



REPORT

Attachment Q - Waste Analysis Plan

Exide Frisco

Submitted to:

Texas Commission on Environmental Quality

Submitted by:

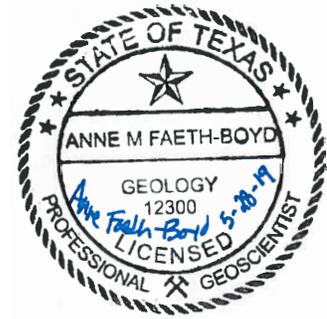
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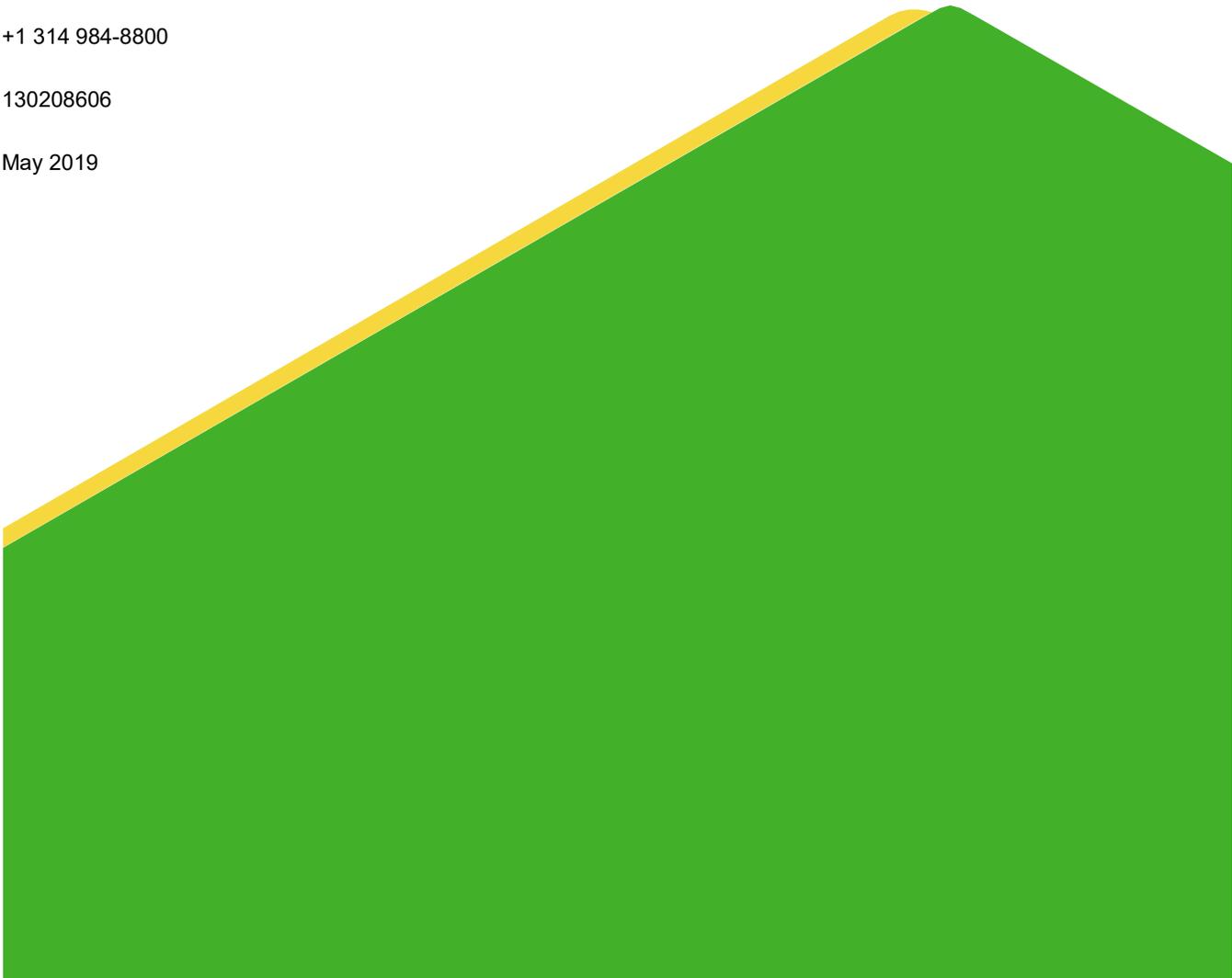




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1.0 INTRODUCTION

This Waste Analysis Plan (WAP or Plan) has been prepared for the Exide Technologies Former Operating Plant (the Facility or the Site) to meet the requirements of 40 CFR 264.13 and 268.7 and the requirements listed in Section IV.D of the Part B Resource Conservation Recovery Act (RCRA) Permit Renewal Application, to which this WAP is an Attachment (Attachment Q).

The purpose of the WAP is to describe how wastes and debris to be managed in permitted units at the Facility will be analyzed. There are 10 waste types that have been or will be disposed of in the North CAMU and/or RCA, or generated as a part of the remediation process and disposed of off-Site, as listed below:

- 1) Blast furnace slag (treated) - These wastes have already been characterized and placed in the North CAMU. No further characterization testing is planned.
- 2) Class 2 remediation waste associated with clean-up activities for the former Undeveloped Buffer Property (J-Parcel) Voluntary Cleanup Program (VCP) No. 2541 formerly owned by Exide Technologies located immediately adjacent to the Exide Technologies Former Operating Plant - These wastes have already been characterized and placed in the North CAMU. No further characterization testing is planned.
- 3) Excavated soil, battery case fragments, concrete or other remediation waste from affected properties on-Site that meets Class 2 industrial waste criteria (defined below as On-Site Class 2 Remediation Waste).
- 4) Excavated soil, battery case fragments, concrete or other remediation waste from affected properties on-Site (defined below as On-Site Soil Remediation Waste). This includes soils or debris generated from the installation of the monitoring wells, slurry wall, and permeable reactive barrier wall at the Site or solid decontamination residue.
- 5) Excavated soils, sediment, battery case fragments, concrete or other remediation waste from off-site Stewart Creek affected property (defined below as Off-site Stewart Creek Remediation Waste).
- 6) Excavated soils, sediment, battery case fragments, concrete or other remediation waste from on-Site Stewart Creek affected property (defined below as on-Site Stewart Creek Remediation Waste).
- 7) Slag segregated from excavated soil and sediment from affected properties off-site (defined below as off-site Slag).
- 8) Slag segregated from excavated soil and sediment from affected properties on-Site (defined below as on-Site slag).
- 9) Wastewater – Purge water from groundwater sampling activities or rinse water from decontamination activities.
- 10) Soil stockpiled at the Railroad Museum (off-Site)

The proposed waste analysis methods and procedures for wastes 3 through 10 are described in the sections below.

