(h) The person responsible for conducting the remediation may return excavated soil from drill cuttings or test pit excavations to the original location provided that:

1. Drill cuttings are returned in accordance with the Well Construction and Maintenance; Sealing of Abandoned Wells rules, N.J.A.C. 7:9D;

2. Neither free product nor residual product is present;

3. The contamination present is addressed as part of the remediation of the area of concern in compliance with this chapter; and

4. The replacement of the soil does not pose any additional threat to public health, safety, or the environment.

(i) The person responsible for conducting the remediation who is conducting remediation in the Pinelands shall do so consistent with the provisions of the Pinelands Protection Act, N.J.S.A. 13:18A-1 et seq., and any rules promulgated pursuant thereto, and with section 502 of the National Parks and Recreation Act of 1978, 16 U.S.C. § 4711, and shall:

1. Submit to the New Jersey Pinelands Commission copies of all final reports or workplans for preliminary assessments, site investigations, remedial investigations and remedial actions submitted to the Department pursuant to this chapter at the same time the document is submitted to the Department;

2. Submit, for approval, a completed New Jersey Pinelands Commission application for development with a copy of the remedial action workplan or remedial design and construction documents to the New Jersey Pinelands Commission prior to implementing a remedial action;

3. Not commence any construction activity until the New Jersey Pinelands Commission approves the remediation in writing; and

4. Send the information required pursuant to this subsection to the New Jersey Pinelands Commission at the following address:

New Jersey Pinelands Commission
P.O. Box 359
15 Springfield Road
New Lisbon, NJ 08064

7:26E-1.6 General reporting requirements

(a) The person responsible for conducting the remediation shall:

1. Submit all documents, forms, spreadsheets, and worksheets required in this chapter to the Department pursuant to N.J.A.C. 7:26C-1.6. All forms and spreadsheets are available on the Department's website at www.nj.gov/dep/srp/srra/forms. Except as specifically noted within this chapter, the forms, spreadsheets, and worksheets required by this section require information identifying the site, the responsible entity and the licensed site remediation professional, the certifications of the licensed site remediation professional and responsible entity submitting the data, and a summary of key data and conclusions, as applicable, associated with the technical information or document(s) with which they are required to be submitted;

2. Certify, and have the licensed site remediation professional certify, pursuant to N.J.A.C. 7:26C-1.5, all forms and documents prepared to pursuant to this chapter;

3. Submit a completed case inventory document worksheet available on the Department's website at www.nj.gov/dep/srp/srra/forms at the front of each remedial phase workplan and report required by this chapter, except for a preliminary assessment report where no areas of concern were identified;

4. Submit a quality assurance project plan prepared pursuant to N.J.A.C. 7:26E-2.2 with each remedial phase workplan and report required by this chapter, except for a preliminary assessment report and remedial action report;

5. Except where a final remediation document for unrestricted use is filed with the Department within one year after the earliest applicable trigger to remediate listed in N.J.A.C. 7:26C-2.2, submit all sampling data electronically in a summary table using the format outlined in the Site Remediation Program's "Electronic Data Interchange Manual," available at www.nj.gov/dep/srp/hazsite/docs/, in effect as of the date the document is submitted and include:

i. The following locational information:

(1) Horizontal data points reported in New Jersey state plane coordinates using the North American Datum of 1983 (NAD 1983), in accordance with the Department's Geographic Mapping and Digital Data Standards found in Appendix A of the General Practice and Procedure rules at N.J.A.C. 7:1D, using units of U.S. survey feet; and

(2) Locational information collected in latitude and longitude converted to New Jersey state plane coordinates. Conversion programs are available at www.nj.gov/dep/srp/hazsite/help/software/;

ii. All vertical data points reported as depth below ground surface, and in mean sea level using the North American Vertical Datum of 1988 (NAVD 1988) in accordance with the Department's Geographic Mapping and Digital Data Standards found in Appendix A of the General Practice and Procedure rules at N.J.A.C. 7:1D.

iii. A metadata file for each submission of electronic data that contain locational information in accordance with the Department's Geographic Mapping and Digital Data Standards found in Appendix A of the General Practice and Procedure rules at N.J.A.C. 7:1D; and

6. Submit a geographic information system (GIS) compatible site plan that includes the site boundaries and the

location of all areas of concern as polygons. For assistance see www.nj.gov/dep/srp/guidance/techgis/.

(b) The person responsible for conducting the remediation shall include, in each remedial phase workplan and report, the following information:

1. The physical setting of the site that includes a general description of soils, geology, hydrology, hydrogeology, and topography of the site and surroundings;

2. A description of any significant events or seasonal variations that may have influenced sampling procedures or analytical results;

3. A description of the results and implications of field measurements or area-specific changes in sampling protocol due to field conditions;

4. A list of:

i. All variances from the requirements of this chapter submitted pursuant to N.J.A.C. 7:26E-1.7; and

ii. All rationales submitted for deviations from any technical guidance pursuant to N.J.A.C. 7:26C-1.2(a)3;

5. The applicable regulatory timeframe, including:

i. The regulatory citation of the regulatory timeframe; and

ii. The calendar date of the regulatory timeframe;

