



**Texas Commission on
Environmental Quality
Austin, Texas**

Hazardous Waste Permit No. 50206
EPA ID. No. TXD0006451090
ISWR No. 30516

This permit supersedes and replaces
Hazardous Waste Permit No. 50206
Issued March 30, 2001

Permit for Industrial Solid Waste
Management Site issued under provisions
of Texas Health and Safety Code ANN.
Chapter 361 and Chapter 26 of the Texas
Water Code

Name of Permittee:	Frisco Community Development Corporation 6101 Frisco Square Boulevard, 5 th Floor Frisco, Texas 75034
Site Owner:	Frisco Community Development Corporation 6101 Frisco Square Boulevard, 5 th Floor Frisco, Texas 75034
Registered Agent for Service:	NA
Classification of Site:	Hazardous and Nonhazardous Class 1 and Class 2 industrial solid waste corrective action on-site storage, processing, and disposal, noncommercial facility.

The permittee is authorized to manage wastes in accordance with the limitations, requirements, and other conditions set forth herein. This permit is granted subject to the rules of the Commission and other Orders of the Commission, and laws of the State of Texas. This permit does not exempt the permittee from compliance with the Texas Clean Air Act. This permit will be valid until canceled, amended, modified or revoked by the Commission, except that the authorization to store, process and dispose of wastes shall expire midnight, ten (10) years after the date of this renewal permit approval. This permit was originally issued on May 24, 1988, and subsequently renewed on March 30, 2001.

All provisions in this permit stem from State and/or Federal authority. Those provisions marked with an asterisk (*) stem from Federal authority and will implement the applicable requirements of Hazardous and Solid Waste Amendments of 1984 (HSWA) for which the Texas Commission on Environmental Quality has not been authorized.

Issued Date:

For the Commission

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- A - Legal Description of Facility
- B - Facility Map
- C - Permit Application Revision Chronology
- D - List of Incorporated Application Materials
- E - List of Permitted Facility Units
- F - Well Design and Construction Specifications

List of Compliance Plan Attachments:

CP A Facility Site Maps

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Sheet 2 of 4 Topographic Map of the Entire Facility

Sheet 3 of 4 North CAMU PMZ Boundary Location Map

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CP B Public Participation in HSWA Corrective Action

CP C Well Design, Construction, Installation, Certification, Plugging and Abandonment Procedures and Specifications

Permit/Compliance Plan Acronyms

ACL	-	Alternate Concentration Limit
AAL	-	Attenuation Action Level(s)
ALR	-	Action Leakage Rate
AMP	-	Attenuation Monitoring Point
AOC	-	Area(s) of Concern
APA	-	Affected Property Assessment
APAR	-	Affected Property Assessment Report
APOE	-	Alternate Point of Exposure
Appendix VIII	-	40 CFR 261, Appendix VIII (Identification and Listing of Hazardous Waste - Hazardous Constituents)
ASTM	-	American Society for Testing and Materials
BGS	-	Below Ground Surface
BLRA	-	Baseline Risk Assessment
CAMU	-	Corrective Action Management Unit
CAO	-	Corrective Action Observation
CAS	-	Corrective Action System
CCC	-	Coastal Coordination Council
CEMS	-	Continuous Emissions Monitoring System
CFR	-	Code of Federal Regulations
CMI	-	Corrective Measures Implementation
CMP	-	Texas Coastal Management Program
CMS	-	Corrective Measures Study
CSA	-	Container Storage Area
COC	-	Constituent(s) of Concern
EPA	-	United States Environmental Protection Agency
EPA SW-846	-	Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Third Edition, November 1986
FEMA	-	Federal Emergency Management Agency
FOP	-	Former Operating Plant
GWPS	-	Groundwater Protection Standard
HSWA	-	Hazardous and Solid Waste Amendments of 1984
ICM	-	Interim Corrective Measures
LDR	-	Land Disposal Restrictions
MDL	-	Method Detection Limit
MLFCS	-	Multi-Layer Final Cap System
MQL	-	Method Quantitation Limit
MSL	-	Mean Sea Level
NAPL	-	Non-Aqueous Phase Liquid
NOR	-	Notice of Registration
PCB	-	Polychlorinated Biphenyl
PCL	-	Protective Concentration Level
PMZ	-	Plume Management Zone
POC	-	Point of Compliance
POE	-	Point of Exposure
ppm	-	Parts Per Million
ppmv	-	Parts Per Million by Volume
PQL	-	Practical Quantitation Limit
Psi	-	Pounds Per Square Inch
QA/QC	-	Quality Assurance/Quality Control
RACR	-	Response Action Completion Report

RAER	-	Response Action Effectiveness Report
RAP	-	Response Action Plan (for Action Leakage Rate in landfills)
RAP	-	Remedial Action Plan
RCA	-	Remediation Consolidation Area
RCRA	-	Resource Conservation and Recovery Act
RFA	-	RCRA Facility Assessment
RFI	-	RCRA Facility Investigation
RRR	-	TCEQ Risk Reduction Rules
RRS	-	Risk Reduction Standard
RSA	-	Remedy Standard A
RSB	-	Remedy Standard B
SR/WM	-	Source Reduction and Waste Minimization
SSI	-	Statistically Significant Increase
SWDA	-	Solid Waste Disposal Act
SWMU	-	Solid Waste Management Unit(s)
TAC	-	Texas Administrative Code
TCEQ	-	Texas Commission on Environmental Quality
TCEQ QAPP	-	"Quality Assurance Project Plan for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation and Recovery Act and Underground Injection Control"
THC	-	Total Hydrocarbons
TRRP	-	Texas Risk Reduction Program

I. Facility Description

A. Size and Location of Site

A permit is issued to Frisco Community Development Corporation (hereafter called the permittee), to operate a hazardous waste processing, storage, and disposal facility located at 7471 Old Fifth Street in Frisco, in Collin County, Texas, and within the drainage area of Segment 0823 in the Trinity River Basin (North Latitude 33° 08' 30", West Longitude 96° 49' 53"). The legal description of the facility submitted in Permit No. 50206 application dated November 22, 2019 is hereby made a part of this permit as "Attachment A." The hazardous waste management facility as delineated by the permittee's application map is hereby made a part of this permit as "Attachment B."

B. Incorporated Application Materials

This permit is based on, and the permittee shall follow the Part A and Part B Industrial & Hazardous Waste Application submittals dated May 29, 2019 and November 22, 2019, the revisions to the permit and permit application that are listed in "Attachment C," and the Application Elements listed in "Attachment D," which are hereby approved subject to the terms of this permit and any other orders of the Texas Commission on Environmental Quality (TCEQ). These materials are incorporated into this permit by reference as if fully set out herein. Any and all revisions to these elements shall become conditions of this permit upon the date of approval by the Commission.

II. General Facility Standards

A. Standard Permit Conditions

The permittee has a duty to comply with the Standard Permit Conditions under 30 Texas Administrative Code (TAC) Section 305.125. Moreover, the permittee has a duty to comply with the following permit conditions:

1. Modification of Permitted Facilities

The facility units and operational methods authorized are limited to those described herein and by the application submittals identified in Section I.B. All facility units and operational methods are subject to the terms and conditions of this permit and TCEQ rules. Prior to constructing or operating any facility units in a manner which differs from either the related plans and specifications contained in the permit application or the limitations, terms or conditions of this permit, the permittee must comply with the TCEQ permit amendment/modification rules as provided in 30 TAC Sections 305.62 and 305.69.

2. Duty to Comply

The permittee must comply with all the conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency order issued by the Commission. Any permit noncompliance, other than noncompliance

authorized by an emergency order, constitutes a violation of the Resource Conservation and Recovery Act (RCRA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [30 TAC Section 305.142]

3. Severability

The provisions of this permit are severable. If any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected.

4. Definitions

For purposes of this permit, terms used herein shall have the same meaning as those in 30 TAC Chapters 305, 335, and 350 unless this permit specifically provides otherwise; where terms are not defined in the regulations or the permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

Application data - data used to complete the final application and any supplemental information.

5. Permit Expiration

In order to continue a permitted activity after the expiration date of the permit the permittee shall submit a new permit application at least 180 days before the expiration date of the effective permit, unless permission for a later date has been granted by the Executive Director. Authorization to continue such activity will terminate upon the effective denial of said application.

6. Certification Requirements

For a new facility, the permittee may not commence storage, processing, or disposal of solid waste; and for a facility being modified, the permittee may not process, store or dispose of solid waste in the modified portion of the facility, except as provided in 30 TAC Section 305.69 (relating to Solid Waste Permit Modification at the Request of the Permittee) until the following has been accomplished [30 TAC Section 305.144]:

- a. The permittee has submitted to the Executive Director and the local Regional Office of the TCEQ, by certified mail or hand delivery, a letter signed by the permittee, and signed and sealed by a Texas Professional Engineer stating that the facility has been constructed or modified in compliance with the permit. If the certification is being provided to document proper closure of a permitted unit, or to certify installation or repair of a tank system, then the certification must be signed and sealed by an independent Texas licensed Professional Engineer. Required certification shall be in the following form:

"This is to certify that the following activity (specify activity, e.g., construction, installation, closure, etc., of an item) relating to the following item (specify the item, e.g., the particular facility, facility unit, unit component, subcomponent part, or ancillary component), authorized or required by TCEQ Permit No. 50206 has been completed, and that construction of said facility component has been performed in accordance with and in compliance with good engineering practices and the design and construction specifications of Permit No. 50206."

- b. A certification report has been submitted, with the certification described in Provision II.A.6.a., which is logically organized and describes in detail the tests, inspections, and measurements performed, their results, and all other bases for the conclusion that the facility unit, unit component, and/or closure have been constructed, installed and/or performed in conformance with the design and construction specifications of this permit and in compliance with this permit. The report shall describe each activity as it relates to each facility unit or component being certified including reference to all applicable permit provisions. The report shall contain the following items, at a minimum:
 - (1) Scaled, as-built plan-view and cross-sectional drawings which accurately depict the facility unit and all unit components and subcomponents and which demonstrate compliance with the design and construction specifications approved and detailed in the terms of this permit;
 - (2) All necessary references to dimensions, elevations, slopes, construction materials, thickness and equipment; and
 - (3) For all drawings and specifications, the date, signature, and seal of a Professional Engineer who is licensed in the State of Texas.
- c. The Executive Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or if within fifteen (15) days of submission of the letter required by paragraph (a) of this section, the permittee has not received notice from the Executive Director of the intent to inspect, prior inspection is waived and the permittee may commence processing, storage, or disposal of solid waste.

7. Land Disposal Restrictions

The permittee shall comply with the land disposal restrictions as found in 40 Code of Federal Regulations (CFR) 268 and any subsequent applicable requirements promulgated through the Federal Register. Requirements include modifying/amending the permittee's waste analysis plan to include analyses to determine compliance with applicable treatment standards or prohibition levels, pursuant to 40 CFR 268.7(c) and 264.13(a).

8. Dust Suppression

Pursuant to 40 CFR 266.23(b)/30 TAC Section 335.214(b), the permittee shall not use waste, used oil, or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability) for dust suppression or road treatment.

9. Permit Reopener

This permit shall be subject to review by the Executive Director five (5) years from the date of permit issuance or reissuance and shall be modified as necessary to assure that the facility continues to comply with currently applicable requirements of the Solid Waste Disposal Act (SWDA) and the rules and regulations of the Commission. The permittee shall submit any information as may be reasonably required by the Executive Director to ascertain whether the facility continues to comply with currently applicable requirements of the SWDA and the rules and regulations of the Commission.

10. Texas Coastal Management Program

The TCEQ has reviewed the permit application for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the Coastal Coordination Council (CCC) and has determined that the permit is consistent with the applicable CMP goals and policies. [30 TAC Section 281.43(a)(1)]

11. Monitoring of Commercial Hazardous Waste Management Facility Operations - RESERVED

12. Failure to Submit Relevant Facts in Permit Application

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or any report to the Executive Director, the permittee shall promptly submit the correct information or facts to the Executive Director. [30 TAC Section 305.125(19)]

13. Hazardous Waste Combustion Facility Provision - RESERVED

14. Waste Management Fee Assessment, Fee Payment, and Records and Reporting

- a. If applicable, the permittee is subject to the assessment of fees for hazardous wastes which are stored, processed, disposed, or otherwise managed and for Class 1 industrial wastes which are disposed at a commercial facility. [30 TAC Section 335.325]
- b. As applicable and except as provided in Provision II.A.14.c., the permittee shall pay waste management fees monthly. Monthly fee payments shall be due by the 25th day following the end of the month for which payment is due. [30 TAC Section 335.328(b)]

- c. If required, the permittee owes waste management fees in an amount less than \$500 for a calendar month or less than \$1,500 for a calendar quarter, the permittee may file a quarterly report and pay a quarterly fee. [30 TAC Section 335.328(c)]
- d. If required, the permittee shall document the basis for the assessment of any applicable waste management fees, including any adjustment to or exemption from assessment. [30 TAC Section 335.329(b)(4)]
- e. If required, the permittee shall submit a monthly report of on-site waste management activities subject to the assessment of waste management fees on forms furnished or approved by the Executive Director. This report shall be due by the 25th day following the end of the month (or quarter) for which a report is made. Monthly (or quarterly) reports shall be submitted, regardless of whether any storage, processing, or disposal was made during a particular month (or quarter), by preparing and submitting a summary indicating that no waste was managed during that month (or quarter). [30 TAC Section 335.329(b)(5)]
- f. As applicable, the permittee shall maintain the required records and reports in accordance with 30 TAC Sections 335.329(c) and (d).

15. Transfer of Ownership and/or Operational Control

The transfer of ownership and/or operational control of this permit is subject to the transfer requirements of 30 TAC Section 305.64 and permit modification requirements of 30 TAC Section 305.69. The new owner and/or operator seeking a transfer of ownership and/or operational control of this permit shall submit a Class 1¹ permit modification (with prior written approval by the Executive Director) at least 90 days prior to the scheduled transfer in accordance with 30 TAC Section 305.69(b)(2). Prior to the Executive Director issuing the permit modification transferring the permit, the new owner or operator shall provide a fully executed financial assurance mechanism satisfactory to the TCEQ Executive Director, for all existing units which have received waste and any corrective action required under this permit, in compliance with 30 TAC Chapter 37, Subchapter P. [30 TAC Section 305.64(g)]

B. Recordkeeping and Reporting Requirements

1. Monitoring and Records

- a. All data submitted to the TCEQ shall be in a manner consistent with the latest version of the "Quality Assurance Project Plan for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation and Recovery Act and Underground Injection Control" (TCEQ QAPP).
- b. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity. The method used to obtain a representative sample of the material to be analyzed shall be the appropriate method from Appendix I of 40 CFR Part 261 or an equivalent method approved in writing prior to use by the Executive Director of the TCEQ. Laboratory methods shall be the latest version

specified in current edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846 (EPA SW-846); Standard Methods for the Examination of Water and Wastewater; RCRA Groundwater Monitoring: Draft Technical Guidance, 1992, OSWER Directive 9950.1, or an equivalent method; as specified in the Waste Analysis Plan, Section IV, Attachment Q of the Part B Application, and approved in writing prior to use by the Executive Director. [30 TAC Section 305.125(11)(A)]

- c. The permittee shall retain in an organized fashion and furnish to the Executive Director, upon request, records of all monitoring information, copies of all reports and records required by this permit, and the certification required by 40 CFR 264.73(b)(9), for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application. [30 TAC Section 305.125(11)(B)]
- d. Records of monitoring shall include the following [30 TAC Section 305.125(11)(C)]:
 - (1) The date, time, and place of sample or measurement;
 - (2) The identity of individual who collected the sample or measurement;
 - (3) The dates analyses were performed;
 - (4) The identity of individual and laboratory who performed the analyses;
 - (5) The analytical techniques or methods used; and
 - (6) The results of such analyses or measurements.
- e. All engineering and geoscientific information submitted to the TCEQ shall be prepared by, or under the supervision of, a licensed professional engineer or licensed professional geoscientist, and shall be signed, sealed, and dated by qualified professionals as required by the Texas Engineering Practice Act and the Texas Geoscience Practice Act and the licensing and registration boards under these acts.

2. Operating Record

In addition to the recordkeeping and reporting requirements specified elsewhere in this permit, the permittee shall maintain a written operating record at the facility, in accordance with 40 CFR 264.73. These records will be made available to representatives of the TCEQ upon request.

3. Retention of Application Data

Throughout the terms of the permit, the permittee shall keep records of data used to complete the final application and any supplemental information. All copies of renewals, amendments, revisions and modifications must also be kept at the facility such that the most current documents are available for inspection at all times. All materials, including any related information, submitted to complete the application shall be retained, not just those materials which have been incorporated into the permit. [30 TAC Section 305.47]

4. Reporting of Noncompliance

The permittee shall report to the Executive Director of the TCEQ information regarding any noncompliance which may endanger human health or the environment. [30 TAC Section 305.125(9)]

- a. Report of such information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the noncompliance.
- b. A written submission of such information shall also be provided within five (5) days of the time the permittee becomes aware of the noncompliance. The written submission shall contain the following:
 - (1) A description of the noncompliance and its cause;
 - (2) The potential danger to human health or safety, or the environment;
 - (3) The period of noncompliance, including exact dates and times;
 - (4) If the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - (5) Steps taken or planned to reduce, eliminate, and prevent the recurrence of the noncompliance, and to mitigate its adverse effects.

5. Twenty-Four Hour Reporting

The following shall be included as information which must be reported orally within twenty-four (24) hours pursuant to 30 TAC Section 305.125(9) [30 TAC Section 305.145]:

- a. Information concerning release of any solid waste that may cause an endangerment to public drinking water supplies; and
- b. Any information of a release or discharge of solid waste, or of a fire or explosion which could threaten the environment or human health or safety, outside the facility. The description of the occurrence and its cause shall include:
 - (1) Name, address, and telephone number of the owner or operator;
 - (2) Name, address, and telephone number of the facility;
 - (3) Date, time, and type of incident;
 - (4) Name and quantity of material(s) involved;
 - (5) The extent of injuries, if any;
 - (6) An assessment of actual or potential hazards to the environment and human health or safety outside the facility, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

6. Notice Waiver

The Executive Director may waive the five (5) day written notice requirement specified in Provision II.B.4.b. in favor of a written report submitted to the Commission within fifteen (15) days of the time the permittee becomes aware of the noncompliance or condition. [30 TAC Section 305.145(b)]

7. Biennial Report

The permittee shall prepare and submit to the Executive Director all information and records required by 40 CFR 264.75. By March 1st of each even-numbered year for the preceding odd-numbered year's activities the permittee shall submit either a Biennial Report or letter certifying submission of the above. One copy of the report/letter shall be submitted to the TCEQ Industrial & Hazardous Waste Permits Section and an additional copy shall be submitted to the appropriate TCEQ Regional Office.

8. Pollution Prevention

Facilities subject to 30 TAC Chapter 335, Subchapter Q - Pollution Prevention: Source Reduction and Waste Minimization must prepare a five (5) year Source Reduction and Waste Minimization Plan and submit a Source Reduction and Waste Minimization (SR/WM) Annual Report to the TCEQ Environmental Assistance Division. This report must be submitted annually on the dates specified in the rule.

9. Annual Detection Monitoring Report

The permittee shall submit an Annual Detection Monitoring Report as required by Section VI.G. of this permit by March 1st of each year.

10. Manifest Discrepancy Report

If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen (15) days, the permittee must submit a report, describing the incident, to the Executive Director, as per the requirements of 30 TAC Section 335.12. A copy of the manifest must be included in the report.

11. Unmanifested Waste Report

A report must be submitted to the Executive Director within fifteen (15) days of receipt of unmanifested waste, as per the requirements of 30 TAC Section 335.15(3).

12. Monthly Summary

The permittee shall prepare a monthly report, of all manifests received during the month, summarizing the quantity, character, transporter identity, and the method of storage, processing and disposal of each hazardous waste or Class 1

waste shipment received, itemized by manifest document number. This monthly summary report shall be submitted to the TCEQ Registration and Reporting Section on or before the 25th day of each month for waste received during the previous month. [30 TAC Section 335.15(2)]

C. Incorporated Regulatory Requirements

1. State Regulations

To the extent applicable to the activities authorized by this permit, the following TCEQ regulations are hereby made provisions and conditions of the permit.

