

## Glossary

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<b>Absorption</b>	The process by which toxicants cross body membranes and enter the bloodstream
<b>Acid extractables</b>	A group of organic analytes that are removed from acidified water with methylene chloride in EPA analytical method SW-846, 8270
<b>Activity restriction</b>	A formal restriction that limits specific activities that could result in exposure to chemicals of concern at levels unsafe for human health or the environment. This restriction is implemented through an institutional control.
<b>Acute hazards (or exposures)</b>	Environmental exposures that pose an imminent threat to human health or the environment over the short term (less than 2-week exposure)
<b>Alternative hypothesis</b>	A statement declaring an alternative to the null hypothesis, often symbolized by $H_1$
<b>Attenuation</b>	A reduction in constituent concentration or mass in ground water due to the combined effects of naturally occurring chemical and physical processes, including dispersion, sorption, and biodegradation
<b>Blank</b>	A sample analyzed to determine if all or a portion of an analyte detected in an environmental sample is the result of external contamination due to handling or other factors in the field or the laboratory; in such cases, the detected concentration of the analyte may not actually represent site conditions. <i>See Equipment Blank, Field Blank, Method Blank, and Trip Blank.</i>
<b>Base-neutral extractables</b>	A group of semivolatile organic compounds extractable from basic or neutral water solutions with organic solvents in EPA analytical method SW-846, 8270
<b>Calibration</b>	Routine quality control procedures performed daily or more frequently to maintain the accuracy of analytical instruments or measuring equipment

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<b>Calibration standard</b>	A standard prepared by successive dilution of a standard working solution; calibration standards should cover the full concentration range associated with the analytical method
<b>Chemicals of concern (COCs)</b>	<ol style="list-style-type: none"><li>1. Chemicals that are the focus of screening, investigation, or closure</li><li>2. For petroleum sites, potentially harmful chemicals within a mixture that are present in sufficient quantity to serve as indicator compounds for that particular mixture</li></ol>
<b>Closure</b>	<ol style="list-style-type: none"><li>1. IDEM's written recognition that a party has demonstrated attainment of specific remedial or screening objectives (closure levels) for chemicals of concern at a particular area. The written instrument for this decision varies by remedial program (see RISC User's Guide).</li><li>2. Under the Resource Conservation and Recovery Act (RCRA), refers to a series of formal procedures required to end the operation of a permitted treatment, storage, or disposal (TSD) unit.</li></ol>
<b>Closure level</b>	A land use-specific chemical concentration in soil or ground water that is suitable for use both as a screening level and a remedial objective
<b>Commercial/industrial land use</b>	A property designation that includes all adjacent blocks and lots controlled by the same owner or operator that are used in conjunction with a business (and not used for human habitation), or vacant land not intended for future human habitation; defined by SIC codes (see Appendix 4)
<b>Composite sample</b>	A sample that consists of portions of several samples from a given area; the portions are thoroughly homogenized to represent the area sampled. Composite samples are not appropriate for volatile substances.
<b>Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)</b>	Legislation that established the federal Superfund for response to uncontrolled releases of hazardous substances to the environment

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<b>Conceptual Site Model (CSM)</b>	A comprehensive depiction of a site developed during pre-sampling using readily available information; the model is updated as additional site information is obtained. The model is used to identify all potential or suspected sources of contamination, types and concentrations of chemicals of concern detected at the site, potentially contaminated media, potential exposure pathways, and receptors.
<b>Confidence interval</b>	A range, calculated from sample data, within which the mean of repeated sampling events would likely fall a given percentage of the time (for example, the 95 percent confidence interval)
<b>Constituent</b>	A chemical of concern that has been detected at a concentration lower than its land use-specific closure level, and therefore, poses negligible threat to human health and the environment
<b>Construction worker exposure</b>	Worker exposure that could potentially result from trenching or excavation activities at a site
<b>Contaminant</b>	<ol style="list-style-type: none"><li>1. A chemical of concern that has been detected at a concentration that exceeds its associated land use-specific closure level, posing an actual or potential threat to human health and the environment</li><li>2. Contaminant as defined by IC 13-11-2-42</li></ol>
<b>Contract Laboratory Program (CLP)</b>	EPA program that establishes laboratory specifications, analytical methods, and quality assurance/quality control protocols required for Superfund and related activities
<b>Contract Required Detection Limit (CRDL)</b>	Method detection limit required for a given analyte in a given matrix in the Contract Laboratory Program Statement of Work; generally refers to inorganic analytes
<b>Contract Required Quantitation Limit (CRQL)</b>	Similar to Contract Required Detection Limit (CRDL) but generally refers to organic compounds
<b>Control Sample</b>	A sample introduced into a data collection process to monitor the performance of the system