6. A summary table(s), organized by area of concern, of all sampling results, including sample location, medium, sample depth, field and laboratory identification numbers, analytical results, and comparison to remediation standards, and the following:

i. Identification of each contaminant concentration exceeding a remediation standard;

ii. Identification of each sample with a method detection limit or a practical quantitation level that exceeds a remediation standard, along with an explanation in the table key; and

iii. A report of all soils and solids sample results in milligrams per kilogram on a dry weight basis, aqueous sample results in micrograms per liter, and air results in micrograms per cubic meter;

7. For soil borings, test pits and monitoring wells:

i. Stratigraphic logs, which include soil/rock physical descriptions and field instrument readings detected during drilling for each soil boring, test pit and monitoring well;

ii. State permit numbers and as-built specifications, if applicable; and

iii. Monitoring well certification forms A (the well construction as built certification) and B (the well location certification) available on the Department's website at www.nj.gov/dep/srp/regs/guidance.htm. Form A requests such information as well owner and permit information, site identification information, and a summary of specific well construction information, and Form B requests such information as well location and elevation information and a land surveyor's certification;

8. Maps and figures, with map scale and orientation, including:

i. Site location, land use, receptor evaluation, and area of concern maps;

ii. Sample location map(s) that include the following:

(1) Field identification numbers for all samples;

(2) Sample locations, sample depths and contaminant concentrations plotted on the map; and

(3) If data for more than 25 samples are presented for an area of concern, soil, ground water and sediment contaminant isopleth maps and cross section diagram(s), including the horizontal and vertical distribution of contaminants in each media, with sample point location numbers and contaminant concentrations; and

iii. Ground water elevation contour maps showing the location of all monitoring wells, piezometers, or other ground water sampling points, for each set of static ground water level measurements for each aquifer;

9. A discussion of the usability of laboratory analytical data; and

10. A description of the significance of information generated in the library search of tentatively identified compounds and unknown compounds.

7:26E-1.7 Variance from the technical requirements

(a) Except as provided in (b) below, the person responsible for conducting the remediation may vary from the technical requirements in N.J.A.C. 7:26E-1 through 5 provided that person submits the following technical information, and a variance form found on the Department's website at www.nj.gov/dep/srp/srra/forms, prior to varying from any technical requirement:

1. The regulatory citation for the technical requirement;

2. A description of how the proposed variance deviates from the cited regulatory requirement; and

3. The rationale for varying from the cited technical requirement that includes supporting information as necessary to document that the requested variance will:

i. Provide results that are verifiable and reproducible;

2. Use appropriate sampling methods; and

3. Use appropriate analytical methods.

(b) If the concentration of any contaminant in the ground water exceeds any ground water remediation standard, then the person responsible for conducting the remediation shall conduct a remedial investigation of the ground water pursuant to N.J.A.C. 7:26-4.3.

7:26E-3.6 Site investigation—surface water and sediment

(a) If there is a potential that surface water has been impacted by the site, the person responsible for conducting the remediation who is subject to N.J.A.C. 7:26E-3.3(b) shall determine if there is any evidence that contamination from the site has reached the surface water.

(b) If there is evidence that contamination from the site has reached the surface water, then the person responsible for conducting the remediation shall conduct a site investigation of surface water and sediment to determine if there is any exceedance of any aquatic or human health based surface water quality standard, ecological screening criterion, or residential direct contact soil remediation standard and shall:

1. Collect a sufficient number of surface water and sediment samples to evaluate for the presence of contamination, biasing the sampling to the suspected locations of greatest contamination, both horizontally and vertically;

2. Use appropriate sampling methods; and

3. Use appropriate analytical methods.

(c) The person responsible for conducting the remediation shall evaluate the results of the surface water and sediment site investigation as follows:

1. If any aquatic surface water quality standard or ecological screening criterion for surface water is exceeded, conduct a remedial investigation of ecological receptors pursuant to N.J.A.C. 7:26E-4.8;

2. If any human health based surface water quality standard is exceeded, conduct a remedial investigation of surface water pursuant to N.J.A.C. 7:26E-4.4;

3. If any ecological screening criterion for sediments is exceeded, conduct a remedial investigation of ecological receptors pursuant to N.J.A.C. 7:26E-4.8; and

4. If there is evidence of human exposure to the sediment, compare the sediment sample results to the residential direct contact soil remediation standard. If any residential direct contact soil remediation standard is exceeded, the person responsible for conducting the remediation shall conduct a remedial investigation of soil pursuant to N.J.A.C. 7:26E-4.2.

7:26E-3.7 Site investigation—building interiors

(a) The person responsible for conducting the remediation who is subject to N.J.A.C. 7:26E-3.3(b) shall conduct a site investigation of a building interior in order to determine whether:

1. Contaminants inside the building have the potential to migrate to the environment outside the building; or

2. Contaminants outside the building have the potential to migrate into the building.

(b) If the concentration of any contaminant identified during this part of the site investigation exceeds any remediation standard outside the building, then the person responsible for conducting the remediation shall conduct a remedial investigation necessary for the impacted media pursuant to N.J.A.C. 7:26E-4.