- a. 30 TAC Chapter 37, Subchapter P: Financial Assurance for Hazardous and Nonhazardous Industrial Solid Waste Facilities;
- b. 30 TAC Chapter 305, Subchapter A: General Provisions;
- c. 30 TAC Chapter 305, Subchapter C: Application for Permit or Post-Closure Order;
- d. 30 TAC Sections 305.61 - 305.69 (regarding amendments, renewals, transfers, corrections, revocation and suspension of permits);
- e. 30 TAC Sections 305.121 - 305.125 (regarding permit characteristics and conditions);
- f. 30 TAC Sections 305.127 - 305.129 (regarding permit conditions, signatories and variance procedures);
- g. 30 TAC Chapter 305, Subchapter G: Additional Conditions for Hazardous and Industrial Solid Waste Storage, Processing or Disposal Permits;
- h. 30 TAC Chapter 335, Subchapter A: Industrial Solid Waste and Municipal Hazardous Waste in General;
- i. 30 TAC Chapter 335, Subchapter B: Hazardous Waste Management General Provisions;
- j. 30 TAC Section 335.152, Standards;
- k. 30 TAC Sections 335.153 - 335.155 (regarding reporting of emergency situations and additional reports required);
- l. 30 TAC Sections 335.156 - 335.167 (regarding applicability of groundwater monitoring programs and corrective action requirements);
- m. 30 TAC Sections 335.173 - 335.174 (regarding the design and operating requirements and closure and post-closure care of landfills);
- n. 30 TAC Sections 335.175 - 335.176 (regarding special requirements for containers and bulk and containerized waste);

- o. 30 TAC Sections 335.177 - 335.179 (regarding general performance standard, cost estimate for closure, and financial assurance);
- p. 30 TAC Sections 335.325, 335.328 and 335.329 (regarding waste management fee assessment, fee payment, and records and reports);
- q. 30 TAC Chapter 335, Subchapter Q: Pollution Prevention: Source Reduction and Waste Minimization; and
- r. 30 TAC Chapter 350, Texas Risk Reduction Program.

Issuance of this permit with incorporated rules in no way exempts the permittee from compliance with any other applicable state statute and/or Commission Rule.

2. Federal Regulations

To the extent applicable to the activities authorized by this permit, the following provisions of 40 CFR Parts 264 and Part 268, adopted by reference by 30 TAC Section 335.152 and 335 Subchapter O are hereby made provisions and conditions of this permit, to the extent consistent with the Texas Solid Waste Disposal Act, Texas Health and Safety Code Ann., Chapter 361 (Vernon), and the rules of the TCEQ:

- a. Subpart B -- General Facility Standards;
- b. Subpart C -- Preparedness and Prevention;
- c. Subpart D -- Contingency Plan and Emergency Procedures;
- d. Subpart E -- Manifest System, Recordkeeping, and Reporting;
- e. Subpart G -- Closure and Post-Closure;
- f. Subpart H -- Financial Requirements;
- g. Subpart I -- Use and Management of Containers;
- h. Subpart N -- Landfills;
- i. Subpart S -- Special Provisions for Cleanup (CAMUs);
- j. Subpart X -- Miscellaneous Units;
- k. Subpart DD -- Containment Buildings;
- l. 40 CFR Part 268 -- Land Disposal Restrictions (LDR).

III. Facility Management

A. Operation of Facility

The permittee shall construct, maintain, and operate the facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment, as required by 40 CFR 264.31. All equipment and structures used to manage hazardous waste at the facility shall be maintained in proper operating condition.

B. Personnel Training

The permittee shall ensure that all facility personnel involved with hazardous waste management successfully complete a training program as required by 40 CFR 264.16. The permittee shall maintain training documents and records, as required by 40 CFR 264.16(d) and (e).

C. Security

1. The permittee shall provide and maintain an artificial or natural barrier which completely surrounds the active waste management portion(s) of the facility and shall have a means to control entry, at all times, through gates or other entrances to these same facility areas.
2. The permittee shall post warning signs at all points of access to the active waste management portion(s) of the facility and along the natural and/or artificial barriers in sufficient numbers to be seen from any approach to that (those) portion(s) of the facility. The signs shall be printed so that they may be clearly read from a distance of at least twenty-five (25) feet and shall state "Danger - Authorized Personnel Only" in English and Spanish.

D. General Inspection Requirements

The permittee shall follow the inspection schedule contained in the permit application submittals identified in Section I.B. of this permit and as set out in Table III.D. - Inspection Schedule. The permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by 40 CFR 264.15(c). Records of inspection shall be kept, as required by 40 CFR 264.15(d). Any remedial actions taken in response to facility inspections and the date of the remediation shall be included in the inspection records.

E. Contingency Plan

1. The permittee shall follow the Contingency Plan, developed in accordance with 40 CFR Part 264 Subpart D, and contained in the permit application submittals identified in Section I.B. of this permit. Copies of this plan shall be available to all employees involved in waste management at the facility.
2. The permittee shall immediately initiate clean-up procedures for removal of any spilled hazardous or industrial nonhazardous wastes and waste residues and shall take all steps necessary to prevent surface water or groundwater contamination as a result of any spills.

3. Collected hazardous or industrial nonhazardous wastes, spills, leaks, clean-up residues, and contaminated rainfall runoff, including contaminated stormwater from the drainage control system(s) associated with the permitted units, shall be removed promptly after the spillage and/or rainfall event in as timely a manner as is necessary to prevent overflow of the system by the following method(s):
 - a. Removal to an on-site authorized facility unit;
 - b. Removal to an authorized industrial solid waste management facility or authorized off-site facility; or
 - c. Discharge in accordance with a wastewater discharge permit.
4. The permittee shall ensure that any equipment or vehicles which have come in contact with waste in the loading/unloading, storage, processing, and/or disposal areas have been decontaminated prior to their movement into designated uncontaminated areas of the site property. At a minimum, all contaminated equipment shall be externally decontaminated and contaminated vehicles shall have their undercarriages and tires or tracks decontaminated to remove all waste residues and to prevent contamination of uncontaminated areas. All wash water generated shall be collected and disposed of in accordance with Provision III.E.3.
5. Preparedness and Prevention
 - a. At a minimum, the permittee shall equip the facility with emergency equipment as required by 40 CFR 264.32 (see Table III.E.3 in Section III of the Part B permit application referenced in Section I.B of this permit for the list of approved emergency equipment).
 - b. All sumps, pumps, fire- and spill-control equipment, decontamination equipment, and all other equipment and structures authorized or required through the Contingency Plan shall be tested and maintained, as necessary, to assure their proper operation in time of emergency, as required by 40 CFR 264.33.
 - c. The permittee shall maintain access to the communications or alarm system, as required by 40 CFR 264.34.
 - d. A trained emergency coordinator shall be available at all times in case of an emergency and will have the responsibility for coordinating all emergency response measures as required by 40 CFR 264.55 and 264.56. Emergency number(s) shall be posted in all waste management portions of the facility and all employees in those areas shall be trained in the location of those postings.

F. Special Permit Conditions - RESERVED

IV. Wastes and Waste Analysis

A. Waste Analysis Plan

The permittee shall follow the Waste Analysis Plan, developed in accordance with 40 CFR 264.13 and the permit application identified in Section I.B. of this permit.

B. Authorized Wastes

1. The permittee is authorized to manage hazardous and non-hazardous industrial solid wastes listed in Table IV.B. - Wastes Managed in Permitted Units, subject to the limitations provided herein.

Wastes authorized for storage and processing and disposal include those generated from facility sources.

2. Hazardous and Non-hazardous Waste Received From Off-Site Sources

The permittee may not receive hazardous or non-hazardous waste from off-site sources, other than wastes from Stewart Creek remediation activities or the Railroad Museum soil stockpile.

3. The wastes authorized in Table IV.B. shall not contain any of the following:

- a. PCB waste, as defined by the Environmental Protection Agency (EPA) in regulations issued pursuant to the Toxic Substances Control Act under 40 CFR Part 761, unless the permittee is compliant with the federal requirements for PCB storage as specified in 40 CFR Part 761;
- b. Radioactive materials/wastes unless the permittee is authorized to store and process these wastes in compliance with specific licensing and permitting requirements under Chapter 401 of the Texas Health and Safety Code. In accordance with 30 TAC Section 336.203, no person shall dispose of radioactive material unless that person has a license or an exemption from the TCEQ under Texas Health and Safety Code, Section 401.106(a);
- c. Explosive material, as defined by the Department of Transportation under 49 CFR Part 173;
- d. Dioxin-containing wastes, identified by EPA as F020, F021, F022, F023, F026, and F027 wastes in 40 CFR 261.31;
- e. Ignitable compressed gases;
- f. Garbage as defined in 30 TAC Section 330.3(56);
- g. Municipal Solid Waste as defined in 30 TAC Section 330.3(88);
- h. Putrescible Waste as defined in 30 TAC Section 330.3(119); or
- i. Special Waste from Health-Care Related Facilities subject to 25 TAC Part 1 or 30 TAC Chapter 330.

4. Prior to accepting any additional wastes not authorized in Table IV.B., the permittee shall follow the permit amendment or modification requirements listed in 30 TAC Sections 305.62 and 305.69.

5. The permittee may store wastes restricted under 40 CFR Part 268 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of 40 CFR 268.50(a)(2) including, but not limited to the following:
 - a. Clearly marking each container to identify its contents and the date each period of accumulation begins; and
 - b. Clearly marking each tank with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility.

C. Sampling and Analytical Methods

1. Table IV.C. - Sampling and Analytical Methods, shall be used in conjunction with the Waste Analysis Plan referenced in Section IV.A. of this permit, in performing all waste analyses.
2. The permittee shall ensure that all waste analyses utilized for waste identification or verification have been performed in accordance with methods specified in the current editions of EPA SW-846, American Society for Testing and Materials (ASTM) or other methods accepted by the TCEQ. The permittee shall have a Quality Assurance/Quality Control (QA/QC) program that is consistent with EPA SW-846 and the TCEQ QAPP.
3. The permittee shall test a sufficient number of representative waste samples to assure that free liquids are not placed in a CAMU. All testing for free liquids shall be according to Test Method 9095 (Paint Filter Liquids Test - or the most current version) as described in EPA SW-846.
4. If the sampling required in Provision IV.C.3. indicates that a waste contains free liquids, the waste shall be treated (i.e., stabilized) prior to placement in a CAMU using a treatment technology that is based on chemical stabilization and does not solely involve the use of a material that functions primarily as a sorbent. In order to verify that chemical stabilization has taken place, the permittee shall demonstrate, based on the procedures described in the Waste Analysis Plan (Section IV.A.), that the stabilized waste will not release liquid after having been subjected to expected overburden loads.
5. Waste treated to meet the LDR standards shall be sampled and analyzed in accordance with 40 CFR Part 268 and the procedures described in the Waste Analysis Plan (Section IV.A.) to ensure compliance with this permit. In addition, based on the procedures described in Provisions IV.C.3. and 4., the permittee shall demonstrate that the stabilization technology is based on chemical reaction acquired through the stabilization agent and it does not solely involve the use of a material that functions primarily as a sorbent.

For chemical stabilization processes based solely on a pozzolonic reaction between the waste and an appropriate stabilization agent ratio, an unconfined compressive strength test shall be used to verify successful stabilization. Each sample taken in accordance with Provision IV.C.5. shall be prepared into a remolded specimen as described in Section 4.3 of ASTM Test Method D-2166-66.

After curing for not more than seven (7) days, the unconfined compressive strength of the specimen shall be determined using ASTM Test Method D-2166-66. Successful stabilization shall be considered to be achieved if the unconfined compressive strength is measured to be at least 50 pounds per square inch (psi).

If the stabilization process used to achieve the LDR treatment standards is based on a chemical reaction other than pozzolonic reaction between the waste and stabilization agent, in lieu of the 50 psi unconfined compressive strength, other appropriate equivalent tests described in the Waste Analysis Plan (Section IV.A.) may be used to demonstrate that successful stabilization has taken place.

V. Authorized Units and Operations

A. Authorized Units

1. The permittee is authorized to operate the permitted facility units listed in "Attachment E" for storage and processing and disposal subject to the limitations herein. All waste management activities not otherwise exempted from permitting under 30 TAC Section 335.2 shall be confined to the authorized facility units subject to permitting listed in "Attachment E." References hereinafter in this permit to "TCEQ Permit Unit No. ____" shall be to the authorized permitted facility units listed in "Attachment E." All authorized units must be clearly identified as numbered in "Attachment E." These units must have signs indicating "TCEQ Permit Unit No. ____".
2. The permittee shall comply with 40 CFR 264.17, relating to general requirements for ignitable, reactive, or incompatible wastes.
3. The permittee shall prevent inundation of any permitted units and prevent any discharges of any waste or runoff of waste contaminated stormwater from permitted units. Additionally, each loading or unloading area, associated with a permitted hazardous or nonhazardous waste management unit, shall be provided with a drainage control system which will collect spills and precipitation in such a manner as to satisfy the following:
 - a. Preclude the release from the system of any collected spills, leaks or precipitation;
 - b. Minimize the amount of rainfall that is collected by the system; and
 - c. Prevent run-on into the system from other portions of the facility.
4. The permittee shall construct, operate, and maintain the facility to prevent washout of any hazardous waste by a 100-year flood, as required by 40 CFR 264.18(b)(1) and as specified below:
 - a. Inspect the Stewart Creek barrier wall as specified in Permit Section III.D.;
 - b. Construct vertical and lateral extensions to the barrier wall based on the results of Frisco Community Development Corporation's Conditional Letter of Map Revision for FEMA Flood Insurance Rate Map (FIRM) panel 48085C0240K;

- c. Provide 100-year flood protection with a minimum of three (3) feet of freeboard in accordance with FEMA levee certification standards; and
 - d. Inspect and maintain the RCA CAMU cap, also referred to as the MLFCS.
5. The permittee shall provide the following information to the Executive Director:

Item	Date Due

B. Container Storage Areas

1. Container storage areas are shown in Table V.B. - Container Storage Areas. The Battery Receiving/Storage Building has been demolished and is inactive.

C. Tanks and Tank Systems - RESERVED

D. Surface Impoundments - RESERVED

E. Waste Piles - RESERVED

F. Land Treatment Units - RESERVED

G. Landfills - RESERVED

H. Incinerators - RESERVED

I. Boilers/Industrial Furnaces - RESERVED

J. Drip Pads - RESERVED

K. Miscellaneous Units

Miscellaneous units and their approved waste types are shown in Table V.K. - Miscellaneous Units. The permittee is authorized to operate the miscellaneous units for storage processing and disposal subject to the limitations contained herein.

1. The permittee may dispose of a total volume of 82,000 cubic yards of hazardous waste in the RCA CAMU and 190,000 cubic yards of hazardous waste in the North CAMU. The RCA and North CAMUs shall meet the specifications listed in Table V.K. - Miscellaneous Units. The permittee is authorized to operate the permitted CAMUs for waste storage, processing, and disposal subject to the limitations contained herein.

2. RCA CAMU Design and Construction Requirements

The RCA CAMU shall be constructed in accordance with the alternate design requirements for CAMUs in 40 CFR 264.552(e)(3)(ii), and the RCA Engineering Report (Attachment F) of the approved Part B application.

- a. The base of the RCA CAMU shall consist of the existing FOP concrete slab, the capped North Disposal Area and capped Slag Landfill, demolition rubble, and soils. The two inactive RCRA permitted units (Raw Material Storage Building and Battery Receiving/Storage Building) are within the footprint of the RCA CAMU.

- b. Run-On and Run-Off Control Systems

The permittee shall design and construct a run-on control system and a run-off management system as specified in the approved Part B Permit Application Section V.G., which is incorporated into this permit through Section I.B. [30 TAC Sections 335.173(g) and (h)]

- c. The permittee shall submit certification of proper CAMU construction prior to the placement of waste in a CAMU. The certification shall be submitted in accordance with Provision II.A.6. Within thirty (30) days of submittal of such certification, the permittee shall submit a certification report which contains the results of all tests conducted. The permittee shall conduct any tests, inspections, or measurements that are deemed necessary in the judgment of the registered professional engineer supervising the unit construction, for the engineer to certify that the CAMU has been constructed in conformance with the design and construction specifications of this permit. The certification report shall, at a minimum, contain the following drawings and test results:

- (1) Scaled plan-view and cross-sectional drawings that accurately depict the areal boundaries and applicable dimensions of the unit; separation distance(s) of the unit from the property boundary; minimum, maximum, and representative elevations of the excavation of the unit, as applicable; minimum, maximum, and representative elevations of the unit; and location, site, volume, materials of construction, and slope, as applicable of all system components.

3. General CAMU Operations

The permittee shall conduct CAMU operations according to the following requirements:

- a. Wastes shall be placed in a manner to minimize formation of bridging or voids and to allow adequate compaction to prevent excessive consolidation or settlement after placement;
- b. The initial two (2) feet of waste or soil placed in a CAMU shall be placed with a tracked vehicle (D-6 Caterpillar size or smaller) and shall be composed of bulk or processed non-containerized waste;
- c. Upon compliance with Provision V.K.4.b., all subsequent waste shall be applied in lifts not greater than eighteen (18) inches and compacted to approximately one (1) foot to minimize settlement of CAMU waste;
- d. Daily cover of the active area shall not be required because the waste will not attract birds or animals and does not contain material susceptible to being windblown. A Dust Control Plan and an Air Monitoring Plan are

included as part of the approved Final Closure Plan in the Part B application. The exposed face of a CAMU shall be limited to the area actively being filled. Areas of exposed waste may be covered by a spray applied cover (paper mulch and tackifier) or temporary cover (plastic sheeting);

- e. All collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems shall be maintained and must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system; [30 TAC Section 335.173(i)]
- f. All precipitation that collects in a CAMU, including water that drains into the unit from interior access roads, shall be managed as contaminated water and disposed of accordingly at an authorized on-site waste management unit or at an authorized off-site facility;
- g. While a CAMU is in operation, it must be inspected at least weekly and after storm events in accordance with 40 CFR 264.303(b);
- h. The permittee shall remove leachate from North CAMU collection sumps as often as necessary to ensure that the leachate depth in the leachate collection/leak detection system is always less than the thickness of the drainage material and never exceeds 12 inches;
- i. The permittee shall inspect each North CAMU leak detection system and record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period of the unit;
- j. Liquids removed from the North CAMU leachate collection/leak detection systems shall be classified in accordance with 30 TAC Chapter 335, Subchapter R (Waste Classification) and shall be managed accordingly at an authorized on-site waste management unit or at an authorized off-site facility;
- k. Control of Wind Dispersal of Particulate Matter

The permittee shall cover or otherwise manage the CAMUs to control wind dispersal of particulate matter in accordance with the dust control and air monitoring procedures described in the Closure Plan of the permittee's approved permit application; [30 TAC Section 335.173(j)]
- l. Stabilization of Liquid Wastes

The permittee shall not place liquids or waste containing free liquids, whether or not sorbents have been added (except lab waste in overpacked containers, as described in 40 CFR 264.316) in CAMUs. "Free liquids" are liquids which readily separate from the solid portion of a waste when the waste mixture is at a temperature above 32 °F and ambient pressure.

An absorbent is defined as a material that is capable of physically holding a liquid within pores or interstices by such physical forces as tension or capillary action. An adsorbent is defined as a material that is capable of

physically adhering a liquid to its (the material's) surface(s) through molecular polar forces. The terms "absorbent" and "adsorbent" shall both be indicated whenever the term "sorber" is used in this permit;

m. Stabilization of LDR Wastes

Appropriate stabilization methods shall be used for waste streams requiring treatment to meet the 40 CFR Part 268 treatment standards. Successful stabilization is achieved if post-treatment analyses demonstrate that applicable treatment standards are achieved in accordance with the land disposal restrictions of 40 CFR Part 268; and

n. Waste to Liner Compatibility

The permittee shall ensure that wastes to be placed in a CAMU will not impair the function of the synthetic liner. At a minimum, waste to liner compatibility testing shall be conducted for those wastes whose compatibility with the selected membrane liner has not been conducted and the effects are unknown. For wastes and liners upon which tests have been conducted and the results and/or effects are known (manufacturer's literature, other experimental literature, etc.), additional testing will not be required. The permittee shall maintain test results and/or documentation that confirms waste to liner compatibility at the facility.

4. CAMU Location Survey

The permittee shall maintain the following items in the operating record:

- a. A map with the exact location and dimensions (including depth) of each CAMU with respect to permanently surveyed benchmarks; and
- b. A record of the areal and vertical location of each waste placed into a CAMU.

L. Containment Buildings

1. Containment buildings and their approved waste types are shown in Table V.L. - Containment Buildings. The Raw Material Storage Building has been demolished and is inactive.

VI. Groundwater Detection Monitoring

A. Groundwater Monitoring Program

The permittee shall design, construct and maintain a groundwater monitoring program to monitor area groundwater throughout the active life of the facility and any post-closure care period. Groundwater monitoring at the facility shall at a minimum consist of a Detection Monitoring System for the uppermost aquifer which refers to the clay-rich colluvial soils that lie on top of the Eagle Ford Shale. Please refer to Section XI.A.1. for a description of the uppermost aquifer. The Detection Monitoring System shall yield groundwater samples from the uppermost aquifer that represents the quality of background water and the quality of groundwater at the point of compliance.

