WASTE ANALYSIS PLAN

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SUMMARY OF WASTE ACCEPTANCE PRACTICES

This Waste Analysis Plan (WAP) details the procedures for ensuring the Ri-Nu Services LLC facility located at 815 Mission Rock Road in Santa Paula, California (the facility) only accepts non-hazardous wastes. The following is a summary of the waste acceptance practices that are presented in more detail throughout this document:

1. It is the responsibility of the waste generator to conduct laboratory analysis of their waste stream to ensure it is not a hazardous waste prior to sending it to Ri-Nu for treatment and disposal.

2. The generator submits a "profile application" of the proposed waste stream to Ri-Nu for approval. The profile application includes:
    a. A description of the waste stream (tank bottoms, drill mud, etc.).
    b. A description of the process that generated the waste stream.
    c. A physical description of the waste stream (color, odor, pH range, % solids).
    d. Laboratory analytical conducted by a 3rd party State-certified laboratory for the waste stream confirming it is not a hazardous waste.

3. The generator submits an actual sample of the proposed waste stream to Ri-Nu.

4. Ri-Nu compares the waste stream sample to the profile description and conducts internal sample analyses in their in-house lab to compare to the 3rd party analytical submitted by the generator. The in-house lab will be used only for internal testing and will not be a State-certified lab used for complete waste profiling.

5. Ri-Nu also conducts bench scale treatability testing to be sure their treatment process can reduce the waste stream contaminants to levels below the facility's discharge limits. Even if the waste stream proves to be non-hazardous, if it cannot be treated sufficiently, it will not be accepted by the facility.

6. If the physical inspection of the waste stream sample matches the profile description and Ri-Nu's in-house laboratory analyses are consistent with the 3rd party analytical results, Ri-Nu will allow the generator to schedule delivery of their waste to the Ri-Nu facility.

7. When the generator's truck arrives at the Ri-Nu facility to transfer their waste, Ri-Nu conducts the following check for each load:
    a. A sample of the waste stream is taken from the delivery truck before it is unloaded and physically compared to the original waste stream sample supplied by the generator. Physical comparisons include color, odor and % solids.
    b. Ri-Nu's in-house lab then conducts additional "fingerprint" analyses of the sample from the delivery truck. This may include checking pH, flash point, metals content, etc.

8. If the waste load fails either the physical inspection or the analytical "fingerprint" check, it is rejected and the truck leaves the facility without unloading the waste.

9. The load check process takes roughly 30 minutes to complete. Once the load passes the load check, the waste is unloaded at the facility.

10. The waste generator is required to re-certify their waste characterization:
    a. Annually for each waste stream managed by the Ri-Nu facility; and
    b. Whenever a change in raw materials or a change in the process that creates the waste stream alters the characteristics of that waste.

These practices ensure that Ri-Nu does not accept a waste stream that is a hazardous waste.

1.0 INTRODUCTION

In accordance with the Environmental Health Standards for the Management of Hazardous Waste, codified in the California Code of Regulations (CCR) 22 CCR §66264.13, and in accordance with Title 40 of the Code of Federal Regulations, Part 264 (40 CFR 264), this Waste Analysis Plan (WAP) is a description of the chemical and physical characteristics of the non-hazardous waste stored and treated at the Ri-Nu Services LLC facility located at 815 Mission Rock Road in Santa Paula, California (the facility). This WAP includes the waste analysis procedures, which help ensure that the facility has sufficient information to make sound storage, treatment, safety, and compliance decisions. Wastes stored at the facility are non-hazardous waste, sludge, and muds generated by a variety of sources. Non-hazardous waste streams accepted at the facility include, but are not limited to, the following:

- Sludge generated from truck washouts
- Drilling muds generated from the oil and gas industry
- Oil and gas production wastes
- Waste sludge generated from various industrial processes

This WAP describes the methods and procedures used to ensure that the waste streams received at the facility are those permitted for storage and treatment. Specifically, this WAP details procedures to ensure that a particular waste stream is "as described" by the generating activity and non-hazardous according to federal and state regulations.

To achieve the above goals, all incoming waste streams will undergo a pre-acceptance evaluation and a waste shipment evaluation. Outgoing waste streams will retain this characterization for offsite transportation and treatment or disposal. If altered, outgoing waste streams will be re-characterized as described below.

2.0 NON-HAZARDOUS WASTE CHARACTERIZATION

Non-hazardous wastes managed at the facility are subject to waste analyses for a variety of purposes, including:

- Determination as to whether a solid waste is hazardous, and therefore, not acceptable for treatment at the facility, as defined by 40 CFR 261.3(a)(2) and CCR Title 22, Division 4.5, Chapters 11
- Determination of the constituents of each non-hazardous waste stream managed at the facility
- Determination as to whether a waste stream is restricted under 40 CFR 268 Subpart C
- Collection of sufficient information to safely manage waste at the facility, including determination of container specifications and Department of Transportation (DOT) shipping names, as applicable
- Confirmation that waste shipments conform with waste profile records and shipping papers
- Confirmation that the constituents of the waste are consistent with the outbound waste profile for offsite shipments of the waste

2.1 Waste Profiles

Prior to initial receipt of waste at the facility, a full characterization of the waste stream must be performed by the generator of the waste. This characterization will include:

- A description of the waste stream.
- A description of the process that generated the waste stream.
- A physical description of the waste stream (color, odor, pH range, % solids).
- Laboratory analytical conducted by a 3rd party State-certified laboratory for the waste stream confirming it is not a hazardous waste.

The results of the full characterization constitute the waste profile. Full characterization identifies all of the constituents and characteristics necessary for proper designation and management of a

waste stream. Full characterization also accounts for 100% of the constituents in a waste stream (e.g., 30% oil and 70% water). A profile containing this information will be maintained for each waste stream from each separate generator. However, different waste streams with the same composition may share a common waste profile. Examples of the facility's liquid and solid waste profile sheets are included in Attachment 1.

Characterization of a waste stream may also utilize existing published or documented data on the non-hazardous waste or wastes generated from similar processes. A waste profile may incorporate data from several sources including information from a safety data sheet.

All waste streams will be periodically re-profiled in accordance with Section 2.3 of this WAP or whenever a change in raw materials or a change in the process that creates the waste stream alters the characteristics of that waste.

If the facility cannot, within reasonable certainty, determine whether a particular waste is properly identified by an existing profile, the waste will be considered to represent a new waste stream. For every new waste stream identified, a full characterization will be performed and a waste profile will be generated before the waste may be accepted at the facility.

In emergency situations (e.g., a spill response), the facility may receive and manage a waste prior to the completion of the waste profile. In such instances, the waste will be managed in accordance with the best existing knowledge of the waste. A complete waste profile will be generated by the generator as soon as practicable, at which time the waste will be managed in accordance with the profile information and this WAP.

2.2 Waste Characterization - Non-Hazardous Waste Determination

California hazardous waste is regulated under *Environmental Health Standards for the Management of Hazardous Waste* (CCR Title 22, Division 4.5, Chapters 10 to 56). The regulation provides the guidelines for determining if a waste is Resource Conservation and Recovery Act (RCRA) hazardous or California (non-RCRA) hazardous. The first step is determining if a waste is a RCRA-hazardous waste by following the steps listed below:

- Determine if the waste exhibits one of the RCRA-hazardous waste characteristics (22 CCR 66261, Article 3):

- Ignitability (D001), for example if a waste is a liquid with a flash point is <140°F.

- Corrosivity (D002), for example if a waste is a liquid with a pH is ≤2 or ≥12.

- Reactivity (D003).

- Toxicity (D004 through D043) is determined by comparing the constituent concentrations in the analytical report to the regulatory levels that are presented in 22 CCR §66261.24. If the concentrations are equal to or greater than the contaminant threshold levels, the waste is a RCRA hazardous waste.

- Determine if the waste is a listed waste as defined by 22 CCR §66261.31 through §66261.33(f). Listed wastes include the following:

  - Waste from non-specific sources (F-Listed)
  - Waste from specific sources (K-Listed)
  - Discarded unused products including acutely hazardous (P-Listed) and toxic (U-Listed) wastes

If the waste does not meet the definition of a RCRA-hazardous waste, then the following steps will be completed to determine if the waste meets the definition of a non-RCRA hazardous waste:

- Determine if the waste exhibits a non-RCRA corrosivity characteristic. Non-RCRA corrosivity as defined in 22 CCR 66261.22 is if a waste is "not aqueous and, when mixed with an equivalent weight of water, produce a solution with a pH less than or equal to 2 or greater than or equal to 12.5; or is not a liquid and when mixed with an equivalent weight of water, produce a solution that corrodes steel at a rate of greater than 6.35 millimeters (0.25-inch) per year at 130°F."

- Determine if the waste exhibits a non-RCRA toxicity characteristic as defined by 22 CCR 66261.24. Analytical results for liquids will be compared to the Soluble Threshold Limit Concentrations (STLCs). If a constituent of concern equals or exceeds the respective STLC, the waste will be characterized as a non-RCRA hazardous waste.

- Analytical results for solid wastes will be compared to the Total Threshold Limit Concentrations (TTLC) and if a constituent of concern equals or exceeds the respective Threshold Limit Concentration, the solid sample will be considered hazardous and therefore not acceptable at the facility. If the concentration of a constituent is at least 10-times the

STLC value for that chemical, it will be resubmitted for California's WET analysis, an analysis that determines the amount of the constituent that is soluble, for the specific constituent of concern. The WET analysis concentration for the constituent of concern will be compared to the STLC and if it equals or exceeds the STLC, the solid waste will be characterized as a non-RCRA hazardous waste, and therefore not acceptable at the facility.