Case Notes

Initial Decision (2009 N.J. AGEN LEXIS 275) adopted, which found that although respondent did not cause the contamination, it was strictly liable for the remediation of the property because, had respondent actually conducted a "diligent" preliminary assessment and a proper site investigation, including a baseline ecological evaluation, and a groundwater sample, respondent would have discovered numerous documents and correspondences between the Department and the previous owners concerning the contamination of the property, which was the result of a leaking underground storage tank; respondent purchased the property after September 14, 1993, and knew or should have known of the contamination, but failed to perform the mandatory preliminary assessment and site inspection which would have uncovered the contamination on the property. N.J. Dep't of Envtl. Prot. v. Caruso, OAL Dkt. No. EHW 4714-07, 2009 N.J. AGEN LEXIS 845, Final Decision (June 26, 2009).

7:26E-3.8 Site investigation—natural background investigation of soil and ground water

(a) If during the site investigation, any contaminant that may be naturally occurring is found in soil at any area of concern in excess of a soil remediation standard, then the person responsible for conducting the remediation may investigate the extent to which the concentration of the contaminant in soil may be due to natural background. This investigation shall be conducted by:

1. Collecting and analyzing a sufficient number of samples in appropriate locations of similar soil type on or near the site that have not been impacted by current or historical on-site or off-site activities to adequately determine that the concentration of the contaminant in the soil may be due to natural background;

2. Demonstrating that the distribution of the contaminant in the soil does not follow a concentration gradient indicative of a discharge; and

3. Demonstrating that the concentration of the contaminant in the soil is within ranges reported in appropriate references for soil background levels for New Jersey, if available.

(b) In lieu of conducting a natural background investigation of soil pursuant to (a) above, the person responsible for conducting the remediation may use a previously conducted natural background determination to establish natural background soil concentration provided:

1. The prior natural background determination was conducted consistent with (a) above; and

2. The prior natural background determination was conducted at a location near enough to the site such that it is appropriate to use the previous study for this purpose.

(c) If during the site investigation, a contaminant is found in ground water in excess of the ground water remediation standard, then the person responsible for conducting the remediation may investigate the extent to which the concentration of the contaminant in ground water may be due to natural background. This investigation shall be conducted by:

1. Collecting and analyzing a sufficient number of samples in appropriate locations, both horizontally and vertically, on or near the site, that have not been impacted by current or historical on-site or off-site activities to adequately determine the concentration of the contaminant in the ground water is due to natural background;

2. Demonstrating the distribution of the contaminant in the ground water does not follow a concentration gradient indicative of a discharge; and

3. Demonstrating the concentration of the contaminant in ground water is within ranges reported in appropriate references for ground water background levels for New Jersey, if available.

(d) In lieu of conducting a natural background investigation of ground water pursuant to (c) above, the person responsible for conducting the remediation may use a previously conducted natural background determination to establish natural background ground water concentration provided:

1. The prior natural background determination was conducted in accordance with (c) above; and

2. The prior natural background determination was conducted at a location near the site such that it is appropriate to use the previous study for this purpose.

(e) To the extent that the person responsible for conducting the remediation concludes the presence of a contaminant in soil or ground water is due to natural background conditions, then no further remediation is necessary.

7:26E-3.9 Site investigation - determination of off-site source of contamination in soil and ground water

(a) If during the site investigation, a contaminant is found in soil or ground water in excess of any remediation standard, then the person responsible for conducting the remediation may investigate the extent to which the contamination in soil or ground water is due to migration to the site from an off-site source. This investigation shall be conducted by:

1. Collecting and analyzing a sufficient number of samples in appropriate locations, both horizontally and vertically, at the property boundary or off site, if needed, in order to be upgradient of any on-site area of concern to adequately determine that there is an off-site source of the contaminant;

2. Collecting and analyzing a sufficient number of samples to demonstrate a contaminant migration pathway exists from the off-site source of contamination to the area of concern; and

3. Conducting a preliminary assessment pursuant to N.J.A.C. 7:26E-3.1 and if necessary, a site investigation pursuant to N.J.A.C. 7:26E-3.3 to determine whether a source of the contaminant observed exists on site.

(b) The person responsible for conducting the remediation is not required to conduct further remediation of the contamination migrating onto the site.

7:26E-3.10 Site investigation - determination of off-site source of contamination in surface water and sediment

(a) If during the site investigation, a contaminant is detected in surface water or sediment in excess of an aquatic or human health based surface water quality standard, an ecological screening criterion, or a residential direct contact soil remediation standard, then the person responsible for conducting the remediation may investigate the extent to which the contaminant concentration in surface water or sediment is due to an off-site source. This investigation shall be conducted by:

1. Collecting and analyzing a sufficient number of samples in appropriate locations to adequately determine that there is an off-site source of the contaminant; and

2. Conducting a preliminary assessment pursuant to N.J.A.C. 7:26E-3.1 and if necessary, a site investigation pursuant to N.J.A.C. 7:26E-3.3 to determine whether a source of the contaminant observed exists on site.

(b) The person responsible for conducting the remediation is not required to conduct further remediation of the contamination migrating onto a site.