1. Identification of Detection Monitoring Program Unit(s)/Area(s)

The Detection Monitoring Program is specific to the RCRA-regulated unit(s) or area(s) listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System (North CAMU) for which groundwater monitoring requirements apply pursuant to 30 TAC Section 335.164 and 40 CFR 264.552(e)(3).

2. Capabilities of Detection Monitoring Systems

The Detection Monitoring System shall yield groundwater samples from the uppermost aquifer/water-bearing zone that represent the quality of background water that has not been affected by operation of the regulated unit(s) and that represent the quality of groundwater passing the point of compliance. This system shall be capable of detecting a release from the regulated unit to the groundwater.

3. Point of Compliance

The point of compliance for the Detection Monitoring System is defined by a vertical surface, located at the hydraulically downgradient limit of the waste management area (or permitted unit) that extends down into the uppermost aquifer/groundwater bearing zone underlying the regulated unit. The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of the regulated unit.

4. Detection Monitoring Program

The permittee is required to install and operate a Detection Monitoring System(s) subject to the limitations contained herein. The Detection Monitoring System wells for each unit/area are listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System.

- a. A Detection Monitoring System shall, at a minimum, consist of - two categories of wells, Background and Point of Compliance Wells, which will be used to establish groundwater quality for each RCRA-regulated unit.
 - (1) Background Well(s) are those wells that are unaffected by the operations of the unit. The Background Well(s) are depicted in "CP Attachment A, Sheets 3 of 4 and 4 of 4" and are also listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System.
 - (2) Point of Compliance (POC) Wells are used to demonstrate compliance with the Detection Monitoring Parameters which are listed on Table VI.B.3.c. - Groundwater Detection Monitoring Parameters. POC Wells are designated in "CP Attachment A, Sheets 3 of 4 and 4 of 4" and are also listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System.
 - (3) The Detection Monitoring System may also include Supplemental Wells, as necessary, to establish groundwater quality and hydrogeologic conditions of the uppermost aquifer/groundwater-bearing zone.

- b. The permittee shall determine groundwater quality in the uppermost aquifer throughout the active life of the facility and any post-closure care period in accordance with the parameter list and sampling schedule specified in Provisions VI.C.2. and VI.D.2., respectively.
- c. The design, construction, maintenance and operation of the authorized components of the Detection Monitoring Program must be in accordance with this permit and approved Part B Permit Application, Section VI.B., which is incorporated into this permit through Section I.B.

B. Construction, Certification, and Plugging

Wells shall be constructed and maintained so groundwater samples are representative of the aquifer's water quality. A record of drilling and construction details demonstrating compliance with the terms of this permit section shall be prepared in accordance with "Attachment F" (Well Design and Construction Specifications). Wells constructed prior to issuance of this permit may be utilized as groundwater monitoring wells if they meet the standards of "Attachment F."

1. Well Construction

- a. For all groundwater monitor wells to be constructed in accordance with this permit, the permittee shall notify the Executive Director to report the proposed monitor well location and screened interval at least thirty (30) days in advance of the anticipated date of installation or in accordance with an approved schedule for installation. Alternatively, a schedule for installation issued as part of an approved work plan shall constitute such notification. New well construction shall commence upon written approval of the Executive Director within the timeframes specified in this permit.
- b. The permittee shall install the wells of the Detection Monitoring System and submit certification of this installation within sixty (60) days of installation, as described in "Attachment F." The Detection Monitoring Wells shall be installed in accordance with the specifications outlined in "Attachment F."

2. Replacement Wells

Prior to installation of a replacement well, the permittee shall submit to the Executive Director for approval, the replacement well specifications and an explanation of why the well is being replaced. For any Detection Monitoring System well to be considered a replacement well and not a new well, the well shall have no design changes from the well being replaced; shall be drilled within fifteen (15) feet of the well being replaced; and shall be installed in accordance with this Provision and "Attachment F."

3. Well Management Activities Requiring Permit Modification

- a. If the permittee or the Executive Director determines that the well integrity, materials of construction, or well placement no longer enable a well to yield samples representative of groundwater quality from the desired aquifer(s), then the permittee shall submit a permit modification or amendment request to the Executive Director in accordance with the provisions of 30 TAC Sections 305.62 and 305.69, respectively, describing actions the

permittee will take to remedy the situation. The permittee shall also notify the Executive Director within fifteen (15) days of such determination regarding a well.

- b. The permittee shall submit a permit modification or amendment request to the Executive Director in accordance with the provisions of 30 TAC Sections 305.62 and 305.69, respectively, when new POC or Background Wells are to be constructed after issuance of this permit (i.e., if the wells have not been included in the approved Part B Permit Application materials referenced in Section I.B.)
- c. The permittee shall submit a permit modification or amendment request, for installation of a new well, to the Executive Director in accordance with the provisions of 30 TAC Sections 305.62 and 305.69, respectively, when any wells being replaced do not meet the requirements of Provision VI.B.2.

4. Plugging and Abandonment Procedures

- a. If a Detection Monitoring Well listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System is plugged and abandoned and a replacement well is not installed in accordance with this permit, then a modification request shall be submitted in accordance with 30 TAC Section 305.69 within ninety (90) days of the plugging and abandonment procedure to update Table VI.B.3.b. - Unit Groundwater Detection Monitoring System of the permit.
- b. For all wells to be plugged and abandoned after issuance of this permit, the permittee shall follow the procedures specified in "Attachment F."

C. Detection Monitoring System Operation

1. Uppermost Aquifer/Water-Bearing Zone Monitored by the Detection Monitoring System

The Detection Monitoring System shall be designed to monitor the groundwater in the uppermost aquifer/water-bearing zone. The "Uppermost Aquifer", as referenced in this permit, refers to the clay-rich colluvial soils that lie on top of the Eagle Ford Shale. Please refer to Section XI.A.1. for a description of the uppermost aquifer.

2. Groundwater Detection Monitoring Parameters and Compliance

- a. The permittee shall monitor well numbers identified in Provision VI.A.4. and Table VI.B.3.b. - Unit Groundwater Detection Monitoring System. The Uppermost Aquifer's groundwater quality will be evaluated based on the parameters listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters. Sampling and analysis for the Groundwater Detection Monitoring Parameters of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters shall be conducted in accordance with Provision II.B.1.b. of this permit. [30 TAC Section 335.164(1)]

- b. Background groundwater quality for a monitoring parameter or constituent shall be based on a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained. The permittee shall sample background monitoring wells regularly throughout the life of the facility, and periodically review and revise the background values as necessary in accordance with the Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Unified Guidance, U.S. EPA, March 2009. The permittee shall determine the concentrations of the detection monitoring parameters and water quality parameters listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters for each sample collected.
 - c. Compliance with the Groundwater Detection Monitoring Parameters listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters is defined by the results of the data evaluation of Provision VI.D.4. wherein the groundwater monitoring data for each well do not exhibit evidence of contamination over background values. If any POC Well is determined to be noncompliant with Table VI.B.3.c. - Groundwater Detection Monitoring Parameters at any time during the Detection Monitoring Program, the permittee shall respond and report according to Provision VI.E.1.
3. Post-Closure Care Period

The area(s) listed in Provision VI.A.1. shall remain in the Detection Monitoring Program during the active life of the unit(s) and during any applicable Post-Closure Care Period. After closure activities are completed for a specified unit and certification of closure is received by the Executive Director, any applicable Post-Closure Care Period shall begin. If the Post-Closure Care Period has expired and evidence of Statistically Significant Increase (SSI) of the Groundwater Detection Monitoring Parameters of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters has not been confirmed in the groundwater, then the permittee shall notify the Executive Director in writing at least thirty (30) days prior to discontinuing the Detection Monitoring Program for the specified unit. Within ninety (90) days of the notification, the permittee shall submit a final report to the Commission for the specified unit. The final report shall include the information required by the annual report of Section VI.G.

4. Waste Management of Recovered Groundwater
- a. Recovered groundwater from a Detection Monitoring Well with no known contamination may be managed as uncontaminated prior to analysis. Following analysis, if the permittee determines that a Table VI.B.3.c. - Groundwater Detection Monitoring Parameter has an SSI over background value, the recovered groundwater shall be managed as contaminated water.
 - b. Recovered groundwater with known contamination which exceeds the Table VI.B.3.c. - Groundwater Detection Monitoring Parameters shall be managed as contaminated water.

D. Sampling and Analysis

1. Sampling and Analysis

The permittee shall follow the methods set out in EPA's RCRA Groundwater Monitoring Draft Technical Guidance Document (November 1992) or an alternate method with prior written approval of the Executive Director to collect and preserve samples withdrawn from groundwater monitoring wells. The collected samples shall be managed (i.e., Chain of Custody and handling procedure), analyzed, and statistically evaluated (i.e., QA/QC) in accordance with the current edition of EPA SW-846 and ASTM Standard Test Methods or other equivalent methods with prior written approval of the Executive Director.

- a. All groundwater analyses required by this permit shall be performed using a QA/QC program where all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. All QA/QC program details shall be put in writing and assignments made to qualified personnel. At a minimum, the program shall conform to the QA/QC program details described in the current edition of EPA SW-846 and ASTM Standard Test Methods or other equivalent methods accepted in writing by the Executive Director.
 - b. Groundwater analyses required by this permit shall utilize laboratory methods which are capable of measuring concentrations equal to or less than established background values.
 - c. Wells shall be sampled according to the Sampling and Analysis Plan presented in Section VI.B. of the approved Part B Permit and Compliance Plan Application, which is incorporated into this permit through Section I.B. The permittee or the Executive Director shall propose modifications, as necessary, to the Sampling and Analysis Plan in order to achieve the Detection Monitoring Program objectives. Any and all revisions to the plan shall become conditions of this permit at the beginning of the next full quarter after approval by the Executive Director.
2. Sampling and Analysis Frequencies and Parameters
- a. Frequencies of sampling shall be monthly, quarterly, semiannually or yearly, depending on the sampling objective. These periods of time are defined below:
 - (1) "Month" shall be a calendar month;
 - (2) "Quarter" shall be based on divisions of the calendar year (i.e., January through March, April through June, July through September, October through December);
 - (3) "Semiannual" shall be based on divisions of the calendar year (i.e., January through June, July through December) and consist of two consecutive quarters;
 - (4) "Annual" or "Year" shall be four consecutive quarters, beginning with the first quarter. Years shall be designated consecutively, beginning with the "first year", "second year", etc.; and
 - (5) "Calendar year" shall be based on divisions of the calendar (i.e. January through December).

- b. Sampling of wells shall commence during the first complete quarter after issuance of this permit, or during the first quarter of operation if the permit is issued for a new unit. Samples shall be collected during the first thirty (30) days of the specified sampling frequency.
- c. In the first and subsequent years of the Detection Monitoring Program, the wells of Table VI.B.3.b. - Unit Groundwater Detection Monitoring System shall be sampled and analyzed according to the schedule listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters.
- d. Field determination requirements for wells listed in Table VI.B.3.b. - Unit Groundwater Detection Monitoring System consist of the following measurements or observations which shall be established during each sampling event:
 - (1) Water level measurements relative to MSL measured to within 0.01 foot.
 - (2) Determination of pH, temperature, and specific conductivity. Turbidity in nephelometric turbidity units is required if micro-purging techniques are utilized during sample collection.
 - (3) Descriptions of water sample appearance (clarity, color, etc.) shall be recorded.
 - (4) The total depth of each well, which is not equipped with a dedicated pump, shall be measured during each sampling event. The total depth of each well equipped with a dedicated pump shall be measured when pumps are removed for maintenance. At a minimum, the wells with dedicated pumps will be checked for silting every three (3) years. The measured total depth shall be compared to the total depth recorded on the well construction log. Should an analysis of the measured and the recorded total depth reveal that the well is silting in, the permittee shall perform such actions necessary (redevelopment, replacement, etc.) to enable the well to function properly.
 - (5) All wells specified in this permit shall be inspected during each sampling event. Repairs or a proposal for replacement for any affected well shall be performed within ninety (90) days of the routine sampling event inspection which identified the problem well.

3. Statistical Procedures for Data Evaluation

- a. For each POC Well sampled during each sampling event, the permittee shall determine whether there is evidence of an SSI in the concentrations of each Groundwater Detection Monitoring Parameter of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters when compared to the Background Well groundwater quality data. In determining whether or not an SSI has occurred for a Groundwater Detection Monitoring Parameter of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters, the permittee shall establish if the background values have been exceeded by utilizing the statistical procedures and data evaluation described in Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Unified Guidance, U.S. EPA, March 2009.

- b. The statistical procedure(s) that shall be used to determine if an SSI has occurred over background values limits shall be the Mann-Kendall Test for Monotonic Trends for the following unit(s) identified in Provision VI.A.1.: The North CAMU. To employ the selected statistical procedure listed above, the permittee is required to collect a minimum of four (4) samples from each unit's Background and POC Wells during each sampling event. For the RCA CAMU, the statistical procedure that shall be used to determine if an SSI has occurred over background values limits shall be monitoring constituents of concern (COCs) at upgradient and downgradient wells. If downgradient COC concentrations are detected above applicable protective concentration levels (PCLs) and confirmed through resampling, then an SSI has occurred. Additional groundwater monitoring may be conducted or additional response actions may be evaluated, proposed, or implemented, if conditions warrant.
- c. If it is determined that the selected statistical procedure is not appropriate to conduct data evaluation for a specified unit, then the permittee shall select an alternate statistical procedure. Prior to using a statistical procedure which is different than the one identified in Provision VI.D.3.b. the permittee shall obtain approval from the Executive Director through a permit amendment or modification as specified in 30 TAC Sections 305.62 and 305.69, respectively.

4. Data Evaluation

- a. Data evaluations shall be completed within sixty (60) days of the sampling date unless QA/QC procedures show that data are unacceptable and re-analysis or re-sampling must be performed. In such cases, the Executive Director will be notified as soon as it becomes apparent that the sixty (60) day time limit to conduct data evaluation cannot be met.
- b. Data evaluation shall determine whether there is evidence of an SSI for Groundwater Detection Monitoring Parameters listed in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters each time groundwater quality is determined at the POC in accordance with 30 TAC Section 335.163(7).

E. Response Requirements for SSI

1. If the permittee has determined an SSI over background values for any of the Groundwater Monitoring Parameters identified in Table VI.B.3.c. - Groundwater Detection Monitoring Parameters in accordance with statistical procedures authorized by Provision VI.D.3. and specified by the permittee, the permittee shall perform the following actions:
 - a. Notify the Executive Director in writing, within seven (7) days. The notification must indicate which Groundwater Detection Monitoring Parameter(s) of Table VI.B.3.c. - Groundwater Detection Monitoring Parameters has exhibited an SSI.

- b. Immediately sample the groundwater in all wells of Table VI.B.3.b. - Unit Groundwater Detection Monitoring System which exhibit an SSI for the specified unit and determine whether constituents of Appendix IX of 40 CFR 264 are present, and if so, in what concentrations.
 - c. For any Appendix IX hazardous constituent found in the analysis pursuant to Provision VI.E.1.b., the permittee may re-sample for hazardous constituents within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these detected constituents will form the basis for a Compliance Monitoring Program. If the permittee does not re-sample for the constituents found pursuant to Provision VI.E.1.b., the hazardous constituents found during the initial Appendix IX analysis will form the basis for the Compliance Monitoring Program.
 - d. Upon establishing that a release has occurred from a unit(s), the permittee shall submit to the Executive Director a permit amendment or modification to modify the Detection Monitoring Program and a Compliance Plan application to initiate a Compliance Monitoring Program and/or a Corrective Action Program for the specified unit(s). The permit and Compliance Plan applications must be submitted based on the following schedule:
 - (1) If groundwater downgradient of the specified unit does not exceed the requirements in 30 TAC Section 335.158 for the proposed groundwater protection standard (GWPS), then within ninety (90) days, the permittee shall submit a permit amendment and a Compliance Plan application to establish a Compliance Monitoring Program for the specified unit;
 - (2) If groundwater downgradient of the specified unit exceeds the requirements in 30 TAC Section 335.158 for the proposed GWPS requested in the application for a specified unit, and an Alternate Concentration Limit (ACL) is not being proposed in the application in accordance with 30 TAC Section 335.160(b) to establish the GWPS, then within 180 days, the permittee shall submit a permit amendment or modification and a compliance plan application to establish a Corrective Action Program for the specified unit; and
 - (3) If groundwater downgradient of the specified unit exceeds the requirements in 30 TAC Section 335.158 for the proposed GWPS requested in the application for a specified unit, and an ACL is being proposed in the application in accordance with 30 TAC Section 335.160(b) to establish the GWPS, then within 180 days, the permittee shall submit a permit amendment or modification and a compliance plan application with an ACL demonstration to establish a Corrective Action Program for the specified unit.
2. If the permittee determines that there is an SSI above (or for pH, a statistically significant variation from) background values for the Groundwater Detection Monitoring Parameters specified in Table VI.B.3.c., the permittee may demonstrate a source other than the RCRA-regulated unit caused the increase or that the increase resulted from error in sampling, analysis, or evaluation. In such cases, the permittee shall perform the following actions:

- a. Notify the Executive Director in writing within seven (7) days that the permittee intends to make a demonstration;
- b. Within ninety (90) days, submit a report to the Executive Director which demonstrates that a source other than a RCRA-regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation;
- c. Submit to the Executive Director an application for a permit amendment or modification and a compliance plan application to make any appropriate changes to the Detection Monitoring Program at the facility. The applications shall be submitted in accordance with Provision VI.E.1.d.; and
- d. Continue to monitor groundwater in accordance with the Detection Monitoring Program at the facility.

F. Revised Detection Monitoring Program

If the permittee or the Executive Director determines that the Detection Monitoring Program no longer satisfies the requirements of 30 TAC Section 335.164, the permittee must, within ninety (90) days of either the permittee's determination or Executive Director's notification, submit a permit amendment or modification request to make any appropriate changes to the Detection Monitoring Program which will satisfy the regulations.

G. Annual Detection Monitoring Reporting Requirements

The permittee shall submit an Annual Detection Monitoring Report which shall include the following information determined since the previously submitted report:

1. A statement whether an SSI has occurred over background values in any well during the previous calendar year period and the status of any SSI events;
2. The permittee shall include the results of all monitoring, testing, and analytical work obtained or prepared pursuant to the requirements of this permit, including a summary of background groundwater quality values, groundwater monitoring analyses, statistical calculations, graphs and drawings;
3. The groundwater flow rate and direction of groundwater flow shall be established using the data collected during the preceding calendar year's sampling events from the monitoring wells of the Detection Monitoring Program. The permittee shall also include in the report all documentation used to determine the groundwater flow rate and direction of groundwater flow;
4. A contour map of piezometric water levels in the uppermost aquifer based on a minimum upon concurrent measurement in all monitoring wells. All data or documentation used to establish the contour map should be included in the report;
5. Recommendation for any changes; and
6. Any other items requested by the Executive Director.

H. Record Keeping Requirements

1. The permittee shall enter all monitoring, testing, analytical, statistical test computation data in evaluating groundwater monitoring data, and inspection data obtained or prepared pursuant to the requirements of this permit, including graphs and drawings, in the operating record at the facility.
2. The operating record at the facility shall be made available for review by the staff of the Commission upon request.

I. Compliance Scheduling Requirements

The permittee shall submit the following in accordance with the scheduled time periods:

1. Within 30 days of the issuance of this permit, the permittee shall complete the installation of all wells required by Table VI.B.3.b. - Unit Groundwater Detection Monitoring System.

VII. Closure and Post-Closure Requirements

A. Facility Closure

1. The permittee shall follow the Closure Plan, developed in accordance with 40 CFR Part 264 Subpart G, and contained in the permit application submittals identified in Section I.B. except as modified in Sections VII.C. and VII.F. of this permit.

In addition, facility closure shall commence:

- a. Upon direction of the TCEQ for violation of the permit, TCEQ rules, or state statutes; or
 - b. Upon suspension, cancellation, or revocation of the terms and conditions of this permit concerning the authorization to receive, store, process, or dispose of waste materials; or
 - c. Upon abandonment of the site; or
 - d. Upon direction of the TCEQ for failure to secure and maintain an adequate bond or other financial assurance as required by Provision VII.B.1.
2. Request for Permit Modification or Amendment

The permittee shall submit a written request for a permit modification or amendment to authorize a change in the approved Closure Plan(s), in accordance with 40 CFR 264.112(c). The written request shall include a copy of the amended Closure Plan(s) for approval by the Executive Director.

