



REMEDIAL INVESTIGATION REPORT FORM

Date Stamp
(For Department use only)

SECTION A. SITE

Site Name: \_\_\_\_\_

Program Interest (PI) Number(s): \_\_\_\_\_

Case Tracking Number(s) for this submission: \_\_\_\_\_

This form must be attached to the Cover/Certification Form

SECTION B. SCOPE OF THE REMEDIAL INVESTIGATION REPORT

1. Does the Remedial Investigation address:

- Area(s) of Concern (AOCs) Only
Entire Site (based on a completed and submitted Preliminary Assessment/Site Investigation)

2. Total number of contaminated AOCs associated with the case: \_\_\_\_\_

3. Total number of contaminated AOCs addressed in this submittal: \_\_\_\_\_

4. Is the Remedial Investigation complete for the contaminated AOCs addressed in this submittal?..... Yes No

5. Is the Remedial Investigation complete for all AOCs associated with this case?..... Yes No

If "Yes," provide date: \_\_\_\_\_

When answering the remaining questions on this form consider only the AOCs addressed in this submission.

SECTION C. GENERAL

1. Are you proposing an alternative remediation standard pursuant to N.J.A.C. 7:26D-7.4, alternate vapor intrusion screening level, or ecological site specific goal?..... Yes No

If "Yes," attach the Alternative Remediation Standard and/or Screening Level Application Form as an addendum.

2. Was a site-specific screening level developed for the evaluation of the VI pathway?..... Yes No

3. Has/will the remediation vary from the Technical Rules? ..... Yes No

If "Yes." provide the citation(s) from which the remediation has/will vary and the page(s) in the attached document where the rationale for the variance is provided.

N.J.A.C. 7:26E- \_\_\_\_\_ Page \_\_\_\_\_

N.J.A.C. 7:26E- \_\_\_\_\_ Page \_\_\_\_\_

N.J.A.C. 7:26E- \_\_\_\_\_ Page \_\_\_\_\_

4. Were the laboratory reporting minimum detection limits below applicable remediation standards/ screening levels required for the site? ..... Yes No

5. Have past deficiencies/notice of deficiencies been addressed in this submittal? ..... Yes No

SECTION D. SITE CONDITIONS

1. Is any radiological contamination currently present at the AOCs addressed in this submission?..... Yes No

2. At any time, did any of the AOCs addressed in this submission contain Ordnance and Explosives/ Unexploded Ordnance (OE/UXO)? ..... Yes No

3. Is free product present?..... Yes No

4. Has dioxin been detected at levels above NJDEP's interim direct contact soil screening level of 50 ppt dioxin TEQ (TCDD Toxicity Equivalence Quotient) in any AOCs addressed in this submission? .....  Yes  No
5. Have any of the following contaminants ever been detected in sediment above the ecological screening levels at the AOCs addressed in this submission? .....  Yes  No
- If "Yes," check all that apply:
- Arsenic     Dioxin     Mercury     PCBs     Pesticides
6. Did contaminants from the AOCs addressed in this submission discharge to surface water? .....  Yes  No
7. Did contaminants from the AOCs addressed in this submission discharge to an Environmentally Sensitive Natural Resource (ESNR)? .....  Yes  No
8. Are any of the following conditions currently present? (*check all that apply*)

**Ground water:**

- Contaminated ground water in the overburden aquifer
- Contaminated ground water in a confined aquifer
- Contaminated ground water in the bedrock aquifer
- Contaminated ground water in multiple aquifer units
- Multiple distinct ground water plumes
- Contaminated ground water migrating off-site
- Natural background ground water contamination
- Contaminated ground water discharging to surface water or Environmentally Sensitive Natural Resource (ESNR)
- Residual or free product
- Radionuclides