7:26E-3.11 Site investigation - landfills

(a) The person responsible for conducting the remediation who is subject to N.J.A.C. 7:26E-3.3(b) shall conduct a site investigation of any landfill at or suspected to be present at the site to determine whether a landfill is in fact present by:

1. Conducting a geophysical survey; and

2. Conducting a subsurface investigation.

Table 5-1
Presumptive Remedies for Soil Contamination at
Schools, Child Care Centers, and Residences

Contamination type	Subcategories/ Scenarios	Presumptive Remedy/ Remediation Goal	Remedial Action - Schools, Child Care Centers, and Type II Residential	Remedial Action - Type I Residential
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Play Areas-Loose Fill Surface (for example, mulch, sand, etc.)	Restricted Use	Option #1. *Barrier* - Minimum of one foot clean loose fill material; *Buffer* - Minimum of one foot clean loose fill material; *Demarcation* - Geotextile fabric; and *Inspection* - Quarterly. Option #2. *Barrier* - Minimum of two feet clean loose fill material; *Buffer* - Minimum of two feet clean loose fill material; *Demarcation* - Visible contamination boundary marker or geotextile fabric; and *Inspection* - Semi-annual.	Same engineering control requirement as Schools, Child Care Centers and Type II Residential
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Play Areas-Unitary Material Surface (for example, Tile, Rubber Mat, Artificial Turf)	Restricted Use	Option #1. *Barrier* - Proposed surface of unitary material and a minimum of six inches crushed stone; *Buffer* - Minimum of six inches crushed stone; *Demarcation* - Geotextile fabric; and *Inspection* – Annual. Option #2. *Barrier* - Proposed surface of unitary material and a minimum of four inches of concrete or asphalt; *Buffer* - Four inches of sub base; *Demarcation* - Visible contamination boundary marker; and *Inspection* - Annual. Option #3. *Barrier* - Proposed surface of unitary material and a minimum of one foot clean fill; *Buffer* - Minimum of one foot clean fill; *Demarcation* - Visible contamination boundary marker; and *Inspection* - Annual.	Same engineering control requirement as Schools, Child Care Centers and Type II Residential
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Play Areas - Other Unpaved Playing Surfaces (for example, athletic fields)	Restricted Use	Option #1. *Barrier* - Vegetative cover with a minimum of one foot clean fill; *Buffer* - Minimum of one foot clean fill;	Same engineering control requirement as Schools, Child Care Centers and Type II Residential

Contamination type	Subcategories/ Scenarios	Presumptive Remedy/ Remediation Goal	Remedial Action - Schools, Child Care Centers, and Type II Residential	Remedial Action - Type I Residential
			Demarcation - Geotextile fabric; and *Inspection* - Annual. Option #2. *Barrier* - Vegetative cover with a minimum of two feet clean fill; *Buffer* - Minimum of two feet clean fill; *Demarcation* - Visible contamination boundary marker; and *Inspection* - Annual.	
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Concrete or Asphalt Surfaces (for example, Driveways, Roadways, Parking, Walkways, Bicycle Paths, etc.)	Restricted Use	*Barrier* - Minimum of four inches of concrete or asphalt; *Buffer* - Minimum of four inches of sub base; *Demarcation* - Visible contamination boundary marker; and *Inspection* – Annual.	Same engineering control requirement as Schools, Child Care Centers and Type II Residential
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Building Footprint - New Construction	Restricted Use	Option #1. *Barrier* - Minimum of four inches of concrete; *Buffer* - Minimum four inches of sub base; *Demarcation* - Visible contamination boundary marker; and *Inspection* –Annual Option #2 (for crawl spaces). *Barrier* - Minimum of one foot clean fill and vapor barrier; *Buffer* - Minimum of one foot clean fill; *Demarcation* - Visible contamination boundary marker; and *Inspection* - Semi-annual.	Same engineering control requirement as Schools, Child Care Centers and Type II Residential
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Building Footprint - Existing Construction	Restricted Use	Option #1. *Barrier* - Minimum of four inches of concrete; *Buffer* - Minimum four inches of sub base; *Demarcation* - Not required; and *Inspection* – Annual. Option #2 (for crawl spaces and basements with a dirt floor). *Barrier* - Minimum of one foot clean fill and vapor barrier; *Buffer* - Minimum of one foot clean fill; *Demarcation* - Visible contamination boundary marker; and *Inspection* - Semi-annual.	Same engineering control requirement as Schools, Child Care Centers and Type II Residential