2.0 SAMPLE LOCATIONS, FREQUENCY, EQUIPMENT, AND PROCEDURES

Based on the Site investigation data presented in the 2014 Affected Property Assessment Report (included as Attachment H to the Part B RCRA Permit Renewal Application) and the 2015 APAR Supplement (included as Attachment I to the Part B RCRA Permit Renewal Application), the constituents of concern for the contaminated media and wastes (collectively referred to as “wastes”) that will be excavated and placed in the permitted units at the Facility are metals, primarily lead with lower concentrations of other metals. All wastes that are proposed to be excavated and placed in the units at the Facility as a part of the Site Closure and Corrective Actions described in the Response Action Plan (included as Attachment M to the Part B RCRA Permit Renewal Application) will be characterized for RCRA Metals using analytical testing and generator knowledge as described for each waste in the Sections below. If wastes will be sent off-Site, additional analyses may be added based on the requirements for the off-Site facility.

2.1 On-Site Class 2 Remediation Waste (Waste 3) and On-Site Soil Remediation Waste (Waste 4)

For on-Site remediation wastes either soil stockpile sampling and/or roll-off container sampling will be performed based on the logistics and timing of the remedial actions. As noted in the Response Action Plan, if visible slag is observed and can be segregated during the excavation process, it will be removed and managed separately as Waste 8.

2.1.1 Soil Stockpile Sampling

For soil stockpile sampling, excavated soils will be staged on plastic sheeting (minimum 6 mil in thickness) in approximately 50 cubic yard stockpiles (an area of approximately 13 feet by 13 feet or equivalent area with a height that does not exceed eight feet) adjacent to the excavation area.

Samples of the excavated material will be collected from the stockpiles for the purpose of waste characterization/classification.

Mixing of the soils during excavation occurs as the excavator bucket scrapes the ground surface to pull soil into a small pile within the excavation. Mixing further occurs as the soil is loaded from the excavation footprint into a truck to be transported to the stockpile location or is picked up from the excavation area and placed directly into the stockpile (for stockpiles located adjacent to excavation areas). The soil is then mixed again when the stockpiles are graded to meet the required height restrictions (no higher than 8 feet). By selecting five separate random, representative areas for sampling from the small (50 cubic yard) stockpile of soils that have been mixed, the composite of the five samples is expected to exhibit the properties of the whole of the stockpile as is required under the definition of a representative sample per 40 CFR 260.1¹.

As described above, as a result of the excavation, transfer and stockpiling process, excavated material will be thoroughly mixed prior to placement in stockpiles. A 5-part composite sample will be collected from the stockpiled material at a frequency of approximately one sample for every 50 cubic yards of material (each stockpile). The

¹ Representative Sample per 40 CFR Part 260.1 is defined as follows: Representative sample means a sample of a universe or whole (e.g., waste pile, lagoon, ground water) which can be expected to exhibit the average properties of the universe or whole.

five sub-samples of soil to form the composite will be collected from the upper 12 inches of each stockpile at five separate, random, representative areas and combined in a large plastic bag.

The sub-samples will be collected using a gloved hand and/or decontaminated/disposable soil sampling equipment (i.e., trowels). The material will then be homogenized and a sub-sample will be placed in laboratory-supplied sample jars, labeled with the sample identification, date, and time of collection. The samples will be analyzed for RCRA 8 metals using the Toxicity Characteristic Leaching Procedure (TCLP) as described below in Section 4.1.

2.1.2 Soil Roll-Off Container Sampling

Each roll off box will contain approximately 10 to 12 cubic yards of soil. A composite sample will be collected from the roll off box material at a frequency of one sample per roll off box.

The process of excavating and loading the soils into the roll off boxes will sufficiently mix the soil such that material collected from the surface of the roll off box is representative of the contents of the box (see justification of mixing during scraping, loading, and grading as noted above as these mixing activities are also applicable for soils placed in roll-offs).

A five-part composite sample will be collected directly from five separate, random, representative areas within the roll-off container from the loose/surface material using a gloved hand and/or decontaminated/disposable soil sampling equipment (e.g., trowels) or an excavator bucket.

These discrete samples will be combined directly into a sampling container (e.g., jar or bag) and will then be thoroughly mixed prior to placement in a pre-cleaned, laboratory-supplied glass soil sample jar. The samples will be analyzed for TCLP RCRA 8 metals as described in Section 4.1 below.

2.2 Off-Site Stewart Creek Remediation Waste (Waste 5)

In-place waste characterization sampling is proposed for off-site sediment, soil or fill material that will be removed from the off-site Stewart Creek affected property. The point of generation of waste with respect to such materials will occur upon excavation. A grid will be established over each segment designated for excavation based on predetermination or exposure point concentration sampling such that each grid will represent 50 cubic yards. The exact configuration of the grid will be determined based on the depth of sediment in the area – which will be determined at the time of excavation. Samples will be collected at a rate of one sample per 50 cubic yards of waste. A five-part composite sample will be collected directly from sediment or soil using a gloved hand, decontaminated/disposable soil sampling equipment (i.e., trowels or augers) or an excavator bucket. The five sample points within each grid will be selected in manner that best distributes the points throughout the grid. For example, in rectangular grids, one sample will be collected from near each corner and one will be collected near the center. Sample locations may be adjusted at the time of sampling based on accessibility of the grid or field conditions at the time of sampling. Soil or sediment will be collected from the entire depth at each of the five selected sample locations and combined in a large plastic bag. The material will then be homogenized and a sub-sample (approximately 8 ounces) will be collected and analyzed for TCLP RCRA 8 metals as described in Section 4.1 below.

Sediment, soil or fill material that will be removed from off-site Stewart Creek will also be tested for the presence of free liquids.

If it is determined that the material will be hazardous waste upon generation, stabilization will be performed by mixing a stabilization agent (for the presence of free liquids) in-situ prior to waste generation. In this case, the sample for the presence of free liquids will be collected directly from the area of stabilized sediment. Soil will be collected from the upper 12 inches of each area at five separate, random, representative areas and combined in a large plastic bag.

If it is determined that the material will be non-hazardous waste upon generation, stabilization may be performed ex-situ. In this case, the sample will be collected from a stockpile or truck. For stockpiles or roll-off containers, soil will be collected from the upper 12 inches of each stockpile at five separate, random, representative areas and combined in a large plastic bag.

Samples will be collected at a rate of one sample per 50 cubic yards of waste, one sample per truckload, or one sample per roll-off container. A five-part composite sample will be collected directly from sediment or soil using a gloved hand, decontaminated/disposable soil sampling equipment (i.e., trowels or augers) or an excavator bucket.

The material will then be homogenized and a sub-sample (approximately 100 grams or 100 milliliters) will be used for the paint filter test as described in Section 4.2 below.