- Has an acute oral LD_{50} less than 2,500 milligrams per kilogram.
- Has an acute dermal LD_{50} less than 4,300 milligrams per kilogram.
- Has an acute inhalation LC_{50} less than 10,000 parts per million as a gas or a vapor.
- Has an acute aquatic 96-hour LC_{50} less than 500 milligrams per liter when tested on fish using a specified test method (fish test).
- Contains a single or combined total concentration equal to or greater than 0.001 percent by weight of any of the following chemicals:
  - 2-Acetylaminofluorene (2-AAF)
  - Acrylonitrile
  - 4-Aminodiphenyl
  - Benzidine and its salts
  - Bis (Chloromethyl) there (BCME)
  - Methyl chloromethyl ether
  - 1,2-Dibromo-1-chloropropane (DBCP)
  - 3,3'-Dichlorobenzidine and its salts (DCB)
  - 4-Dimehtylaminoazobenzene (DAB)
  - Ethyleneimine (EL)
  - Alpha-Naphthylamine (1-NA)
  - Beta-Naphthylamine (2-NA)
  - 4-Nitrobiphenyl (4-NBP)
  - N-Nitrosodiemthylamine (DMN)
  - Beta-Propiolactone
  - Vinyl chloride (VCM)
- Has been shown through experience or testing to pose hazards to human health or the environment because of its carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment.

- Determine if the waste is on the M List. An M-listed waste is a waste that has additionally added mercury as per Article 4.1 of Chapter 11, Title 22.

- Determine if the waste is found on or contains substances listed in Appendix X of Title 22, which are presumed to be hazardous waste unless, it is determined that the waste is not a hazardous waste based on procedures set forth above.

- Determine if the waste is extremely hazardous pursuant to any of the criteria of section 66261.110 or 66261.113.

If the waste does not meet the definition of a RCRA-hazardous waste or a non-RCRA hazardous waste, then it is acceptable for treatment at the facility.

Waste generated as a result of on-site treatment shall be characterized by collecting representative samples of the waste, conducting laboratory analyses on the samples, and evaluating data as described above. The lab analyses will be conducted by a contracted State-certified lab and not the on-site lab. Once characterized, a profile for the off-site disposal will be obtained for the waste (unless an existing profile already exists for ongoing waste stream) and the waste will be transported to the off-site disposal facility by a licensed waste hauler. Examples of onsite generated waste include clarifier sludge, spent filter media, etc.

2.3 Waste Characterization Frequency

Each waste stream managed by the facility shall undergo full characterization annually. Waste streams that have not been managed at the facility in a preceding year do not need to be re-characterized until such time as the waste is again received at the facility.

Except as specified below, full characterization may consist of existing published or documented data on the waste or on waste generated from similar processes as well as laboratory analysis of a representative sample of the waste stream. If existing data are used, the facility will obtain confirmation from the generator that the process generating the non-hazardous waste has not significantly changed.

In the following circumstances, a waste stream will undergo full characterization consisting solely of laboratory analyses, supplemented with process knowledge as necessary to confirm the waste is non-hazardous:

- The facility has been notified, or has reason to believe, that the process or operation generating the non-hazardous waste has significantly changed.

- There is a discrepancy between a waste designation indicated on the profile for that waste and the waste designation indicated by the results of screening analyses performed upon receipt of the waste.

- The first time a waste undergoes full characterization pursuant to the WAP.

- No more than five years from the last full characterization by laboratory analysis, or the next time a waste is received at the facility, whichever is longer.

Analytical requirements will be those specified in Section 1.1.6 of this WAP. Such characterization will occur prior to receipt of the next shipment of the waste stream in question.

2.4 Analytical Methods

All non-hazardous waste sampling and analysis will be conducted in accordance with the protocols stipulated in U.S. EPA SW-846, *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods.* SW-846 functions primarily as a guidance document setting forth acceptable, although not required, methods for the regulated and regulatory communities to use in responding to RCRA-related sampling and analysis requirements. Such analyses may serve to further characterize a waste stream for which documented information is inadequate, to periodically confirm profile information, or to rectify a discrepancy.

The State-certified laboratory employed to obtain analytical data must certify its use of the methods specified and must be able to provide, upon request, documentation of acceptable quality assurance/quality control procedures. Acceptable documentation will include compliance with the quality control section of SW-846 procedures. The following guidance is taken from *SW-846, Guidance Regarding Flexibility Inherent to SW-846 Methods and the Precedence of SW-846 Quality Control Criteria.*

- The specific products and instrument settings cited in SW-846 methods represent those products and settings used during method development or subsequently evaluated by the Agency for use in the method. Glassware, reagents, supplies, equipment, and settings other than those listed in this manual may be employed, provided that method performance

appropriate for the intended RCRA application has been documented. Such performance includes consideration of precision, accuracy (or bias), recovery, representativeness, comparability, and sensitivity (detection, quantitation, or reporting limits) relative to the data quality objectives for the intended use of the analytical results. In response to this inherent flexibility, if an alternative analytical procedure is employed, then the U.S. EPA expects the laboratory to demonstrate and document that the procedure is capable of providing appropriate performance for its intended application. This demonstration must not be performed after the fact, but as part of the laboratory's initial demonstration of proficiency with the method. The documentation should be in writing, maintained in the laboratory, and available for inspection upon request by authorized representatives of the appropriate regulatory authorities. The documentation should include the performance data as well as a detailed description of the procedural steps as performed (i.e., a written standard operating procedure).

- Given this allowance for flexibility, the U.S. EPA wishes to emphasize that this manual also contains procedures for "method-defined parameters", where the analytical result is wholly dependent on the process used to make the measurement. Examples include the use of the TCLP to prepare a leachate, and the flash point, pH, paint filter liquids, and corrosivity tests. In these instances, changes to the specific methods may change the end result and incorrectly identify a waste as nonhazardous. Therefore, when the measurement of such method-defined parameters is required by regulation, those methods are not subject to the flexibility afforded in other methods.

- Analysts and data users are advised that even for those analytes that are not method-defined, different procedures may produce some difference in results. Common examples include the differences in recoveries of phenolic compounds extracted from water by separatory funnel (Method 3510) and continuous liquid-liquid (Method 3520) extraction techniques, differences in recoveries of many compounds between Soxhlet (Method 3540) and ultrasonic (Method 3550) extraction techniques, and differences resulting from the choice of acid digestion of metals (Method 3050) or microwave digestion (Method 3051). Where practical, the Agency has included guidance in the individual methods regarding known potential problems, and analysts are advised to review this information carefully in choosing or modifying analytical procedures. Chapter One describes a variety of quality control (QC) procedures that may be used to evaluate the quality of the analytical results. Additional QC procedures may be described in the individual methods. The results of these QC procedures should be used by the analyst to evaluate if the choice

of the analytical procedures and/or any modifications are appropriate to generate data of the quality necessary to satisfy the data quality needs of the intended application.

- The performance data included in the SW-846 methods are not intended to be used as absolute QC acceptance criteria for method performance. The data are intended to be guidance, by providing typical method performance in typical matrices, to assist the analyst in selection of the appropriate method for the intended application. In addition, it is the responsibility of the laboratory to establish actual operating parameters and in-house QC acceptance criteria, based on its own laboratory standard operating procedures and in-house QC program, to demonstrate appropriate performance of the methods used in that laboratory for the RCRA analytical applications for which they are intended.

- The regulated community is further advised that the methods here or from other sources need only be used for those specific analytes of concern that are subject to regulation or other monitoring requirements. The fact that a method provides a long list of analytes does not mean that each of those analytes is subject to any or all regulations, or that all of those analytes must be analyzed each time the method is employed, or that all of the analytes can be analyzed using a single sample preparation procedure. It is the U.S. EPA's intention that the target analyte list for any procedure includes those analytes necessary to meet the data quality objectives of the project, i.e., those analytes subject to monitoring requirements and set out in a RCRA permit (or other applicable regulation), plus those analytes used in the methods for QC purposes, such as surrogates, internal standards, system performance check compounds, etc. Additional analytes, not included on the analyte list of a particular method(s), but needed for a specific project, may be analyzed by that particular method(s), if appropriate performance can be demonstrated for the analytes of concern in the matrices of concern at the levels of concern.

Waste Extraction Test analyses will be conducted according to the method set forth in 22 CCR Appendix II *Waste Extraction Test (WET) Procedures.* The WET extraction solution shall consist of 0.2M sodium citrate at pH 5.0 + 0.1, which is prepared by titrating an appropriate amount of analytical grade citric acid in deionized water with 4.0N NaOH, except that the extraction solution for the determination of hexavalent chromium shall consist of deionized water.
Tables 1 and 2 summarize recommended, analyte-specific test methods.

2.5 Sampling Procedures

Many waste streams are heterogeneous; therefore, care must be taken to obtain a representative sample. In sampling wastes, consideration should be given to the uniformity of the waste in a container and to daily variations in production, which may cause the waste stream to vary. Table 3 contains a summary of waste sampling methods for different types of wastes. Recommended sampling access points for different waste containers and soil are listed in Table 4. Recommended numbers of samples to be taken for different types of wastes and soil are provided in Table 5.