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<b>Critical effect</b>	The first adverse effect, or its known precursor, that occurs to the most sensitive species as the dose increases during toxicity testing of a chemical.
<b>Critical effects category</b>	A group of organs or tissues with a common function or means of absorption, grouped together for the purpose of determining additivity of compounds by critical effect
<b>Data collection design</b>	The configuration of the environmental sampling effort to satisfy the Data Quality Objectives (DQO); it includes the types of samples to be collected; the conditions under which they should be collected; variables to be measured; and the quality assurance and quality control components that ensure acceptable sampling design and measurement error to meet the decision error rates specified in the DQOs. The data collection design is the principal part of the Quality Assurance Project Plan.
<b>Data Quality Assessment (DQA)</b>	The scientific and statistical evaluation of data obtained from environmental operations to determine if they are of the right type, quality, and quantity to support their intended use. The five steps of the process include (1) reviewing DQOs and the sampling design, (2) conducting a preliminary data review, (3) selecting the statistical test, (4) verifying the assumptions of the statistical test, and (5) drawing conclusions from the data.
<b>Data Quality Assessment (DQA) Process</b>	The evaluation of the data set (1) to assess the validity and performance of the data collection design and statistical test and (2) to establish whether a data set is adequate for its intended use
<b>Data Quality Objectives (DQO)</b>	Qualitative and quantitative statements that clarify a study's technical and quality objectives, define the appropriate type of data, and specify the tolerable levels of potential decision errors that will be used as the basis for establishing the quality and quantity of data needed to support decisions.
<b>Decision error limits</b>	The degree of Type I and Type II Error that is tolerable to the decision maker. Decision error goals in RISC are at least 5 percent for Type I Error and 25 percent for Type II Error.

<b>Default</b>	In RISC, the term refers to the use of any standard constant, equation, model, process, strategy, or evaluation that is prescribed for general application within the RISC Technical Guide
<b>Default assessment</b>	An evaluation under RISC using all of the standard constants, equations, models, processes, strategies, or evaluations that are prescribed for general application within the RISC Technical Guide
<b>Default closure level</b>	A land use-specific constituent concentration calculated to be protective of human health at any site. This concentration can be used as both a screening level and a closure level (see the default Closure Table in Appendix 1).
<b>Default exposure assumptions</b>	Standardized human health exposure criteria that assume human contact with contaminated environmental media based on anticipated activities associated with a particular land use. These assumptions are used to calculate default closure levels.
<b>Definitive samples</b>	Samples of environmental media, analyzed by a laboratory, that meet the Data Quality Objectives of the project
<b>Dermal exposure</b>	Skin contact with any contaminated medium
<b>Dilution attenuation factor (DAF)</b>	The ratio of constituent concentration in soil leachate to the concentration in ground water at the downgradient edge of the contaminated area (default value equals 20). This factor accounts for the reduction in constituent concentration that results from adsorption, chemical transformation, biological degradation, and dilution due to mixing of the leachate with ambient ground water.
<b>Dilution factor</b>	The ratio of constituent concentration in soil leachate to the concentration in ground water at a fixed point downgradient of the source (site specific, nondefault). This factor accounts for the reduction in constituent concentration that results from dilution due to mixing of the leachate with ambient ground water.