**Soil:**

- On-site discharge(s) impacting soil off-site
- Chromate Chemical Production Waste/COPR
- Munitions and explosives of concern
- Contaminated soil in the saturated zone
- Historic pesticide impacts to soil
- Residual or free product
- Radionuclides
- Historic Fill
- Natural background only above Impact to Ground Water Cleanup Criteria
- Natural background above Direct Contact Remediation Standards
- Soil contamination in an ESNR

**SECTION E. APPLICABLE REMEDIATION STANDARDS**

1. Were Default Remediation Standards used for all contaminants? .....  Yes  No  
 (If "Yes," check all that apply)
- Direct Contact
  - Impact to Ground Water Soil Screening Levels
  - Ecological Screening Levels

2. Has compliance averaging been utilized to determine compliance with the Soil Remediation Standards? .....  Yes  No  
 If "Yes," check all that apply:

**Compliance Averaging Method Utilized**

<u>Pathway</u>	Arithmetic Mean	95 Percent UCL	Spatially Weighted Average	75 Percent/10X Procedure
<input type="checkbox"/> Ingestion-Dermal Pathway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Inhalation Pathway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Impact to Ground Water Pathway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Has a compliance option been utilized to determine compliance with the Impact to Ground Water Pathway? (If "Yes," check all that apply) .....  Yes  No
- Immobile Compounds
  - Data evaluation for metals and semi-volatiles
  - Data evaluation for volatile organics derived from discharges of petroleum mixtures

4. Was an interim standard used for a contaminant where a standard does not exist? .....  Yes  No
5. Were Alternate Remediation Standards used for the Ingestion/Dermal Pathway? .....  Yes  No
6. Were Alternate Remediation Standards used for the Inhalation Pathway? .....  Yes  No

7. Were Site Specific Standards used for the Impact to Ground Water Pathway? .....  Yes  No  
 If "Yes," check all that apply:  
 Soil-Water Partitioning Equation  SPLP  Sesoil  Sesoil/AT123D  
 DAF Modification
8. Were Site Specific Ecological Remediation Goals used? .....  Yes  No
9. What is the ground water classification for this site as per N.J.A.C. 7:9C? (check all that apply)  
 Class I-A  Class II-A  
 Class I-PL Pinelands Protection Area  Class III-A  
 Class I-PL Pinelands Preservation Area  Class III-B

**SECTION F. BACKGROUND CONDITIONS**

Did the RI demonstrate via a background investigation, outside the influence of on-site AOCs **and** operational areas, that:

1. All or any part of the ground water contamination is migrating onto this site per N.J.A.C. 7:26E-3.9? .....  Yes  No  NA
2. Soil contamination is naturally occurring per N.J.A.C. 7:26E-3.8 .....  Yes  No  NA

**SECTION G. HISTORIC FILL**

1. Is Historic Fill present at the site? .....  Yes  No  
 If "Yes":  
 a). What is the evidence that Historic Fill is present?  
  
 b). Are any other AOCs co-located within the Historic Fill? .....  Yes  No  
 If "Yes," have the same contaminant types (e.g. lead arsenic, etc.) characterized as being present in the Historic Fill been sampled for as contaminants of concern at these co-located AOCs? .....  Yes  No
2. Was the historic fill characterized pursuant to N.J.A.C. 7:26E-4.7 and the NJDEP Historic Fill Material Technical Guidance Document? .....  Yes  No

**SECTION H. GROUND WATER TRIGGER**

1. Was a ground water investigation conducted at all AOCs where a ground water investigation was triggered pursuant to N.J.A.C. 7:26E-3.5 and 4.3? .....  Yes  No  NA
2. Is contamination in soils fully delineated? .....  Yes  No