Samples from multiple containers of the same waste will be composited for analysis (except for heterogeneous or layered wastes). Samples to be analyzed for volatile organics should be grab samples and should not be composited.

Strict chain-of-custody records will be maintained for these samples collected for regulatory compliance. Each person who handles the sample will, upon receipt, sign and date the identification tag. To ensure adequate chain-of-custody procedures, Volume II — Chapter Nine of SW-846, 3rd Edition must be followed.

The sample container must be compatible with the waste. Except for some solvents and oils, a plastic (1 quart) bottle is best. U.S. EPA procedures (SW-846) for sample preservation must be followed and U.S. EPA and DOT regulations for transporting hazardous materials/wastes must be met. Laboratories must certify that their procedures are U.S. EPA approved, and in that certification, reference U.S. EPA SW-846.

3.0 FACILITY CONFIRMATION OF WASTE STREAMS

Before Ri-Nu accepts a waste into their facility, they will confirm that the waste stream matches the previously completed and accepted non-hazardous waste profile. This process will involve:

a. The generator submits an actual sample of the proposed waste stream to Ri-Nu.

b. Ri-Nu will compare the waste stream sample to the profile description and conducts internal sample analyses in their in-house lab to compare to the 3rd party analytical submitted by the generator. The in-house lab will be used only for internal testing and will not be a State-certified lab used for complete waste profiling.

c. Ri-Nu will also conduct bench scale treatability testing to be sure their treatment process can reduce the waste stream contaminants to levels below the facility's discharge limits. Even if the waste stream proves to be non-hazardous if it cannot be treated sufficiently it will not be accepted by the facility.

d. If the physical inspection of the waste stream sample matches the profile description and Ri-Nu's in house laboratory analyses are consistent with the 3rd party analytical results, Ri-Nu will allow the generator to schedule delivery of their waste to the Ri-Nu facility.

e. When the generator's truck arrives at the Ri-Nu facility to transfer their waste, Ri-Nu conducts the following check for each load:

   i. A sample of the waste stream is taken from the delivery truck before it is unloaded and physically compared to the original waste stream sample supplied by the generator. Physical comparisons include color, odor and % solids.

   ii. Ri-Nu's in-house lab then conducts additional analyses of the sample from the delivery truck. This may include checking pH, flash point, metals content, etc.

f. If the waste load fails either the physical inspection or the analytical check, it is rejected and the truck leaves the facility without unloading the waste.

g. The load check process takes roughly 30 minutes to complete. Once the load passes the load check, the waste is unloaded at the facility.

4.0 WASTE STREAM ANALYTICAL REQUIREMENT EXAMPLES

When profiling a waste stream, waste analysis parameters and the rationale for using a specific analytical parameter are based on the physical as well as the chemical characteristics of each waste stream. Only analyses relevant to the non-hazardous waste characteristics for a particular waste stream are necessary. In some cases, the facility will have to test for specific constituents.

Physical characterization includes parameters such as container information on labels, visual appearance (color, odor, physical state, etc.), pH, flash point, moisture content, specific gravity, viscosity, miscibility in water, and the quantity received. Chemical characterization includes laboratory analyses necessary to delineate the chemical nature of the waste stream.

This WAP section provides examples of waste streams expected to be received at the facility and the analytical required to profile each stream.

At a minimum, every profile application should include laboratory results for Title 22 metals.

4.1 Oil Exploration and Production Wastes (E&P Wastes)

The term "E&P Wastes" is used to describe wastes generated by exploration, development, and production activities related to oil production, including the extraction of crude oil from the ground, and subsequent purification processes that takes place to remove co-produced excess water and other unwanted wastes into three categories: produced water; drilling wastes, and associated wastes (Department of Toxic Substances Control, 2002). E&P wastes intrinsic to oil production are currently exempt from regulations as hazardous wastes under Federal law, pursuant to 40 CFR Section 261.4(b)(5). The E&P waste exemption was also incorporated into California regulations pursuant to 22 CCR Sections 66261.4(b)(2) and 66261.24(a)(1). This exemption applies in California in cases where the waste is hazardous solely by meeting the federal characteristic for toxicity under the Toxicity Characteristic Leaching Procedure (TCLP). Therefore, a waste that is hazardous solely by meeting or exceeding the maximum contaminant concentration for constituents extracted by TCLP, and for which federal regulatory thresholds have been established, is exempted from regulation as hazardous waste in California. However, the exemption does not apply if toxicity is determined based on criteria other than TCLP, or the waste meets any of the three characteristics of hazardous waste codified in 22 CCR Chapter 11 Article 3, Sections 66261.20 et seq., namely ignitability, corrosivity, and reactivity (Department of Toxic Substances Control 2002).

The United States Environmental Protection Agency (U.S. EPA) published lists of exempt and non-exempt E&P wastes, although the lists should not be considered to be comprehensive (U.S. EPA 2002). The exempt wastes list that applies to those wastes generated by E&P operations include the following:

- Produced water
- Drilling fluids
- Drill cuttings
- Workover wastes
- Rigwash
- Drilling fluids and cuttings from offshore operations disposed of onshore
- Geothermal production fluids
- Liquid Hydrocarbons produced from the production stream but not from oil refining
- Well completion, treatment, and stimulation fluids
- Basic sediment, water, and other tank bottoms from storage facilities that hold product and exempt waste
- Produced sand
- Packing fluids
- Hydrogen sulfide abatement wastes from geothermal energy production

The non-exempt wastes list that applies to those wastes generated by E&P operations include the following:

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Oil and gas service company wastes such as empty drums, drum rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Refinery wastes
- Waste compressor oil, filters, and blowdown

This following table summarizes profiling analytical requirements for select E&P waste streams:

Waste Stream	Potential Analytes of Concern	Analytical Methods
Produced water	VOCs Title 22 metals (Pb, As, Ba, etc.) Oil & Grease	EPA 8260 EPA 6010, 6020 EPA 1664
Tank bottoms	VOCs Title 22 metals (Pb, As, Ba, etc.) Flash point Oil & Grease	EPA 8260 EPA 6010, 6020 EPA 1010 EPA 1664
Drill mud	VOCs Title 22 metals (Pb, As, Ba, etc.) pH Oil & Grease	EPA 8260 EPA 6010, 6020 EPA 9040, 150.1 EPA 1664

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4.2 Miscellaneous Industrial Waste Streams

This following table summarizes profiling analytical requirements for other example waste streams:

Waste Stream	Potential Analytes of Concern	Analytical Methods
Industrial Wastewater Containing Metals (blowdown brine, metal finish wastewater)	Title 22 metals (Pb, As, Ba, etc.)	EPA 6010, 6020
Oily Wastewater (oil-water emulsions, UST site contaminated groundwater, bilge water)	VOCs Title 22 metals (Pb, As, Ba, etc.) Oil & Grease	EPA 8260 EPA 6010, 6020 EPA 1664
Industrial Wastewater Containing Organics (solvent bearing wastes, landfill leachate, winery wastewater)	VOCs Title 22 metals (Pb, As, Ba, etc.) Oil & Grease	EPA 8260 EPA 6010, 6020 EPA 1664

5.0 REFERENCES

California Department of Public Health. California Code of Regulations Title 22, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste, Chapter 15 Interim Status Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal Facilities. 2016

Department of Toxic Substances Control. *Oil Exploration and Production Wastes Initiative.* May 2002.

United States Environmental Protection Agency. *Exemption of Oil and Gas Exploration and Production Wastes from Federal Hazardous Waste Regulations.* October 2002.

— *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods Compendium (EPA SW-846), Update V, Revision 8.* July 2014.

— *Federal Register: 40 Code of Federal Regulations Part 264, Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.* 2016.

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Tables

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Table 1
Analytical Test Methods

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
Acenaphthene	8100, 8270, 8275, 8310, 8410
Acenaphthylene	8100, 8270, 8275, 8310, 8410
Acetaldehyde	8315
Acetone	8015, 8260, 8315
Acetonitrile	8015, 8033, 8260
Acetophenone	8270
2-Acetylaminofluorene	8270
1-Acetyl-2-thiourea	8270
Acifluorfen	8151
Acrolein (Propenal)	8015, 8260, 8315, 8316
Acrylamide	8032, 8316
Acrylonitrile	8015, 8031, 8260, 8316
Alachlor	8081
Aldicarb (Temik)	8318, 8321
Aldicarb sulfone	8318, 8321
Aldicarb sulfoxide	8321
Aldrin	8081, 8270
Allyl alcohol	8015, 8260
Allyl chloride	8021, 8260
2-Aminoanthraquinone	8270
Aminoazobenzene	8270
4-Aminobiphenyl	8270
Aminocarb	8321
2-Amino-4,6-dinitrotoluene (2-Am-DNT)	8330
4-Amino-2,6-dinitrotoluene (4-Am-DNT)	8330
3-Amino-9-ethylcarbazole	8270
Anilazine	8270
Aniline	8131, 8270
o-Anisidine	8270
Anthracene	8100, 8270, 8275, 8310, 8410
Aramite	8270
Aroclor-1016 (PCB-1016)	8082, 8270
Aroclor-1221 (PCB-1221)	8082, 8270
Aroclor-1232 (PCB-1232)	8082, 8270
Aroclor-1242 (PCB-1242)	8082, 8270
Aroclor-1248 (PCB-1248)	8082, 8270
Aroclor-1254 (PCB-1254)	8082, 8270
Aroclor-1260 (PCB-1260)	8082, 8270
Aspon	8141
Asulam	8321
Atrazine	8141
Azinphos-ethyl	8141
Azinphos-methyl	8141, 8270
Barban	8270, 8321
Baygon (Propoxur)	8318, 8321
Bendiocarb	8321
Benefin	8091
Benomyl	8321
Bentazon	8151
Benzal chloride	8121
Benzaldehyde	8315
Benz(a)anthracene	8100, 8270, 8275, 8310, 8410
Benzene	8021, 8260
Benzenethiol (Thiophenol)	8270

Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
Benzidine	8270, 8325
Benzo(b)fluoranthene	8100, 8270, 8275, 8310
Benzo(j)fluoranthene	8100
Benzo(k)fluoranthene	8100, 8270, 8275, 8310
Benzoic acid	8270, 8410
Benzo(g,h,i)perylene	8100, 8270, 8275, 8310
Benzo(a)pyrene	8100, 8270, 8275, 8310, 8410
p-Benzoquinone	8270
Benzotrichloride	8121
Benzoylprop ethyl	8325
Benzyl alcohol	8270
Benzyl benzoate	8061
Benzyl chloride	8021, 8121, 8260
BHC (-Hexachlorocyclohexane)	8081, 8121, 8270
β-BHC (β -Hexachlorocyclohexane)	8081, 8121, 8270
δ-BHC (δ -Hexachlorocyclohexane)	8081, 8121, 8270
γ-BHC (Lindane, (γ-Hexachlorocyclohexane)	8081, 8121, 8270
Bis(2-chloroethoxy)methane	8111, 8270, 8410
Bis(2-chloroethyl) ether	8111, 8270, 8410, 8430
Bis(2-chloroethyl)sulfide	8260
Bis(2-chloroisopropyl) ether	8021, 8111, 8270, 8410
Bis(2-n-butoxyethyl) phthalate	8061
Bis(2-ethoxyethyl) phthalate	8061
Bis(2-ethylhexyl) phthalate	8061, 8270, 8410
Bis(2-methoxyethyl) phthalate	8061
Bis(4-methyl-2-pentyl)-phthalate	8061
Bolstar (Sulprofos)	8141
Bromacil	8321
Bromoacetone	8021, 8260
4-Bromoaniline	8131
Bromobenzene	8021, 8260
Bromochloromethane	8021, 8260
2-Bromo-6-chloro-4-nitroaniline	8131
Bromodichloromethane	8021, 8260
2-Bromo-4,6-dinitroaniline	8131
4-Bromofluorobenzene	8260
Bromoform	8021, 8260
Bromomethane	8021, 8260
4-Bromophenyl phenyl ether	8111, 8270, 8275, 8410
Bromoxynil	8270
Butanal	8315
1-Butanol (n-Butyl alcohol)	8015
n-Butanol	8260
2-Butanone (Methyl ethyl ketone, MEK)	8015, 8260
Butralin	8091
n-Butyl alcohol (1-Butanol)	8015
t-Butyl alcohol	8015
n-Butylbenzene	8021, 8260
sec-	8021, 8260
tert-Butylbenzene	8021, 8260
Butyl benzyl phthalate	8061, 8270, 8410
2-sec-Butyl-4,6-dinitrophenol (DNBP, Dinoseb)	8041, 8151, 8270, 8321
Caffeine	8321
Captafol	8081, 8270

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
Captan	8270
Carbaryl (Sevin)	8270, 8318, 8321, 8325
Carbendazim	8321
Carbofuran (Furaden)	8270, 8318, 8321
Carbon disulfide	8260
Carbon tetrachloride	8021, 8260
Carbophenothion	8141, 8270
Chloral hydrate	8260
Chloramben	8151
Chlordane (NOS)	8270
"-Chlordane	8081
γ-Chlordane	8081
Chlorfenvinphos	8141, 8270
Chloroacetonitrile	8260
2-Chloroacrylonitrile	8015
2-Chloroaniline	8131
3-Chloroaniline	8131
4-Chloroaniline	8131, 8270, 8410
Chlorobenzene	8021, 8260
Chlorobenzilate	8081, 8270
2-Chlorobiphenyl	8082, 8275
2-Chloro-1,3-butadiene (Chloroprene)	8021, 8260
1-Chlorobutane	8260
Chlorodibromomethane (Dibromochloromethane)	8021, 8260
2-Chloro-4,6-dinitroaniline	8131
1-Chloro-2,4-dinitrobenzene	8091
1-Chloro-3,4-dinitrobenzene	8091
Chloroethane	8021, 8260
2-Chloroethanol	8021, 8260, 8430
2-(2-Chloroethoxy)ethanol	8430
2-Chloroethyl vinyl ether	8021, 8260
Chloroform	8021, 8260
1-Chlorohexane	8260
Chloromethane	8021, 8260
5-Chloro-2-methylaniline	8270
Chloromethyl methyl ether	8021
2-Chloro-5-methylphenol	8041
4-Chloro-2-methylphenol	8041
4-Chloro-3-methylphenol	8041, 8270, 8410
3-(Chloromethyl)pyridine hydrochloride	8270
1-Chloronaphthalene	8270, 8275
2-Chloronaphthalene	8121, 8270, 8410
Chloroneb	8081
2-Chloro-4-nitroaniline	8131
4-Chloro-2-nitroaniline	8131
1-Chloro-2-nitrobenzene	8091
1-Chloro-4-nitrobenzene	8091
2-Chloro-6-nitrotoluene	8091
4-Chloro-2-nitrotoluene	8091
4-Chloro-3-nitrotoluene	8091
2-Chlorophenol	8041, 8270, 8410
3-Chlorophenol	8041
4-Chlorophenol	8041, 8410
4-Chloro-1,2-phenylenediamine	8270

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
4-Chloro-1,3-phenylenediamine	8270
4-Chlorophenyl phenyl ether	8111, 8270, 8410
2-Chlorophenyl 4-nitrophenyl ether	8111
3-Chlorophenyl 4-nitrophenyl ether	8111
4-Chlorophenyl 4-nitrophenyl ether	8111
o-Chlorophenyl thiourea	8325
Chloroprene (2-Chloro-1,3-butadiene)	8021, 8260
3-Chloropropionitrile	8260
Chloropropham	8321
Chloropropylate	8081
Chlorothalonil	8081
2-Chlorotoluene	8021, 8260
4-Chlorotoluene	8021, 8260
Chloroxuron	8321
Chlorpyrifos	8141
Chlorpyrifos methyl	8141
Chrysene	8100, 8270, 8275, 8310, 8410
Coumaphos	8141, 8270
Coumarin Dyes	8321
p-Cresidine	8270
o-Cresol (2-Methylphenol)	8041, 8270, 8410
m-Cresol (3-Methylphenol)	8041, 8270
p-Cresol (4-Methylphenol)	8041, 8270, 8275, 8410
Crotonaldehyde	8015, 8260, 8315
Crotoxyphos	8141, 8270
Cyclohexanone	8315
2-Cyclohexyl-4,6-dinitrophenol	8041, 8270
2,4-D	8151, 8321
Dalapon	8151, 8321
2,4-DB	8151, 8321
DBCP (1,2-Dibromo-3-chloropropane)	8011, 8021, 8081, 8260, 8270
2,4-D, butoxyethanol ester	8321
DCM (Dichloromethane, Methylene chloride)	8021, 8260
DCPA	8081
DCPA diacid	8151
4,4'-DDD	8081, 8270
4,4'-DDE	8081, 8270
4,4'-DDT	8081, 8270
DDVP (Dichlorvos, Dichlorovos)	8141, 8270, 8321
2,2',3,3'4,4'5,5',6,6'-Decachlorobiphenyl	8275
Decanal	8315
Demeton-O, and Demeton-S	8141, 8270
2,4-D, ethylhexyl ester	8321
Diallate	8081, 8270
Diamyl phthalate	8061
2,4-Diaminotoluene	8270
Diazinon	8141
Dibenz(a,h)acridine	8100
Dibenz(a,j)acridine	8100, 8270
Dibenz(a,h)anthracene	8100, 8270, 8275, 8310
7H-Dibenzo(c,g)carbazole	8100
Dibenzofuran	8270, 8275, 8410
Dibenzo(a,e)pyrene	8100, 8270
Dibenzo(a,h)pyrene	8100

