



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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**Eric J. Holcomb**  
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Commissioner

## **Pilot Program Announcement: Using High-Resolution Site Characterization (HRSC) Tools to Characterize Petroleum Releases**

IDEM's Underground Storage Tank (UST) Branch is launching a pilot program for characterizing leaking underground storage tank (LUST) releases using HRSC. IDEM is not looking for a sudden influx of plans, but a systematic way of selecting releases that could potentially optimize the remediation activities for LUST releases. The criteria is fundamentally based on the potential age of the release to the environment, complexity of the underlying hydrogeological conditions, and whether there are data gaps in the conceptual site model (CSM). Older releases with persistent non-aqueous phase liquid (NAPL) which may result in unpredictable migration of dissolved contaminants may also be considered.

### **Process Steps:**

If a UST system Owner/Operator wishes to participate in the pilot program, the consultant must follow the steps listed below:

1. By electronic mail contact the Science Services Branch's Geological Environmental Technical Specialist (Harold Templin [htemplin@idem.in.gov](mailto:htemplin@idem.in.gov) or 317.232.8711 and LUST Senior Environmental Project Manager, Robyn Raftis [RRaftis@idem.in.gov](mailto:RRaftis@idem.in.gov)) notifying them of your interest in participating in the pilot project. Providing the following:
  1. Owner/Operator of UST system, the UST FID number, or the LUST Incident # and their desire to be in the program,
  2. A completed High-Resolution Site Characterization Checklist,
  3. Date of reported release(s),
  4. Date of Initial Site Characterization, and
  5. Identify the boundaries and goals of the project.
2. Within 7-10 business days of receiving the request, an internal IDEM meeting will be setup with the HRSC Team including at least the Geological Environmental Technical Specialist, Geological Services Section Chief, and LUST Senior Environmental Manager to discuss including the site in the HRSC pilot program (other Technical Specialists may be called in for special projects). Points covered in this meeting include:
  1. Review the release and site history,
  2. Define the problem that prompted the project,
  3. Discuss the most recent CSM of site and possible data gaps,
  4. Discuss the occurrence of LNAPL, and
  5. Identify potential risks to receptors.
3. Within two weeks of receiving the request the HRSC Team, Deputy Assistant Commissioner, UST Branch Chief, and SSB Branch Chief will determine if the site is acceptable for the pilot program, and the LUST Senior Environmental Manager will send a letter to the Owner/Operator of UST system notifying them of the determination of the HRSC Team. The letter will request the Owner/Operator to



submit a work plan for an additional investigation to address the identified data gaps, boundaries, and strategies for developing the CSM. The work plan must not be duplicative to investigation information already publically available. Upon receiving the work plan, the Senior Environmental Manager of the LUST program will request a technical evaluation of the work plan by the appropriate IDEM technical staff. Within approximately thirty days of receiving the work plan, the HRSC Team will determine if the work plan adequately covers:

1. The elements of the systematic planning of the project (including how HRSC tools will be used),
2. Identifying key decisions,
3. An evaluation of decision uncertainty,
4. How to manage uncertainty in the context of the CSM,
5. Revise the CSM to support decision-making,
6. The Owner/Operator and consultant's understanding and agreement to the dynamic work strategy that identifies critical decision points and the criteria for those decisions.

The LUST Senior Environmental Manager will notify the Owner/Operator of UST system of the acceptance or inadequacies of the work plan.

4. If the release is or could become ELTF eligible, the eligible party should seek pre-approval from UST Operation Section following their procedure. A completed Scope of Work form SF 51955 (SOW) must be submitted and must provide all costs associated with the HRSC activities including but not limited to planning, preparation and report writing.
5. For ELTF eligible release, eligible parties and their consultants need to keep in contact with IDEM staff during site work. If the HRSC Team determines any field work was not necessary, the cost for that work cannot be reimbursed by the ELTF as all work must be reasonable, necessary and cost effective per 328 IAC 1.
6. HRSC tools can rapidly produce significant amounts of data. Effective decision-making based on these data requires a means for efficiently organizing, managing, and presenting data in a timely fashion to decision-makers. The UST Branch must be notified of the schedule for the HRSC tools at a site to facilitate the use of real-time measurements to make decisions while crews are in the field. These decision-makers may be on site, or they may be physically distant from site activities.
7. IDEM will track the progress and results of each pilot site. This information will include:
  1. Consultant calls and meetings,
  2. Site visits by IDEM staff,
  3. Type, number, and results of probes,
  4. Type and number of samples collected,
  5. Number of monitoring wells installed and total footage, and
  6. Total cost of HRSC program.