3. Time Frames for Modification/Amendment Request Submittal

The permittee shall submit a written request for a permit modification or amendment in accordance with the time frames in 40 CFR 264.112(c)(3).

4. Closure Notice and Certification Requirements

- a. The permittee shall notify the Executive Director, in writing, at least sixty (60) days prior to the date on which he expects to begin partial or final closure of a surface impoundment, or landfill unit, or final closure of a facility with such a unit; or at least forty-five (45) days prior to the date on which he expects to begin partial or final closure of a facility with processing or storage tanks, container storage, or incinerator units; or at least forty-five (45) days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier. A copy of the notice shall be submitted to the TCEQ Regional Office.
 - b. The permittee shall notify the TCEQ Regional Office at least ten (10) days prior to any closure sampling activity required by the permit in order to afford regional personnel the opportunity to observe these events and collect samples.
5. Unless the Executive Director approves an extension to the closure period, as per the requirements of 40 CFR 264.113(b), the permittee must complete partial and final closure activities within 180 days after receiving the final known volume of hazardous wastes at the hazardous waste management unit or facility.
6. As per the requirements of 40 CFR 264.115, within sixty (60) days of completion of closure of each permitted hazardous waste surface impoundment, landfill unit, and within sixty (60) days of the completion of final closure, the permittee shall submit to the Executive Director, by registered mail, with a copy to the TCEQ Regional Office, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved Closure Plan and this permit. The certification, which shall be signed by the permittee and by a Professional Engineer licensed in Texas, must be in the form described in Provision II.A.6. A closure certification report shall be submitted with the required certifications which includes a summary of the activities conducted during closure and the results of all analyses performed. The certification report shall contain the information required by Provision II.A.6, and 30 TAC Section 350.32 (Texas Risk Reduction Program (TRRP) Remedy Standard A) and 30 TAC Section 350.33 (TRRP, Remedy Standard B) and 30 TAC Section 350.95 (Response Action Completion Report (RACR)). Documentation supporting the licensed Professional Engineer's certification shall be furnished to the Executive Director upon request until the Executive Director releases the permittee from the financial assurance requirements for closure under 40 CFR 264.143(i).
7. For each disposal unit closed after permit issuance, the permittee shall submit documentation to demonstrate compliance with 40 CFR 264.116 (relating to survey plat) and 264.119 (relating to post-closure notices). Documentation to demonstrate compliance with survey plat requirements must be submitted to the TCEQ at the time of submission of the certification of closure. Documentation to show compliance with post-closure notices must be submitted to the TCEQ no later than sixty (60) days after certification of closure.

8. Final closure is considered complete when all hazardous waste management units at the facility have been closed in accordance with all applicable closure requirements so that hazardous waste management activities under 40 CFR Parts 264 and 265 are no longer conducted at the facility unless subject to the provisions in 40 CFR 262.34.
9. All units, sumps, pumps, piping and any other equipment or ancillary components which have come in contact with hazardous wastes shall either be decontaminated by removing all waste, waste residues, and sludges or be disposed of in a manner authorized at this facility or disposed of at an authorized off-site facility.
10. All contaminated equipment/structures and liners (i.e., debris) intended for land disposal shall be treated in a manner which meets or exceeds the treatment standards for hazardous debris contained in 40 CFR 268.45 or removed and managed at an authorized industrial solid waste management facility. All contaminated dikes and soils intended for land disposal shall be treated in a manner which meets or exceeds the treatment standards for hazardous soils contained in 40 CFR 268.49 or removed and managed at an authorized industrial solid waste management facility.
11. All hard-surfaced areas within the hazardous waste management unit areas shall be decontaminated and the wash water generated treated and/or disposed in a manner authorized at this facility or at an authorized off-site facility.
12. Verification of decontamination shall be performed by analyzing wash water, and as necessary, soil samples for the hazardous constituents which have been in contact with the particular item being decontaminated. In addition, the permittee shall perform visual inspections of the equipment/structures for visible evidence of contamination.
13. Unless it can be demonstrated that soil contamination has not occurred, soils shall be sampled and analyzed. Sufficiently detailed analyses of samples representative of soils remaining in non-hard-surfaced areas of the storage and processing facility area shall be performed to verify removal or decontamination of all waste and waste residues.
14. Soil and/or wash water samples shall be analyzed using laboratory methods specified in Provision II.B.1.b. Equivalent or modified methods must be specified in the Closure Plan and have written approval of the Executive Director prior to use. All data submitted to the TCEQ shall be in a manner consistent with the latest version of the TCEQ QAPP.
15. Decontamination shall be deemed complete when no visible evidence of contamination is observed and when the results from verification sampling and analyses for wash water and soil meet the following criteria:
 - a. Decontamination of hard-surfaced areas used for waste management (such as tank interiors, secondary containment structures, ancillary equipment, sumps, loading/unloading docks, etc.) shall be deemed complete when the concentration of each chemical of concern in the final rinsate sample(s)

collected from the wash water is below the TCEQ TRRP, Remedy Standard A, Tier 1 Residential Class 1 Groundwater Protective Concentration Level (PCL); and

- b. Unless it can be demonstrated that soil contamination has not occurred, underlying soils shall be decontaminated or removed to the TCEQ TRRP Remedy Standard A, Residential PCL, for no further action. If the underlying soils are decontaminated or removed to the PCL for Remedy Standard A, Commercial/Industrial Land use, the permittee shall comply with the institutional controls requirements of 30 TAC Section 350.111, as required.

B. Financial Assurance

1. The permittee shall, subject to the limitation provided in the next paragraph, secure and maintain financial assurance in compliance with 30 TAC Chapter 37, Subchapter P and 30 TAC Sections 335.152 and 335.179.
2. The permittee (Frisco Community Development Corporation, a Texas Non-Profit Corporation or "CDC"), the City of Frisco, Texas ("Frisco"), and the Texas Commission on Environmental Quality ("TCEQ") are parties to a Consent Decree and Settlement Agreement Regarding the Non-performing Exide-Frisco Site ("Settlement Agreement"). The Settlement Agreement was incorporated into the Fourth Amended Joint Chapter 11 Plan of Exide Holdings, Inc. and its affiliated debtors, which was confirmed by the United States Bankruptcy Court for the District of Delaware on October 26, 2020. The CDC, Frisco, and TCEQ are also parties to a related Remediation Funding Trust Agreement ("Trust Agreement"). Pursuant to paragraphs 12, 13, and 14 of the Settlement Agreement and Section IV.A. of the Trust Agreement, the sums described in paragraphs 12, 13, and 14 of the Settlement Agreement satisfy the financial assurance obligations of the permittee to cover the estimated costs of closure, post-closure care, and remediation of the Exide-Frisco site.
3. In accordance with Provision II.A.15., the permit or property, including portions of the property, may not be transferred to a new owner and/or operator without satisfying the financial assurance requirements of 30 TAC Chapter 37, Subchapter P, and 30 TAC Sections 335.152 and 335.179. Prior to any sale, lease, or other disposition of all or part of the property covered under this permit, the permittee must notify and shall seek approval of the Executive Director prior to the transfer in accordance with 30 TAC Sections 305.64 and 305.69.

C. Financial Assurance for Closure

1. The cost estimate for closure of all existing permitted units covered by this permit is \$1,811,555 (2022 dollars) as shown on Table VII.E.1. - Permitted Unit Closure Cost Summary. The cost estimate for closure of all proposed units covered by this permit is \$24,007,225 (2022 dollars) as shown on Table VII.E.1. - Permitted Closure Cost Summary.
2. In accordance with Provision VII.B.2., the sums described in paragraphs 12, 13, and 14 of the Settlement Agreement satisfy the financial assurance obligations of the permittee to cover the estimated cost of closure of the Exide-Frisco site.

3. Financial assurance is subject to the following:
 - a. At least sixty (60) days prior to management of waste in the proposed permitted units listed in Table VII.E.1. - Permitted Unit Closure Cost Summary, the permittee shall submit documentation of a financial assurance mechanism demonstrating the amount of financial assurance required for closure of those units in accordance with 30 TAC Section 37.31.
 - b. During the active life of the facility, the current cost estimate for closure, including any adjustments after permit issuance, shall be adjusted for inflation according to the methods described in 30 TAC 37.131.
 - c. The amount of financial assurance for closure of existing units may be reduced by the amount listed in Table VII.E.1. - Permitted Unit Closure Cost Summary, upon certification of closure of an existing permitted unit, in accordance with Provisions VII.A.4. and VII.A.6., and upon written approval of the Executive Director.
4. The permittee shall submit to the Executive Director, upon request, such information as may be required to determine the adequacy of the financial assurance for closure.

D. Storage, Processing, and Combustion Unit Closure Requirements

The permittee shall close the storage and processing unit identified as TCEQ Permit Unit No. 002 in accordance with the approved Closure Plans, 40 CFR Part 264, Subpart G, 40 CFR 264.178 (container storage), the TCEQ TRRP of 30 TAC Chapter 350 and the following requirements.

The CSA known as the Battery Receiving/Storage Building was demolished in 2013 and is currently inactive. This inactive unit is located within the proposed RCA CAMU. This unit will be subject to final closure concurrently with the closure of the RCA CAMU. Certification of such final closure shall be requested concurrently with certification of closure and remediation of the FOP.

- E. Surface Impoundment Closure Requirements - RESERVED
- F. Landfill Closure and Certification Requirements - RESERVED
- G. CAMU Closure and Certification Requirements

1. Closure of CAMUs shall:
 - a. Minimize the need for further maintenance; and
 - b. Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, for areas where wastes remain in-place, post-closure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere. [40 CFR 264.552(e)(6)]
2. At final closure of a CAMU, the permittee must cover the CAMU with a final cover designed and constructed to meet the following performance criteria:

- a. Provide long-term minimization of migration of liquids through the closed unit;
 - b. Function with minimum maintenance;
 - c. Promote drainage and minimize erosion or abrasion of the cover;
 - d. Accommodate settling and subsidence so that the cover's integrity is maintained; and
 - e. Have a permeability less than or equal to the permeability of any bottom liner system, natural subsoils, or subsurface fill present. [40 CFR 264.552(e)(6)]
3. The permittee shall close the former Class 2 non-hazardous landfill now known as the North CAMU (proposed TCEQ Permit Unit No. 003) in accordance with Agreed Order (AO) 2013-2207-IHW-E, the approved Closure Plan, 40 CFR Part 264, Subpart G, 40 CFR 264.310, TRRP Remedy Standard of 30 TAC Chapter 350 Subchapter B, 30 TAC Section 335.174, and the following requirements:
 - a. The permittee shall install the North CAMU final cap, referred to as the MLFCS according to the Closure Plan in the approved Part B application.
4. The permittee shall close the RCA CAMU (proposed TCEQ Permit Unit No. 004) in accordance with the approved Closure Plan, 40 CFR Part 264, Subpart G, 40 CFR 264.310, TRRP Remedy Standard of 30 TAC Chapter 350 Subchapter B, 30 TAC Section 335.174, and the following requirements:
 - a. The permittee shall install the RCA CAMU MLFCS according to the Closure Plan in the approved Part B application.
5. The permittee shall install a permanent benchmark at each corner of all closed CAMUs at the site within six (6) months after closure.
6. Within sixty (60) days of certification closure of a CAMU, the permittee shall submit to the Executive Director documentation demonstrating compliance with 40 CFR 264.119, pertaining to deed recordation.
7. Within sixty (60) days of completion of closure of the CAMU, the permittee shall submit to the Executive Director a closure certification report, as specified in Provision VII.A.6. and Section VII.F., for the CAMUs not previously certified as closed. The final certification report for closure of the CAMU shall provide any additional information as required in 40 CFR 264 Subpart S and by Section VII.F. and shall state that the CAMU has been closed in accordance with the specifications in the approved Closure Plan as required by 40 CFR Section 264.115. The closure certification report shall address the technical requirements specified in 30 TAC Section 350.95 for RACR, as applicable.
8. After completion of the interim cover or final cover for a CAMU, the permittee shall submit certification of proper construction of the final cap in accordance with Provision II.A.6. Each final cover certification shall be accompanied by a certification report which contains the results of all tests performed to verify proper construction. The permittee shall conduct whatever tests, inspections, or

measurements are necessary in the judgement of the professional engineer for the engineer to certify that the CAMU cap has been constructed in conformance with the design and construction specifications of this permit. The certification report shall, at a minimum, contain the following engineering plans and test results:

- a. Scaled as-built drawings and east-west and north-south cross-sections which accurately depict the area boundaries and dimensions of the final cover; surrounding natural ground surface elevations; minimum, maximum, and representative elevations of the base on which any interim cover was placed; minimum, maximum, and representative elevations of the upper surface of the interim and final covers; thickness, extent, and materials of component parts of the cover system.
- b. All observations tests and analyses required to ensure that the installation has been completed with the terms of this permit and the incorporated design plans.

H. Containment Buildings Closure Requirements

The permittee shall close the containment building identified as TCEQ Permit Unit No. 001 in accordance with the approved Closure Plan 40 CFR Part 264, Subpart G, 40 CFR 264.112, the TRRP of 30 TAC Chapter 350 Subchapter B, and if applicable the following requirements:

The containment building known as the Raw Material Storage Building was demolished in 2013 and is currently inactive. This inactive unit is located within the proposed RCA CAMU. This unit will be subject to final closure concurrently with the closure of the RCA CAMU. Certification of such final closure shall be requested concurrently with certification of closure and remediation of the FOP.

I. Facility Post-Closure Care Requirements

For each hazardous waste management unit which is closed as a landfill, the permittee shall conduct post-closure care of the unit for a period of at least thirty (30) years after certification of closure of each respective unit. The Post-Closure Care Period for each closed unit is specified in Table VII.G. - Post-Closure Period. Post-Closure Care shall continue beyond the specified date in Table VII.G. until the Executive Director has approved the permittee's request to reduce or terminate the post-closure period, consistent with 40 CFR Section 264.117 and 30 TAC Section 335.152(a)(5). For each CAMU, the permittee shall conduct post-closure care of the CAMU for a period of at least thirty (30) years after certification of closure of the CAMU. The Compliance Period for each CAMU is specified in CP Table VI - Compliance Period for RCRA-Regulated Units. Post-Closure Care shall be performed in accordance with the Post-Closure Plans referenced in Section I.B., 40 CFR 264.117, 264.552(e)(6)(v), and the following requirements:

1. Maintain all storm water conveyance structures in good functional condition.
2. Maintain the cover on the North CAMU and RCA CAMU, as applicable, such that the cover promotes drainage, prevents ponding, minimizes surface water infiltration, and minimizes erosion of the cover. Any desiccation cracks, erosion, gulying, or other damage shall be repaired upon observance.

3. Maintain a self-sustaining vegetative cover on the capped areas by periodic seeding, fertilizing, irrigation, and/or mowing.
4. Maintain all benchmarks at the facility.
5. Maintain the facility perimeter fence, manned or locked gates, and warning signs in good functional condition.
6. Ensure that all entrances to the facility have manned or locked gates.
7. Ensure that the TCEQ has access to the facility.
8. Prepare and submit the Biennial Report required by Provision II.B.7.
9. Perform all groundwater monitoring and related activities specified in Compliance Plan 50206 and in Provision VI.A.1. of the permit.
10. The permittee shall collect and remove pumpable liquids in the leak detection system sumps to minimize the head on the bottom of the liner.
11. All liquids removed from the leak detection systems shall be managed as hazardous waste.
12. The permittee shall maintain a record of the amount of liquids removed from each leak detection system sump at least monthly during the post-closure period.
13. The permittee may record the amount of liquids removed from the each leak detection system sump quarterly or semi-annually during the post-closure period, after the final cover is installed, provided that the liquid level in the sump stays below the pump operating level for two (2) consecutive months or quarters, respectively.
14. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the permittee shall return to monthly recording of amounts of liquids removed from each leak detection system sump until the liquid level again stays below the pump operating level for two (2) consecutive months.

15. General Post-Closure Requirements

a. Request for Permit Modification or Amendment

The permittee shall submit a written request for a permit modification or amendment to authorize a change in the approved Post-Closure Plan(s) in accordance with 40 CFR 264.118 (d)(2). The written request shall include a copy of the amended Post-Closure Plan(s) for approval by the Executive Director.

b. Time Frames for Modification/Amendment Request

The permittee shall submit a written request for a permit modification or amendment in accordance with the time frames in 40 CFR 264.118 (d)(3).

16. Post-Closure Notice and Certification Requirements

No later than sixty (60) days after completion of the established post-closure period for each unit, the owner or operator shall submit to the Executive Director, by registered mail with a copy to the TCEQ Regional Office, a certification that the Post-Closure Care Period for the unit was performed in accordance with the specifications of the approved Post-Closure Plan and this permit. The certification shall be signed by the permittee and a registered professional engineer. Documentation supporting the registered professional engineer's certification must be furnished to the Executive Director upon request until the Executive Director releases the owner or operator from the financial assurance requirements for post-closure under 40 CFR 264.145 (i).

J. Financial Assurance for Post-Closure

1. The cost estimate for post-closure care of all existing units covered by this permit is \$2,216,649 (2022 dollars) as shown on Table VII.E.2. - Permitted Unit Post Closure Cost Summary. The cost estimate for post-closure care of all proposed units covered by this permit is \$3,765,605 (2022 dollars) as shown on Table VII.E.2. - Permitted Unit Post Closure Cost Summary.
2. In accordance with Provision VII.B.2., the sums described in paragraphs 12, 13, and 14 of the Settlement Agreement satisfy the financial assurance obligations of the permittee to cover the estimated cost of post-closure care of the Exide-Frisco site.
3. Financial assurance is subject to the following:
 - a. At least sixty (60) days prior to management of waste in the proposed permitted units listed in Table VII.E.2. - Permitted Unit Post-Closure Cost Summary, the permittee shall submit documentation of a financial assurance mechanism demonstrating the amount of financial assurance required for post-closure care of those units in accordance with 30 TAC Section 37.31.
 - b. During the active life of the facility, the current cost estimate for post-closure care, including adjustments after permit issuance, shall be adjusted for inflation according to the methods described in 30 TAC Section 37.131.
4. The permittee shall submit to the Executive Director, upon request, such information as may be required to determine the adequacy of the financial assurance for post-closure care.

VIII. Liability Requirements

A. Sudden and Non-sudden Accidental Occurrences

1. The permittee shall demonstrate continuous compliance with the requirements of 30 TAC Chapter 37 Subchapter P and 30 TAC Section 335.152(a)(6) to maintain liability coverage for sudden accidental occurrences of at least \$1 million per occurrence, with an annual aggregate of at least \$2 million, exclusive of legal defense costs.

2. The permittee also shall demonstrate continuous compliance with the 30 TAC Chapter 37, Subchapter P and 30 TAC Section 335.152(a)(6) requirements to have and maintain liability coverage for non-sudden accidental occurrences in the amount of at least \$3 million per occurrence, with an annual aggregate of at least \$6 million, exclusive of legal defense costs.
 3. The permittee may combine the required per-occurrence coverage levels for sudden and non-sudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and non-sudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and non-sudden accidental occurrences shall maintain liability coverage in the amount of at least \$4 million per occurrence and \$8 million annual aggregate.
- B. Incapacity of Owners or Operators, Guarantors, or Financial Institutions
- The permittee shall comply with 30 TAC Section 37.71, regarding bankruptcy, whenever necessary.

IX. Corrective Action for Solid Waste Management Units - RESERVED, see Section XI

- A. Notification of Release from Solid Waste Management Unit - RESERVED, see Section XI
- B. Corrective Action Obligations - RESERVED, see Section XI
- C. Units Requiring Investigation
- D. Variance from Investigation - RESERVED, see Section XI
- E. RCRA Facility Investigation (RFI)/Affected Property Assessment (APA) - RESERVED, see Section XI
- F. Remedy Selection - RESERVED, see Section XI
- G. Compliance Plan

The permittee shall follow Section XI, Compliance Plan, developed in accordance with 30 TAC Sections 335.156 - 335.167. Any and all revisions to the Compliance Plan shall become provisions and conditions of this permit upon the date of approval by the Commission.

X. Air Emission Standards

A. General Conditions

- 1. Emissions from this facility must not cause or contribute to a condition of "air pollution" as defined in Section 382.003 of the Texas Health and Safety Code Ann. or violate Section 382.085 of the Texas Health and Safety Code Ann. If the Executive Director of the TCEQ determines that such a condition or violation occurs, the permittee shall implement additional abatement measures as necessary to control or prevent the condition or violation.
- 2. The permittee shall include in the Biennial Report, required in Provision II.B.7., a statement that hazardous waste management units or associated ancillary equipment at this facility are not subject to any of the requirements in Sections X.B. and X.C., if these requirements are not applicable to any hazardous waste management units or associated ancillary equipment at this facility. If at any time any hazardous waste management units or associated ancillary equipment become subject to the requirements in Sections X.B. and X.C., the permittee must immediately comply with these requirements.