Contamination type	Subcategories/ Scenarios	Presumptive Remedy/ Remediation Goal	Remedial Action - Schools, Child Care Centers, and Type II Residential	Remedial Action - Type I Residential
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Vegetative Cover (for example, Lawn Areas)	Restricted Use	*Barrier* - Vegetative cover with a minimum of six inches of clean fill; *Buffer* - Minimum of six inches of clean fill; *Demarcation* - Visible contamination boundary marker; and *Inspection* - Semi-annual.	Option #1. *Barrier* - Vegetative cover with a minimum of one foot clean fill; *Buffer* - Minimum of one foot clean fill; *Demarcation* - Geotextile fabric; and *Inspection* - Quarterly. Option #2. *Barrier* - Vegetative cover with a minimum of two feet clean fill; *Buffer* - Minimum of two feet clean fill; *Demarcation* - Visible contamination boundary marker or geotextile fabric; and *Inspection* - Semi-annual.
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Landscaped Areas	Restricted Use	Option #1. *Barrier* - Minimum of one foot clean fill;* *Buffer* - Minimum of one foot clean fill;* *Demarcation* - Geotextile fabric; and *Inspection* - Semi-annual. Option #2. *Barrier* - Minimum of two feet of clean fill;* *Buffer* - Minimum of two feet clean fill;* *Demarcation* - Visible contamination boundary marker; and *Inspection* - Semi-annual. * Trees and shrubs can be planted within barrier and/or buffer layer(s), but must maintain a minimum of one foot clean fill on all sides and below the extent of planted root ball of larger plant materials.	Same engineering control requirement as Schools, Child Care Centers and Type II Residential
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Maintenance Areas/Dumpsters and Compactor Pad/Other Areas Restricted to Workers	Restricted Use	*Barrier* - Minimum of four inches of concrete or asphalt; *Buffer* - Minimum of four inches of sub base; *Demarcation* - Visible contamination boundary marker; and *Inspection* - Annual.	Not Applicable.

Contamination type	Subcategories/ Scenarios	Presumptive Remedy/ Remediation Goal	Remedial Action - Schools, Child Care Centers, and Type II Residential	Remedial Action - Type I Residential
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Underground Utility Corridors	Restricted Use	Piping & Conduits Placed in Trenches: *Barrier* - Clean fill from surface down to utility (minimum of one foot); *Buffer* - Minimum of one foot of clean fill below and around the sides of the utility; *Demarcation* - Visible contamination boundary marker along the bottom and sides of the trench; and *Inspection* - Annual. Burial Cable may be installed within barrier and/or buffer layer(s) but a minimum of one foot clean fill must be maintained on sides and below installation.	Same engineering control requirement as Schools, Child Care Centers and Type II Residential
Historic Fill and/or all other discharged contaminants not otherwise excluded in N.J.A.C. 7:26E-5.3	Contamination at depths greater than 10 feet with 10 feet of clean material covering the contamination	Restricted Use	*Barrier* - Minimum of five feet clean material; *Buffer* - Minimum of five feet clean material; *Demarcation* - None Required; and *Inspection* – Annual.	Same engineering control requirement as Schools, Child Care Centers and Type II Residential
Widespread PCBs	Any Use	Unrestricted Use or Restricted Use	Remove and/or treat all PCB contamination to a minimum of 10 mg/kg. For any PCB contamination greater than 0.2 mg/kg and less than or equal to 10 mg/kg apply Option # 1 or Option # 2: Option #1. *Barrier* - Minimum of six inches asphalt or concrete; *Buffer* - Minimum of 18 inches clean fill; *Demarcation* - Visible contamination boundary marker; and *Inspection* - Annual. Option #2. *Barrier* - Minimum of 18 inches of clean fill; *Buffer* - Minimum of 10 inches of compacted soil pursuant to 40 CFR 761.61(a)7; *Demarcation* - Geotextile fabric; and *Inspection* - Semi-annual	Remove and/or treat to unrestricted levels pursuant to N.J.A.C. 7:26E-5.3(b)2

7:26E-5.4 Remedial action requirements for historic fill material

(a) Notwithstanding the presumptive remedies for residences, schools, and child care centers required pursuant to N.J.A.C. 7:26E-5.3(a), there is a rebuttable presumption pursuant to N.J.S.A. 58:10B-12h that the remedial action for soil contamination associated with historic fill material is the establishment of engineering and institutional controls pursuant to N.J.A.C. 7:26C-7.

19. Final concentrations corrected for percent moisture.

(f) USEPA/CLP Analyses

Data deliverables are defined in each Statement of Work offered by the USEPA. (www.epa.gov/superfund/programs/clp/) As such, data are to be submitted according to the data deliverables listed in the Statements of Work used by the laboratory and in effect as of the date of sample analysis by the laboratory. Additionally, mass spectral negative proofs[1] are required where applicable, "clean" soil method blanks[2] for nonaqueous samples are not permitted, and laboratory internal chain of custody documentation is required.

[1] A negative proof is a mass spectrum offered as evidence to support an analyst's decision to negate the presence of a contaminant which has been qualitatively identified and reported by the instrument's data system.

[2] Method blanks for nonaqueous samples shall consist of performing the entire analytical procedure without any actual sample being present. The appropriate amount of sodium sulfate as specified in the current Statements of Work for Organics would be substituted as the "sample" for the semivolatile and pesticide/aroclor fractions.

(g) Extractable Petroleum Hydrocarbons

Data are to be submitted according to data deliverables listed in the Department's Extractable Petroleum Hydrocarbon Methodology, "Analysis of Extractable Petroleum Hydrocarbon Compounds (EPH) in Aqueous and Soil/Sediment/Sludge Matrices" in effect as of the date of sample analysis by the laboratory. (www.nj.gov/dep/srp/guidance/srra/eph_method.pdf)

(h) Methods other than (a) through (g) above:

In the absence of a method-defined data deliverable, the laboratory may use the applicable deliverables of a USEPA Statement of Work that is procedurally similar to the method employed.