2.3 On-Site Stewart Creek Remediation Wastes (Waste 6)

Waste characterization for on-Site Stewart Creek Soil, Sediment or fill will be primarily characterized using the same procedures as described above for Waste 5, but may also be excavated and stockpiled or placed in roll-off containers and subsequently characterized based on the logistics and timing of the remedial actions. If stockpile or roll-off container sampling is performed, it would be performed as described above for Waste 3.

2.4 Off-Site Slag (Waste 7)

Visible slag that can be segregated will be removed from excavated soil or sediment off-site, will be presumed to be a characteristically hazardous waste and will be placed in a roll-off container or drum on-Site and disposed of at an off-site facility permitted to accept hazardous waste. Slag will be accumulated in the container or drum for less than 90 days and managed in compliance with applicable regulations for less than 90-day storage.

2.5 On-Site Slag (Waste 8)

Visible slag that can be segregated from excavated soil or sediment on-Site will be removed and will be placed in a roll-off container or drum on-Site and sampled and analyzed for TCLP RCRA 8 metals as described in Section 4.1 below or will be presumed to be a characteristically hazardous waste and will be disposed of at an off-site facility permitted to accept hazardous waste. Slag will be accumulated in the container or drum for less than 90 days and managed in compliance with applicable regulations for less than 90-day storage.

2.5.1 Roll-off Container Sampling

Each roll off box will contain approximately 10 to 12 cubic yards of material. A composite sample will be collected from the roll off box material at a frequency of one sample per roll off box. The process of excavating and loading the material into the roll off boxes will sufficiently mix the material such that material collected from the surface of the roll off box is representative of the contents of the box. A five-part composite sample will be collected directly from the loose/surface material using a gloved hand and/or decontaminated/disposable soil sampling equipment (e.g., trowels).

These discrete samples will be combined directly into a sampling container (e.g., jar or bag) and will then be thoroughly mixed prior to placement in a pre-cleaned, laboratory-supplied glass soil sample jar.

2.5.2 Drum Sampling

Each drum will contain approximately 55 gallons of material. One composite sample will be collected per every five drums. A five-part composite sample will be collected directly from the loose/surface material (one part per drum) using a gloved hand and/or decontaminated/disposable soil sampling equipment (e.g., trowels).

These discrete samples will be combined directly into a sampling container (e.g., jar or bag) and will then be thoroughly mixed prior to placement in a pre-cleaned, laboratory-supplied glass soil sample jar.

2.6 Wastewater (Waste 9)

Wastewater generated from decontamination activities or groundwater sampling will be collected in tanks, totes or 55-gallon drums. As no wastewater disposal on-Site is proposed, all wastewater will be sampled for total RCRA metals as well as any analyses requested by the off-Site facility permitted to accept the waste.

2.6.1 Tank Sampling

Grab samples will be collected from each tank from the tank valve at the bottom of the tank. Samples will be placed directly into pre-preserved laboratory-supplied containers (laboratory-supplied bottles containing the appropriate amount of HNO₃) and analyzed for total RCRA metals and any additional analyses requested by the off-Site facility permitted to accept the waste.

2.6.2 Drum Sampling

Drums will be sampled for disposal and analyzed as requested by the off-Site disposal facility permitted to accept the waste. Drums will be sampled at a frequency of at least one sample per five 55-gallon drums. Samples will be collected by taking a representative composite sample of the entire drum using a bailer or similar piece of equipment. The sample will be composited in a container and then placed directly into pre-preserved laboratory-supplied containers (laboratory-supplied bottles containing the appropriate amount of HNO₃) and analyzed for total RCRA metals and any additional analyses requested by the off-Site facility permitted to accept the waste.

2.7 Off-Site Soil from the Railroad Museum (Waste 10)

Soil excavated for the construction of the Railroad Museum was previously stockpiled by the City of Frisco for characterization. Stockpiling for waste characterization, sampling and transportation of the soil from the Railroad Museum will be completed using the same procedures as described above for Waste 3.

3.0 SAMPLE DESIGNATION

The sample identification system for the project has been designed to uniquely identify each sample location and sample. The numbering system will utilize a pre-planned numbering system based on the area, an identifier for sample type (waste classification), and QA/QC identifier if applicable.

Sample identification will use the following format:

AP-X #-# where X represents the affected property number i.e., AP-1 and #-# represents the sample ID. Sample ID's for waste characterization samples include "IP" for in-place samples, "SP" for stockpile samples and "RO" for samples collected from roll off boxes. Sample AP-1 IP-1 would represent the in-place waste characterization 1 in

the Affected Property 1 grid system. Other samples not specifically associated with an affected property number (such as purge water from groundwater sampling) will use an alternate format.

Additional identifiers may be appended to the sample ID to indicate other sample types (if needed), a field QA/QC sample, a specific sample depth, or a second sample from the same location following additional excavation.

Sample locations will be marked at the time of sampling and the coordinates of the sample locations recorded using a differential GPS.

4.0 SAMPLE HANDLING AND LABORATORY ANALYSIS

4.1 TCLP Samples

Following sample collection, sample jars will be placed in ice chests and handled under chain-of-custody procedures. Samples will be delivered to the analytical laboratory by sampling personnel, courier, or overnight delivery service. Samples will be analyzed for the RCRA 8 metals in TCLP extract using EPA Method 1311 TCLP and 6010B/6020A/7470 (metals concentrations). Since the samples will be analyzed for TCLP mercury, ice is required in the coolers submitted for waste characterization. The holding time for the selected metals is 28 days. Material to be disposed of at an off-site facility may be analyzed for additional constituents to meet the characterization requirements of the specific disposal facility.

4.2 Free Liquids

For evaluation of free liquids, following sample collection, a sub-sample (approximately 100 grams or 100 milliliters) will be used for the paint filter test in accordance with EPA Method 9095. The sample will be placed in the filter within the test apparatus and allowed to drain for 5 minutes into a graduated cylinder or other similar container.

4.3 Total Metals Samples (Wastewater)

Following sample collection, sample bottles will be placed in ice chests and handled under chain-of-custody procedures. Samples will be delivered to the analytical laboratory by sampling personnel, courier, or overnight delivery service. Samples will be analyzed for the RCRA 8 metals using EPA Method 6010B/6020A/7470 (metals concentrations). Since the samples will be analyzed for mercury, ice is required in the coolers submitted for waste characterization. The holding time for the selected metals is 28 days. As described above, material to be disposed of at an off-site facility may be analyzed for additional constituents to meet the characterization requirements of the specific disposal facility.