**SECTION I. GROUND WATER REMEDIAL INVESTIGATION INFORMATION**

1. Are contaminants present with a specific gravity less than that of water? .....  Yes  No  
 a. If "Yes," were any monitor wells installed in unconfined aquifers in which the water table is higher than the top of the well screen? .....  Yes  No  
 If "Yes" to 1a, identify the affected wells. \_\_\_\_\_
2. Are contaminants present with a specific gravity greater than that of water? .....  Yes  No  
 a. If "Yes," were multiple depth discrete ground water samples collected in a vertical profile at each ground water sampling location where dense contaminants were suspected? .....  Yes  No
3. Is ground water in the bedrock aquifer contaminated? .....  Yes  No  
 If "Yes," answer questions 3a and 3b.  
 a. Were bedrock cores collected? .....  Yes  No  
 b. Were geophysical logging methods conducted to characterize the bedrock aquifer in accordance with the NJDEP Ground Water Technical Guidance (3.4.2.2)? .....  Yes  No
4. Is contamination in ground water fully delineated? .....  Yes  No

**SECTION J. ECOLOGICAL RECEPTORS**

- 1. Have soil, sediment, and/or surface water data been collected from Environmentally Sensitive Natural Resources (ESNR)? .....  Yes  No  NA
  - a. If "Yes," do contaminant concentrations at the ESNR exceed ecological screening criteria or the aquatic chronic NJSWQS [N.J.A.C.7:9B]? .....  Yes  No
  - b. If "Yes," have soil and sediment data been collected from both surface and subsurface intervals in the ESNR? .....  Yes  No
  - c. If "No" for 1b, provide explanation \_\_\_\_\_
- 2. Have contaminant migration pathways from the site/AOC to the ESNR been identified? .....  Yes  No
- 3. Do the results of the Ecological Evaluation require a remedial investigation of ecological receptors? .....  Yes  No  
If "No," provide explanation \_\_\_\_\_
- 4. Has an Ecological Risk Assessment been conducted [N.J.A.C.7:26E-4.8]? .....  Yes  No
- 5. Is remediation required in an ESNR? .....  Yes  No

**SECTION K. MISCELLANEOUS**

- 1. Were any regulated USTs identified during the course of the RI that were not previously known? .....  Yes  No  
If "Yes," list tank size, contents and registration number(s):  
\_\_\_\_\_
- a. If "Yes," and if these USTs were Federally Regulated, was the source/cause of release identified on a Confirmed Discharge Notification form? .....  Yes  No  
If "No," to 1.a., complete and submit a revised Confirmed Discharge Notification form.
- 2. Were additional Areas of Concern identified during the RI? .....  Yes  No  
If "Yes," identify AOC(s): \_\_\_\_\_
- 3. Identify Remedial Measures (RMs) conducted during the RI (check all that apply):
  - Soil excavation
  - Potable water supply treatment or replacement
  - Hydraulic containment of source area
  - Soil vapor extraction
  - Enhanced fluid recovery (EFR)
  - Other(s), specify: \_\_\_\_\_
  - UST closure
  - Free product recovery
  - Vapor intrusion mitigation
  - No RMs were conducted during the RI
- 4. Has new information (material facts, data or other information) been generated during the RI that corrects or contradicts information, or changes conclusions from, previously submitted reports or information? .....  Yes  No  
If "Yes," explain:

**SECTION L. LABORATORY DATA**

- 1. Were all data submitted in the appropriate full and/or reduced formats according to the deliverables defined in N.J.A.C. 7:26E-2? .....  Yes  No
- 2. Do all data submitted meet the quality assurance/quality control (QA/QC) requirements incorporated by reference in N.J.A.C. 7:26E-2 for:
  - sampling .....  Yes  No
  - analysis.....  Yes  No
- 3. How was it determined that the data complied with the QA/QC requirements?
  - Laboratory non-conformance summary/narrative
  - Laboratory correspondence
  - LSRP review
  - Independent contractor review
  - Other: \_\_\_\_\_
- 4. Has any data been qualified and used? .....  Yes  No
- 5. Has any data been rejected and used? .....  Yes  No
- 6. Provide the page number for the "Reliability of Data" section of the report: \_\_\_\_\_