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<b>Direct contact</b>	A grouping of soil exposure pathways that assumes human exposure to soil chemicals of concern through simultaneous skin contact, ingestion, and dust and volatile inhalation
<b>Duplicate</b>	A split sample or an independent second sample collected from, and representative of, the same sample location for the purpose of documenting precision. <i>See field duplicate, matrix duplicate, and matrix spike duplicate.</i>
<b>Ecologically susceptible area</b>	Areas of special habitats where it is appropriate to consider the effects of chemicals of concern on nonhuman receptors
<b>Engineering controls</b>	Physical barriers designed and maintained to prevent humans or other receptors from being exposed to contaminated environmental media
<b>Environment</b>	The complex of physical, chemical, and biologic factors which includes land; fish; wildlife; biota; air; water; ground water; drinking water supplies; and other similar natural resources as provided by IC 13-11-2-137 which act upon an organism or ecological community.
<b>Environmental media</b>	Material found in the outdoor, natural, physical environment (such as surface soil, subsurface soil, ground water, air, or surface water) through which constituents can move and contact organisms
<b>Environmental Notice</b>	A legal instrument recorded on the deed of the affected property and which serves to inform future property owners of certain restrictions or obligations regarding (1) land use designation, (2) activity restrictions, or (3) engineering controls. The property owner must record the environmental notice on the deed with the local county recorder's office.
<b>Equipment blank</b>	A sample of analyte-free reagent water used to rinse sampling equipment; the blank is collected after decontamination is complete at a decontamination sampling location and prior to sampling at the next sample location. The blank is analyzed to document that cross-contamination has not occurred between sampling locations. Also called an equipment rinsate.

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<b>Estimated Quantitation Limit (EQL)</b>	The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. Use of the word “estimated” emphasizes sample matrix dependence. Estimated Quantitation Limits have replaced Practical Quantitation Limits in SW-846 methods.
<b>Exposure</b>	An organism’s contact with a chemical, physical, or biological agent (contaminant). Exposure is quantified as the concentration of the contaminant in the contact medium integrated over the time duration of that contact.
<b>Exposure assessment</b>	In RISC, the determination or estimation (qualitative or quantitative) of the magnitude, frequency, duration, and route of exposure to a chemical of concern in the environment
<b>Exposure pathway</b>	The course a contaminant takes from the source area to the point of contact with an exposed organism
<b>Exposure route</b>	The way a toxicant comes into contact with an organism, typically by means of dermal contact, ingestion, or inhalation; also known as the absorption route
<b>Extent of contamination</b>	The vertical and horizontal distribution of chemical of concern concentrations that exceed residential closure levels.
<b>False negative decision error</b>	A false negative decision error occurs when the null hypothesis is not rejected when it is false (Type II Error).
<b>False positive decision error</b>	A false positive decision error occurs when the null hypothesis is rejected when it is true (Type I Error).
<b>Field blank</b>	Analyte-free reagent water taken to the sampling site, transferred into a sample container on site, and then analyzed by the laboratory for the same parameters as the investigative samples. This sample is used to check for procedural contamination of samples.
<b>Field duplicate</b>	A split sample or an independent sample is collected from the same location or source, as closely as possible to the same point in space and time. This duplicate sample is stored in a separate container and analyzed separately to document the precision of