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
Dibenzo(a,i)pyrene	8100
Dibenzothiophene	8275
Dibromochloromethane (Chlorodibromomethane)	8021, 8260
1,2-Dibromo-3-chloropropane (DBCP)	8011, 8260, 8270
1,2-Dibromoethane (EDB, Ethylene dibromide)	8011, 8021, 8260
Dibromofluoromethane	8260
Dibromomethane	8021, 8260
2,6-Dibromo-4-nitroaniline	8131
2,4-Dibromophenyl 4-nitrophenyl ether	8111
Di-n-butyl phthalate	8061, 8270, 8410
Dicamba	8151, 8321
Dichlone	8081, 8270
3,4-Dichloroaniline	8131
1,2-Dichlorobenzene	8021, 8121, 8260, 8270, 8410
1,3-Dichlorobenzene	8021, 8121, 8260, 8270, 8410
1,4-Dichlorobenzene	8021, 8121, 8260, 8270, 8410
3,3'-Dichlorobenzidine	8270,8325
3,5-Dichlorobenzoic acid	8151
2,3-Dichlorobiphenyl	8082, 8275
3,3'-Dichlorobiphenyl	8275
cis-1,4-Dichloro-2-butene	8260
trans-1,4-Dichloro-2-butene	8260
Dichlorodifluoromethane	8021, 8260
1,1-Dichloroethane	8021, 8260
1,2-Dichloroethane	8021, 8260
1,1-Dichloroethene (Vinylidene chloride)	8021, 8260
cis-1,2-Dichloroethene	8021, 8260
trans-1,2-Dichloroethene	8021, 8260
Dichlorofenthion	8141
Dichloromethane (DCM, Methylene chloride)	8021, 8260
2,6-Dichloro-4-nitroaniline	8131
2,3-Dichloronitrobenzene	8091
2,4-Dichloronitrobenzene	8091
3,5-Dichloronitrobenzene	8091
3,4-Dichloronitrobenzene	8091
2,5-Dichloronitrobenzene	8091
2,3-Dichlorophenol	8041
2,4-Dichlorophenol	8041, 8270, 8410
2,5-Dichlorophenol	8041
2,6-Dichlorophenol	8041, 8270
3,4-Dichlorophenol	8041
3,5-Dichlorophenol	8041
2,4-Dichlorophenol 3-methyl-4-nitrophenyl ether	8111
2,6-Dichlorophenyl 4-nitrophenyl ether	8111
3,5-Dichlorophenyl 4-nitrophenyl ether	8111
2,5-Dichlorophenyl 4-nitrophenyl ether	8111
2,4-Dichlorophenyl 4-nitrophenyl ether	8111
2,3-Dichlorophenyl 4-nitrophenyl ether	8111
3,4-Dichlorophenyl 4-nitrophenyl ether	8111
Dichloroprop (Dichlorprop)	8151, 8321
1,2-Dichloropropane	8021, 8260
1,3-Dichloropropane	8021, 8260
2,2-Dichloropropane	8021, 8260
1,3-Dichloro-2-propanol	8021, 8260

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
1,1-Dichloropropene	8021, 8260
cis-1,3-Dichloropropene	8021, 8260
trans-1,3-Dichloropropene	8021, 8260
Dichlorovos (DDVP, Dichlorvos)	8141, 8270, 8321
Dichlorprop (Dichloroprop)	8151, 8321
Dichlorvos (DDVP, Dichlorovos)	8141, 8270, 8321
Dicrotophos	8141, 8270
Dicofol	8081
Dicyclohexyl phthalate	8061
Dieldrin	8081, 8270
1,2,3,4-Diepoxybutane	8260
Diesel range organics (DRO)	8015, 8440
Diethylene glycol	8430
Diethyl ether	8015, 8260
Diethyl phthalate	8061, 8270, 8410
Diethylstilbestrol	8270
Diethyl sulfate	8270
1,4-Difluorobenzene	8260
Dihexyl phthalate	8061
Dihydrosaffrole	8270
Diisobutyl phthalate	8061
Dimethoate	8141, 8270, 8321
3,3'-Dimethoxybenzidine	8270, 8325
Dimethylaminoazobenzene	8270
2,5-Dimethylbenzaldehyde	8315
7,12-Dimethylbenz(a)anthracene	8270
3,3'-Dimethylbenzidine	8270, 8325
","-Dimethylphenethylamine	8270
2,3-Dimethylphenol	8041
2,4-Dimethylphenol	8041, 8270
2,5-Dimethylphenol	8041
2,6-Dimethylphenol	8041
3,4-Dimethylphenol	8041
Dimethyl phthalate	8061, 8270, 8410
Dinitramine	8091
2,4-Dinitroaniline	8131
1,2-Dinitrobenzene	8091, 8270
1,3-Dinitrobenzene (1,3-DNB)	8091, 8270, 8330
1,4-Dinitrobenzene	8091, 8270
4,6-Dinitro-2-methylphenol	8270, 8410
2,4-Dinitrophenol	8041, 8270, 8410
2,5-Dinitrophenol	8041
2,4-Dinitrotoluene (2,4-DNT)	8091, 8270, 8330, 8410
2,6-Dinitrotoluene (2,6-DNT)	8091, 8270, 8330, 8410
Dinocap	8270
Dinonyl phthalate	8061
Dinoseb (2-sec-Butyl-4,6-dinitrophenol, DNBP)	8041, 8151, 8270, 8321
Di-n-octyl phthalate	8061, 8270, 8410
Dioxacarb	8318
1,4-Dioxane	8015, 8260
Dioxathion	8141, 8270
Di-n-propyl phthalate	8410
Diphenylamine	8270
5,5-Diphenylhydantoin	8270

Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
1,2-Diphenylhydrazine	8270
Disperse Blue 3	8321
Disperse Blue 14	8321
Disperse Brown 1	8321
Disperse Orange 3	8321
Disperse Orange 30	8321
Disperse Red 1	8321
Disperse Red 5	8321
Disperse Red 13	8321
Disperse Red 60	8321
Disperse Yellow 5	8321
Disulfoton	8141, 8270, 8321
Diuron	8321, 8325
1,3-DNB (1,3-Dinitrobenzene)	8091, 8270, 8330
DNBP (2-sec-Butyl-4,6-dinitrophenol, Dinoseb)	8151, 8270, 8321
2,4-DNT (2,4-Dinitrotoluene)	8091, 8270, 8275, 8330, 8410
2,6-DNT (2,6-Dinitrotoluene)	8091, 8270, 8330, 8410
EDB (1,2-Dibromoethane, Ethylene dibromide)	8011, 8021, 8260
Endosulfan I	8081, 8270
Endosulfan II	8081, 8270
Endosulfan sulfate	8081, 8270
Endrin	8081, 8270
Endrin aldehyde	8081, 8270
Endrin ketone	8081, 8270
Epichlorohydrin	8021, 8260
EPN	8141, 8270
Ethanol	8015, 8260
Ethion	8141, 8270
Ethoprop	8141
Ethyl acetate	8015, 8260
Ethylbenzene	8021, 8260
Ethyl carbamate	8270
Ethyl cyanide (Propionitrile)	8015, 8260
Ethylene dibromide (EDB, 1,2-Dibromoethane)	8021, 8260
Ethylene glycol	8015, 8430
Ethylene oxide	8015, 8260
Ethyl methacrylate	8260
Ethyl methanesulfonate	8270
Etridiazole	8081
Famphur	8141, 8270, 8321
Fenitrothion	8141
Fensulfothion	8141, 8270, 8321
Fenthion	8141, 8270
Fenuron	8321
Fluchloralin	8270
Fluometuron	8321
Fluoranthene	8100, 8270, 8275, 8310, 8410
Fluorene	8100, 8270, 8275, 8310, 8410
Fluorescent Brightener 61	8321
Fluorescent Brightener 236	8321
Fluorobenzene	8260
2-Fluorobiphenyl	8270
2-Fluorophenol	8270
Fonophos	8141

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
Formaldehyde	8315
Furaden (Carbofuran)	8270, 8318, 8321
Gasoline range organics (GRO)	8015
Halowax-1000	8081
Halowax-1001	8081
Halowax-1013	8081
Halowax-1014	8081
Halowax-1051	8081
Halowax-1099	8081
Heptachlor	8081, 8270
2,2',3,3',4,4',5-Heptachlorobiphenyl	8082, 8275
2,2',3,4,4',5,5'-Heptachlorobiphenyl	8082, 8275
2,2',3,4,4',5',6-Heptachlorobiphenyl	8082
2,2',3,4',5,5',6-Heptachlorobiphenyl	8082, 8275
Heptachlor epoxide	8081, 8270
Heptanal	8315
Hexachlorobenzene	8081, 8121, 8270, 8275, 8410
2,2',3,3,4,4'-Hexachlorobiphenyl	8275
2,2',3,4,4',5'-Hexachlorobiphenyl	8082, 8275
2,2',3,4,5,5'-Hexachlorobiphenyl	8082
2,2',3,5,5',6-Hexachlorobiphenyl	8082
2,2',4,4',5,5'-Hexachlorobiphenyl	8082
Hexachlorobutadiene	8021, 8121, 8260, 8270, 8410
"-Hexachlorocyclohexane ("-BHC)	8081, 8121, 8270
β-Hexachlorocyclohexane (β-BHC)	8081, 8121, 8270
δ-Hexachlorocyclohexane (δ-BHC)	8081, 8121, 8270
γ-Hexachlorocyclohexane ((γ-BHC, Lindane)	8081, 8121, 8270
Hexachlorocyclopentadiene	8081, 8121, 8270, 8410
Hexachloroethane	8121, 8260, 8270, 8410
Hexachlorophene	8270
Hexachloropropene	
Hexafluoro-2-methyl-2-propanol	8015
Hexafluoro-2-propanol	8015
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	8330
Hexamethylphosphoramide (HMPA)	8141, 8270
Hexanal	8315
2-Hexanone	8260
Hexyl 2-ethylhexyl phthalate	8061
HMPA (Hexamethylphosphoramide)	8141, 8270
HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine)	8330
1,2,3,4,6,7,8-HpCDD	8280, 8290
HpCDD, total	8280
1,2,3,4,6,7,8-HpCDF	8280, 8290
1,2,3,4,7,8,9-HpCDF	8280, 8290
HpCDF, total	8280
1,2,3,4,7,8-HxCDD	8280, 8290
1,2,3,6,7,8-HxCDD	8280, 8290
1,2,3,7,8,9-HxCDD	8280, 8290
HxCDD,	8280
1,2,3,4,7,8-HxCDF	8280, 8290
1,2,3,6,7,8-HxCDF	8280, 8290
1,2,3,7,8,9-HxCDF	8280, 8290
2,3,4,6,7,8-HxCDF	8280, 8290
HxCDF	8280