II. Reduced Laboratory Data Deliverables

(a) General Requirements

1. The data deliverable package shall be bound and paginated with margins, bindings and of reproduction quality such that all pages are legible;

2. Title/Cover Page:

The format for quality assurance/quality control (QA/QC) documentation shall be simplified as much as possible for ease of review and reference. The report shall begin with a cover page that includes the laboratory certification number, if applicable, main laboratory phone number, signature of laboratory director, facility name, address and date of report preparation and date of sampling and receipt. The report shall include a summary table that cross-references the field ID number to the laboratory ID number for each sample;

3. Table of Contents;

4. Chain of Custody;

5. Methodology Review:

The Methodology Review shall list method numbers and revision, with a detailed discussion of any method modification;

6. Laboratory Chronicle:

The laboratory chronicle shall detail actual sample holding times and specify the sample condition upon receipt at the laboratory (including sample temperature and pH when pH adjustment is required);

7. Conformance/Non-Conformance Summary:

A conformance/non-conformance summary shall be completed and signed by the laboratory. This summary shall state that the laboratory has reviewed the QA/QC measures for sample analysis and has identified any deviations from the acceptable performance criteria or results.

(b) Gas chromatography/mass spectrometry (GC/MS) Requirements for each analytical fraction

1. Analytical Results Summary Form - An analytical results summary form shall be submitted for each sample and for each GC/MS analytical fraction (i.e., volatiles and semi-volatiles). Each form shall contain the following information: date sample collected, date sample received, date sample extracted, date sample analyzed, sample weight/volume/units, sample ID numbers, sample delivery group (SDG), sample matrix, level, sample moisture content, dilution factor, GC column used, list of analytes, method detection limit, practical quantitation level and detected analyte concentrations;

2. Tentatively Identified Compound (TIC) Summary - Each TIC shall be identified by compound name or class (if it can be determined) and Chemical Abstract Service (CAS) number along with its retention time and estimated concentration;

3. Tuning Results Summary Form - Tuning results for all initial and continuing calibrations that are associated with all samples shall contain the following information: laboratory file ID, instrument ID, injection date and time, the m/e (mass to ion charge) listing for the key ions, the reported ion relative abundance, the ion abundance criteria and a listing of all standards, blanks, QC samples and field samples (including date, lab file ID and time of analysis) associated with the tune;

4. Method Blank Results Summary Form - An analytical results form shall be submitted for all method blanks associated with all field samples for all analytical fractions. Each form shall contain the information listed in Section II (b) 1 above, as well as a listing of all field and QC samples associated with each method blank. In addition, a separate

form for TICs shall be submitted which contains the information listed in Section II(b)2 above;

5. Calibration Summary - A summary of all initial and continuing calibrations that are associated with all samples and blanks shall be submitted for each GC/MS analytical fraction. The following information shall be provided for each initial calibration: instrument ID, calibration date and time, listing of standard concentrations used, laboratory file ID for each calibration standard, listing of all associated field samples, QC samples and blanks, retention times for each target analyte and surrogate compound, listing of the relative response factor (RRF) for each target analyte and surrogate compound, the average RRF for each target analyte and surrogate compound, and percent relative standard deviation for each target analyte and surrogate compound. The following information shall be provided for each continuing calibration: instrument ID, calibration date and time, date and time of the associated initial calibration, the standard concentration used, the laboratory file ID for the calibration standard, listing of all associated field samples, QC samples and blanks, retention times for each target analyte and surrogate compound, the average RRF for each target analyte and surrogate compound from the associated initial calibration, the RRF for each target analyte and surrogate compound from the continuing calibration and the percent difference for each target analyte and surrogate compound;

6. Surrogate Compound Recovery Results Summary - If required by the analytical method, a summary form shall be submitted which contains the following information for all field samples, method blanks and QC samples for each GC/MS analytical fraction: sample ID number, sample matrix, surrogate compound names, concentration of surrogate compounds used, surrogate compound recoveries and QC limits for each surrogate compound;

7. Matrix Spike/Matrix Spike Duplicate Results Summary - If required by the analytical method, a summary form shall be submitted for each sample matrix and each GC/MS analytical fraction which contains the following: sample ID number for the sample selected for spiking, list of compounds being spiked, concentration of each spiked compound, matrix spike concentration, matrix spike percent recovery, matrix spike duplicate concentration, matrix spike duplicate percent recovery, relative percent difference and QC limits for percent recovery and relative percent difference;

8. Internal Standard Summary - A summary form shall be submitted which contains the following information for all standards, field samples, method blanks and QC samples for each analytical fraction: sample ID number, ID of laboratory calibration standard, internal standard compound names, concentration of internal standards compounds, retention times of each internal standard, area of each internal standard, and QC criteria (where applicable) for internal standard areas and retention times;

9. Chromatograms - The total ion chromatograms for all field samples and method blanks shall be submitted. All peaks on the chromatograms shall be identified as either an internal standard, surrogate compound, target compound or non-target compound. All peaks on a chromatogram shall also be associated with retention times, either directly on the chromatogram or identified and cross-referenced in tabular form.