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	the sampling process.
<b>Free product</b>	<ol style="list-style-type: none"><li>1. Any material that has been released from a container or process and presents a potential acute threat to human health or the environment</li><li>2. A material in excess of its solubility limit</li><li>3. In LUST and RCRA, it has the meaning in 329 IAC 9-1-23, a “regulated substance that is present as a nonaqueous phase liquid, for example, liquid not dissolved in water.”</li></ol>
<b>Gasoline</b>	A volatile mixture of flammable liquid hydrocarbons derived chiefly from crude petroleum and used principally as a fuel and as a solvent, illuminant, and thinner. Chemicals of concern in gasoline include methyl tertiary butyl ether (MTBE), benzene, toluene, ethylbenzene, and xylenes (BTEX).
<b>Geologically susceptible area</b>	A geographical area is characterized by conditions that allow chemicals of concern to migrate away from the source area in such a manner that invalidates the assumptions of the soil-to-ground water partitioning model. Examples of geologically susceptible areas include karst terrain, mined areas, and other fractured rock geology where conduit ground water flow exceeds matrix ground water flow.
<b>Ground water</b>	Water located below the ground surface in interconnected voids and pore spaces in the zone of saturation
<b>Hazard index (HI)</b>	The sum of individual hazard quotients for multiple substances
<b>Hazard quotient (HQ)</b>	The ratio of a single substance exposure level over a specified period of time relative to a level that is considered protective, or the ratio of the exposure level to the default closure level
<b>Holding time</b>	Elapsed time, expressed in days from the date of sampling to the date of analysis, that a properly preserved sample may be stored before analysis
<b>Hypothesis</b>	A statement postulated as true for the purposes of investigation
<b>Indoor Volatilization Constant (water to air)</b>	A default constant that defines the relationship between the concentration of a chemical constituent in water and the average concentration of the volatilized constituent in air

<b>Institutional controls</b>	Administratively or legally enforceable measures that limit human exposure to chemicals of concern that exceed residential closure levels; institutional controls do not involve engineered solutions.
<b>Interference</b>	An element, compound, or other matrix effect present in a sample that interferes with the detection of a target analyte; such interferences may lead to inaccurate analytical results for target analyte concentrations.
<b>Internal standards</b>	Known compounds of known concentrations added to a sample by the laboratory prior to analysis to assist in qualifying and quantifying target analytes
<b>Judgmental sampling</b>	A method of selecting sample locations based on the professional judgment of the sampler. The history of the site, current site conditions, and terrain should guide these decisions.
<b>Known to be contaminated</b>	An area screening term used to describe areas where chemicals of concern are known to have been released. The initial classification is based on previous sampling data or records that document contamination, visibly stained soils, or other investigative data that indicate constituents are present.
<b>Laboratory control sample</b>	A known matrix spiked with compounds representative of the target analytes and used to document sample laboratory performance
<b>Limits on decision errors</b>	The tolerable decision error probabilities established by the decision maker. Potential economic, health, ecological, political, and social consequences of decision errors should be considered when setting such limits.
<b>Matrix</b>	The substance containing the analyte of interest. Examples include soil, sediment, sludge, ground water, surface water, drinking water, and air. Sometimes matrix types are simplified to consider only three main types: soil, water, and air.
<b>Matrix duplicate</b>	A duplicate field sample used to document the precision of sampling and the homogeneity of a given matrix; also known as a field duplicate

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<b>Matrix spike</b>	An aliquot of sample spiked with a known concentration of target analytes to document method bias in a particular matrix. The spiking occurs prior to sample preparation and analysis.
<b>Matrix spike duplicate</b>	A split sample, both portions of which are spiked with identical concentrations of target analytes to determine method bias and precision in a particular sample matrix
<b>Maximum Contaminant Levels (MCL)</b>	Maximum concentration of a chemical allowed in drinking water systems by the National Primary Drinking Water regulations [40 CFR 141.11 (inorganic chemicals) and 141.12 (organic chemicals)]
<b>May be contaminated</b>	An area screening term used to describe any land parcels that cannot be classified as <i>unlikely</i> or <i>known to be contaminated</i> ; this classification is based on site information that is incomplete, ambiguous, or inconclusive
<b>Mean</b>	The most common measure of central tendency, the sample mean is the arithmetic average of the sample data. As the sample number increases, the sample mean approximates the population mean.
<b>Measurement error</b>	The difference between the true value and the value reported for any sample measurement
<b>Media</b>	See environmental media
<b>Method blank</b>	A blank prepared to represent the sample matrix as closely as possible. A method blank is subjected to all the same analytical procedures as calibration standards, field samples, and quality control (QC) samples.
<b>Method detection limit</b>	The minimum concentration of an analyte that can be measured and reported with 99 percent confidence; the limit is determined by analyzing a sample with known concentrations at various dilutions; this limit is matrix specific (for example, the limit would differ for soil and water).
<b>Migration to ground water</b>	The soil exposure pathway that considers leaching of chemical constituents from soil into ground water