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
Hydroquinone	8270
3-Hydroxycarbofuran	8318, 8321
5-Hydroxydicamba	8151
2-Hydroxypropionitrile	8260
Indeno(1,2,3-cd)pyrene	8100, 8270, 8275, 8310
Iodomethane (Methyl iodide)	8260
Isobutyl alcohol (2-Methyl-1-propanol)	8015, 8260
Isodrin	8081, 8270
Isophorone	8270, 8410
Isopropalin	8091
Isopropyl alcohol (2-Propanol)	8015, 8260
Isopropylbenzene	8021, 8260
p-Isopropyltoluene	8021, 8260
Isosafrole	8270
Isovaleraldehyde	8315
Kepone	8081, 8270
Lannate (Methomyl)	8318, 8321
Leptophos	8141, 8270
Lindane ((γ-Hexachlorocyclohexane, (γ-BHC)	8081, 8121, 8270
Linuron (Lorox)	8321, 8325
Lorox (Linuron)	8321, 8325
Malathion	8141, 8270
Maleic anhydride	8270
Malononitrile	8260
MCPA	8151, 8321
MCPP	8151, 8321
Merphos	8141, 8321
Mestranol	8270
Mesurol (Methiocarb)	8318, 8321
Methacrylonitrile	8260
Methanol	8015, 8260
Methapyrilene	8270
Methiocarb (Mesurol)	8318, 8321
Methomyl (Lannate)	8318, 8321
Methoxychlor	8081, 8270
Methyl acrylate	8260
2-Methyl-1-propanol (Isobutyl alcohol)	8015, 8260
Methyl-t-butyl ether	8260
3-Methylcholanthrene	8100, 8270
2-Methyl-4,6-dinitrophenol	8041
4,4'-Methylenebis(2-chloroaniline)	8270
4,4'-Methylenebis(N,N-dimethylaniline)	8270
Methyl ethyl ketone (MEK, 2-Butanone)	8015, 8260
Methylene chloride (Dichloromethane, DCM)	8021, 8260
Methyl iodide (Iodomethane)	8260
Methyl isobutyl ketone (MIBK, 4-Methyl-2-pentanone)	8015, 8260
Methyl methacrylate	8260
Methyl methanesulfonate	8270
2-Methylnaphthalene	8270, 8410
Methyl parathion	8270, 8321
4-Methyl-2-pentanone (MIBK, Methyl isobutyl ketone)	8015, 8260
2-Methylphenol (o-Cresol)	8041, 8270, 8410
3-Methylphenol (m-Cresol)	8041, 8270
4-Methylphenol (p-Cresol)	8041, 8270, 8410

Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
2-Methylpyridine (2-Picoline)	8015, 8260, 8270
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	8330
Mevinphos	8141, 8270
Mexacarbate	8270, 8321
MIBK (Methyl isobutyl ketone, 4-Methyl-2-pentanone)	8015, 8260
Mirex	8081, 8270
Monocrotophos	8141, 8270, 8321
Monuron	, 8325
Naled	8141, 8270, 8321
Naphthalene	8021, 8100, 8260, 8270, 8275, 8310, 8410
NB (Nitrobenzene)	8091, 8260, 8270, 8330, 8410
1,2-Naphthoquinone	8091
1,4-Naphthoquinone	8270, 8091
1-Naphthylamine	8270
2-Naphthylamine	8270
Neburon	8321
Nicotine	8270
5-Nitroacenaphthene	8270
2-Nitroaniline	8131, 8270, 8410
3-Nitroaniline	8131, 8270, 8410
4-Nitroaniline	8131, 8270, 8410
5-Nitro-o-anisidine	8270
Nitrobenzene (NB)	8091, 8260, 8270, 8330, 8410
4-Nitrobiphenyl	8270
Nitrofen	8081, 8270
Nitroglycerin	8332
2-Nitrophenol	8041, 8270, 8410
3-Nitrophenol	8041
4-Nitrophenol	8041, 8151, 8270, 8410
4-Nitrophenyl phenyl ether	8111
2-Nitropropane	8260
Nitroquinoline-1-oxide	8270
N-Nitrosodi-n-butylamine	8015, 8260, 8270
N-Nitrosodiethylamine	8270
N-Nitrosodimethylamine	8070, 8270, 8410
N-Nitrosodi-n-butylamine (N-Nitrosodibutylamine)	8015, 8260, 8270
N-Nitrosodiphenylamine	8070, 8270, 8410
N-Nitrosodi-n-propylamine	8070, 8270, 8410
N-Nitrosomethylethylamine	8270
N-Nitrosomorpholine	8270
N-Nitrosopiperidine	8270
N-	8270
2-Nitrotoluene (o-Nitrotoluene, 2-NT)	8091, 8330
3-Nitrotoluene (m-Nitrotoluene, 3-NT)	8091, 8330
4-Nitrotoluene (p-Nitrotoluene, 4-NT)	8091, 8330
o-Nitrotoluene (2-Nitrotoluene, 2-NT)	8091, 8330
m-Nitrotoluene (3-Nitrotoluene, 3-NT)	8091, 8330
p-Nitrotoluene (4-Nitrotoluene, 4-NT)	8091, 8330
5-Nitro-o-toluidine	8270
trans-Nonachlor	8081
2,2'3,3'4,4'5,5'6-Nonachlorobiphenyl	8082, 8275
Nonanal	8315
2-NT (2-Nitrotoluene, o-Nitrotoluene)	8091, 8330
3-NT (3-Nitrotoluene, m-Nitrotoluene)	8091, 8330

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
4-NT (4-Nitrotoluene, p-Nitrotoluene)	8091, 8330
OCDD	8280, 8290
OCDF	8280, 8290
2,2',3,3',4,4'5,5'-Octachlorobiphenyl	8275
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	8330
Octamethyl pyrophosphoramide	8270
Octanal	8315
Oxamyl	8321
4,4'-Oxydianiline	8270
Paraldehyde	8015, 8260
Parathion	8270
Parathion, ethyl	8141
Parathion, methyl	8141
PCB-1016 (Aroclor-1016)	8082, 8270
PCB-1221 (Aroclor-1221)	8082, 8270
PCB-1232 (Aroclor-1232)	8082, 8270
PCB-1242 (Aroclor-1242)	8082, 8270
PCB-1248 (Aroclor-1248)	8082, 8270
PCB-1254 (Aroclor-1254)	8082, 8270
PCB-1260 (Aroclor-1260)	8082, 8270
PCNB	8081
1,2,3,7,8-PeCDD	8280, 8290
PeCDD, total	8280
1,2,3,7,8-PeCDF	8280, 8290
2,3,4,7,8-PeCDF	8280, 8290
PeCDF, total	8280
Pendimethaline (Penoxalin)	8091
Penoxalin (Pendimethaline)	8091
Pentachlorobenzene	8121, 8270
2,2',3,4,5'-Pentachlorobiphenyl	8082
2,2',4,5,5'-Pentachlorobiphenyl	8082, 8275
2,3,3',4',6-Pentachlorobiphenyl	8082
2,3',4,4',5-Pentachlorobiphenyl	8275
Pentachloroethane	8260
Pentachloronitrobenzene	8091, 8270
Pentachlorophenol	8041, 8151, 8270, 8410
Pentafluorobenzene	8260
Pentanal (Valeraldehyde)	8315
2-Pentanone	8015, 8260
Permethrin	8081
Perthane	8081
Phenacetin	8270
Phenanthrene	8100, 8270, 8275, 8310, 8410
Phenobarbital	8270
Phenol	8041, 8270, 8410
1,4-Phenylenediamine	8270
Phorate	8141, 8270, 8321
Phosalone	8270
Phosmet	8141, 8270
Phosphamidon	8141, 8270
Phthalic anhydride	8270
Picloram	8151
2-Picoline (2-Methylpyridine)	8015, 8260, 8270
Piperonyl sulfoxide	8270

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
Profluralin	8091
Promecarb	8318
Pronamide	8270
Propachlor	8081, 8321
Propanal (Propionaldehyde)	8315, 8321
1-Propanol	8015, 8260
2-Propanol (Isopropyl alcohol)	8015, 8260
Propargyl alcohol	8260
Propenal (Acrolein)	8260, 8315
Propham	8321
β-Propiolactone	8260
Propionaldehyde (Propanal)	8315
Propionitrile (Ethyl cyanide)	8015, 8260
Propoxur (Baygon)	8318, 8321
n-Propylamine	8260
n-Propylbenzene	8021, 8260
Propylthiouracil	8270
Prothiophos (Tokuthion)	8141
Pyrene	8100, 8270, 8275, 8310, 8410
Pyridine	8015, 8260, 8270
RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)	8330
Resorcinol	8270
Ronnel	8141
Rotenone	8325
Safrole	8270
Sevin (Carbaryl)	8270, 8318, 8321, 8325
Siduron	8321, 8325
Simazine	8141
Silvex (2,4,5-TP)	8151, 8321
Solvent Red 3	8321
Solvent Red 23	8321
Stirophos (Tetrachlorvinphos)	8141, 8270
Strobane	8081
Strychnine	8270, 8321
Styrene	8021, 8260
Sulfallate	8270
Sulfotepp	8141
Sulprofos (Bolstar)	8141
2,4,5-T	8151, 8321
2,4,5-T, butoxyethanol ester	8321
2,4,5-T, butyl ester	8321
2,3,7,8-TCDD	8280, 8290
TCDD, total	8280
2,3,7,8-TCDF	8280, 8290
TCDF, total	8280
Tebuthiuron	8321
Temik (Aldicarb)	8318, 8321
TEPP	8141
Terbufos	8141, 8270
1,2,3,4-Tetrachlorobenzene	8121
1,2,3,5-Tetrachlorobenzene	8121
1,2,4,5-Tetrachlorobenzene	8121, 8270
2,2',3,5'-Tetrachlorobiphenyl	8082, 8275
2,2',4,5'-Tetrachlorobiphenyl	8275