B. Process Vents - RESERVED

The permittee must comply with the requirements of 30 TAC Section 335.152(a)(17)/40 CFR Part 264 Subpart AA, as applicable.

C. Equipment Leaks - RESERVED

The permittee must comply with the requirements of 30 TAC Section 335.152(a)(18)/40 CFR Part 264, Subpart BB, as applicable.

XI. Compliance Plan

A. General Information (and Applicability)

1. The term "Uppermost Aquifer" as referenced in this Compliance Plan refers to the clay-rich colluvial soils that lie on top of the Eagle Ford Shale. The Eagle Ford Shale acts as an aquiclude unit at the base of the uppermost groundwater bearing unit (GWBu). The Eagle Ford Formation occurs at depths between approximately 13.5 to 16 feet below ground surface (bgs) in the vicinity of the North CAMU and at depths between approximately 10 to 30 feet bgs in the vicinity of the RCA CAMU. Groundwater within the upper GWBu generally occurs under confined conditions at depths between 10 to 25 feet bgs; however, shallow (perched) water has been recorded at depths of less than one-foot bgs in the vicinity of the Production Area (most likely attributed to stormwater seeping through cracks in the concrete). Groundwater flow is generally toward the southwest in the vicinity of the North CAMU. Groundwater flow in the vicinity of the RCA CAMU is predicted to be towards the west with the installation of the funnel and gate permeable reactive barrier system. Language for both the Corrective Action Program (30 TAC Section 335.166) and the Compliance Monitoring Program (30 TAC Section 335.165) is included in this Compliance Plan for reference and as contingency for future changes in accordance with Provision XLD.6. Applicability of specific Corrective Action Program or Compliance Monitoring Program requirements depends on the status of the units, as defined in Provisions XI.A.2. through A.4. and CP Table I.
2. The Compliance Plan is specific to the waste management units listed in CP Table I (Items A and B) and depicted in CP Attachment A, for which the groundwater Corrective Action Program and Compliance Monitoring Program apply, pursuant to 30 TAC Sections 335.166 and 335.165, for releases from RCRA-regulated units.
3. The Compliance Plan is specific to the waste management units listed in CP Table I (Item D) and depicted in CP Attachment A, for which alternative requirements for the groundwater Corrective Action Program apply, pursuant to 30 TAC Sections 335.151, 335.156 and Chapter 350, for commingled releases from RCRA-regulated units and one or more SWMUs and/or AOCs.
4. The Compliance Plan is specific to the SWMUs and/or AOCs listed in CP Table I (Item C) and depicted in CP Attachment A, for which the Corrective Action Program applies pursuant to 30 TAC Section 335.167 and Chapter 350 for releases from the SWMUs and/or AOCs.
5. The Compliance Plan is specific to the SWMUs and/or AOCs listed in CP Table II for which investigation and necessary corrective action applies pursuant to 30 TAC Section 335.167 and Chapter 350 and Section XI.H.
6. The Compliance Plan applies to any SWMUs and/or AOCs discovered subsequent to issuance of this Compliance Plan. The permittee shall notify the Executive Director within fifteen (15) days of such a discovery. Within forty-five (45) days of discovering a SWMU or AOC, the permittee shall complete the following: Submit a RFA report for that SWMU and/or AOC which shall be based on EPA RCRA Facility Assessment Guidance, October 1986, NTIS PB 87-107769 or subsequent revisions. The purpose of the RFA is to identify releases or potential

releases of hazardous waste, hazardous constituents or other constituents of concern from SWMUs and/or AOCs that may require corrective action. If the RFA indicates there is no release, the permittee shall submit the RFA report to document results and the requirements of 30 TAC Chapter 350 shall not apply. However, if the RFA indicates that there is a release or a potential for release that warrants further investigation, the permittee shall conduct an investigation and necessary corrective action based on 30 TAC Chapter 350 requirements, applicable guidance, and the approved schedules in accordance with Section XI.H. Upon written approval of the RFA, the permittee shall include the newly discovered SWMUs and/or AOCs with each groundwater report in accordance with CP Table VII and include the new SWMUs and/or AOCs on CP Tables I or II as appropriate, with the next Compliance Plan modification, amendment or renewal.

B. Authorized Components and Functions of Corrective Action and Compliance Monitoring Systems

Corrective Action Systems are required for units specified in CP Table I, Items A, C and D. The permittee is authorized to install and operate the Corrective Action System components specified in Provisions XI.B.1. through XI.B.10., subject to the limitations contained herein. Compliance Monitoring System components for units listed in CP Table I, Item B are specified below in Provision XI.B.11.

Corrective Action Systems:

1. Groundwater monitoring system may at a minimum consist of the following categories of wells listed in CP Table V, to monitor groundwater quality. An application to modify or amend the Compliance Plan is required to change the category or wells listed in CP Table V.
 - a. Background Well(s) unaffected by the operation of the facility.
 - b. POC Wells to demonstrate compliance with the Groundwater Protection Standard (GWPS).
 - c. Point of Exposure (POE) Wells, to demonstrate compliance with the GWPS and evaluate the effectiveness of the remediation program.
 - d. Alternate Point of Exposure (APOE) Wells to demonstrate compliance with the GWPS at a location other than the prescribed POE; and in maintaining a Plume Management Zone (PMZ) in accordance with 30 TAC Section 350.33.
2. The permittee is authorized to install and operate the following additional corrective action system wells to monitor groundwater quality and hydrogeological conditions of the uppermost aquifer as designated in CP Attachment A. The permittee may propose changes to the following corrective action system wells as part of the reporting requirements in CP Table VII (Item 12) and shall become part of the Compliance Plan upon approval by the Executive Director. The purpose is to provide the permittee with the flexibility to alter the groundwater monitoring system and Corrective Action System designs, as necessary, to proactively address changing environmental conditions without modification or amendment to the Compliance Plan.

- a. Corrective Action Observation (CAO) Wells to evaluate the lateral and vertical extent of groundwater contamination in the Uppermost Aquifer and evaluate the effectiveness of the remediation program.
 - b. Corrective Action System (CAS) Wells to remediate and/or contain contaminated groundwater.
 - c. Attenuation Monitoring Point (AMP) Wells, located within the migration pathway of a chemical of concern, which demonstrates that Attenuation Action Levels (AALs) representing critical Protective Concentration Levels (PCLs) established as the GWPS will not be exceeded at the applicable point of exposure.
 - d. Supplemental Wells to gauge hydrogeologic conditions of the uppermost aquifer.
3. Groundwater Corrective Action System to effect withdrawal, treatment, and/or containment of contaminated groundwater and non-aqueous phase liquids (NAPLs) by means of recovery wells, interceptor trenches, bioremediation, air sparging and/or another alternate Corrective Action System design. Any alternate Corrective Action System designs proposed by the permittee subsequent to issuance of this Compliance Plan that are equivalent to or exceed the performance of the Corrective Action Systems approved herein shall become part of the Compliance Plan upon approval by the Executive Director. The type of Corrective Action System in operation at the facility and an evaluation of system performance shall be reported in accordance with CP Table VII.
4. Collection and conveyance system to store recovered groundwater and NAPLs, if found, prior to disposal at authorized facilities. If the recovered groundwater is characteristically hazardous and/or is contaminated with listed hazardous waste and the collection system does not meet the wastewater treatment unit exemption under 30 TAC Sections 335.2(f) and 335.41(d), the collection system shall comply with the following regulations: 1) If the contaminated groundwater is stored for less than ninety (90) days without a permit or interim status, then the container and tank collection systems shall comply with provisions of 30 TAC Section 335.69(a)(1)/40 CFR Part 265 Subparts I and J; 2) If the contaminated groundwater is stored for more than ninety (90) days, then the container and tank collection system shall comply with the provisions of 30 TAC Section 335.152(a)(7) and (8)/40 CFR Part 264 Subparts I and J. The collection and conveyance system shall consist of the following components.
 - a. A groundwater CAS.
 - b. A groundwater storage system.
 - c. Appurtenances for the collection and conveyance of recovered contaminated groundwater and NAPLs, if applicable.
5. Treatment system to reduce the concentration of hazardous constituents in contaminated groundwater to the GWPS specified in CP Table III by means of biological, physical, and chemical treatment processes.

6. Groundwater containment system to inhibit contaminated groundwater above CP Table III GWPS from migrating beyond the influence of the CAS.
7. ReInjection of fresh or recovered groundwater, after treatment, into the contaminated aquifer in accordance with 30 TAC Sections 331.9 and 331.10.
8. The following handling methods are authorized for recovered groundwater having concentrations of hazardous constituents exceeding the GWPS:
 - a. Treatment through an on-site wastewater treatment system and discharge via a permitted outfall in compliance with a current industrial wastewater discharge permit.
 - b. Treatment of recovered groundwater by means of air stripping and carbon adsorption. The air stripper shall be maintained in compliance with applicable air quality regulations.
 - c. Disposal at permitted deep injection well facility.
 - d. Disposal at other authorized on-site facility or permitted off-site facility.
 - e. Any other treatment methods approved by the Executive Director.

The method(s) utilized for handling, disposing and recording volumes of all recovered/purged contaminated groundwater shall be reported in accordance with CP Table VII.

9. Recovered NAPLs, if found, shall be managed (treated, stored, and disposed), or recycled in an authorized on-site unit(s) or an off-site facility.
10. The Corrective Action Program shall consist of the system components listed in Provisions XI.B.1. through XI.B.9., to be operated according to the plans and specifications as approved in Provision XI.C.1. and the specifications of this Compliance Plan.
 - a. If groundwater recovery wells are utilized in the Corrective Action System, the flow rate at each recovery well shall be set and recorded once a week. This weekly flow rate data shall be used to calculate a semiannual total flow which shall be reported in accordance with CP Table VII of this Compliance Plan.
 - b. All Corrective Action System components shall be maintained in a functional and leak-free condition. All above ground collection system pipes shall be inspected weekly. In addition, the area surrounding the wells shall be inspected weekly for visible signs indicating leaks in buried sections of the collection system. If a release of reportable quantity is detected in any part of the collection system, it must be reported within twenty-four (24) hours to the local TCEQ Region Office, and immediate action must be taken to stop the release and resolve the problem.
 - c. The permittee shall notify the Executive Director of any scheduled or non-scheduled periods of Corrective Action System shutdown, Corrective Action System malfunction, or treatment system shutdown for maintenance lasting

more than thirty (30) days. The permittee shall notify the Executive Director in writing no later than seven (7) days following the date the permittee determines that the shutdown will last more than thirty (30) days. All shutdowns and malfunctions, irrespective of duration, shall be recorded in the facility's inspection log, and shall be reported in accordance with CP Table VII.

11. Compliance Monitoring Systems: Groundwater monitoring system may at a minimum consist of the following categories of wells listed in CP Table V, to monitor groundwater quality. An application to modify or amend the Compliance Plan is required to change the category or the wells listed in CP Table V.

- a. Background well(s) that is unaffected by the operation of the facility.
- b. POC wells to demonstrate compliance with the GWPS.
- c. POE wells to demonstrate compliance with the GWPS.
- d. APOE wells to demonstrate compliance with the GWPS at a location other than the prescribed POE.

C. General Design and Construction Requirements

1. All plans submitted with the Compliance Plan Application referenced in Section I.B., concerning the design, construction, and operation of the authorized components of the Corrective Action and Groundwater Monitoring Programs and/or groundwater Compliance Monitoring Program, are approved subject to the terms established by this Compliance Plan. All plans must comply with this Compliance Plan and TCEQ Rules. Any alternate Corrective Action System design proposed by the permittee subsequent to issuance of this Compliance Plan that are equivalent to or exceed the performance of the Corrective Action Systems approved herein shall become part of the Compliance Plan upon approval by the Executive Director.
2. Well Design, Construction, Installation, Certification, Plugging and Abandonment Procedures and Specifications

For all wells to be constructed after issuance of this Compliance Plan that do not meet the well construction specifications identified in CP Attachment C of this permit, the permittee shall submit to the Executive Director the proposed well location and construction diagram for approval at least ninety (90) days in advance of the anticipated date of installation or in accordance with an approved schedule for installation. These requirements may be met through submittal of a work plan by the permittee and subsequent approval by the Executive Director. Well installation shall commence upon written approval of the Executive Director. Wells constructed prior to issuance of this Compliance Plan may be utilized as groundwater monitoring wells if they meet the standards of CP Attachment C or are otherwise authorized by issuance of the Compliance Plan.

Unless the permittee proposes an alternate well design that will result in wells of equivalent performance, each well installed after issuance of this Compliance Plan shall follow the design specifications contained in CP Attachment C of this

permit. The permittee shall follow the certification and reporting requirements for installation of new, plugging/ abandonment and replacement of existing wells as specified in CP Attachment C of this permit and CP Table VII.

3. The permittee shall not install or maintain any drinking water or supply wells that are screened within plumes of groundwater contamination at the facility.

D. Corrective Action and Compliance Monitoring Objectives and the Groundwater Protection Standard

Corrective Action and Compliance Monitoring Objectives for Units Specified in CP Table I

1. The GWPS defines the concentration limits of hazardous constituents, with respect to groundwater quality restoration in the Uppermost Aquifer and any lower interconnected aquifers, which are to be achieved at the POC, (and POE, and APOE, if applicable) and beyond in accordance with Provision XI.E.1. by operation of the Corrective Action Program and/or Compliance Monitoring Program at this facility.
2. POC wells are designated in CP Attachment A and further defined for purposes of this Compliance Plan by CP Table V, which also identifies the POE (and APOE, if any) wells for which groundwater monitoring procedures will apply (Section XI.F.)
3. For Corrective Action, the hazardous constituents detected in groundwater are specified in Column A of CP Table III and IIIA. For Compliance Monitoring, hazardous constituents that are reasonably expected to be in or derived from waste placed in the units and that are to be monitored annually at the POC are listed in Column A of CP Table IV. The hazardous constituents detected in the groundwater are specified in Column A of CP Table IVA. Additional constituents shall be added to CP Tables IIIA (Corrective Action) and IVA (Compliance Monitoring) through a Compliance Plan modification or amendment in accordance with Provision XI.I.4. Groundwater analysis for each hazardous constituent shall utilize an analytical method, listed in the EPA SW-846 and as listed in the July 8, 1987 edition of the Federal Register and later editions, which is capable of measuring the concentration of the hazardous constituent at a level equal to or less than the corresponding value specified in CP Tables III, IIIA, and IVA and equal to the quantitation level specified in CP Table IV except when matrix interference prevents achievement of that level.
4. The GWPS are specified in Column B, Column C, and Column D of CP Tables III and IIIA (Corrective Action) or IVA (Compliance Monitoring). The GWPS shall be the values for statistical comparisons unless CP Tables III, IIIA or IVA are amended in accordance with current guidance and regulations, or if any other accepted levels are promulgated by the TCEQ or the EPA. The values in CP Tables III and IIIA or IVA will change as updates to 30 TAC Section 335.160 and Chapter 350 are promulgated. The Executive Director or the permittee may request to replace concentration limits through a modification or amendment to this Compliance Plan in accordance with 30 TAC Chapter 305 Subchapter D.
5. Compliance Period for each unit is specified in CP Table VI.

6. The GWPS Achieved for the Corrective Action Program.
- a. Achievement of the GWPS, in accordance with Provision XI.E.1., is defined by the results of the data evaluation of Provision XI.F.4., wherein the concentrations of hazardous constituents have been reduced by the

Corrective Action Program (Section XI.E.) to concentrations of hazardous constituents that do not exhibit a statistically significant increase or exceed the concentration limits when directly compared to the GWPS of CP Table III.
 - b. If the GWPS is achieved at the RCRA-regulated units or waste management areas, in accordance with Provision XI.E.1., during the Compliance Period, the permittee may apply to modify or amend this Compliance Plan to revise the Corrective Action Program to the extent necessary to demonstrate by means of the Groundwater Monitoring Program that the GWPS will not be exceeded during the remainder of the Compliance Period.
 - c. If the GWPS is not achieved at the RCRA-regulated units or waste management areas, in accordance with Provision XI.E.1., during the Compliance Period, the Corrective Action Program must continue until the GWPS has not been exceeded in all wells for that corrective action area for three (3) consecutive years.
 - d. If the GWPS established in this Compliance Plan for the RCRA-regulated unit or waste management area have not been exceeded for three (3) consecutive years at the end of the Compliance Period, then the permittee must, within ninety (90) days, submit an application for a Compliance Plan/Permit modification or amendment to establish a Compliance Monitoring Program or a Detection Monitoring Program for the aquifer(s) during the remaining portion of the thirty (30) year post-closure care period in accordance with 40 CFR Part 264.117. If the thirty (30) year post-closure care period has expired, the permittee may request groundwater monitoring for that RCRA-regulated unit or waste management area be discontinued. Until approval of the request, the permittee shall continue groundwater monitoring under current Compliance Plan provisions for each RCRA-regulated unit or waste management area.
 - e. If the GWPS established in this Compliance Plan for SWMUs and/or AOCs listed in CP Table I, Item C have not been exceeded for three (3) consecutive years in all wells for that unit, then the permittee may apply for a modification or amendment to the Compliance Plan to terminate the Corrective Action Program for that unit.
 - f. If the GWPS established by this Compliance Plan for those units/areas listed in CP Table I, Item D (regarding alternative corrective action requirements for commingled plumes) have not been exceeded for three (3) consecutive years for all wells for those units/areas, and the performance standards of 30 TAC Sections 335.8 and 335.167 are met, then the permittee may apply for a modification or amendment to the Compliance Plan to terminate the Corrective Action Program for those units/areas.
7. Compliance Monitoring Program: Compliance with the GWPS for each well is defined by the results of the data evaluation of Provision XI.F.4., wherein the

concentrations of hazardous constituents do not exhibit a statistically significant increase (SSI) or exceed the concentration limits when directly compared to the concentration limits of CP Table IVA. If any POC (and/or POE, if any) well of CP Table V is non-compliant with the GWPS at any time during the Compliance

Monitoring Program, the permittee shall respond and report according to CP Table VII. The groundwater Compliance Monitoring Program established by this Compliance Plan shall extend until expiration of the Compliance Period specified in CP Table VI. At the end of the Compliance Period, the permittee shall either:

- a. Submit a permit modification or amendment request to re-establish a Detection Monitoring Program under 30 TAC Section 335.164 for the remaining portion of the thirty (30) year post-closure care period in accordance with 40 CFR Part 264.117 if none of the hazardous constituents are detected at concentrations equal to or greater than the values listed in CP Table IV. Until approval of the request, the permittee shall continue groundwater monitoring under current Compliance Plan provisions;
- b. Continue monitoring under the Compliance Monitoring Program if any hazardous constituent continues to be detected at concentrations equal to or greater than the value listed in CP Table IV and the GWPS in CP Table IVA is not exceeded during remaining portion of the thirty (30) year post-closure care period; or
- c. If the thirty (30) year post-closure care period has expired and hazardous constituents continue to be detected in groundwater by Compliance Monitoring Program, then the permittee may request groundwater monitoring be discontinued if the GWPS of CP Table IVA are not exceeded at the end of the Compliance Period. Until approval, the permittee shall continue groundwater monitoring under current Compliance Plan provisions.

E. Corrective Action Program

The Corrective Action Program applies to units specified in CP Table I, Items A, C and D. The Corrective Action Program shall remediate, recover, and/or contain contaminated groundwater from the Uppermost Aquifer and any interconnected lower aquifers, if applicable. The Corrective Action Program shall consist of the system components of Section XI.B., to be operated according to the specifications of this Compliance Plan. The permittee shall conduct the Corrective Action Program until the performance standards of Provision XI.E.1. are met. The permittee shall initiate the Corrective Action Program immediately upon issuance of this Compliance Plan, except where other specific TCEQ response deadlines may apply.

1. Performance Standard

The permittee shall conduct the Corrective Action Program to remedy the quality of groundwater by removing or treating in place the hazardous constituents so as to achieve the concentration limits specified in the GWPS of Section XI.D. in accordance with the following:

- a. At the POC (POE and APOE, if any) and between the POC (POE and APOE, if any) and the downgradient facility property line;

- b. Beyond the facility boundary where necessary to protect human health and the environment, unless the permittee demonstrates to the satisfaction of the Executive Director that, despite the permittee's best efforts, the necessary permission from the property owner(s) was not received to undertake such action. The permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied;
- c. Operate the Corrective Action System so as to intercept, contain and/or treat the contamination in the Uppermost Aquifer unless the system is under repair or maintenance;
- d. Recommend changes to the configuration of the Corrective Action System at any time that it is determined that the contamination present in the Uppermost Aquifer, deeper zone, or any interconnected lower aquifers is not being effectively contained and/or remediated; and
- e. The permittee is required to actively remove NAPLs from the Uppermost Aquifer and any interconnected aquifers wherever found, to the extent technically practicable.