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<b>Nature of contamination</b>	Site-related chemicals of concern detected during site characterization and their respective concentrations.
<b>No further degradation</b>	The concept that ground water contamination should not be allowed to increase with respect to spatial extent or chemical of concern concentration
<b>Nondefault</b>	Any constant, equation, model, process, strategy, or evaluation that is not prescribed for general application in the RISC Technical Guide
<b>Nonvolatile organic compound</b>	A group of organic compounds identified as base-neutral or acid extractable in EPA Method 8270 from SW-846.
<b>Null hypothesis</b>	In statistical hypothesis testing, the null hypothesis ( $H_0$ ), is the theory to be tested. In environmental evaluations the null hypothesis is generally that the site is contaminated.
<b>Percentile</b>	The specific value of a distribution such that $p$ percent of the distribution is equal to or below that value. For example, if $p=95$ for a specific value, it means that 95 percent of the values in the population (or statistical sample) are less than or equal to that value.
<b>Petroleum</b>	As per IC 13-11-2-160, petroleum is used for the following purposes: (1) IC 13-23, (2) IC 13-24-1, (3) IC 13-25-5. Those uses include petroleum and crude oil, or any part of petroleum or crude oil, that is liquid at standard temperature (60EF) and pressure (14.7 pounds per square inch absolute).
<b>Plume stability</b>	A closure objective or criteria for ground water in which the zone of constituent impact in the ground water (1) is not increasing in size or concentration and (2) is not migrating. Plume stability is demonstrated using a default or nondefault stability monitoring method.

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<b>Perimeter of Compliance (POC)</b>	When there is human or ecological exposure within the contaminant plume area, the perimeter of compliance (POC) is established as the location where exposure occurs. When there is neither human nor ecological exposure within the contaminant plume area, the POC is defined as the perimeter that is representative of the point at which ground water chemical of concern concentrations are equal to or less than land use-specific default closure levels.
<b>Population</b>	The total collection of objects, media, or organisms to be studied and sampled
<b>Potential exposure concentration</b>	The quantitative measurement of chemical constituents in environmental media for the purpose of exposure assessment (in area screening, characterization of the nature and extent of contamination, and closure)
<b>Power</b>	The ability of a statistical test to reject the null hypothesis when it is false. Power ranges from 0.0 to 1.0. The higher the number, the greater the power of the test.
<b>Precision</b>	The agreement among a set of replicate measurements without considering the “true” or accurate value; indicates the variability between measurements of the same material for the same analyte, generally expressed in terms of the standard deviation
<b>Priority pollutants</b>	Specific list of inorganic and organic analytes commonly included in the National Pollution Discharge and Elimination System (NPDES) program
<b>Property control</b>	Control over land use or activities on a parcel of land, either through ownership or agreements with the owners, for the purpose of reducing or controlling exposure to chemicals of concern
<b>Quality assurance (QA)</b>	An integrated system of management activities involving planning, quality control, quality assessment, reporting, and quality improvement to ensure that a product or service (for example, environmental data) meets defined standards of quality with a stated level of confidence

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<b>Quality Assurance Project Plan (QAPP)</b>	A formal technical document describing the detailed quality assurance/quality control and other technical procedures to ensure that the quality of environmental data will satisfy the stated performance criteria for the data collection activity
<b>Quality control (QC)</b>	A systematic approach that measures the attributes and performance of a process, item, or service against defined standards to verify that they are met
<b>Quality Management Plan (QMP)</b>	A formal document describing the management policies, objectives, principles, organizational authority, responsibilities, accountability, and implementation protocols of an agency, organization, or laboratory for ensuring quality in its products and utility to its users
<b>Random sampling</b>	Selecting sampling locations in such a way that every member of the population has an equal chance of being sampled
<b>Range</b>	The numerical difference between the minimum and maximum of a set of values
<b>Release</b>	This term has program-specific definitions by Indiana statute IC 13-11-2-184
<b>Remedial plan</b>	A document prepared to address soil or ground water contamination that exceeds closure levels or a ground water plume that may be expanding (as indicated by monitoring data). This plan may cover remedial actions or other alternatives that are available under RISC.
<b>Representative sampling</b>	A sampling strategy that leads to the collection of samples in a manner that is compatible with the goals of the sampling plan. For random sampling, the goal should be to determine the confidence interval within which the true mean of the constituent concentration lies, and to keep the confidence interval as small as possible. For judgmental sampling the goal should be to collect samples that represent the areas with the highest levels of contamination and to delineate the nature and extent of the contamination.
<b>Residential exposure</b>	Human contact with contaminated environmental media at a frequency and duration likely to occur at a residence

