U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Ironwood Manufactured Gas Plant Site - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #4**
Progress
Ironwood Manufactured Gas Plant Site
B5ZC
Ironwood, MI
Latitude: 46.4516240 Longitude: -90.1780130

To:
From: Kathy Halbur & Jacob Hassan, OSC
Date: 10/25/2012
Reporting Period: 9/21/12 - 10/25/12

1. Introduction

1.1 Background

Site Number:	B5ZC	**Contract Number:**	EP-S5-08-04
D.O. Number:	0051	**Action Memo Date:**	8/9/2012
Response Authority:	CERCLA	**Response Type:**	Time-Critical
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	8/20/2012	**Start Date:**	8/22/2012
Demob Date:	10/25/2012	**Completion Date:**	
CERCLIS ID:	MIN000510500	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:		**Reimbursable Account #:**	

1.1.1 Incident Category

1.1.2 Site Description

The Ironwood Manufactured Gas Plant (MGP) Site is the location of a former coal gasification plant. Reportedly, the plant was constructed in 1911 and operated using a carbureted water gas (CWG) process. A review of Sanborn maps indicates that the processes at the Site were consistent with typical CWG processes for the era. These processes generally included a first step in which coke or coal was heated in a closed vessel or retort into which steam was injected. A flammable gas mixture of methane and carbon monoxide was produced. In some cases petroleum products may have been applied to the heated mixture increasing the flammability of the resultant gas mixture. During these processes, a dense, oily liquid known as coal tar would condense out of the gas at various stages during its production, purification and distribution, and the coal tar would need to be either recycled in the process, sold, or otherwise disposed of.

The plant continued operations and distribution of manufactured gas until the late 1950's when natural gas pipelines and service became more readily available in the area. By 1956 the plant was for sale and based on accounts of the Wisconsin Public Service Commission, by 1961 had discontinued service to Hurley, including the removal of meters following abandonment.

Interviews conducted by the Michigan Department of Environmental Quality (MDEQ) with local residents indicate that the buildings at the Site were removed prior to the gasometers (gas storage tanks). Based on the historical accounts, the surface structures at the Site were demolished and removed during the 1970's and the 1980's. Following removal of the surface structures, the Site was reportedly used by the City of Ironwood for the storage of inoperable equipment and debris.

1.1.2.1 Location

The Site does not have a physical address but is located on the northwest corner of Hemlock Street and West Ayer Street in Ironwood, Gogebic County, Michigan.

1.1.2.2 Description of Threat

The Site contained MGP waste material, such as coal tar and other process waste, that were the source of hazardous substances that migrated into soil, groundwater, surface water, and sediments of the Montreal River. Contaminants of concern identified in soil, groundwater, surface water, and sediment include volatile

organic compounds (VOCs), semivolatile organic compounds (SVOCs), polycyclicaromatic hydrocarbons (PAHs) and inorganic contaminants.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

During bridge construction at West Norrie Street in 2010, construction crews identified visually contaminated soils suspected to be from the former Ironwood Manufactured Gas Plant site located approximately 700' upstream. MDEQ developed a Site Inspection Work Plan in 2010 to characterize conditions in the subsurface at the Site as well as in the surface water and sediment in the adjacent Montreal River. The Site Inspection activities performed by the MDEQ were implemented with the intent of evaluating groundwater, surface water, and soil exposure pathways.

The results of the MDEQ's Site Inspection indicated the presence of uncontrolled hazardous substances at the Site. Gross tar and MGP process waste contamination was discovered in the surface and subsurface soil primarily located in the historical operating area of the Site, which contained VOC's, SVOC's, and inorganic contaminant concentrations exceeding the MDEQ Part 201 Residential Direct Contact Criteria (RDCC) and Groundwater Surface-water Interface (GSI). Based on these findings, MDEQ requested assistance from USEPA.

USEPA conducted a site reconnaissance visit on November 19, 2010 to evaluate site conditions and to gather logistical information to assist in the development of a supplement site assessment plan.

A Supplemental Site Assessment was conducted during the week of April 9, 2012. The Supplemental Site Assessment demonstrated that coal tar and other MGP waste remain buried at the Site in a visually discreet layer and that contaminants from this buried waste (volatile and semi-volatile organic compounds and inorganic compounds) are migrating into the groundwater and surface water (Montreal River).

2. Current Activities

2.1 Operations Section

2.1.1 Response Actions to Date

See Previous Polreps for details regarding activities during previous reporting periods.

Significant Site Activities for this reporting period (9/21/12 – 10/25/12):

- Completed excavation of contaminated soil and MGP waste buried at the Site
- Completed hauling of contaminated soil and MGP waste (15,190 Tons) to landfill for disposal
- Completed extent of contamination trenching and clearance sampling along the perimeter of the site
- Finalized restoration plan with the City of Ironwood
- Identified source for clean backfill and topsoil
- Completed backfilling activities
- Completed grading survey and staking for final grading elevations
- Commenced final grading
- Completed cleaning and sealing of gasometer foundations
- Removed sandbags and absorbent boom from the Montreal River
- Completed riprap placement along the shoreline of the Montreal River
- Installed silt fencing and other erosion control measures (e.g., COIR logs) along the Montreal River
- Completed boulder placement along the ATV access trail and along the southern edge of the Site (access control measure)
- Installed temporary perimeter fencing (additional access control measure)
- Seeded the Site with winter wheat and fescue
- Installed restoration matting along banks
- Planted trees at shoreline and on trail bank
- Completed air monitoring efforts and dust control measures
- Ended community office hours for this mobilization
- De-contaminated equipment for demobilization
- De-mobilized frac tank, skid steer, excavator, and crew (except RM) from the Site

2.1.2 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

The City of Ironwood is the former owner and operator of the Ironwood Gas Works and is the only PRP for this Site. The City does not have the ability to conduct the clean-up, but is assisting by contributing in-kind services.