F. Groundwater Monitoring Program Requirements

The permittee shall install, operate and maintain the Groundwater Monitoring System to evaluate the compliance status of the waste management units under the Compliance Monitoring Program, or to evaluate the effectiveness of the Corrective Action Program for those units undergoing remediation, as applicable. The Groundwater Monitoring System shall be composed of wells specified in CP Table V, and shall include at a minimum Background, and Point of Compliance, and other wells as necessary which have been approved by the Executive Director (e.g. POE, and APOE, etc.).

1. Waste Management Area Specific Background Groundwater Quality

The permittee may submit to the Executive Director for review and approval a plan to determine site-specific background values of the naturally occurring hazardous constituents of CP Table III, IIIA (for Corrective Action) or CP Table IVA (for Compliance Monitoring) in lieu of the concentration limits given in these CP Tables. The plan shall include appropriate background well locations and screened intervals, well sampling schedules, and methodology for determining and expressing background values in a form appropriate for the statistical evaluation of the monitoring results. Once background values have been established, the permittee shall submit a modification or amendment, in accordance with Provision XI.J.4., to add background values.

2. Sampling and Analysis Plan

- a. Wells shall be sampled according to the Sampling and Analysis Plan referenced in Section I.B. The Sampling and Analysis Plan is hereby incorporated into the Compliance Plan by reference as if set out fully herein. The permittee or the Executive Director shall propose modifications to the plan, as necessary to reflect current methods in EPA SW-846 and ASTM

Standard Test Methods or other methods accepted by the TCEQ. The laboratory methods utilized for groundwater analysis shall be capable of

measuring concentration of each hazardous constituent equal to or less than the values in CP Tables CP III, IIIA or IVA. Any and all revisions to the plan shall become conditions of this Compliance Plan at the beginning of the first quarter following approval by the Executive Director.

- b. An up-to-date and approved Sampling and Analysis Plan shall be maintained at the facility and made available for inspection upon request.

3. Sampling and Analysis Frequencies and Parameters

- a. Frequencies of sampling are defined below:
 - (1) "Week" and "month" shall be based upon a calendar week and month;
 - (2) "Quarter" shall be based on divisions of the calendar year (i.e., January through March, April through June, July through September, October through December);
 - (3) "Semiannual" shall be based on divisions of the calendar year (i.e., January through June, and July through December) and consist of two consecutive quarters;
 - (4) "Annual" or "Year" shall be four consecutive quarters, beginning with the first quarter. Years shall be designated consecutively, beginning with the "first year", "second year", etc; and
 - (5) "Calendar year" shall be based on divisions of the calendar (i.e. January through December).
- b. Sampling of wells shall commence during the first complete quarter after issuance of this Compliance Plan. Thereafter, samples shall be collected on a frequency as specified in CP Table VIII. Data evaluations shall be completed within sixty (60) days of collection of the last sample unless QA/QC procedures show that data is unacceptable and re-analyses or re-sampling must be performed. In such cases, the Executive Director will be notified as soon as it becomes apparent that the sixty (60) day time limit will not be met.
- c. In the first and subsequent years of groundwater monitoring, the wells shall be sampled and analyzed according to the following schedules:
 - (1) Corrective Action Monitoring for units specified in CP Table I, Items A, C and D.
 - (a) Each Background, POC, POE, and APOE well listed in CP Table V; and each AMP if applicable, CAO, and CAS well depicted in CP Attachment A shall be sampled and analyzed on a frequency as specified in CP Table VIII for the constituents of CP Table IIIA until the achievement of the GWPS in accordance with Provision XI.D.6.

- (b) Each CAO well, AMP well (if applicable) and CAS well shall continue to be sampled, according to Section XI.D., until any changes to these groups of wells are approved by the Executive Director pursuant to Provision XI.B.3.
 - (c) Each well of CP Table V shall be sampled for the constituents of CP Table IIIA, according to Provision XI.D.3., until analytical results satisfy the GWPS of CP Table IIIA for all wells of CP Table V of that unit or area for two consecutive sampling events. All wells listed in CP Table V shall then be sampled and analyzed on a frequency specified in CP Table VIII for the constituents of CP Table III until all constituents of CP Table III are below the GWPS for all CP Table V wells of that unit or area in accordance with Provision XI.D.6.
 - (d) If the GWPS is achieved in all wells (Background, POC, POE, APOE, AMP, CAO and CAS), in accordance with Provision XI.D.6.a., then the permittee may apply to modify or amend the Compliance Plan according to Provisions XI.D.6.b., XI.D.6.d., XI.D.6.e., or XI.D.6.f.
 - (e) Any well with NAPLs detected in the wellbore shall be considered as non-compliant with the GWPS and is not required to be analyzed for the constituents of CP Table III or IIIA.
- (2) Compliance Monitoring for units specified in CP Table I, Item B.
- (a) If data evaluation is performed in accordance with Provision XI.F.4.a., one sample from each well of CP Table V shall be taken and analyzed semiannually for the constituents of CP Table IVA. If data evaluation is performed in accordance with Provision XI.F.4.b., a sequence of at least four independent samples from each well of CP Table V shall be taken and analyzed on a frequency as specified in CP Table VIII for the constituents of CP Table IVA; and
 - (b) One sample from each well of CP Table V shall be taken and analyzed annually for constituents in CP Table IV during the first quarter of each year. Analysis for the hazardous constituents of CP Table IV and CP Table IVA may be accomplished with the same sample when sampling events coincide.
- d. Field Determination Requirements - All Wells Specified in CP Table VII (Item 12).
- (1) Water level measurements relative to Mean Sea Level shall be measured to within 0.01 ft and shall be performed during each sampling event effective immediately with issuance of this Compliance Plan. Measurements shall be taken in all monitor wells specified in this Compliance Plan.
 - (2) Field determinations of pH, temperature and Specific Conductivity are required for all wells of CP Table V and as depicted in CP Attachment A excluding wells containing NAPLs. Turbidity in nephelometric turbidity units is required if micropurging techniques are utilized during sample collection.

- (3) Field observations including descriptions of appearance (clarity, color, etc.) shall be recorded on a frequency as specified in CP Table VIII for all wells of CP Table V and wells depicted in CP Attachment A, excluding wells containing NAPL.
 - (4) The total depth of each well which is not equipped with a dedicated pump shall be measured during each sampling event. Total depth of each well which is equipped with a dedicated pump shall be measured when: 1) pumps are removed for maintenance; or 2) the groundwater production rate of the dedicated pump decreases by 25% from the initial production rate when the pump was installed. The measured total depth shall be compared to the total depth recorded on the well construction log. Should a comparison of the measured and the recorded total depth reveal that greater than 20% of the well screen has been silted in, the permittee shall perform such actions necessary (redevelopment, replacement, etc.) to enable the well to function properly.
 - (5) All wells specified in CP Table VII (Item 12) shall be inspected during each sampling event in accordance with specifications in the Sampling and Analysis Plan. Repairs or a proposal for replacement for any affected well shall be performed within ninety (90) days of the routine sampling event inspection which identified the problem well.
4. Data Evaluation Procedures

Data evaluation in accordance with this provision shall be performed for all wells within sixty (60) days of collection of the last sample for the duration of the Corrective Action Monitoring and Compliance Monitoring programs. When evaluating the monitoring results of each well, pursuant to Section XI.F., for the constituents of CP Tables III or IIIA for corrective action monitoring, or CP Tables IV or IVA for compliance monitoring, the permittee shall either:

- a. **Corrective Action Monitoring:** Directly compare the value of each constituent to the respective concentration limit of CP Table III or IIIA and determine if it is less than, equal to, or greater than the concentration limits. If the values for all the constituents are less than or equal to the respective concentration limits, then the well shall be considered compliant with the GWPS for the sampling event. If one or more constituent value is greater than the respective concentration limit, then the well shall be considered non-compliant with the GWPS for the sampling event; or

Compliance Monitoring: Directly compare the value of each constituent to the respective concentration limit of CP Table IV or IVA and determine if it is less than, equal to, or greater than the listed value. For constituents listed in CP Table IV that are not also listed in CP Table IVA, if constituents are detected at concentrations equal to or greater than the value listed in CP Table IV, then the procedures of Provision XI.G.2.b. apply. For constituents listed in CP Table IVA, if the values for all the constituents are less than or equal to the respective concentration limits of CP Table IVA, then the well shall be considered compliant with the GWPS for the sampling event. If one or more constituent value is greater than the respective concentration limit, then the well shall be considered non-compliant with the GWPS for the sampling event and the procedures of Provision XI.G.2.a. apply; or

- b. Compare the value of each constituent to its respective concentration limit of CP Table III or IIIA for corrective action monitoring, or CP Table IV or IVA for compliance monitoring, using one of the following procedures:
 - (1) The Confidence Interval Procedure for the mean concentration based on a normal, log-normal, or non-parametric distribution. The 95 percent confidence coefficient of the t-distribution will be used in constructing the confidence interval (Chapter 21 of Statistical Analysis of Groundwater Data at RCRA Facilities-Unified Guidance, U.S. EPA, March 2009), and subsequent updates acceptable to the Executive Director. The confidence interval upper limit for each constituent shall be compared with the corresponding concentration limit in CP Table III or IIIA for corrective action monitoring, or CP Table IV or IVA for compliance monitoring. To be considered in compliance, the confidence interval upper limit for a well in question must not exceed the tabled concentration limit. A confidence interval upper limit above the tabled concentration limit shall be considered as evidence of statistically significant contamination; or
 - (2) An alternative statistical method proposed by the permittee and approved by the TCEQ. Any proposed alternative method must be appropriate with respect to distributional assumptions and must provide reasonable control of both false positive and false negative error rates.
- c. Within thirty (30) days of an initial data evaluation that determines concentration limits have been exceeded in a well, pursuant to Provisions XI.F.4.a. or XI.F.4.b., the permittee may resample and repeat the analysis to verify concentration limits have been exceeded. If the second analysis indicates that the sample does not exceed the concentration limits, then the well shall be considered compliant with the concentration limits for the sampling event.

G. Response and Reporting

1. Corrective Action Monitoring for units specified in CP Table I, Items A, C, or D (if alternative corrective action requirements apply).
 - a. If the permittee or the Executive Director determines that the Corrective Action Program required by this Compliance Plan no longer satisfies the requirements of 30 TAC Sections 335.166 or 335.167, the permittee must, within ninety (90) days of either the permittee's determination or Executive Director's notification, submit an application for a Compliance Plan modification or amendment to make any appropriate changes to the Corrective Action Program which will satisfy the regulations.
 - b. If the Executive Director determines that the lateral or vertical extent of groundwater contamination is not delineated, the permittee must, within ninety (90) days of the date of the Executive Director's notification unless otherwise directed, initiate an investigation to determine the extent of the contamination based on the Practical Quantitation Limit (PQL), Method Quantitation Limit (MQL), or other applicable standard as required or approved by the Executive Director.

- c. This section applies only if POEs are defined in CP Table V and a GWPS is assigned at the POE; and attenuation action level (if applicable) is assigned to its respective attenuation monitoring point. If during two (2) consecutive sampling events the GWPS is exceeded at the POE, or the attenuation action level (if applicable) is exceeded at its respective attenuation monitoring point, then within ninety (90) days of completing the data evaluation of the second sampling event, the permittee must:
 - (1) Install groundwater recovery wells or alternate Corrective Action System design to mitigate the downgradient migration of the contaminant plume; and/or
 - (2) Reevaluate the criteria originally used to establish the GWPS, in accordance with Provision XI.D.4., and submit an application to modify or amend the Compliance Plan to address the GWPS exceedance; and/or reevaluate the criteria originally used to establish the attenuation action level and submit an analysis to the Executive Director for approval to request changes to the attenuation action level.

2. Compliance Monitoring for units specified in CP Table I, Item B

- a. Compliance with the GWPS for each POC (POE and APOE, if applicable) well of CP Table V is defined by the results of the data evaluation of Provision XI.F.4., wherein the concentrations of hazardous constituents do not exhibit a statistically significant increase or exceed the concentration limits when directly compared to the concentration limits of CP Table IVA. If the permittee determines that any concentration limit of CP Table IVA is being exceeded pursuant to the procedures used in Provision XI.F.4. at any POC (POE, and APOE, if applicable) well of CP Table V, then the permittee must notify the Executive Director of this finding in writing within seven (7) days. The notification must identify what concentration limits have been exceeded and indicate that the permittee will either:
 - (1) Submit a Compliance Plan modification or amendment to the Executive Director to establish a Corrective Action Program meeting the requirements of 30 TAC Section 335.166 within 180 days of such determination in accordance with 30 TAC Section 335.165(8)(B);
 - (2) Demonstrate that a source other than the regulated unit caused the exceedance of the concentration limits of CP Table IVA or that the concentration is an artifact caused by errors in sampling, analysis, or statistical evaluation or natural variation in the groundwater within ninety (90) days in accordance with 30 TAC Section 335.165(9); or
 - (3) Re-evaluate the criteria originally used to establish the concentration limits of the GWPS to determine if a Corrective Action Program is necessary. If it is determined that revised concentration limits will result in a GWPS that is protective of human health and the environment, then the permittee may request to replace the concentration limits of the GWPS through a modification or amendment to this Compliance Plan in accordance with Provision XI.D.6. Such a request must be submitted within ninety (90) days and may require a proposal for additional

groundwater monitoring wells to verify attenuation of the contaminant plume to levels that are protective of human health and the environment.

- b. If the permittee detects CP Table IV constituents at concentration levels equal to or greater than the listed Quantitation Limit and which exceed background groundwater quality in groundwater samples from POC (POE, APOE, if any) wells of CP Table V that are not already identified in CP Table IVA as monitoring constituents, then the permittee must either:
 - (1) Report the concentration of the newly detected constituents to the Executive Director within seven (7) days after the completion of the analysis. Within ninety (90) days after the completion of the analysis, the permittee shall submit a modification or amendment application, in accordance with Provision XI.J.4., requesting that the constituent be added to the CP Table IVA. The request shall propose a concentration limit for the GWPS based on 30 TAC Section 335.160 for each constituent; or
 - (2) Resample within thirty (30) days of the initial findings and repeat the CP Table IV analysis. If the second analysis does not confirm the presence of the newly detected constituents, then the permittee shall continue monitoring under the current Compliance Plan provisions. If the second analysis confirms the presence of the newly detected constituents, then the permittee shall report the concentration of these additional constituents to the Executive Director within seven (7) days after the completion of the second analysis. Within ninety (90) days after completion of the second analysis, the permittee shall submit a modification or amendment application, in accordance with Provision XI.J.4., requesting that the confirmed constituents be added to the CP Table IVA. The request shall propose a concentration limit for the GWPS based on 30 TAC Section 335.160 for each constituent.
 - c. If the permittee or the Executive Director determines that the Compliance Monitoring Program required by this Compliance Plan no longer satisfies the requirements of 30 TAC Section 335.165, the permittee must, within ninety (90) days of either the permittee's determination or Executive Director's notification, submit a Compliance Plan application, in accordance with Provision XI.J.4., to make changes to the Compliance Monitoring Program which will satisfy the regulations.
3. For Corrective Action and Compliance Monitoring Programs, the permittee shall submit a groundwater monitoring report(s) in accordance with the frequency specified in Column B, CP Table VII, and contain the information listed in CP Table VII required for the specific program(s) that are applicable.

H. Corrective Action and Interim Corrective Measures (ICMs) for Solid Waste Management Units

1. Corrective Action Obligations

The permittee shall conduct corrective action as necessary to protect human health and the environment for all releases of hazardous waste, hazardous constituents listed in Appendix VIII and/or 40 CFR Part 264, Appendix IX and/or other COCs from any SWMU and/or AOC according to 30 TAC Section 335.167. Corrective action shall consist of an Affected Property Assessment (APA), determination of protective concentration levels, selection of a remedy standard (if necessary), development and implementation of a response action (if necessary), and submittal of required reports according to 30 TAC Chapter 350.

In the case of SWMUs and/or AOCs that have been grandfathered under 30 TAC Chapter 335, Subchapters A and S, Risk Reduction Standards (RRS), corrective action shall consist of the RCRA Facility Investigation (RFI) and if necessary, Interim Corrective Measures (ICM), Baseline Risk Assessment (BLRA), Corrective Measures Study (CMS) and Corrective Measures Implementation (CMI). For grandfathered SWMUs and/or AOCs, the permittee may continue to complete the corrective action requirements under 30 TAC Chapter 335, Subchapters A and S, provided the permittee complies with the notification and schedule requirements pursuant to 30 TAC Sections 335.8 and 350.2(m). If on the basis of the APA /RFI, it is determined that COC have been or are being released into the environment, the permittee may be required to conduct necessary ICMs and/or corrective actions.

Upon the Executive Director's review of corrective action obligations, the permittee may be required to perform any or all of the following:

- a. Conduct investigation(s);
- b. Provide additional information;
- c. Investigate additional SWMU(s) and/or AOC(s); and/or
- d. Submit an application for a modification/amendment to a Compliance Plan to implement corrective action.

Any additional requirements must be completed within the time frame(s) specified by the Executive Director.

2. The permittee shall conduct an RFI/APA for the SWMUs and/or AOC listed in CP Table II, in accordance with Provision XI.A.5., and for any new SWMUs and/or AOC discovered after the issuance of this Compliance Plan in accordance with Provision XI.A.6.
3. Variance From Investigation

The permittee may elect to certify that no COCs are currently or never have been present or managed in a SWMU and/or AOC referenced in Provision XI.H.2. in lieu of performing the investigation required in Provisions XI.H.1. and XI.H.4., provided that confirming data is submitted for the current and past waste(s) managed in the respective unit or area. The permittee shall submit such information and certification(s) on a unit-by-unit basis in the time frame

required in Provision XI.H.4. for review and approval by the Executive Director of the TCEQ. Should the permittee fail to demonstrate and certify that COCs are not or were not present in a particular unit, the investigation required in Provisions XI.H.1. and XI.H.4. shall be performed for the SWMU and/or AOC.

4. RCRA Facility Investigation (RFI)/Affected Property Assessment (APA)

Within sixty (60) days from the date of issuance of this Compliance Plan and/or approval of the RFA Report of Provision XI.A.5., the permittee shall submit a schedule for completion of the RFI(s)/APA to the Executive Director for review and approval. The permittee shall initiate the investigations in accordance with the approved schedule and guidance contained in the EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994 and in accordance with state regulations referenced in Provision XI.H.1. The results of the RFI/APA must be appropriately documented in a report and submitted to the Executive Director for approval within the time frame established in the approved schedule. The Report shall be considered complete when the full nature and extent of the contamination, the QA/QC procedures and the Data Quality Objectives are documented to the satisfaction of the Executive Director. The permittee shall propose or conduct ICMs, as necessary, to protect human health and the environment.

5. Remedy Selection

Upon approval of RFI Report/APA Report (APAR), if it is determined that there has been a release of COCs into the environment, which poses a potential risk to human health and the environment, then the permittee shall propose a remedy in accordance with the 30 TAC Chapter 335, Subchapters A and S, Risk Reduction Standards (if applicable), the TRRP rules, or as otherwise authorized by the Executive Director. This may require a BLRA and/or CMS Report to be submitted for review and approval within the time frame(s) specified by the Executive Director. For facilities that are grandfathered under 30 TAC Chapter 335, Subchapter S, this report shall address RRS requirements, and the applicable items contained in the EPA publications referenced in Provision XI.H.4. or other guidance acceptable to the Executive Director. For projects conducted under TRRP, the risk assessment process shall be addressed in the APAR and the evaluation of corrective measures shall be conducted as part of the remedy standard selection process.

6. Corrective Measures Implementation (CMI)/Remedial Action Plan (RAP)

If on the basis of the RFI and/or BLRA and/or CMS or APA, it is determined that there is a risk to the human health and the environment, then the permittee shall submit for approval a CMI Work Plan(s) or propose a response action (TRRP) within 180 days of receipt of approval of the RFI and/or BLRA/CMS Report or APAR unless otherwise extended by the Executive Director. The CMI Workplan shall address all of the applicable items contained in the EPA publications referenced in Provision XI.H.4. or other guidance acceptable to the Executive Director. Response actions, including TRRP Remedy Standard A or Risk Reduction Standard (RRS) No. 2, cannot be self-implemented as normally allowed by TRRP or RRS because under Hazardous Solid Waste Amendments (HSWA) corrective action and permit provisions requires the CMI workplan to be reviewed prior to approval and public participation (see also Provision XI.H.7.).