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
2,2',5,5'-Tetrachlorobiphenyl	8082, 8275
2,3',4,4'-Tetrachlorobiphenyl	8082, 8275
1,1,1,2-Tetrachloroethane	8021, 8260
1,1,2,2-Tetrachloroethane	8021, 8260
Tetrachloroethene	8021, 8260
2,3,4,5-Tetrachlorophenol	8041
2,3,4,6-Tetrachlorophenol	8041, 8270
2,3,5,6-Tetrachlorophenol	8041
2,3,4,5-Tetrachloronitrobenzene	8091
2,3,5,6-Tetrachloronitrobenzene	8091
Tetrachlorvinphos (Stirophos)	8141, 8270
Tetraethyl dithiopyrophosphate	8270
Tetraethyl pyrophosphate	8270
Tetrazene	8331
Tetryl (Methyl-2,4,6-trinitrophenylnitramine)	8330
Thiofanox	8321
Thionazin (Zinophos)	8141, 8270
Thiophenol (Benzenethiol)	8270
1,3,5-TNB (1,3,5-Trinitrobenzene)	8270, 8330
2,4,6-TNT (2,4,6-Trinitrobenzene)	8330
TOCP (Tri-o-cresylphosphate)	8141
Tokuthion (Prothiophos)	8141
m-Tolualdehyde	8315
o-Tolualdehyde	8315
p-Tolualdehyde	8315
Toluene	8021, 8260
Toluene diisocyanate	8270
o-Toluidine	8015, 8260, 8270
Total petroleum hydrocarbons as diesel	8015
Total petroleum hydrocarbons as gasoline	8015
Total petroleum hydrocarbons as motor oil	8015
Toxaphene	8081, 8270
2,4,5-TP (Silvex)	8151, 8321
2,4,6-Tribromophenol	8270
2,4,6-Trichloroaniline	8131
2,4,5-Trichloroaniline	8131
1,2,3-Trichlorobenzene	8021, 8121, 8260
1,2,4-Trichlorobenzene	8021, 8121, 8260, 8270, 8275, 8410
2,2',5-Trichlorobiphenyl	8082, 8275
2,3',5-Trichlorobiphenyl	8275
2,4',5-Trichlorobiphenyl	8082, 8275
1,3,5-Trichlorobenzene	8121
1,1,1-Trichloroethane	8021, 8260
1,1,2-Trichloroethane	8021, 8260
Trichloroethene	8021, 8260
Trichlorofluoromethane	8021, 8260
Trichlorfon	8141, 8321
Trichloronate	8141
1,2,3-Trichloro-4-nitrobenzene	8091
1,2,4-Trichloro-5-nitrobenzene	8091
2,4,6-Trichloronitrobenzene	8091
2,3,4-Trichlorophenol	8041
2,3,5-Trichlorophenol	8041
2,3,6-Trichlorophenol	8041

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Table 1
Determinative Methods for Organic Analytes

Analyte	Applicable Method(s)
2,4,5-Trichlorophenol	8041, 8270, 8410
2,4,6-Trichlorophenol	8041, 8270, 8410
2,4,6-Trichlorophenyl 4-nitrophenyl ether	8111
2,3,6-Trichlorophenyl 4-nitrophenyl ether	8111
2,3,5-Trichlorophenyl 4-nitrophenyl ether	8111
2,4,5-Trichlorophenyl 4-nitrophenyl ether	8111
3,4,5-Trichlorophenyl 4-nitrophenyl ether	8111
2,3,4-Trichlorophenyl 4-nitrophenyl ether	8111
1,2,3-Trichloropropane	8021, 8260
O,O,O-Triethyl phosphorothioate	8270
Trifluralin	8091, 8081, 8270
2,4,5-Trimethylaniline	8270
1,2,4-Trimethylbenzene	8021, 8260
1,3,5-Trimethylbenzene	8021, 8260
Trimethyl phosphate	8270
1,3,5-Trinitrobenzene (1,3,5-TNB)	8270, 8330
2,4,6-Trinitrobenzene (2,4,6-TNT)	8330
Tris-BP (Tris-(2,3-dibromopropyl) phosphate)	8270, 8321
Tri-o-cresylphosphate (TOCP)	8141
Tri-p-tolyl phosphate	8270
Tris-(2,3-dibromopropyl) phosphate (Tris-BP)	8270, 8321
Valeraldehyde (Pentanal)	8315
Vinyl acetate	8260
Vinyl chloride	8021, 8260
Vinylidene chloride (1,1-Dichloroethene)	8021, 8260
o-Xylene	8021, 8260
m-Xylene	8021, 8260
p-Xylene	8021, 8260
Zinophos (Thionazin)	8141, 8270

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Table 2
Determinative Methods for Inorganic Analytes

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Table 2
Determinative Methods for Inorganic Analytes

Analyte	Applicable Method(s)
Aluminum	6010, 6020, 6800, 7000, 7010
Antimony	6010, 6020, 6200, 6800, 7000, 7062
Arsenic	6010, 6020, 6200, 7010, 7061, 7062, 7063
Barium	6010, 6020, 6200, 6800, 7000, 7010
Beryllium	6010, 6020, 7000, 7010
Boron	6800
Bromide	6500, 9056, 9211
Cadmium	6010, 6020, 6200, 6800, 7000, 7010
Calcium	6010, 6020, 6200, 6800, 7000
Chloride	6500, 9056, 9057, 9212, 9250, 9251, 9253
Chromium	6010, 6020, 6200, 6800, 7000, 7010
Chromium, Hexavalent	7195, 7196, 7197, 7198, 7199
Cobalt	6010, 6020, 6200, 7000, 7010
Copper	6010, 6020, 6200, 6800, 7000, 7010
Cyanide	9010, 9012, 9013, 9213
Fluoride	6500, 9056, 9214
Iron	6010, 6020, 6200, 6800, 7000, 7010
Lead	6010, 6020, 6200, 6800, 7000, 7010
Lithium	6010, 7000
Magnesium	6010, 6020, 6800, 7000
Manganese	6010, 6020, 6200, 7000, 7010
Mercury	4500, 6020, 6200, 6800, 7470, 7471, 7472, 7473, 7474
Molybdenum	6010, 6200, 6800, 7000, 7010
Nickel	6010, 6020, 6200, 6800, 7000, 7010
Nitrate	6500, 9056, 9210
Nitrite	6500, 9056, 9216
Osmium	7000
Phosphate	6500, 9056
Phosphorus	6010
Phosphorus, White	7580
Potassium	6010, 6020, 6200, 6800, 7000
Rubidium	6200
Selenium	6010, 6020, 6200, 6800, 7010, 7741, 7742
Silver	6010, 6020, 6200, 6800, 7000, 7010
Sodium	6010, 6020, 7000
Strontium	6010, 6200, 6800, 7000
Sulfate.	6500, 9035, 9036, 9038, 9056
Sulfide	9030, 9031, 9215
Thallium	6010, 6020, 6200, 6800, 7000, 7010
Thorium	6200
Tin	6200, 7000
Titanium	6200
Vanadium	6010, 6020, 6200, 6800, 7000, 7010
Zinc.	6010, 6020, 6200, 6800, 7000, 7010
Zirconium	6200

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Table 3
Summary of Waste Sampling Methods

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Table 3
Summary of Sampling Methods