5.0 DECONTAMINATION AND QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

5.1 Decontamination

Reusable soil sampling equipment will be decontaminated between each use by removing any gross soils, washing the tool with a phosphate-free detergent solution, and then rinsing with tap water followed by rinsing with de-ionized/distilled water. Soil sampling equipment that is not reusable will be discarded after use.

5.2 Quality Assurance/Quality Control

EPA QA/R-5 (Requirements for Quality Assurance Project Plans), prepared by the USEPA Office of Environmental Information (dated March 2001) indicates that Quality Assurance Project Plans identify quality control activities needed for each sampling, analysis, or measurement technique. EPA QA/R-5 indicates that QC activities for the field and the laboratory include, but are not limited to, the use of blanks, duplicates, matrix spikes, laboratory control samples, surrogates, or second column confirmation. There are no specific requirements for a frequency of duplicates or blanks specified. In accordance with this guidance document, this WAP includes a discussion of the proposed quality control activities associated with waste characterization for the Site.

5.2.1 Duplicate Samples or Split Samples

Field duplicates are useful in documenting the precision of the sampling process. Field duplicates are used to assess improper homogenization of the samples in the field; reproducibility of sample preparation and analysis; and, heterogeneity of the matrix. One field duplicate sample will be collected per 20 samples for all types of samples, which is consistent with standard industry practice. For duplicate samples or samples to be split with another party, the soil or sediment will be placed in a plastic bag and homogenized prior to placing into laboratory-supplied jars.

5.2.2 Equipment Rinse Blank Samples

An equipment blank sample is a sample of analyte-free media which has been used to rinse the sampling equipment. It is collected after completion of decontamination and prior to sampling at a location. This blank is useful in documenting adequate decontamination of sampling equipment and would be an aqueous sample run for total constituent analysis. As waste samples will not be run for total constituent analysis, no equipment rinse blank samples will be collected for waste characterization samples. Thorough decontamination will be performed on all equipment as described above.

5.2.3 Laboratory QA/QC

Samples will be shipped to a lab certified under the National Environmental Laboratory Accreditation Program (NELAP) and accredited by the State of Texas. To confirm the accuracy and reproducibility of the laboratory analytical results, the analytical laboratory implements a QA/QC program, including laboratory replicate samples, method blanks and control standards. The laboratory QA/QC data generated during the sample analysis will be included in the laboratory analytical reports provided to Golder.

5.2.4 Data Usability

The laboratory will provide a laboratory review checklist and exception report in the analytical data package that certifies the data have been reviewed and are technically compliant with the requirements of the methods, except where noted in the exception reports.

Analytical data for waste characterization samples will be further evaluated for usability in accordance with the USEPA National Functional Guidelines for Inorganic Superfund Data Review (USEPA, 2016) and for adherence to project objectives.

During review of the analytical data, if the waste classification of the duplicate sample is different than the parent sample, additional evaluation and analyses will be performed or the more conservative waste classification will be used.

The results of the data usability evaluation will be included in the RACR to be submitted upon completion of the response action.

6.0 WASTE CLASSIFICATION

An evaluation of the data (Level 2 data validation) will be performed including review of Site analytical samples, sample matrix spike/ matrix spike duplicates, surrogate recoveries, laboratory control samples, recoveries, method blanks, hold times, and dilutions (when applicable). The United States Environmental Protection Agency (USEPA) National Functional Guidelines for validating organic and inorganic data will be used as guidance while evaluating the results.

The results of the TCLP metals analyses will be compared to the EPA and/or TCEQ criteria to determine if the material upon generation as a waste (a) will be hazardous (for Stewart Creek wastes), (b) will be hazardous and, if so, meets applicable CAMU treatment standards (for wastes to be placed in the RCA), or (c) will meet non-hazardous waste criteria and, in the case of wastes to be placed in the North CAMU, Class 2 waste criteria. The criteria are listed in the table below and the waste classification criteria for each type of waste are discussed in the following sections.

	Arsenic TCLP (mg/l)	Barium TCLP (mg/l)	Cadmium TCLP (mg/l)	Chromium TCLP (mg/l)	Lead TCLP (mg/l)	Mercury TCLP (mg/l)	Selenium TCLP (mg/l)	Silver TCLP (mg/l)
Meets CAMU Treatment Standards / < 10x UTS	<50	<210	<1.1	<6.0	<7.5	<0.25	<57	<1.4
Hazardous (mg/l)	≥5	≥100	≥1	≥5	≥5	≥0.2	≥1.0	≥5
Non-haz Class 1 (mg/l)	1.8 - <5	NA	0.5 - <1	NA	1.5 - <5	NA	NA	NA
Non-haz Class 2 (mg/l)	<1.8	<100	<0.5	<5	<1.5	<0.2	<1	<5

6.1 Class 2 Remediation Waste (Waste 3)

Remediation wastes that meet non-hazardous Class 2 criteria may be placed in the North CAMU or may be placed in the RCA.

6.2 On-Site Soil Remediation Waste (Waste 4)

On-Site soil and other remediation wastes which are non-hazardous or are hazardous and meet the applicable CAMU Treatment standards (listed above) will be placed in the RCA. Excavated soil, battery case fragments, concrete or other remediation waste from affected properties on-Site may also be placed on the top of the footprint of the Slag Landfill or North Disposal Area to facilitate achieving final waste grades before capping. This is permitted through the use of the AOC policy as further described in Attachment M of the May 2019 supplement to the hazardous waste permit renewal application.

Hazardous remediation wastes with TCLP concentrations that do not meet the CAMU treatment standards would be stabilized on-Site (for the presence of metals) in less than 90-day tanks or containers in compliance with applicable regulations and reanalyzed to confirm the CAMU treatment standard is met prior to placement in the RCA (disposal in the RCA), or will shipped to an off-site facility permitted to accept the waste.

As described in the FOP Operation & Maintenance (O&M) Plan (Appendix L to the Closure Plan, Attachment C – of the May 2019 supplement to the hazardous waste permit renewal application), while wastes are being stored or stabilized they will be staged in an area within the footprint of the RCA that is lined and bermed to provide secondary containment. See the O&M Plan for additional discussion on material handling.

6.3 On-Site/Off-Site Stewart Creek Remediation Waste (Wastes 5 and 6)

Materials from Stewart Creek that are determined will be non-hazardous upon generation will be stabilized in-situ (for the presence of free liquids, if needed) or in an area adjacent to Stewart Creek and subsequently transported to the RCA for disposal.

Materials from off-site Stewart Creek that are determined will be hazardous upon generation will be stabilized in-situ (for the presence of free liquids, if needed) and will be transported to a facility authorized to accept the material following applicable hazardous waste transportation regulations.

Wastes from on-Site Stewart Creek that are hazardous and determined to exceed the applicable CAMU treatment standards would be stabilized on-Site (for the presence of metals) in less than 90-day tanks or containers in compliance with applicable regulations and reanalyzed to confirm the CAMU treatment standard is met prior to placement in the RCA (disposal in the RCA), or will be shipped to an off-site facility permitted to accept the waste.

