

# Environmental Remediation and Risk Management Conference

Traverse City - Wednesday, October 7, 2015 8:00 AM - 4:30 PM

## CONCURRENT SESSION DESCRIPTIONS

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### ***Groundwater/Surface Water Interface Track***

#### **Four Corners - Traverse City**

*Ann Emington, DEQ RRD, and Don Conway, Gosling Czubak*

This case study focuses on means and methods to evaluate the complex hydraulic connection between the impacted aquifer and a nearby surface water body.

#### **Marathon 4 Mile**

*Ann Emington, DEQ RRD*

This case study features a Leaking Underground Storage Tank (LUST) site where the GSI pathway evaluation includes a Michigan Department of Transportation (MDOT) Municipal Separate Storm Sewer System (MS4) and the placement of an MDOT Environmental License Agreement as an institutional control.

#### **Albion & Battle Creek MGPs**

*Gregg Brettmann, DEQ RRD, and SEMCO/Barr Engineering*

This case study feature two former manufactured gas plants where collaborative site characterization, remedial efforts, and risk assessments resulted in the development of a mixing zone for one and de minimis determination for the second.

#### **RACER/ Commercial Vehicle Operations**

*Kevin Lund, DEQ RRD, and Beth Landale, GHD*

The presentation will discuss the development of the remediation requirements, high resolution sampling, the onsite conditioning approach including the sequencing of the source removal and the overall results following implementation and unique regulatory cooperation and approvals necessary to permit utilization of these techniques.

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### ***Vapor Intrusion Track***

#### **Big Building Model Application at Former Manufacturing Facility**

*Abigail Hendershott, DEQ RRD, and ERM*

This case study focuses on using the "Big Building Modeling" to address vapor concerns from a trichloroethene release at former manufacturing facility. This evaluation was then used to identify risks associated with the vapor intrusion pathway that were then managed to foster the redevelopment of the facility and place the property back into productive use.

#### **RACER/Yankee Air Museum**

*Kevin Lund, DEQ RRD and Tom Kinney, GHD*

This case study demonstrates an assessment of the vapor intrusion pathway in an industrial setting where a large body of LNAPL is present. This work was completed at a 138,900 square foot plant building being redeveloped for future use as an Aviation Museum. An LNAPL plume is located directly under approximately 35% of the future museum floor and is the main driving force in the vapor intrusion investigation/assessment. A sub slab soil gas investigation for volatile organic compounds (VOCs) was conducted under the museum floor. This investigation did not identify any VOCs above generic non-residential screening levels presented in the MDEQ Guidance Document for the Vapor Intrusion Pathway. Additional investigation activities were completed to evaluate compounds other than VOCs due to the types of oils making up the LNAPL. VOC samples were collected and analyzed utilizing the MDEQ recommended TO-15 method using bottle-vacs. SVOCs were collected and analyzed utilizing TO-17 method which uses absorbent tubes.

Multiple sample events have demonstrated no detections of VOCs or SVOCs that exceeded non-residential screening levels. These findings present lines of evidence showing the Vapor Intrusion Pathway does not represent a human health risk to visitors or workers at the future Aviation Museum.

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**(not so) Lucky Mini-Mart – Soil Vapor Sampling and Laser Induced Fluorescence As Starting Points to an Investigation**

*Josh Scheels, DEQ RRD, and Brian Ross, Global Remediation Technologies*

This case study features an innovative approach to adequately assess site risk and minimize or decrease overall project costs. The DEQ RRD initially evaluated the soil vapor distribution at this site to determine if a connection could be made to soil contaminant distribution.

**An Evaluation of Soil Gas Results from Michigan, Indiana, and Ohio**

*Cherl Kehres Dietrich and Paul Roberts, SME*

Soil gas results for multiple sites indicated the measurement of low levels of numerous TO-15 VOCs above laboratory reporting limits (RLs). To further evaluate the number of low-level measurements that were evident, TO-15 results for soil gas samples from 33 qualified sites across Michigan, Indiana, and Ohio were reviewed.

**Vapor Intrusion Pathway Evaluation and Mitigation Facilitates Revitalization of Industrial Property**

*Abigail Hendershott and Paul Knoerr, DEQ RRD*

This case study describes evaluation of the vapor intrusion pathway for the revitalization of a closed industrial facility. A subslab depression system was installed to allow for the construction of a 115,000 square foot building addition to bring the property back into productive use for a new manufacturing company.

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***Land and Resource Use Restrictions Track***

**Abex - NWL Aerospace**

*Jeff Spruit, DEQ RRD and Geosyntec, Chriso Petropoulou*

An environmental assessment associated with the property transfer from ABEX Aerospace to Parker Hannifin revealed extensive environmental contamination in onsite sub-slab soils and groundwater after many years of degreasing operations. Numerous investigations delineated a major source area and determined the extent of TCE in onsite soils and on- and offsite groundwater. Response actions included extensive source removal and control measures and the establishment of a groundwater use restriction for over 100 downgradient residential and commercial properties with the cooperation of the Kalamazoo County Department of Health and Human Services and their counsel. Both onsite and offsite vapor intrusion risks are currently being investigated.