(c) GC Requirements

1. Analytical Results Summary - An analytical results form shall be submitted for each sample. Each form shall contain the information contained in Section II(b)1 above;

2. Method Blank Results Summary - An analytical results form shall be submitted for all method blanks as well as a listing of all field and QC samples associated with each method blank. Each form shall contain the information contained in Section II(b)4 above;

3. Standards Summary - A summary form containing GC standards information for all associated samples shall be submitted for both primary and confirmation (if applicable) analyses. This summary shall contain the following information: instrument ID number, GC column used and notation if primary or confirmation analysis, date and time of standard(s) analysis, listing of all associated field, QC and method blank samples, listing of target compounds, retention time windows of each target compound and calibration factor for each target compound;

4. Surrogate Compound Recovery Results Summary - If required by the analytical method, a summary form shall be submitted which contains the following information for all field samples, method blanks, and QC samples: sample ID number, sample matrix, surrogate compound names, concentration of surrogate compounds used, surrogate compound recoveries and QC limits for each surrogate compound;

5. Matrix Spike/Matrix Spike Duplicate Results Summary - If required by the analytical method, a summary form shall be submitted for each sample matrix which contains the information contained in Section II(b)7 above;

6. Retention Time Shift Summary - If required by the analytical method, a summary form containing retention time shift results shall be submitted for both the primary and confirmation (if applicable) analyses. The form shall contain the following information: instrument ID number, GC column used and notation if primary or confirmation column analysis, name of retention time shift marker compound, list of all field samples, method blanks and QC samples, date and time of analysis of all field samples, method blanks and QC samples, percent difference of the retention time shift and QC limits for the retention time shift;

7. Chromatograms - The primary analysis chromatograms and confirmation analysis chromatogram (when applicable) for all field samples and method blanks shall be submitted. All peaks on the chromatogram attributable to target and surrogate compounds shall be identified as such along with the retention time for each peak. The reference standard chromatogram for all multi-peak target compounds (e.g., toxaphene, PCBs) for both the primary and the confirmation analysis (when applicable) shall also be submitted.

(d) Metals Requirements

1. Analytical Results Summary - An analytical results form shall be submitted for each sample. Each form shall contain the following information: sample ID number (laboratory and/or field ID), laboratory SDG number, sample matrix, date sample collected, date sample received, date sample analyzed, sample moisture content, dilution factor (if any), list of target analytes, detected analyte concentrations and method detection limits;

2. Blank Results Summary - A blank results form shall be submitted for all instrument calibration blanks and reagent blanks associated with all field and QC samples. Each form shall contain the following information: a list of all target analytes, matrix of the reagent blank, concentration units of the reagent blank, reported concentration of all target analytes found in all calibration and reagent blanks and method detection limits;

3. Calibration Summary - A calibration summary shall be submitted for all initial calibration standards and continuing calibration standards associated with field samples, blanks and QC samples. Each form shall contain the following information: laboratory SDG number, initial and continuing calibration source, list of all target analytes, the true concentration for the initial and continuing calibration standards, the reported (or found) concentrations for the initial calibration standards and continuing calibration standards, the percent recovery for each initial calibration standard and continuing calibration standard and the percent recovery QC limits for each target analyte. In addition, this form shall also list the method detection limit and instrument detection limit for each target analyte;

4. ICP Interference Check Sample Results Summary - If metals analysis is being conducted by ICP methodology, results of the interference check samples analysis shall be reported. The following information shall be reported: laboratory SDG number, interference check sample source, instrument ID number, list of all target analytes in the interference check sample, the true concentration of analytes in the interference check sample, the reported concentrations of analytes found in the interference check sample for both the initial and final check samples analyses, the percent recovery of the target analytes found in the initial and final check samples analyses and the QC control limits for percent recovery values;

5. Spike Sample Results Summary - A summary of the spike sample analysis shall be submitted. The following information shall be reported: laboratory SDG number, ID number of the sample chosen for spiking, sample matrix, percent solids, the concentration of each spiked target analyte, the results of the unspiked sample analysis, the results of the spiked sample analysis, the percent recovery for each spiked analyte and the QC limit for percent recovery for each spiked analyte;

6. Duplicate Sample Results Summary - A summary of the duplicate sample analysis shall be submitted. The following information shall be reported: laboratory SDG number, ID number of the original sample and the duplicate samples, sample matrix, percent solids, results of the original sample analysis, results of the duplicate sample analysis, the relative percent difference of each target analyte for the original duplicate sample analyses and the QC limit for relative percent difference for each target analyte;

7. Laboratory Control Sample Results Summary - When specified by the analytical method, the results of the laboratory control (quality control) sample shall be submitted. The following information shall be reported: laboratory SDG number, control sample matrix, list of all target analytes, the true concentration for each analyte in the control sample, the reported concentration for each target analyte in the control sample, the percent recovery for each target analyte and the QC limit for percent recovery for each target analyte;