2.1.3 Progress Metrics

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Coal Tar Soil	Soil	15,190 tons (336 loads)	T75384 - T75584 01358131 - 01358265	Landfill	K&W Landfill, Ontonagon, MI

2.2 Planning Section

2.2.1 Anticipated Activities

Remaining heavy equipment will be demobilized on October 29, 2012. Office trailer will be demobilized as soon as conditions dry up enough to pull the trailer (anticipated to be on October 30, 2012). ERRS RM will complete restoration in the area surrounding the trailer once the trailer is demobilized. The City of Ironwood and ERRS RM will repair the gravel at the entrance to the Site once conditions dry up. Security will remain on site until equipment is demobilized.

USEPA will remobilize to the site to finish final grading and restoration activities in the spring of 2013

2.2.1.1 Planned Response Activities & Next Steps

With the exception of the above noted demobilization and restoration touch-up activities, all removal and restoration efforts are suspended until Spring 2013. The Spring activities will include:

- Repairing any damage to site grade or erosion control devices
- Assessing the need for topsoil and acquiring/placing as needed
- Re-seeding and additional tree planting
- Removing construction fencing once Site is re-vegetated

2.2.2 Issues

Inclement weather conditions greatly hampered the final grading and restoration efforts. Site restoration will be finalized in the spring when weather conditions are more suitable for these activities. Extremely wet conditions also delayed demobilization of the office trailer.

2.3 Logistics Section

The following equipment was used during the reporting period:

1 - 1/2 ton pickup truck
3 - 3/4 ton pickup trucks
2 - excavators (including Hoe-Ram attachment)
1 - front end loader
1 - bull dozer
1 - water truck (dust control)
1 - skid steer with broom attachment (street sweeper)
1 - 12' x 60' office trailer
1 - 10' cargo trailer
1 - portable satellite unit
4 - DataRams with Viper
1 - Multi-Rae
1 – Power washer

An excavator and two operators demobilized from the site on 10/17/12. All other equipment demobilized gradually throughout the week of 10/22/12. A smaller remobilization will occur in the spring of 2013.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

Kathy Halbur, OSC
Jacob Hassan, OSC

3. Participating Entities

3.2 Cooperating Agencies

City of Ironwood
Gogebic County Soil and Erosion Control District
Michigan Department of Community Health
Michigan Department of Environmental Quality
Western Upper Peninsula Health Department
Wisconsin Department of Health Services
Wisconsin Department of Natural Resources

4. Personnel On Site

During this reporting period:

U.S. EPA: 2 (Halbur, Hassan)
START (Weston): 3
ERRS (LATA-Kemron & CMC): 8

5. Definition of Terms

ATV - All terrain vehicle
BGS - Below Ground Surface
CWG - carburated water gas
ERRS - Emergency and Rapid Response Services

GSI - groundwater surface-water interface
MDEQ - Michigan Department of Environmental Quality
MDNR - Michigan Department of Natural Resources
MGP - Manufactured Gas Plant
OSC - On Scene Coordinator
PAH - polyaromatic hydrocarbons
PRP - Potentially Responsible Party
RDCC - Residential Direct Contact Criteria
RM - Response Manager
START - Superfund Technical Assessment and Response Team
SVOC - semivolatile organic compounds
USCG - United States Coast Guard
USEPA - United States Environmental Protection Agency
VOC - volatile organic compounds
WDNR - Wisconsin Department of Natural Resources
WUPHD - Western Upper Peninsula Health Department

6. Additional sources of information

6.1 Internet location of additional information/report

Please see the following websites for project updates:
www.epa.gov/region5/cleanup/ironwood
www.epaosc.org/ironwoodmgp

6.2 Reporting Schedule

Please see the following websites for project updates:
www.epa.gov/region5/cleanup/ironwood
www.epaosc.org/ironwoodmgp

Progress Polreps will be issued as significant activities occur.

7. Situational Reference Materials

R5 Priorities Summary		
This is an Integrated River Assessment. The numbers should overlap.	Miles of river systems cleaned and/or restored	<1
	Cubic yards of contaminated sediments removed and/or capped	150
	Gallons of oil/water recovered	0
	Acres of soil/sediment cleaned up in floodplains and riverbanks	2
Stand Alone Assessment	Acres Protected	4
	Number of contaminated residential yards cleaned up	0
	Human Health Exposures Avoided	100
	Number of workers on site	11
Contaminant(s) of Concern		
Contaminant(s) of Concern	Coal tar, VOCs, SVOCs, inorganic materials, PM	