For on-Site and off-site Stewart Creek Wastes, the results of testing for the presence of free liquids will be compared to criteria specified in EPA Method 9095B (if any portion of the material passes through and drops from the filter within the 5-min test period, the material is deemed to contain free liquids). Material that does not pass the paint filter test will be further stabilized until it passes and then will be subsequently transported to the RCA, North CAMU (if Class 2), or an authorized off-site facility permitted for disposal.

6.4 Off-Site Slag (Waste 7)

As noted above, visible slag that can be segregated will be removed from excavated soil or sediment off-Site and will be presumed to be characteristically hazardous, placed in a roll-off container or drum on-Site and disposed of at an off-Site facility permitted to accept hazardous waste. Slag will be accumulated in the container or drum for less than 90 days and managed in compliance with applicable regulations for less than 90-day storage.

6.5 On-Site Slag (Waste 8)

Visible slag that can be segregated will be removed from excavated soil or sediment on-site. If it is determined to be non-hazardous or hazardous and meet the CAMU treatment standards, it will be placed in the RCA.

Hazardous slag with TCLP concentrations that do not meet the CAMU treatment standards would be stabilized on-Site (for the presence of metals) in less than 90-day tanks or containers in compliance with applicable regulations and reanalyzed to confirm the CAMU treatment standard is met prior to placement in the RCA (disposal in the RCA), or shipped to an off-Site facility permitted to accept the material following applicable hazardous waste transportation regulations.

As noted above for Waste 7, on-Site slag may also be presumed to be characteristically hazardous, placed in a roll-off container or drum on-Site and disposed of at an off-Site facility permitted to accept hazardous waste. Slag will be accumulated in the container or drum for less than 90 days and managed in compliance with applicable regulations for less than 90-day storage.

6.6 Wastewater (Waste 9)

Wastewater results will also be compared to applicable EPA and TCEQ waste classification criteria and disposed of at a facility authorized to accept the waste.

6.7 Off-Site Soil from the Railroad Museum (Waste 10)

Off-Site soil from the Railroad Museum that is classified as non-hazardous may be placed in the North CAMU (if Class 2) or may be placed in the RCA. Soil that is classified as hazardous will be transported to a facility authorized to accept the material following applicable hazardous waste transportation regulations.

Signature Page

Golder Associates Inc.