For TRRP response actions, the permittee shall submit a RAP in accordance with schedules and requirements of 30 TAC Chapter 350. The CMI Workplan or RAP shall contain detailed final proposed engineering design, monitoring plans and schedule to implement the selected remedy and assurances of financial responsibility for completing the corrective action. Upon completion of the response action, the permittee shall submit a CMI Report or Response Action Completion Report (RACR) to the TCEQ for review and approval. The CMI Report shall address all the applicable items in the EPA publications EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994 or other guidance acceptable to the Executive Director. The RACR shall address all the applicable items in Title 30 TAC Chapter 350 and applicable guidance.

If the response action does not propose a permanent remedy (e.g., RRS No. 3 or Remedy Standard B), or the response action requires long-term groundwater monitoring in order to demonstrate attainment of a permanent remedy (e.g., monitored natural attenuation to demonstrate Remedy Standard A), the permittee must submit a CMI Workplan or RAP as part of a Compliance Plan application and/or modification/amendment in accordance with Provision XI.J.4. to establish corrective action and provide financial assurance to satisfy the requirements of 30 TAC Section 335.167. The Compliance Plan application and/or modification/amendment must be submitted within 180 days of approval of the CMS/BLRA or APAR. The permittee may propose an alternative schedule to be approved by the Executive Director to incorporate several approved CMI Workplans or RAPs into a single Compliance Plan modification/or amendment when CMI Workplans or RAP schedules coincide. Implementation of the corrective measure(s) shall be addressed through issuance of a new or modified/amended Compliance Plan.

To report the progress of the corrective measures, the permittee shall submit to the TCEQ CMI Progress Reports or RAERs (TRRP) as a section of the Compliance Plan groundwater monitoring report required by CP Table VII of this Compliance Plan, or as otherwise directed.

If deed recordation and necessary institutional controls are required as part of the final corrective action, the permittee shall within ninety (90) days of approval for the final corrective action submit to the Executive Director for review and approval the required proof of deed notice in accordance with Provision XI.J.1.

7. Public Notice

a. The permittee shall conduct public notice when:

- (1) CMI Work Plan or RAP is submitted to the Executive Director, in accordance with Provision XI.H.6., which contains the proposed final corrective measure for SWMU(s) and/or AOC(s) from which a release has occurred, and with proposed institutional control (as applicable). This process occurs through Compliance Plan renewal, or modification/amendment; or
- (2) If on the basis of the RFI/BLRA or APAR required by Provisions XI.H.4. and XI.H.5., it is determined the release from SWMU(s) and/or AOC(s) meets the performance standards under RRR or TRRP such that no remedy is needed, there is no risk to the human health and the

environment, and the permittee seeks approval of no further action determination by the Executive Director. This process occurs through corrective action process.

- b. No public notice is required when it is determined based on the results of the RFA required by Provision XI.A.6., or the RFI or APAR required by Provision XI.H.4., that no release occurred from a SWMU and/or AOC.

The purpose of the public notice is to give the members of the public the opportunity to submit written comments on the proposed corrective measure(s) or proposed no further action determination. Refer to CP Attachment B of this Compliance Plan for further guidance on public notice participation in HSWA corrective action.

8. Interim Corrective Measures (ICM)

- a. The ICM apply to waste management units or AOC under investigation for which a final Corrective Action Program has not been authorized by the Compliance Plan. ICM also apply to units/AOC that are discovered after issuance of this Compliance Plan.
- b. The objectives of the ICM are to remove, decontaminate, and/or stabilize the source (i.e., waste and waste residues) and contaminated media to protect human health and the environment. The permittee shall modify the ICM, as necessary, to achieve these objectives.
- c. The permittee is authorized to design, construct, operate and maintain ICM for waste management units/AOC as necessary to protect human health and the environment. The ICM shall be operated until final corrective measures established, in accordance with Provision XI.H.6., are authorized in the Compliance Plan. At a minimum, the ICM shall consist of the following:
 - (1) Specific performance goals to protect human health and the environment;
 - (2) A monitoring system to evaluate the ICM and determine if the objectives outlined in Provision XI.H.8.b. are being met. All ICM wells must comply with the requirements of Provision XI.C.2. and CP Attachment C, Well Design and Construction Specifications, of this permit;
 - (3) An implementation schedule to initiate ICMs;
 - (4) Submittal of a report specifying the design of the ICM upon installation. During implementation of the ICM, periodic ICM Status Reports shall be submitted in accordance with CP Table VII (Item 25) to document the objectives of Provision XI.H.8.b. are being achieved; and
 - (5) A procedure to modify the design, as necessary, to achieve the objectives outlined in Provision XI.H.8.b.

I. Financial Assurance

1. The permittee shall secure and maintain financial assurance in compliance with 30 TAC Chapter 37, Subchapter P, and 30 TAC Sections 335.152 and 335.167.

The cost estimate for remediation, including operation of the Groundwater Monitoring and Corrective Action Programs, as applicable, in accordance with this Compliance Plan, is \$7,458,190 (2022 dollars).

2. In accordance Provision VII.B.2., the sums described in paragraphs 12, 13, and 14 of the Settlement Agreement satisfy the financial assurance obligations of the permittee to cover the estimated cost of remediation of the Exide-Frisco site.
3. Within sixty (60) days of issuance of this Compliance Plan, the permittee shall submit documentation of a financial assurance mechanism demonstrating the amount of financial assurance required for remediation in accordance with 30 TAC Section 37.31.
4. During the active life of the facility, the current cost estimate for remediation, including adjustments after permit issuance, shall be adjusted for inflation according to the methods described by 30 TAC Section 37.131.
5. The permittee shall submit to the Executive Director, upon request, such information as may be required to determine the adequacy of the financial assurance for remediation of the Exide-Frisco site.

J. General Provisions

1. Deed Recordation Requirements

For waste and contaminated media approved to remain in place above background or health-based concentration levels after completion of the corrective action and/or groundwater monitoring programs, the permittee shall record an instrument in the county deed records for the facility to specifically identify the areas of contamination exceeding background or health-based values. The deed certification shall follow the requirements of 30 TAC Sections 335.560 and 335.569 or 30 TAC Section 350.111, where applicable.

2. Notification Requirements

The permittee shall notify the local TCEQ region office at least ten (10) days prior to any well installation or sampling activity required by the Compliance Plan in order to afford Region personnel the opportunity to observe these events and collect samples. This notification requirement will not apply to the routine semiannual or annual groundwater sampling events specified in this Compliance Plan.

3. Distribution of Copies

The permittee shall submit all schedules, plans, and reports required by this Compliance Plan according to the following distribution list:

- a. An original paper copy and one electronic copy (on USB disc) to the Corrective Action Section, Mail Code MC-127, Remediation Division, Texas Commission on Environmental Quality in Austin, Texas; and
- b. One electronic copy to the Waste Program, Texas Commission on Environmental Quality Region 4 Office in Dallas-Fort Worth, Texas.

4. Compliance Plan Modification or Amendment

Any application to modify or amend the Compliance Plan shall be accomplished in accordance with the provisions of 30 TAC Chapter 305 Subchapter D and submitted in accordance with the Compliance Plan Application's general instructions.

5. Any changes to the Corrective Action or Groundwater Monitoring Systems are subject to Executive Director's approval.
6. The permittee shall maintain all reports, monitoring, testing, analytical, and inspection data obtained or prepared pursuant to the requirements of this Compliance Plan, including graphs and drawings, in the operating record at the facility. The operating record at the facility shall be made available for review by the staff of the TCEQ upon request.
7. The permittee shall submit a compliance schedule in accordance with CP Table VIII.

K. Force Majeure

The permittee's non-compliance with one or more of the provisions of this Compliance Plan may be justified only to the extent and for the duration that non-compliance is caused by a "Force Majeure" event. For purposes of this Compliance Plan, "Force Majeure" is defined as an event that is caused by an Act of God, labor strike, or work stoppage, or other circumstance beyond the permittee's control that could not have been prevented by due diligence, and that makes substantial compliance with the applicable provision or provisions of this Compliance Plan impossible.

The occurrence of a "Force Majeure" event that justifies the missing of one deadline shall not automatically justify the missing of later deadlines unless there is a cumulative effect due to such an event. The permittee shall keep a record of any delaying events.

If the permittee anticipates or experiences an inability to comply with any of the provisions of this Compliance Plan due to a "Force Majeure" event, the permittee shall notify the Executive Director of the TCEQ within twenty-four (24) hours. A written notice must be submitted to the TCEQ within ten (10) days, which describes the nature, cause, and anticipated length of the delay and all steps which the permittee has taken and will take, with a schedule for their implementation, to avoid or minimize the delay. In the event that performance of any of the activities required by this Compliance Plan is affected by a "Force Majeure" event, then the permittee shall propose a plan for approval by the Executive Director of the TCEQ, for achieving the objectives of the Compliance Plan by alternative means in the most timely manner.

Table III.D. – Inspection Schedule

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
North CAMU: general facility components	Exterior berm slopes erosion	Weekly and after storms
	Access road ponding or washout	
	Surface water control system obstruction	
	Missing lock	
	Fence damage	
	Gates damage	
	Sign damage	
	Surveyed benchmarks	
North CAMU: final cover system	Erosion	Weekly and after storms
	Minor cover settlement (less than 6 inches over 20 feet)	
	Major cover settlement (greater than 6 inches over 20 feet)	
	Ponded water	
	Sparse or eroded vegetation	
	Invasive vegetation	
	Burrowing animals	
	Length of grass	
North CAMU: surface water drainage systems	Erosion of ditches	Weekly and after storms
	Erosion and sediment control devices	
	Culverts and conveyance pipes blockage	
	Excessive vegetation height	
	Ponded water	
North CAMU: leachate collection system	Pump inoperative	Weekly and after storms
	Pump house damage	
	Sump riser and leachate pipe connections	
	Riser cap missing	
	Riser cracked	
	Alarm system or auto-dialer not working	
RCA/South Disposal Area (SDA): general	Exterior berm slopes erosion	Weekly and after storms

facility components	Access road ponding or washout	
	Surface water control system obstruction	
	Missing lock	
	Fence damage	
	Gates damage	
	Sign damage	
	Surveyed benchmarks	
RCA/SDA: final cover system	Erosion	Weekly and after storms
	Minor cover settlement (less than 6 inches over 20 feet)	
	Major cover settlement (greater than 6 inches over 20 feet)	
	Ponded water	
	Sparse or eroded vegetation	
	Invasive vegetation	
	Burrowing animals	
RCA/SDA: surface water drainage systems	Length of grass	Weekly and after storms
	Erosion of ditches	
	Erosion and sediment control devices	
	Culverts and conveyance pipes blockage	
	Excessive vegetation height	
RCA/SDA and North CAMU: groundwater monitoring systems	Ponded water	Quarterly and after significant storm events
	Protective casing damage	
	Locks	
	Ground surface seal	
	Accumulation of surface water around well	
	Concrete pad and bollards	
RCA: Flood Wall	Flood wall waterstop and joint filters	Quarterly and after significant storm events
	Vegetation (no trees or high vegetation along flood wall)	
	No trash or debris accumulation along flood wall	
	No bank erosion/caving observed that would endanger wall stability	
	Seepage, cracks, or other damage to flood wall	

	Exposed waste or fill material	
RCA: stormwater pond and drainage pipe	Erosion	Quarterly and after significant storm events
	Obstruction of flow	
	Burrowing animals	
RCA: slurry wall perimeter	Erosion or Settling	Quarterly and after significant storm events
	Sparse or eroded vegetation	
	Burrowing animals	
	Excessive vegetation height	
	Ponded water	
RCA: slurry wall piezometers	Protective casing damage	Quarterly and after significant storm events
	Locks	
	Ground surface seal	
	Accumulation of surface water around well	
	Concrete pad and bollards	
RCA: sheet piles	Seepage, cracks, or other damage	Quarterly and after significant storm events
	Erosion or Settling	
	Excessive vegetation height	
	Burrowing animals	
RCA: PRB area	Erosion or Settling	Quarterly and after significant storm events
	Sparse or eroded vegetation	
	Burrowing animals	
	Excessive vegetation height	
	Ponded water	
RCA: sump reactor area	Erosion or Settling	Quarterly and after significant storm events
	Sparse or eroded vegetation	
	Burrowing animals	
	Excessive vegetation height	
	Ponded water	
	Extraction wells	
RCA: PRB transfer piping vault and piping (primary and secondary)	Accumulated Water in Vault	Quarterly and after significant storm events
	Signs of Damage	
	Connection to extraction wells	
	Flow obstruction	
	Manual valves	
	Flow meters	
	Settlement	

RCA: Stewart Creek bank	Erosion	Quarterly and after significant storm events
	Sparse or eroded vegetation	
	Burrowing animals	
	Excessive vegetation height	
	Exposed waste or fill material	
	Accumulation of surface water	
Facility Wide: Safety and emergency equipment (a list of equipment is included in the Contingency Plan included in Attachment C)	Supplies need restocking or equipment is damaged or missing	Weekly and after storms or emergency events (including testing and maintenance if needed)
Facility Wide: Safety and emergency equipment (water)	Not Applicable - The City of Frisco provides fire suppression services for the Facility and has an Insurance Services Office, Inc. Public Protection Classification of 1 (best public protection on a scale of 1 to 10) based on Classification designated by the State Fire Marshal. Water is provided to the Facility by the City of Frisco and is accessible to City of Frisco emergency responders by hydrants available at the Facility. The water pressure from the hydrants is sufficient for emergency response needs at the Facility.	The Frisco Fire Department has its own emergency equipment that is subject to the department's regular inspection and maintenance procedures.
Facility Wide	Fence Damage	Weekly and after storms
	Gate Damage	
	Sign Damage	
	Access road ponding or washout	
	Surveyed benchmarks	

Table IV.B. – Wastes Managed In Permitted Units

No.	Waste	EPA Hazardous Waste Numbers	TCEQ Waste Form Codes and Classification Codes
1	Blast furnace slag (treated)	EPA hazardous waste numbers D006, D008 (only applicable to portions of the waste)	304H, 3042
2	Class 2 remediation waste associated with clean-up activities for the former Undeveloped Buffer Property (J-Parcel) Voluntary Cleanup Program (VCP) No. 2541 located immediately adjacent to the Former Operating Plant	N/A	3022
3	Excavated soil, battery case fragments, concrete or other remediation waste from affected properties on-Site that meets Class 2 industrial waste criteria (defined as On-Site Class 2 Remediation Waste)	N/A	3022
4	Excavated soil, battery case fragments, concrete or other remediation waste from affected properties on-Site (defined as on-Site Soil Remediation Waste). This includes soils or debris generated from the installation of monitoring wells at the Site	EPA hazardous waste numbers D004, D006, D008, D010 may be applicable to some portions of the waste	3022, 3021, 302H, 3902, 3901, 3192, 3191, 319H
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)	N/A	5132, 5131, 3022, 3021, 3902, 3901, 3192, 3191

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)	EPA hazardous waste numbers D004, D006, D008 may be applicable to some portions of the waste	5132, 5131, 513H, 3022, 3021, 302H, 3902, 3901, 3192, 3191
7	Slag segregated from excavated soil or sediment off-site (Not managed in permitted unit).	This waste will not be managed in a permitted unit at the Site, it is included for reference purposes only.	
8	Slag segregated from excavated soil or sediment on-Site	EPA hazardous waste numbers D004, D006, D008 may be applicable to some portions of the waste	3042, 3041, 304H
9	Wastewater generated from decontamination activities or groundwater sampling collected in tanks, totes or 55-gallon drums	D004, D006, D008, D010 (only potentially applicable to portions of the waste)	1141, 1142, 114H
10	Off-Site Soil from the Frisco Railroad Museum	N/A	5132, 5131, 3022, 3021, 3902, 3901, 3192, 3191

Table IV.C. – Sampling and Analytical Methods

See the WAP in Attachment Q for additional discussion.

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
1	These wastes have already been characterized and placed in the CAMU. No further characterization testing is planned.					
2	These wastes have already been characterized and placed in the CAMU. No further characterization testing is planned.					
3 and 4	Soil stockpiles, or roll-off boxes	<u>Stockpile sampling:</u> Excavated soils will be staged on plastic sheeting (minimum 6 mil thickness) in approximately 50 cubic yard stockpiles adjacent to the excavation area. As a result of the excavation, transfer and stockpiling process, excavated material will be thoroughly mixed prior to placement in stockpiles. Samples of the excavated material will be collected from the stockpiles for the purpose of waste characterization/classification. A composite sample will be collected from the stockpiled material at a frequency of approximately one sample for every 50 cy of material (each stockpile). A five-part composite sample will be collected directly from the loose stockpile using a gloved hand and/or decontaminated/disposable	<u>Stockpile sampling:</u> <ul style="list-style-type: none"> One five-part composite sample per 50 cy of stockpile (if needed) <u>Roll-off container sampling:</u> One five-part composite sample per roll-off box (approximately 10 to 12 cy of soil) (if needed)	RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver)	EPA methods 1311, 6010B/6020A, and 7470A	The maximum reporting limits are equal to the following unadjusted method quantitation limits (MQLs) for EPA method 6010B/6020A and 7470A: <ul style="list-style-type: none"> Arsenic: 0.00300 mg/L Barium: 0.00500 mg/L Cadmium: 0.000500 mg/L Chromium: 0.00500 mg/L Lead: 0.00250 mg/L Mercury: 0.000200 Selenium: 0.00250 mg/L Silver: 0.00100 mg/L

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
		<p>soil sampling equipment (e.g., trowels). 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. 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. See the WAP in Attachment Q for additional discussion.</p> <p><u>Roll-off container sampling:</u> Each roll off box will contain approximately 10 to 12 cy 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. A five-part composite sample will be collected directly from the loose/surface material using a gloved hand and/or</p>				

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
		<p>decontaminated/disposable soil sampling equipment (e.g., trowels).</p> <p>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.</p>				
5 and 6	In-place/pre-excavation, sediment stockpiles, truckloads, or roll-off boxes	<p>TCLP: In-place waste characterization sampling is proposed for sediment, soil or fill material that will be removed from Stewart Creek. 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</p>	<p>TCLP:</p> <ul style="list-style-type: none"> One five-part composite per 50 cubic yards of in-place material <p>Free liquids:</p> <ul style="list-style-type: none"> One five-part composite sample per 50 cy of stockpile, per truckload, or per roll-off container 	Presence of free liquids, RCRA 8 metals	EPA Method 9095B (Paint Filter Liquids Test), 1311, 6010B/6020A, and 7470A	<p>Per EPA SW-846 test method 9095B, if any portion of the test material collects in the graduated cylinder after 5 minutes of draining, the material is deemed to contain free liquids.</p> <p>For RCRA 8 metals, the maximum reporting limits are equal to the following unadjusted</p>

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
		<p>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. Soil or sediment will be collected from the entire depth at five separate, random, representative areas 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 the RCRA 8 metals in Toxicity Characteristic Leaching Procedure (TCLP) extract using EPA Method 1311 TCLP and 6010B/6020A/7470 (metals concentrations).</p> <p><u>Free liquids:</u> Sediment, soil or fill material that will be removed from Stewart Creek will also be tested for the presence of free liquids either in-situ following the application of a stabilization agent or from a stockpile or truck, if the material has been characterized as non-hazardous and stabilization</p>				<p>MLs for EPA method 6010B/6020A 7470A (for mercury):</p> <ul style="list-style-type: none"> • Arsenic: 0.00300 mg/L • Barium: 0.00500 mg/L • Cadmium: 0.000500 mg/L • Chromium: 0.00500 mg/L • Lead: 0.00250 mg/L • Mercury: 0.000200 • Selenium: 0.00250 mg/L • Silver: 0.00100 mg/L

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
		has been performed ex-situ. Samples will be collected at a rate of one sample per 50 cubic yards of waste, one sample per truckload, or one set 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. Soil or sediment will be collected from the entire depth at five separate, random, representative areas and combined in a large plastic bag. The material will then be homogenized and a sub-sample (approximately 100 grams or 100 milliliters) will be used for the paint filter test.				
7	N/A – This waste will assumed to be hazardous (D004, D006, D008) and disposed of off-Site.					
8	Slag segregated from Excavated soil or sediment on-Site	Visible slag will be removed from excavated soil or sediment on-Site and placed in a roll-off container or drum. <u>Roll-off container sampling:</u> Each roll off box will contain approximately 10 to 12 cy of material. A composite sample	<u>Roll-off container sampling:</u> One five-part composite sample per roll-off box (approximately 10 to 12 cy) <u>Drum sampling:</u>	RCRA 8 metals	EPA methods 1311, 6010B/6020A, and 7470A	The maximum reporting limits are equal to the following unadjusted MQLs for EPA method 6010B/6020A 7470A (for mercury):