**Alpena Groundwater Use Ordinance**

*Janice Adams, DEQ RRD, and Environmental and Rich Brege, Asbestos Services Inc.*

Alpena recently passed (4/20/15) an ordinance to allow for prohibitions or restrictions on groundwater use in areas where groundwater contamination is present and poses a risk to public health, safety and welfare and the environment. The ordinance was passed for the Sparkle Mart North Site and allows for the addition of other restricted areas. This ordinance is specific for Part 213 sites.

**Ausable Ordinance**

*Autumn Henney, DEQ RRD, and Global Environmental Engineering - Jill Auger*

This local ordinance was passed in association with the Hedblum Industries Superfund site in Iosco County. There were a number of obstacles that had to be overcome prior to passage including disseminating information to local residents on the area of contamination and resistance by homeowners to well abandonment (as required by the local ordinance). Prior to passage, multiple public meetings involving EPA, MDEQ, Iosco County, the local health department and Au Sable Township were held, which presented its own coordination challenges.

**Alternate Institutional Control - Road ROW**

*Kevin Schrems, DEQ RRD*

Since June 2014, local units of government (LUGs) across the state have been approached to acknowledge the use of the Road Right-of-Way Alternate Institutional Control form as mechanism to prevent unacceptable exposure to hazardous substances that may be present in the soil and/or groundwater within the affected road right-of-way. A number of LUGs have executed the form, while others have engaged in discussions with the DEQ. This presentation will provide an update regarding those discussions and modifications to the form, with local examples if available.

**CONCURRENT SESSION DESCRIPTIONS**

**Village of Kalkaska**

*Dave Maynard, DEQ RRD, and Jill Auger, Global Environmental Engineering*

The Kalkaska Ordinance restricting groundwater use in a portion of the Village was recently passed in association with the groundwater contamination plume emanating from the Saco and Sons Part 213 facility. Global Environmental Engineering and DEQ staff worked jointly on generating/assessing the appropriateness of the ordinance, the restricted zone boundaries and the ordinance language. One of the more major difficulties in this process was the hesitation on the part of the municipality to agree to enforce the ordinance, which has since been resolved. The presentation will provide some lessons learned, both good and bad, on the process of assisting a municipality in passing an ordinance to restrict groundwater use to achieve closure under Part 213.

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***No Further Action/Technical Highlights Track***

**Reef Project - Thunder Bay**

*Janice Adams, DEQ RRD* The DEQ, Remediation and Redevelopment Division has implemented the Thunder Bay Reef Habitat Restoration project in Lake Huron off the shore of Alpena. This project was conducted due to valuable aquatic habitat having been lost on the natural reefs in Thunder Bay from years of cement kiln dust (CKD) disposal. CKD is a waste by-product from the cement manufacturing process.

**Reef Project - Saginaw Bay** *Mike Jury, DEQ RRD* We are assessing the status of reef spawning habitat and potential restoration sites in Saginaw Bay, targeting walleye and lake whitefish spawning events. Historically, Saginaw Bay contained an inner bay rock reef complex that provided critical spawning habitat for a diversity of native fishes during both spring and fall. However, this habitat complex was largely lost due to sedimentation, brought about by timber harvest and agricultural land-use in the Saginaw Bay watershed. The loss of this important spawning habitat contributed to the collapse of walleye and impacted other species such as lake whitefish, lake trout, and burbot. Given recent successes of local reef restoration and construction in other areas of the Great Lakes, it's now time to undertake a recovery of the degraded inner Saginaw Bay rock reef complex. This project sets the stage for forthcoming restoration efforts with an emphasis on reproductive resiliency and diversity.

**Gas Condensate Pipeline Project Collaborative Efforts Creates Opportunity for No Further Action**

*Dave Lindsay, DEQ RRD, and Don Brady, EnviroSolutions*

This case study features a release from a gas condensate pipeline in a residential area that has been addressed through collaborative efforts to resolve issues and move the project forward toward the goal of completing a No Further Action report.

**Total #2574/ Admiral Petroleum #37**

*Don Brady, EnviroSolutions*

This case study describes how closure was achieved for a Part 213 site using current gasoline range organics (GRO) and diesel range organics (DRO) evaluation methodologies for Non-Aqueous Phase Liquids (NAPL) and using multiple institutional controls.

**Former Paper Mill Property: From Demolition to Revitalization**

*DEQ RRD and Mark Hatton, City of Kalamazoo*

This case study features demolition and environmental assessments conducted on 27 acres of former paper mill property. Additional highlights include the formation of partnerships, accessing alternative funding sources, and opportunities for urban stream and ecosystem restoration.