Emily White

Emily P. White
Project Engineer

EPW/AMF

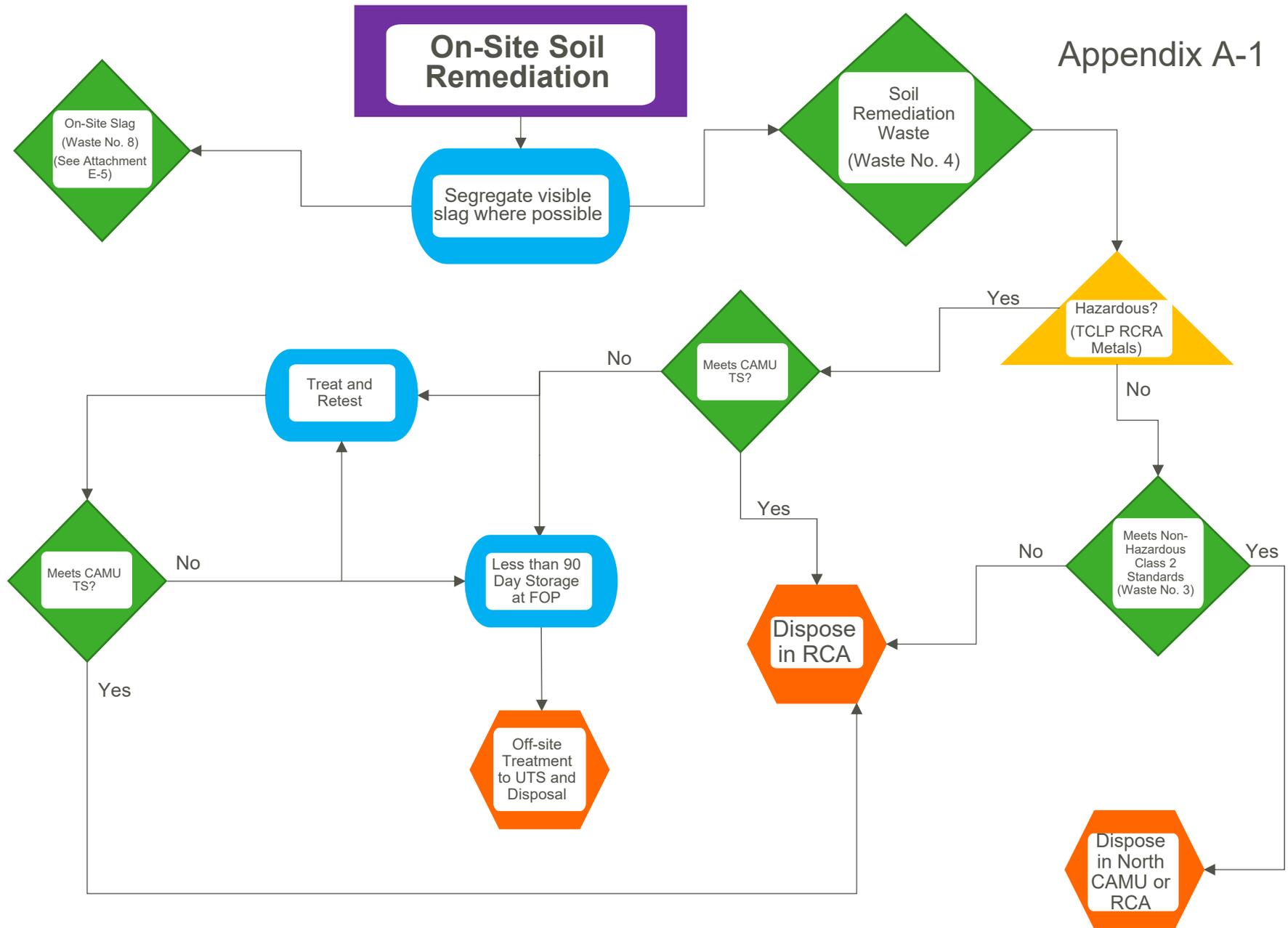
Anne Faeth-Boyd

Anne M. Faeth-Boyd, P.G.
Associate and Senior Engineer



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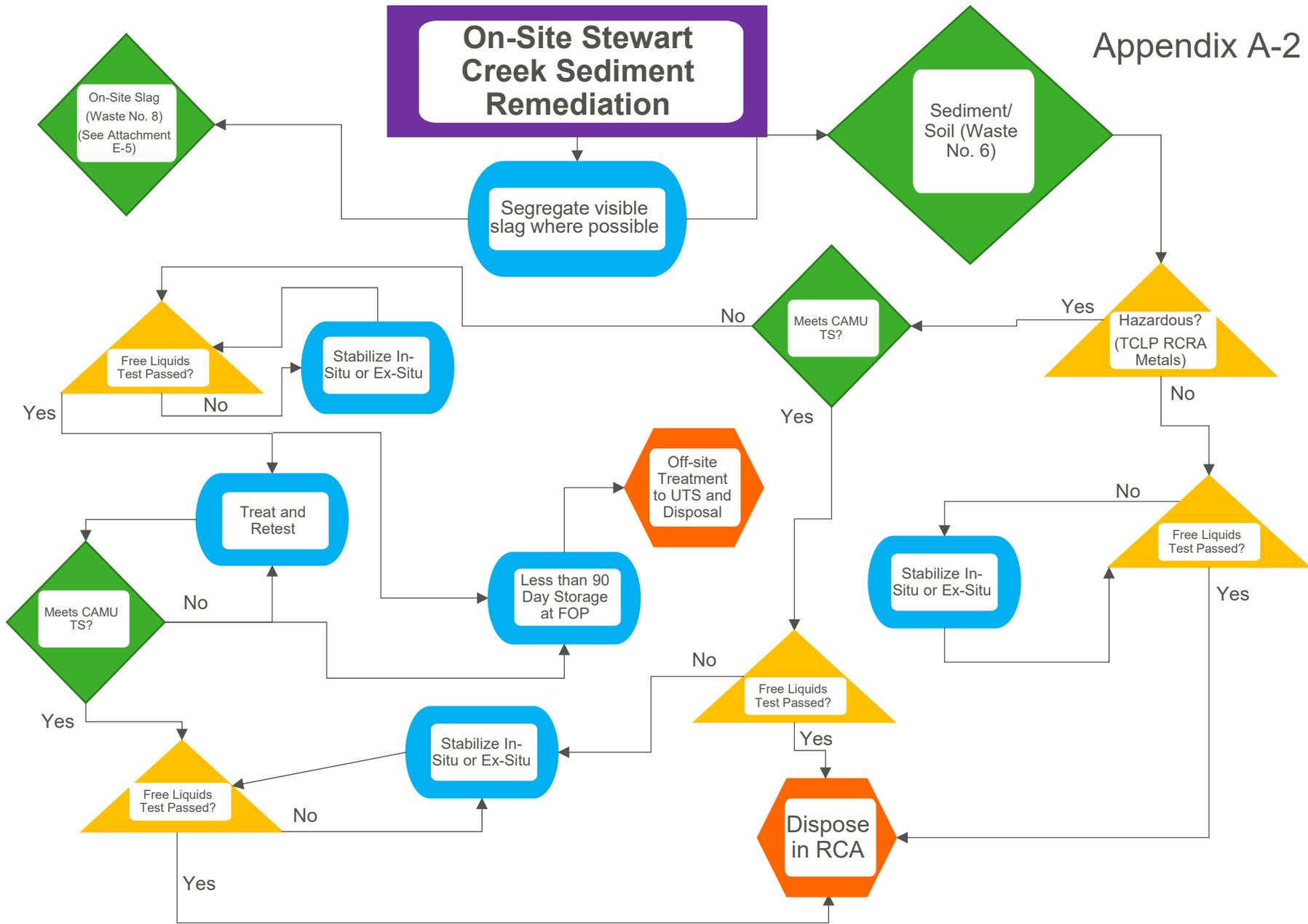
APPENDIX A
FLOWCHARTS FOR WASTE CHARACTERIZATION



CAMU – Corrective Action Management Unit
 RCA – Remediation Consolidation Area
 TCLP – Toxicity Characteristic Leaching Procedure
 FOP – Former Operating Plant

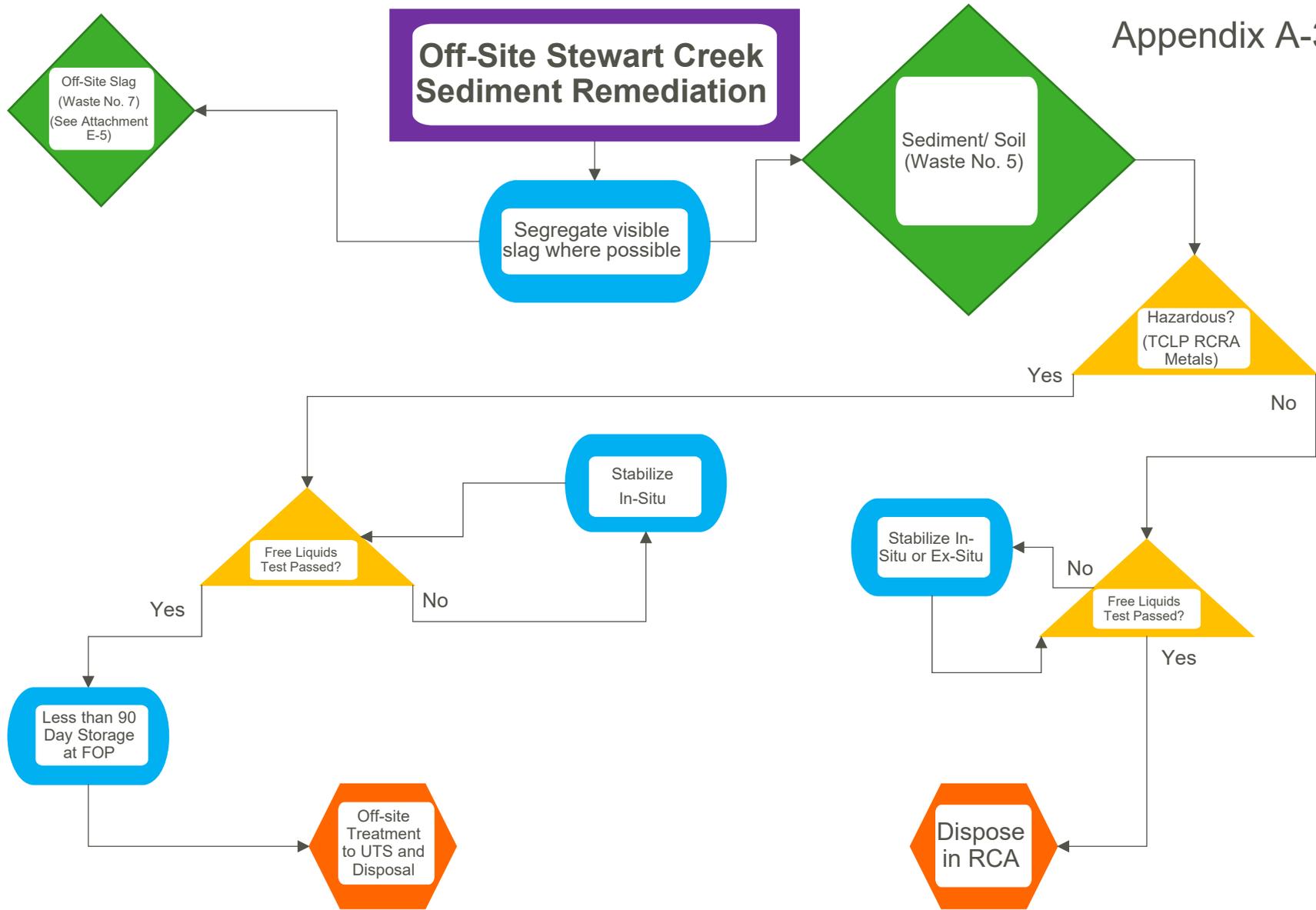
UTS – Universal Treatment Standards
 CAMU TS – CAMU Treatment Standards

