025: Notice of Residual Contamination letter sent by consultant to property owners requesting an EC be placed on the property. No response was received. Submission and approval of the Storm Sewer Inspection Report.



NOTE
1. CONCENTRATIONS ARE IN mg/kg.

LEGEND

- SP-2 SOIL PROBE
- EXISTING STRUCTURE
- - - FORMER STRUCTURE
- x FENCE
- o RAILING
- - - ALLIANT ENERGY PROPERTY BOUNDARY

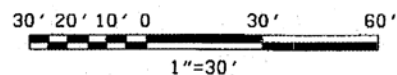
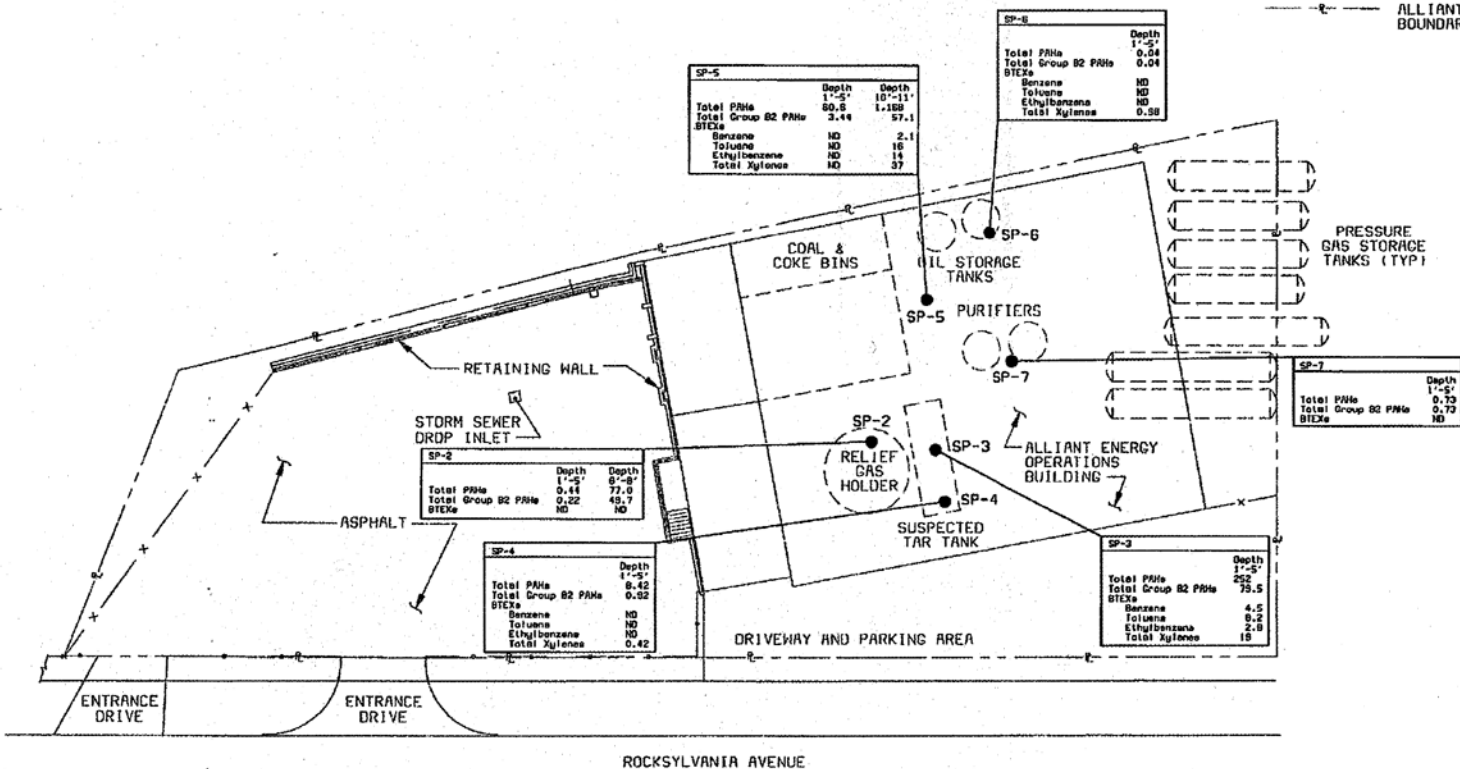
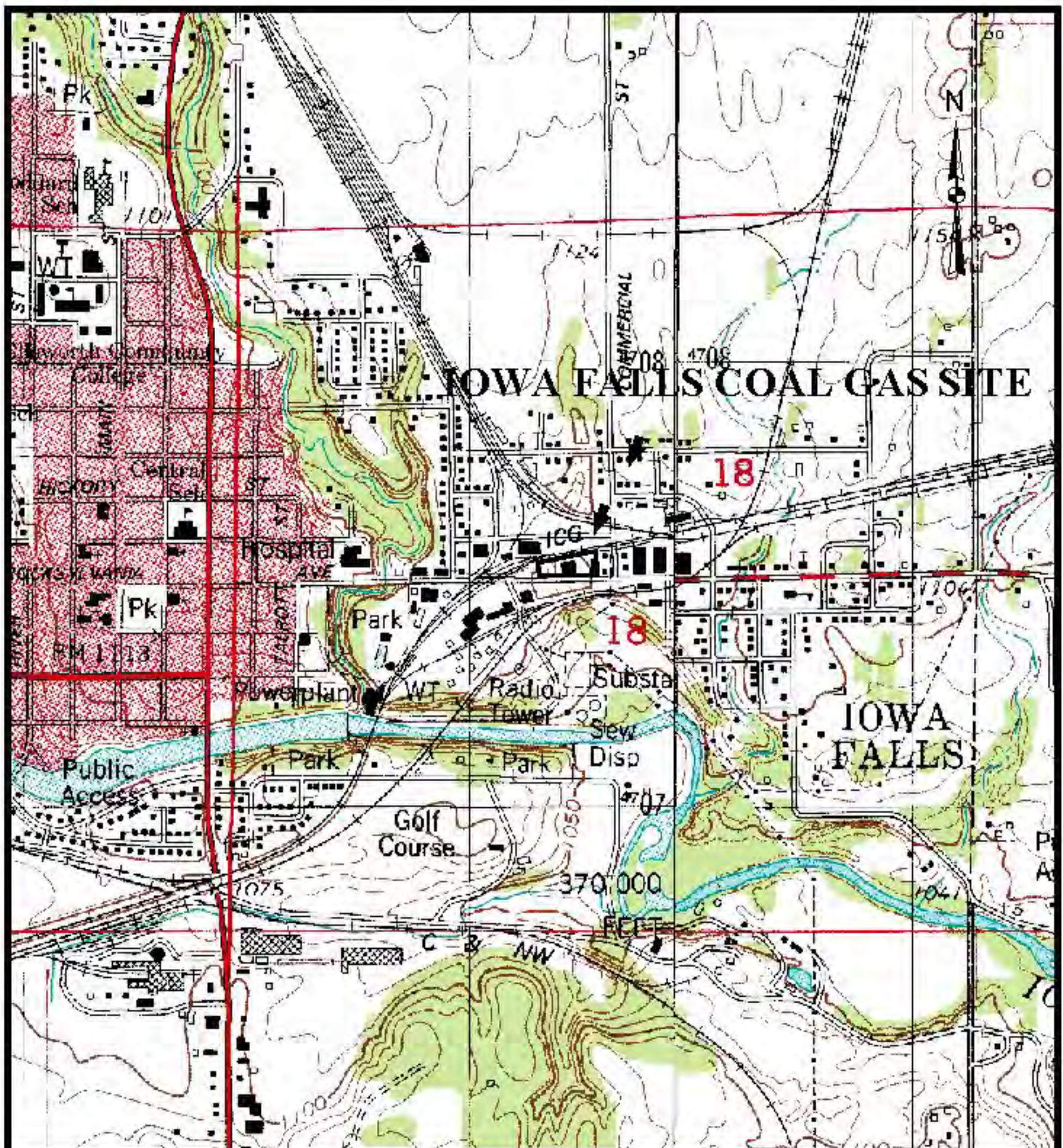


FIGURE 4-1
BTEX AND PAH
CONCENTRATIONS IN SOIL
IOWA FALLS MGP SITE
ADDENDUM NO. 1 TO RI REPORT
40492-1000-GE-MP-A0000231

(Iowa Falls Coal Gas Site)



Contour Interval 10 Feet

1000 0 1000 2000 3000 Feet