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<b>Residential land use</b>	Any property used as a place of residence; any property defined by a primary SIC code that is within the commercial/ industrial category, but which is used in part for residential activities, such as a daycare center. Residential land use includes agricultural uses.
<b>Resource Conservation and Recovery Act (RCRA)</b>	Federal legislation that established cradle-to-grave accountability for hazardous wastes, from the point of generation to the point of disposal
<b>Risk</b>	The probability of deleterious health or environmental effects
<b>Risk assessment</b>	The collection and analysis of data that characterizes the nature and magnitude of risk posed by a specific toxic agent
<b>Risk Integrated System of Closure (RISC)</b>	Indiana's agency-wide environmental remediation policy that incorporates environmental risk assessment principles to protect human health and the environment
<b>Risk management</b>	The process of collecting, interpreting, and applying scientific data to ensure that risks to human health and the environment are reduced to a negligible level
<b>Sample</b>	<ol style="list-style-type: none"><li>1. In environmental field work, <i>sample</i> refers to a single item or specimen from a larger whole or group, such as any single sample of any medium.</li><li>2. In environmental statistics, <i>sample</i> refers to a set of representative individual specimens whose properties are studied to gain information about the whole population.</li></ol>
<b>Sampling</b>	The process of obtaining representative samples or measurements of a subset of a population
<b>Sampling design error</b>	The error due to observing only a limited number of total possible values that make up the population being studied. This error is distinguished from errors due to imperfect selection; bias in response; and errors of observation, measurement, or recording.
<b>Sampling and Analysis</b>	A site-specific plan detailing sampling rationale, protocols, and analyses. The protocols provide for documentation of all field

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<b>Plan (SAP)</b>	work.
<b>Screening levels</b>	Land use-specific chemical concentrations suitable for identifying areas of a site that contain contaminated media and require further action (investigation or cleanup). RISC uses the default closure levels in Appendix 1 for this purpose.
<b>Sediment</b>	Particulate matter typically consisting of mixtures of clay, silt, sand, organic matter, and various minerals that usually lie below water. This matrix of materials can be relatively heterogeneous in terms of physical, chemical, and biological characteristics. Sediment frequently accumulates chemical constituents in concentrations that exceed those in overlying water; for this reason, sediment can be a persistent source of toxic materials for aquatic resources.
<b>Selectivity</b>	Uniqueness of a response in a given methodology
<b>Sequential sampling</b>	A method of sampling and analysis identifying contamination in an overlapping repeat events.
<b>Sensitivity</b>	The change in response per unit change in quantity and concentration of an analytical instrument or method
<b>Site</b>	<ol style="list-style-type: none"><li>1. The geographical area where environmental chemical of concern evaluation is desired. This may consist of an entire facility and surrounding property or a single area of concern within a facility or property, depending upon the applicable regulatory program.</li><li>2. For purposes of IC 13-25-5, <i>site</i> means a parcel of real property for which an application has been submitted under IC 13-25-5-2.</li></ol>
<b>Site characterization</b>	The process of determining the nature and extent of contamination in environmental media. This information is utilized to determine the potential exposure concentrations.
<b>Site screening</b>	The process of determining through sampling and analysis which areas of concern contain chemical concentrations that require additional action (either investigation or remediation)