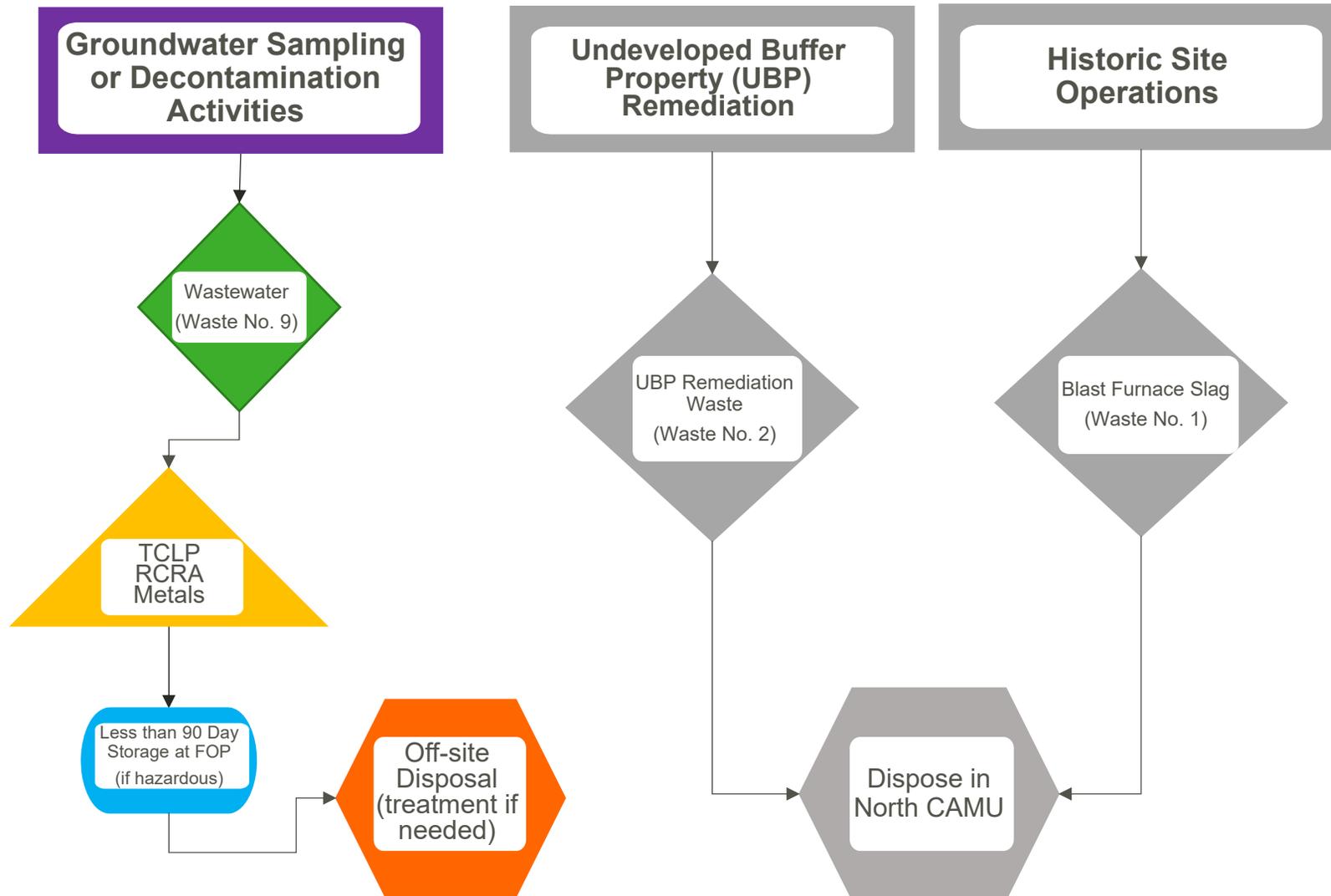
1) Materials transported on-Site will be conveyed by on-road and off-road haul trucks.
 Materials transported off-Site will be conveyed by appropriately licensed vehicles.