8. Serial Dilution Summary - If required by the analytical method, a summary of the serial dilution results shall be submitted. The following information shall be reported: laboratory SDG number, ID number of the original sample and the serial dilution sample, sample matrix, results of the original sample analysis, results of the serial dilution sample analysis, the percent difference of each target analyte compared to the original target analyte results and the QC limit for percent difference for each target analyte;

9. Internal Standard Summary - A summary form shall be submitted for each ICP/MS analytical run which contains the following information: laboratory SDG number, date analyzed, method reference, sample ID number, ID of laboratory calibration standard, calibration and method blanks ID, QC sample ID, internal standard compound names, percent recoveries of internal standard compounds, and QC criteria for internal standard areas;

10. Analysis Run Log - The following information shall be reported: laboratory SDG number, instrument ID number, date and time of sample analysis, any dilution factors used, the analytical run sequence of all samples, standards and blanks and the list of all target analytes;

11. Digestion Log - The following information shall be reported: date of sample digestion, laboratory SDG number, batch number, matrix, sample numbers, initial weight/volume, final volume and digestion method.

(e) General Chemistry Requirements

1. Analytical Results Summary - An analytical results form shall be submitted for each sample. Each form shall contain the following information: sample ID number (laboratory and/or field ID), sample matrix, date sample collected, date sample received, date sample analyzed, sample moisture content, dilution factor (if any), list of target analytes and detected analyte concentrations and method detection limits;

2. Calibration Summary - A calibration summary shall be submitted for all initial calibration standards and check standards associated with field samples, blanks and QC samples. Each form shall contain the following information: list of all target analytes, the true concentration for the initial calibration standards and check standards, the reported (or found) concentrations for the initial calibration standards and check standards, the percent recovery for each initial calibration standard and check standard and the percent recovery QC limits for each target analyte;

3. Blank Results Summary - A blank results form shall be submitted for all method blank samples associated with all field and QC samples. Each form shall contain the following information: list of all target analytes, matrix of the method blank, concentration units of the method blank, reported concentration of all target analytes found in all method blanks;

4. Spike Sample Results Summary - A summary of the spike sample analysis shall be submitted. The following information shall be reported: ID number of the sample chosen for spiking, sample matrix, the concentration of each spiked target analyte, the results of the unspiked sample analysis, the results of the spiked sample analysis, the percent recovery for each spiked analyte and the QC limit for percent recovery for each spiked analyte;

5. Duplicate Sample Results Summary - A summary of the duplicate sample analysis shall be submitted. The following information shall be reported: ID number of the original sample and the duplicate sample, sample matrix, results of the original sample analysis, results of the duplicate sample analysis, the relative percent difference of each target analyte for the original duplicate sample analyses and the QC limit for relative percent difference for each target analyte;

6. Laboratory Control Sample Results Summary / Quality Control Check Standard Summary - When specified by the analytical method, the results of the laboratory control (quality control check) sample shall be submitted. The following information shall be reported: control sample matrix, list of all target analytes, the true concentration for each analyte in the control sample, the reported concentration for each target analyte in the control sample, the percent recovery for each target analyte and the QC limit for percent recovery for each target analyte.

APPENDIX B

MODEL PUBLIC NOTICE FOR A DISCHARGE TO GROUND WATER PROPOSAL

The model public notice in this appendix contains blanks and matter in brackets []. These blanks shall be replaced with the appropriate information prior to publication in appropriate local newspapers. As provided at N.J.A.C. 7:26E-5.6(c), the wording of this model public notice shall not be otherwise changed or modified.

Public Notice

Take notice that, as part of the remediation of [Site Name] at [street address], Block: _____ Lots: _____, in [Municipality], [_____] County, a proposal has been submitted to the New Jersey Department of Environmental Protection (Department) to discharge to ground water in accordance with a permit issued pursuant to the provisions of the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., its implementing regulations the New Jersey Pollutant Discharge Elimination System, N.J.A.C. 7:14A; the Ground Water Quality Standards, N.J.A.C. 7:9C; and the Technical Requirements for Site Remediation, N.J.A.C. 7:26E. The Department's Site Remediation Program is reviewing the proposal to discharge to ground water for the purpose of remediating a contaminated site with the program interest # [_____].

Brief description of the proposed discharge: [Include a description of the site including the remedial action, type of discharge (e.g., treated ground water or in situ bioremediation), discharge unit (e.g., injection well, overland flow, lagoon, etc.) and treatment proposed and the name and description of the formation receiving the discharge]. A copy of this public notice has been sent to the Municipal Clerk and designated local health official for [Municipality, County or region].

A copy of the discharge to ground water proposal is available from the person responsible for conducting the remediation [include the name and address of the person conducting the remediation], or as part of the administrative record which is on file at the offices of the Department, Site Remediation Program, located at 401 East State Street, Trenton, Mercer County, New Jersey [or add alternate location]. The file may be reviewed under the New Jersey Open Public Records Act ("OPRA"), N.J.S.A. 47:1A-1 et seq. Information regarding the OPRA procedures is available at www.state.nj.us/dep/opra/oprainfo.html.

Interested persons may submit written comments regarding the discharge to ground water proposal to the Department at the address listed below and to the owner or operator of the