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<b>Site specific</b>	Nondefault application of RISC where specific chemical or physical parameters, models, equations, strategies, or assumptions are applied for any source area
<b>Slope factors</b>	A mathematically-derived value that posits a plausible upper-bound estimate of the probability of a cancer response per unit intake of a chemical over a lifetime. A specific slope factor is used to estimate an upper-bound probability that an individual will develop cancer as a result of a lifetime exposure to a particular concentration of a carcinogen.
<b>Smear zone</b>	The vertical zone of soil at the ground water interface which is repeatedly exposed to soluble and non-aqueous phase constituents in the ground water due to seasonal ground water elevation fluctuations.
<b>Soil attenuation capacity (SAC)</b>	A constituent source limit for organic chemicals that considers adsorption of the constituent to the soil organic carbon. Default values are 2,000 mg/kg for subsurface soil and 6,000 mg/kg for surface soil (based on fraction of organic carbon in soil).
<b>Soil porosity</b>	A measurement of the void areas between soil particles that may be filled with gas or liquid
<b>Soil saturation limit</b>	A constituent source limit that quantifies the chemical concentration in soil at which the absorptive limits of the soil particles, the solubility limits of the soil pore water, and saturation of soil pore air have been reached
<b>Soil to ground water partitioning equation</b>	The methodology for calculating closure levels for constituent migration from soil to ground water. The equation quantifies chemical concentrations in soil that have the potential to contaminate ground water (also referred to as the migration-to-ground water model).
<b>Solubility limit</b>	A constituent concentration limit for chemicals that quantifies the maximum concentration of a chemical that will dissolve in water
<b>Source area</b>	The horizontal and vertical geographical area where chemical of concern concentrations exceed default residential soil closure levels

<b>Spike</b>	A known volume of a solution of target analytes of known concentration added to a sample before analysis and used to document bias and accuracy in inorganic analysis; also referred to as an analytical spike or matrix spike
<b>Split samples</b>	Aliquots of samples taken from the same container and analyzed independently, usually after mixing or compositing; split samples are used to document precision and comparability.
<b>Stability monitoring</b>	A plume stability demonstration method involving a quantitative and temporal evaluation of ground water concentrations. This method attempts to demonstrate that a ground water plume is not increasing in size or concentration and is not migrating; the demonstration may use default or nondefault evaluation methods.
<b>Standard deviation</b>	The square root of the variance, representing the variability between individual sample measurements and the mean
<b>Statistic</b>	A numerical descriptive measure computed from a sample
<b>Statistical test</b>	Any statistical method used to determine which of several hypotheses are true
<b>Storativity</b>	The volume of water that a permeable unit will absorb or discharge from storage per unit of surface area per unit of change in head
<b>Subsurface soil</b>	The soil media contained in the interval from 6 inches below ground surface to the depth of the water table
<b>Surface soil</b>	The soil media contained in the top 6 inches of soil
<b>Susceptible areas</b>	Areas for which the default models and closure levels do not apply. Susceptible areas are classified as geologically susceptible areas, wellhead protection areas, and ecologically susceptible areas.
<b>SW-846</b>	Standard methods of analysis, sampling techniques, and Quality Assurance/ Quality Control (QA/QC) procedures as specified in EPA Test Methods for Evaluating Solid Waste, 1986, Third Edition, plus updates