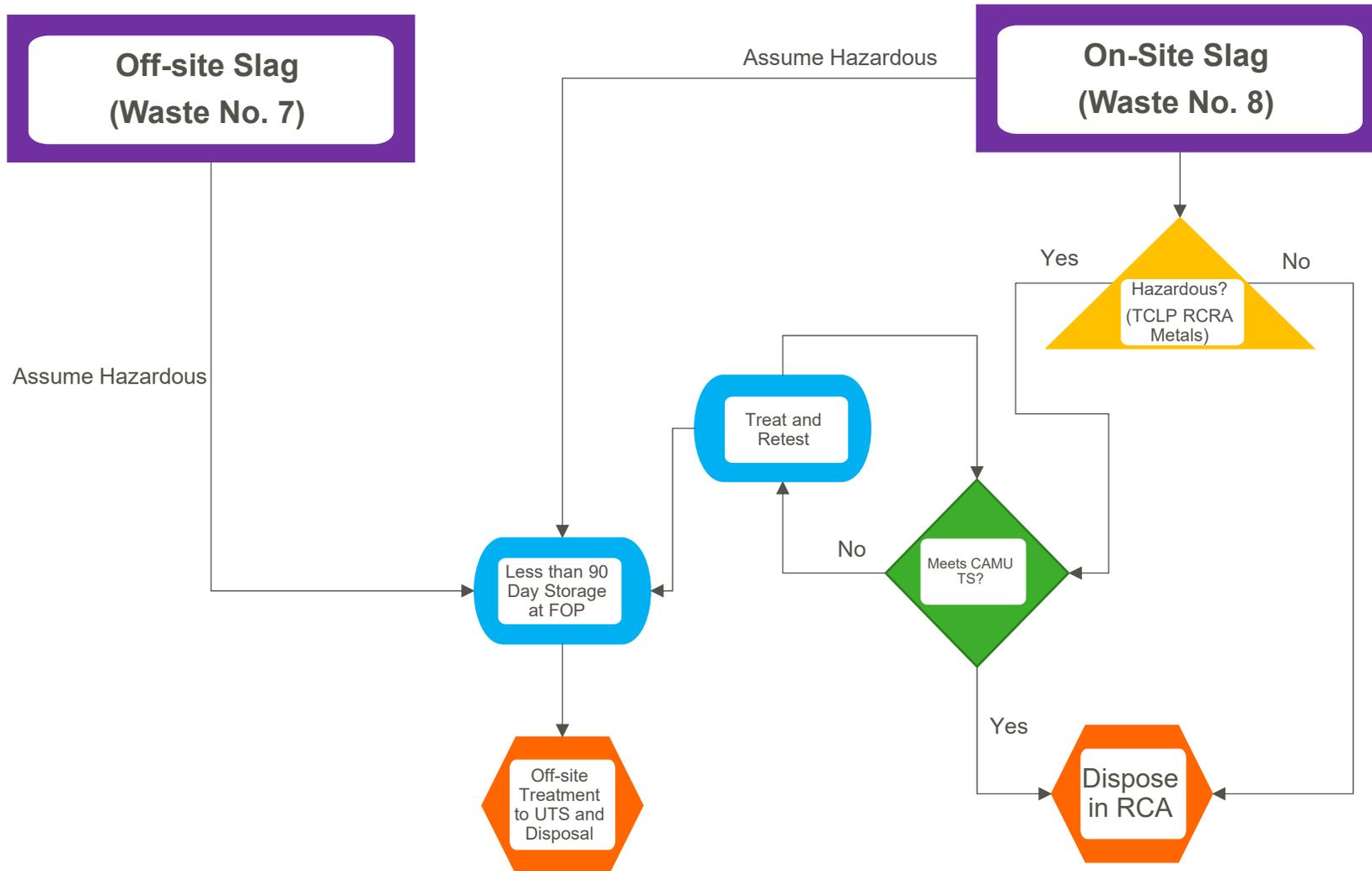
CAMU – Corrective Action Management Unit
 RCA – Remediation Consolidation Area
 TCLP – Toxicity Characteristic Leaching Procedure
 FOP – Former Operating Plant

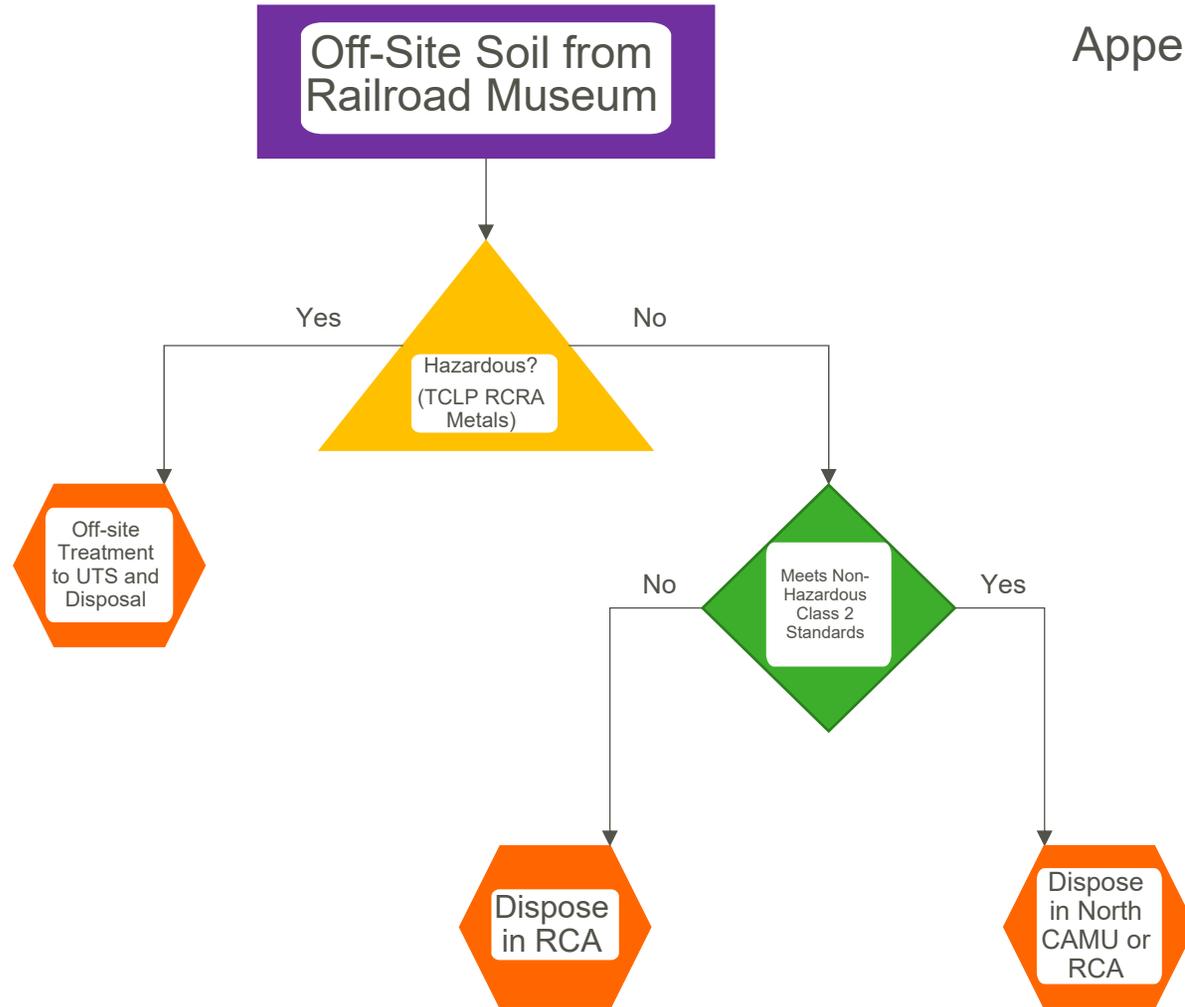
UTS – Universal Treatment Standards
 CAMU TS – CAMU Treatment Standards
 1) Materials transported on-Site will be conveyed by on-road and off-road haul trucks.
 Materials transported off-Site will be conveyed by appropriately licensed vehicles.





Wastes No. 1 and 2 have already been placed in the North CAMU and no further characterization testing is planned.







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