Sampling Device	Other Device-Specific Guidance	Sample Type	Volume (Liters per Pass)	Comments (For Example: Effects on Matrix, Operational Considerations, Typical Uses)
COLIWASA	ASTM D 5495 ASTM D 5743 ASTM D 6063 U.S. EPA 1980	Shallow, Composite	0.5 to 3.0	Reusable and single use models available. Inexpensive. Glass type devices may be difficult to decontaminate. Collects undisturbed sample. For mixed solid/liquid media will collect semi-liquid only. Not for high viscosity liquids.
Concentric Tube Thief	ASTM D 6063 U.S. EPA 1994d	Surface, Relatively Undisturbed, Selective	0.5 to 1.0	Recommended for powdered or granular materials or wastes in piles, bags, drums, or similar containers. Best used in dry, unconsolidated materials. Not suitable for sampling large particles due to narrow width of slot.
Coring Type Sampler (with or without valve)	ASTM D 4823 U.S. EPA 1989c	Surface or Depth, Disturbed	0.2 to 1.5	Designed for wet soils and sludge. May be equipped with a plastic liner plastic liner and caps. May be used for VOAs. Reusable and easy to decontaminate.
Discrete Level Sampler		Depth, Discrete	0.2 to 0.5	Easy to decontaminate. Obtains samples from a discrete interval. Limited by sample volume and liquids containing high solids. Can be used to store and transport sample.
Drum Thief	ASTM D 6063 ASTM D 5743 U.S. EPA 1994b	Shallow, Composite	0.1 to 0.5	Usually single use. If made of glass and reused, decontamination may be difficult. Limited by length of sampler, small volume of sample collected, and viscosity of fluids.
Kemmerer Sampler		Depth, Discrete	1.0 to 2.0	Recommended for large tanks, lakes, ponds, or lagoons. May be difficult to decontaminate. Materials may not be compatible with sample matrix but all PTFE construction is available. Sample container exposed to media at other depths while being lowered to sample point.
Lidded Sludge/Water Sampler		Discrete, Composite	1.0	1-L sample jar placed into device (low risk of contamination). May sample at different depths and samples up to 40% solids. Equipment is heavy and limited to one bottle size.
Swing Jar Sampler		Shallow, Composite	0.5 to 1.0	Used to sample liquids, powders, or small solids at a distance up to 12-ft. Adaptable to different container sizes. Not suitable for discrete samples. Can sample a wide variety of locations.
Thin-Walled Tube	ASTM D 1587 ASTM D 4823 ASTM D 4700	Surface or Depth, Undisturbed	0.5 to 5.0	Useful for collecting an undisturbed sample (depends on extension). May require a catcher to retain soil samples. Inexpensive, easy to decontaminate. Samples for VOAs may be biased when sample is extruded.
Trier	ASTM D 5451 ASTM D 6063	Surface, Relatively Undisturbed, Selective	0.1 to 0.5	Recommended for powdered or granular materials or wastes in piles, bags, drums, or similar containers. Best for moist or sticky materials. Will introduce sampling bias when used to sample coarse-grained materials.
Valve Drum Sampler		Shallow, Composite	0.3 to 1.6	Used to collect a vertical column of liquid. Available in various materials for repeat or single use. High viscosity liquids may be difficult to sample.

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Table 4
Recommended Sampling Access Points

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Table 4 Sampling Access Points	
Container Type	**Sampling Point**
Drum (bung on one end)	Withdraw sample through the bung opening.
Drum (bung on side)	Lay drum on side with bung up. Withdraw sample through the bung opening.
Barrel, Fiber Drum, and Buckets	Withdraw sample through the top of containers. Withdraw samples through the center of the container as well as through different points diagonally opposite the point of entry.
Sacks and Bags	Withdraw samples through the fill openings. Withdraw samples through the center of the container as well as through different points diagonally opposite the point of entry.
Vacuum truck and Similar Containers	Withdraw sample through open hatch. Sample all other hatches.
Soil	Divide the surface area into an imaginary grid. (The number of grids is determined by the desired number of samples to be collected which, when combined, should give a representative sample of the waste.) Sample each grid.
Strip Tank	Withdraw sample from open tank and steam cleaners.
Paint Booths	Withdraw composite sample from water bath. Composite shall include all levels of liquid.

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Table 5
Recommended Sample Collection (Numerical)

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Table 5
Recommended Sample Collection

Case No.	Information Desired	Waste Type	Container Type	Number of Samples to Collect
1	Average Concentration	Liquid	Drum, Vacuum Truck, and Similar Containers	1 collected with Coliwasa
2	Average Concentration	Solid (Powder or Granular)	Bag, Drum, Bin, and Sack	1 composite sample of several samples collected at different sampling areas
3	Concentration Range	Liquid	Drum, Vacuum Truck, and Similar Containers	3 to 10 separate samples, each from a different depth of the liquid
4	Concentration Range	Solid (Powder or Granular)	Bag, Drum, and Bin	3 to 5 samples from different points
5	Average Concentration	Soil		1 composite sample of several samples collected at different sampling areas
6	Concentration Range	Soil		3 to 20 separate samples from different sampling areas
7	Average Concentration	All Types	All Containers	3 identical samples or one composite sample divided into three identical samples if homogeneous
8	Average Concentration	Liquid	Storage Tank	Same as Case 2
9	Concentration Range	Liquid	Storage Tank	Same as Case 4

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Attachment 1
Waste Profile Sheets

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Ri-Nu Services, LLC

815 Mission Rock Rd. – Santa Paula, CA

Oxnard Permit No. TBD Profile No: _____

Generator Background & Wastewater Profile

Generator Information

Facility / Company Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Name: _____ Phone: _____

Billing Information

Bill To Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ FAX: _____

Wastewater Profile

Wastewater Description: _____

_____

Describe Process Generating Waste: _____

_____

Is this waste considered hazardous under RCRA Standards? ☐ Yes ☐ No

Is this waste considered a California Hazardous Waste? ☐ Yes ☐ No

Does this waste originate from a facility/site within Orange County Sanitation District's Service Area? ☐ Yes ☐ No

Color: _____ Odor: _____ pH Range: _____ % Solids: _____

Are any of the following chemicals present in the waste?: ☐ Yes ☐ No

☐ Chlordane ☐ 2,4-D ☐ Endrin ☐ Hepachlor (and its hydroxide)

☐ Lindane ☐ Methoxychlor ☐ Toxaphene ☐ 2,4,5-TP (silvex)

☐ 1,4-Dioxane ☐ N-Nitrosodimethylamine (NDMA) ☐ DDD, DDT, DDE

☐ Dieldrin ☐ Mirex ☐ Aldrin ☐ PCBs

Flash Point: ☐ < 70°F ☐ 70°F - 140°F ☐ 140°F - 200°F ☐ >200°F

- **Attach analytical results for constituents reasonably expected to be present in the waste.**

Anticipated Volume: _____

Transport Frequency: ☐ Daily ☐Weekly ☐ Monthly ☐ One-Time ☐ Other (specify):_____

Hauler / Transporter Name: _____

Approximate Shipping Commencement Date: _____

Generator Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the personor persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete I am aware that there are significant penalties for submitting false information, including the possibility a fine and imprisonment for knowing violations. [40 C.F.R. §403.6(a)(2)(ii) (2005)]

Generator Certifying Representative Name: _____

Title: _____ Date: _____

FOR RI-NU SERVICES, LLC USE ONLY:

Is this waste accepted for treatment by Ri-Nu Services LLC? ☐ Yes ☐ No

Ri-Nu Services LLC Representative Name/Title: _____

Ri-Nu Services LLC Representative Signature: _____

Date of Approval: _____

Services, LLC.

Ri-Nu Services, LLC

815 Mission Rock Rd., Santa Paula, CA

SOLIDS ONLY Profile No: _____

Generator Background & Profile

Generator Information

Facility / Company Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Name: _____ Phone: _____

Billing Information

Bill To Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ FAX: _____

Waste Profile

Waste Description: _____

_____

Describe Process Generating Waste: _____

_____

Is this waste considered hazardous under RCRA Standards? ☐ Yes ☐ No

Is this waste considered a California Hazardous Waste? ☐ Yes ☐ No

Color: _____ Odor: _____ pH Range: _____ % Liquids (estimate): _____

- **Attach analytical results for constituents reasonably expected to be present in the waste.**

Anticipated Volume: _____

Transport Frequency: ☐ Daily ☐Weekly ☐ Monthly ☐ One-Time ☐ Other (specify):_____

Hauler / Transporter Name: _____

Approximate Shipping Start Date: _____

Services, LLC.

Generator Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the personor persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility a fine and imprisonment for knowing violations. [40 C.F.R. §403.6(a)(2)(ii) (2005)]

Generator Certifying Representative Name: _____

Title: _____ Date: _____

FOR RI-NU SERVICES, LLC USE ONLY:

Is this waste accepted for treatment by Ri-Nu Services LLC? ☐ Yes ☐ No

Ri-Nu Services LLC Representative Name/Title: _____

Ri-Nu Services LLC Representative Signature: _____

Date of Approval: _____

End Destination (Landfill): _____

Notes:

Attachment 2
Procedure for Sampling Waste in Drums

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Attachment 2
Procedure for Sampling Waste in Drums

1. Choose the appropriate Coliwasa for the liquid to be sampled referring to Table 3.

2. Make sure that the sampler is clean.

3. Ensure that the sampler is functioning properly prior to use. Adjust the locking mechanism, if necessary to, to ensure that the neoprene rubber stopper provides a tight closure.

4. Don appropriate personal protective equipment and observe required sampling precautions.

5. Put the sampler in the open position by placing the stopper rod handle in the Tee-position and pushing the rod down until the handle sits against the sampler's locking block.

6. Slowly lower the sampler into the liquid waste. (Lower the sampler at a rate that permits the waste level to remain the same both inside and outside the sampling tube. If the liquid level inside the sampler is lower than the level outside the sampler, the sampling rate is too fast and will result in a non-representative sample.

7. When the sampler stopper reaches the bottom of the waste container, push the sampler tube downward against the stopper to close the sampler. Lock the sampler in the closed position by turning the Tee handle until it is upright and one end rests tightly on the locking block.

8. Slowly withdraw the sampler from the waste container with one hand while wiping the sampler tube with a disposable cloth or rag with the free hand.

9. Carefully discharge the sample into a suitable container by slowly opening the sampler. This is done by slowly pulling the lower end of the Tee handle away from the locking block while the lower end of the sampler is positioned in a sample container.

10. Cap the Sample container; attach the label and seal; record required information in the field log book; and complete the sample and analysis sheet.

11. Unscrew the Tee handle of the sampler and disengage the locking block. Clean sampler onsite or store the contaminated parts in a plastic storage tube for subsequent cleaning. Store used wipes/rags in plastic bags for subsequent disposal.

12. Deliver the sample to the laboratory for analysis.

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