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<b>Synthetic Precipitation Leachate Procedure (SPLP)</b>	An analytical leaching method designed to determine the mobility of both organic and inorganic analytes present in liquids, soils, and wastes in accordance with Method 1312 SW-846, Update III, September 1994
<b>Target risk</b>	A value that is combined with exposure and toxicity information to calculate a risk-based concentration for a specific application (for example, a default closure level). For carcinogenic effects, the default target risk is a cancer risk of $10^{-5}$ . For noncarcinogenic effects, the target risk is a hazard index of 1 by target organ.
<b>Transmissivity</b>	A measure of the amount of water that can be transmitted horizontally by the full, saturated thickness of the aquifer with a hydraulic gradient of 1. Transmissivity is determined by multiplying the hydraulic conductivity of the aquifer by its saturated thickness.
<b>Trip Blank</b>	Analyte-free reagent water taken to the sampling site and analyzed by the laboratory for the same parameters as the investigative samples. This sample is used to check for procedural contamination of samples.
<b>Type I error</b>	A Type I Error occurs when the null hypothesis is rejected when it is true (False Positive).
<b>Type II error</b>	A Type II Error occurs when the null hypothesis is not rejected when it is false (False Negative).
<b>Unlikely to be contaminated</b>	An area screening term that is used to describe portions of a site where there is no reason to suspect contamination; historic site data is used in conjunction with best professional judgement to make this determination.
<b>User</b>	The person evaluating environmental contamination through the processes outlined in RISC
<b>Variable</b>	A quantity that may assume any one of a set of values
<b>Variance</b>	A measure of the variability of a random variable around its mean

<b>Volatile organic compound (VOC)</b>	A chemical with a boiling point of less than 200 EF that is not a base-neutral compound
<b>Volatilization factor (soil to air)</b>	The rate of change between the concentration of a chemical constituent in the soil and the flux of the volatilized constituent in the air
<b>Wellhead Protection Area</b>	The surface and subsurface area, delineated by fixed radius, hydrogeological mapping, analytical, semianalytical, or numerical flow/solute transport methods, that contributes water to a community public water supply system production well or wellfield and through which contaminants are likely to move and reach the well within a specified period

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## RISC Technical Guidance Manual Acronyms

ASTM	American Society for Testing & Materials
BTEX	Benzene, Toluene, Ethyl Benzene, Xylene
CAS	Chemical Abstract Service
CERCLA	Comprehensive Environmental Response Compensation & Liability Act
CFR	Code of Federal Regulations
CL	Closure Level
CLP	Contract Laboratory Program
COC	Chemical of Concern
cPAHs	Carcinogenic Polynuclear Aromatic Hydrocarbons
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
CSM	Conceptual Site Model
CV	Coefficient of Variation
DAF	Dilution Attenuation Factor
DQA	Data Quality Assessment
DQO	Data Quality Objectives
EPA	Environmental Protection Agency
EQL	Estimated Quantitation Limit
FID	Flame Ionization Detector
GC/MS	Gas Chromatography / Mass Spectrometry
GIS	Geographic Information System
HASP	Health and Safety Plan
HEAST	Health Effects Assessment Summary Tables
IDEM	Indiana Department of Environmental Management
IRIS	Integrated Risk Information System
ISBN	International Standard Book Number
LUST	Leaking Underground Storage Tanks
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
MS/MSD	Matrix Spike / Matrix Spike Duplicate
MTBE	Methyltertiary butyl ether
NCEA	National Center for Exposure Assessment
NCP	National Contingency Plan
NLM	National Library of Medicine
NOAEL	No Observed Adverse Effects Level
OSWER	Office of Solid Waste and Emergency Response
PCB	Polychlorinated Biphenyls
PEC	Potential Exposure Concentration
PID	Photoionization Detector
POC	Perimeter of Compliance
QA/QC	Quality Assurance / Quality Control
QAPP	Quality Assurance Project Plan
RAGS	Risk Assessment Guidance for Superfund

RCRA	Resource Conservation & Recovery Act
RFD	Reference Dose
RISC	Risk Intergrated System of Closure
RMSD	Root-Mean-Square Deviation
RSS	Ranked Set Sampling
SAP	Sampling & Analysis Plan
SOP	Standard Operating Procedures
SPLP	Synthetic Precipitation Leaching Procedure
SRS	Simple Random Sampling
StRS	Stratified Random Sampling
SVOC	Semivolatile Organic Compounds
SyGS/rs	Systematic Grid Sampling with a Random Starting Point
TAL	Target Analyte List
TCL	Target Compound List
TSD	Treatment, Storage, Disposal
UCL	Upper Confidence Limit
USGS	US Geographical Service
VOC	Volatile Organic Compound
VRP	Voluntary Remediation Program
XRF	X-Ray Fluorescence