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
		<p>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).</p> <p>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.</p> <p><u>Drum Sampling:</u> 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</p>	One five-part composite sample per 5 drums (approximately 55 gallons per drum)			<ul style="list-style-type: none"> • Arsenic: 0.00300 mg/L • Barium: 0.00500 mg/L • Cadmium: 0.000500 mg/L • Chromium: 0.00500 mg/L • Lead: 0.00250 mg/L • Mercury: 0.000200 • Selenium: 0.00250 mg/L Silver: 0.00100 mg/L

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
		<p>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).</p> <p>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.</p>				
9	Wastewater generated from decontamination activities or groundwater sampling collected in tanks, totes or 55-gallon drums	<p><u>Tank Sampling</u> 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.</p> <p><u>Drum/Tote Sampling</u> Drums will be sampled for disposal and analyzed as</p>	Tanks and drums will be sampled at a frequency of at least one sample per tank or one sample per five 55-gallon drums.	RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver)	EPA Methods 6010B/6020A and 7470	<p>The maximum reporting limits are equal to the following unadjusted method quantitation limits (MQLs) for EPA method 6010B/6020A and 7470A:</p> <ul style="list-style-type: none"> • Arsenic: 0.00300 mg/L • Barium: 0.00500 mg/L • Cadmium: 0.000500 mg/L • Chromium: 0.00500 mg/L • Lead: 0.00250

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
		requested by the off-Site disposal facility permitted to accept the waste. 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 HNO ₃) and analyzed for total RCRA metals and any additional analyses requested by the off-Site facility permitted to accept the waste.				mg/L <ul style="list-style-type: none"> Mercury: 0.000200 Selenium: 0.00250 mg/L Silver: 0.00100 mg/L
10	Off-Site Soil from the Frisco Railroad Museum	<u>Stockpile sampling:</u> Excavated soils will be staged on plastic sheeting (minimum 6 mil thickness) in approximately 50 cubic yard stockpiles. As a result of the excavation, transfer and stockpiling process, excavated material will be thoroughly mixed prior to placement in stockpiles. Samples of the excavated material will be collected from the stockpiles for the purpose of waste	<u>Stockpile sampling:</u> <ul style="list-style-type: none"> One five-part composite sample per 50 cy of stockpile (if needed) <u>Roll-off container sampling:</u> One five-part composite sample per roll-off box (approximately	RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver)	EPA methods 1311, 6010B/6020A, and 7470A	The maximum reporting limits are equal to the following unadjusted method quantitation limits (MQLs) for EPA method 6010B/6020A and 7470A: <ul style="list-style-type: none"> Arsenic: 0.00300 mg/L Barium: 0.00500 mg/L

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
		<p>characterization/classification. A composite sample will be collected from the stockpiled material at a frequency of approximately one sample for every 50 cy of material (each stockpile). A five-part composite sample will be collected directly from the loose stockpile using a gloved hand and/or decontaminated/disposable soil sampling equipment (e.g., trowels). 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. 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. See the WAP in Attachment Q for additional discussion.</p> <p><u>Roll-off container sampling:</u> Each roll off box will contain approximately 10 to 12 cy of soil. A composite sample will be collected from the roll off box material at a frequency of one sample per roll off box.</p>	10 to 12 cy of soil) (if needed)			<ul style="list-style-type: none"> • Cadmium: 0.000500 mg/L • Chromium: 0.00500 mg/L • Lead: 0.00250 mg/L • Mercury: 0.000200 • Selenium: 0.00250 mg/L • Silver: 0.00100 mg/L

Waste No. ¹	Sampling Location	Sampling Method ²	Frequency	Parameter	Test Method ²	Desired Accuracy Level ³
		<p>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. 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).</p> <p>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.</p>				

1 from Table IV.B, first column

2 Sampling and Test/Analysis methods should be specified in enough detail to allow determination of whether they are suitable and correct for the purpose indicated while allowing flexibility in selection and future updates to the specified method. Standard methods, such as those from SW-846, will generally require no further submittal. Non-standard and proprietary methods may require additional information to determine suitability. ASTM methods may require submittal of a copy of the specified method.

3 Desired Accuracy Level should provide a specified numeric minimum performance level (maximum acceptable reporting limit) for method detection and quantitation limits that will be accepted from the laboratory performing the analysis and must ensure that reported data will allow determinations of compliance with regulatory limits for the parameter tested.

Table V.B. – Container Storage Area

Permit Unit No.	Container Storage Area	N.O.R. No.	Waste Nos. ⁴	Rated Capacity ³	Dimensions	Containment Volume (including rainfall for unenclosed areas)	Unit will manage Ignitable ¹ , Reactive ¹ , or Incompatible ² waste (state all that apply)
0002	Battery Receiving/Storage Building	011	N/A – wastes no longer stored in this area and the building has been demolished	N/A – wastes no longer stored in this area and the building has been demolished	Container storage area (building has been demolished)	N/A – wastes no longer stored in this area and the building has been demolished	N/A – wastes no longer stored in this area and the building has been demolished

1 Containers managing ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

2 Incompatible waste must be separated from other waste or materials stored nearby in other containers, piles, open tanks, or surface impoundments by means of a dike, berm, wall, or other device.

3 Container Storage Areas need to include in capacity calculations any nonhazardous wastes and universal wastes managed in the unit in addition to hazardous wastes.

4 from Table IV.B, first column

Table V.K. - Miscellaneous Units

Permit Unit No.*	Miscellaneous Unit	N.O.R. No.	Storage, Processing, and/or Disposal	Waste Nos. ¹	Rated Capacity	Dimensions	Unit will manage Ignitable, Reactive, or Incompatible Waste (state all that apply)
Proposed (003)	North CAMU (monofill with 15 cells)	012	Disposal	1-3	~190,000 cubic yards (~12,000 cubic yards/cell)	Length: 660 feet Width: 550 feet Depth: 17 feet Total area: 8.25 acres	No ignitable, reactive, incompatible, or F020, F021, F022, F023, F026, or F027 wastes will be disposed of at the North CAMU.
Proposed (004)	RCA (monofill)	Proposed	Disposal	3,4,5,6,8, 10	82,000 cy	Length: 1,375 ft Width: 700 ft Depth (height): approx. 0-17ft Area: 17.67 ac	No ignitable, reactive, incompatible, or F020, F021, F022, F023, F026, or F027 wastes will be disposed of at the RCA.

¹from Table IV.B, first column

*If the unit is already permitted, use the established "Permit Unit No." If the unit is not yet permitted, the number given here for the unit will become the "Permit Unit No." The numbers should be in an order that will be convenient for the facility operator.

Table V.L. - Containment Buildings

Permit Unit No.*	Containment Building	N.O.R. No.	Storage and/or Processing	Waste Nos. ¹	Rated Capacity	Overall Dimensions
0001	Raw Material Storage Building (also referred to as the Containment Building)	005	N/A – wastes no longer stored in this area and the building has been demolished	N/A – wastes no longer stored in this area and the building has been demolished	N/A – wastes no longer stored in this area and the building has been demolished	N/A – wastes no longer stored in this area and the building has been demolished

1 from Table IV.B, first column

*If the unit is already permitted, use the established "Permit Unit No." If the unit is not yet permitted, the number given here for the unit will become the "Permit Unit No." The numbers should be in an order that will be convenient for the facility operator.

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Waste Management Unit/Area Name ¹	North Corrective Action Management Unit (CAMU) (Table VI.B.3.b-1)					
Well Number(s):	LMW-5	LMW-8	LMW-9R	LMW-17	LMW-21	LMW-22
Hydrogeologic Unit Monitored	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU
Type (e.g., point of compliance, background, observation, etc.)	Observation/APOE	Observation/APOE	Observation/APOE	Observation/AMP	Observation	Observation/AMP
Up or Down Gradient	Down-gradient	Cross-gradient	Cross-gradient	Down-gradient	Down-gradient	Down-gradient
Casing Diameter and Material	2" ID Sch 40 PVC	2" ID Sch 40 PVC	2" Sch 40 PVC	4" ID Sch 40 PVC	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC
Screen Diameter and Material	2" ID machine slot PVC	2" ID machine slot PVC	2" Sch 40 PVC	4" ID machine slot PVC	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC
Screen Slot Size (in.)	0.01	0.01	0.010	0.01	0.010	0.010
Top of Casing Elevation (Ft, MLGL or MSL)	646.61	648.68	664.31	648.84	648.28	646.99
Grade or Surface Elevation (Ft, MLGL or MSL)	643.27	645.57	661.39	646.34	645.11	643.32

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Well Number(s):	LMW-5	LMW-8	LMW-9R	LMW-17	LMW-21	LMW-22
Well Depth (Ft, Below Grade Surface <i>[BGS]</i>)	22.0	22.0	30	23.0	25.0	20.0
Well Depth (Ft, Below Top of Casing <i>[BTOC]</i>)	25.34	25.11	32.92	25.5	28.17	23.67
Screen Interval						
From (Ft, BGS)	7.0	7.0	15	10.0	10.0	5.0
To(Ft, BGS)	21.5	21.5	30	20.0	25.0	20.0
Screen Interval						
From (Ft, BTOC)	10.34	10.11	17.92	12.50	13.17	8.67
To(Ft, BTOC)	24.84	24.61	32.92	22.50	28.17	23.67
Facility Coordinates (e.g., lat./long. or company coordinates)	5706.3200* 4174.7100*	5539.0400* 4812.0100*	7103254.02 2480865.36	5626.1663* 4507.0130*	7103205.9759 2480099.7956	7102891.2829 2480355.4657

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Waste Management Unit/Area Name ¹	North Corrective Action Management Unit (Table VI.B.3.b-1)					
Well Number(s):	PMW-19R	PMW-20R	MW-45			
Hydrogeologic Unit Monitored	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU			
Type (e.g., point of compliance, background, observation, etc.)	Background	Observation	Background			
Up or Down Gradient	Up-gradient	Down-gradient	Up-gradient			
Casing Diameter and Material	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC	2" Sch 40 PVC			
Screen Diameter and Material	2" Sch 40 FJT PVC	2" Sch 40 FJT PVC	2" Sch 40 PVC slotted			
Screen Slot Size (in.)	0.010	0.010	0.010			
Top of Casing Elevation (Ft, MLGL or MSL)	681.79	648.09	660.86			
Grade or Surface Elevation (Ft, MLGL or MSL)	678.45	645.2	657.90			
Well Depth (Ft, Below Grade Surface <i>[BGS]</i>)	19.0	25.0	20.0			
Well Depth (Ft, Below Top of Casing <i>[BTOC]</i>)	22.34	27.89	22.96			

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Well Number(s):	PMW-19R	PMW-20R	MW-45			
Screen Interval						
From (Ft, BGS)	4.0	10.0	10.0			
To (Ft, BGS)	19.0	25.0	20.0			
Screen Interval						
From (Ft, BTOC)	7.34	12.89	12.96			
To (Ft, BTOC)	22.34	27.89	22.96			
Facility Coordinates (e.g., lat./long. or company coordinates)	7103664.08 2480920.37	7103357.9244 2480030.2079	7103914.51 2480303.20			

1From Tables in Section V.

MSL: Mean Sea Level; *MLGL*: Mean Low-tide Gulf Level; *BGS*: Below Grade Surface; *BTOC*: Below Top of Casing

Notes:

***Site Coordinates**

GWBU – groundwater-bearing unit

AMSL - above mean sea level

BGS - below ground surface

BTOC - below top of casing

PVC - polyvinyl chloride

APOE - Alternate Point of Exposure for Corrective Action Monitoring

AMP - Attenuation Monitoring Point for Corrective Action Monitoring

POC - Point of Compliance for Corrective Action Monitoring

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Waste Management Unit/Area Name ¹	Former Operating Plant (excluding the North CAMU) (Table VI.B.3.b-2)					
Well Number(s):	B3R	B4R	B7N	B9N	DGW-MW-9	MW-10
Hydrogeologic Unit Monitored	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU
Type (e.g., point of compliance, background, observation, etc.)	POC/APOE	POC/APOE	POC/APOE	POC/APOE	POC/APOE	Observation
Up or Down Gradient	Downgradient	Downgradient	Upgradient/cross-gradient	Upgradient/cross-gradient	Upgradient/cross-gradient	Upgradient
Casing Diameter and Material	4" Sch 40 PVC	4" Sch 40 PVC	4" Sch 40 PVC	4" Sch 40 PVC	2" Sch 40 PVC	4" Sch 40 PVC
Screen Diameter and Material	4" Sch 40 PVC slotted	4" Sch 40 PVC slotted	4" Sch 40 PVC slotted	4" Sch 40 PVC slotted	2" Sch 40 PVC slotted	4" Sch 40 PVC slotted
Screen Slot Size (in.)	0.01	0.01	0.01	0.01	0.010	0.01
Top of Casing Elevation (Ft, MLGL or MSL)	650.23	664.58	645.60	640.69	644.81	644.80
Grade or Surface Elevation (Ft, MLGL or MSL)	649.23	661.40	644.08	637.02	642.22	645.12
Well Depth (Ft, Below Grade Surface [BGS])	14.0	9.0	24.0	17.0	25.0	17.0
Well Depth (Ft, Below Top of Casing [BTOC])	15.0	12.2	25.5	20.7	27.6	16.7

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Well Number(s):	B3R	B4R	B7N	B9N	DGW-MW-9	MW-10
Screen Interval						
From (Ft, BGS)	4.0	4.0	14.0	7.0	10.2	7.0
To (Ft, BGS)	14.0	9.0	24.0	17.0	24.7	17.0
Screen Interval						
From (Ft, BTOC)	5.0	7.2	15.5	10.7	12.8	6.7
To (Ft, BTOC)	15.0	12.2	25.5	20.7	27.3	16.7
Facility Coordinates (e.g., lat./long. or company coordinates)	7101507.14 2480077.05	7101429.46 2479941.99	7102466.56 2480687.51	7102614.47 2480057.47	7101770.76 2480655.11	7101996.62 2480965.05

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Waste Management Unit/Area Name ¹	Former Operating Plant (excluding the North CAMU) (Table VI.B.3.b-2)					
Well Number(s):	MW-17	MW-18	MW-21	MW-22	MW-23	MW-26
Hydrogeologic Unit Monitored	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU
Type (e.g., point of compliance, background, observation, etc.)	POC/APOE	POC/APOE	POC/APOE	POC/APOE	Observation	POC/APOE
Up or Down Gradient	Downgradient	Downgradient	Upgradient/cross-gradient	Upgradient/cross-gradient	Upgradient	Downgradient
Casing Diameter and Material	4" Sch 40 PVC	4" Sch 40 PVC	2" Sch 40 PVC	2" Sch 40 PVC	2" Sch 40 PVC	2" Sch 40 PVC
Screen Diameter and Material	4" Sch 40 PVC slotted	4" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted
Screen Slot Size (in.)	0.01	0.01	0.01	0.01	0.01	0.01
Top of Casing Elevation (Ft, MLGL or MSL)	629.00	633.00	635.99	636.89	644.15	631.93
Grade or Surface Elevation (Ft, MLGL or MSL)	628.58	631.84	633.66	633.29	644.32	628.34
Well Depth (Ft, Below Grade Surface [BGS])	17.0	15.5	13.0	13.0	19.5	15.0
Well Depth (Ft, Below Top of Casing [BTOC])	17.4	16.7	15.3	16.6	19.3	18.6

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Well Number(s):	MW-17	MW-18	MW-21	MW-22	MW-23	MW-26
Screen Interval						
From (Ft, BGS)	7.0	5.5	3.0	3.0	4.5	5.0
To (Ft, BGS)	17.0	15.5	13.0	13.0	19.5	15.0
Screen Interval						
From (Ft, BTOC)	7.4	6.7	5.3	6.6	4.3	8.6
To (Ft, BTOC)	17.4	16.7	15.3	16.6	19.3	18.6
Facility Coordinates (e.g., lat./long. or company coordinates)	7102093.46 2479609.56	7102462.37 2479342.35	7102518.90 2480490.82	7102440.57 2480046.67	7102124.84 2480769.44	7101865.00 2479876.33

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Waste Management Unit/Area Name ¹	Former Operating Plant (excluding the North CAMU) (Table VI.B.3.b-2)					
Well Number(s):	MW-27	MW-29	MW-44			
Hydrogeologic Unit Monitored	Uppermost GWBU	Uppermost GWBU	Uppermost GWBU			
Type (e.g., point of compliance, background, observation, etc.)	POC/APOE	POC/APOE	POC/APOE			
Up or Down Gradient	Downgradient	Downgradient	Downgradient			
Casing Diameter and Material	2" Sch 40 PVC	2" Sch 40 PVC	2.0" Sch 40 PVC			
Screen Diameter and Material	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted	2.0" Sch 40 PVC slotted			
Screen Slot Size (in.)	0.01	0.01	0.01			
Top of Casing Elevation (Ft, MLGL or MSL)	633.42	633.51	637.50			
Grade or Surface Elevation (Ft, MLGL or MSL)	629.89	629.39	634.33			
Well Depth (Ft, Below Grade Surface <i>[BGS]</i>)	15.0	14.5	15.0			
Well Depth (Ft, Below Top of Casing <i>[BTOC]</i>)	18.5	18.6	18.2			

Table VI.B.3.b – Unit Groundwater Detection Monitoring Systems

Well Number(s):	MW-27	MW-29	MW-44			
Screen Interval						
From(Ft, BGS)	5.0	4.5	5.0			
To(Ft, BGS)	15.0	14.5	15.0			
Screen Interval						
From(Ft, BTOC)	8.5	8.6	8.2			
To(Ft, BTOC)	18.5	18.6	18.2			
Facility Coordinates (e.g., lat./long. or company coordinates)	7101675.23 2480260.29	7101741.68 2480041.87	7101659.80 2480549.86			

1From Tables in Section V.

MSL: Mean Sea Level; *MLGL*: Mean Low-tide Gulf Level; *BGS*: Below Grade Surface; *BTOC*: Below Top of Casing

Notes:

GWBU – groundwater-bearing unit

AMSL - above mean sea level

BGS - below ground surface

BTOC - below top of casing

PVC - polyvinyl chloride

APOE - Alternate Point of Exposure for Corrective Action Monitoring

POC - Point of Compliance for Corrective Action Monitoring

Well construction information was compiled from 1) Table 5D of the Affected Property Assessment Report for the Exide Frisco Recycling Facility prepared by Golder Associates and dated May 2014, 2) well construction logs and survey information included in the Affected Property Assessment Report prepared by Pastor, Behling & Wheeler and dated 2013, and 3) well construction logs and survey information included in the Deep Groundwater Preliminary Design Investigation Report prepared by Golder and included as Appendix 3.1 to Attachment M to the Part B of this RCRA Permit Renewal Application.

Table VI.B.3.c – Groundwater Detection Monitoring Parameters

Unit/Waste Management Area: **North Corrective Action Management Unit (North CAMU) – VI.B.3.c-1**

Well No(s): **PMW-19R, MW-41, MW-45, LMW-8, LMW-9R, LMW-5, LMW-17, PMW-20R, LMW-21, and LMW-22**

Parameter	Sampling Frequency	Analytical Method	Method Detection Limit (MDL) or Method Quantification Limit (MQL) Value, (units), MDL or MQL ²	Concentration Limit ¹		
				TRRP Tier 1 Residential GW _{Ing} PCL	TRRP Tier 1 Commercial/Industrial GW _{Ing} PCL	SW _{GW} PCL
Arsenic (total and dissolved)	Quarterly (2 years) / Semiannually (after 2 years)	SW-6010B/6020A	0.003	0.01	0.010	0.34 (dissolved)
Cadmium (total and dissolved)		SW-6010B/6020A	0.000500	0.005	0.0050	0.00908 (dissolved)
Lead (total and dissolved)		SW-6010B/6020A	0.00250	0.015	0.015	0.0688 (dissolved)
Selenium (total and dissolved)		SW-6010B/6020A	0.00250	0.050	0.050	0.02 (total)
Antimony (total and dissolved)	Annually	SW-6010B/6020A	0.00500	0.0060	0.0060	1.33
Barium (total and dissolved)		SW-6010B/6020A	0.00500	2.0	2.0	16
Chromium (total and dissolved)		SW-6010B/6020A	0.00500	0.10	0.10	0.598
Copper (total and dissolved)		SW-6010B/6020A	0.00500	1.3	1.3	0.015
Mercury (total and dissolved)		SW-7470A	0.000200	0.0020	0.0020	0.0024

Parameter	Sampling Frequency	Analytical Method	Method Detection Limit (MDL) or Method Quantification Limit (MQL) Value, (units), MDL or MQL ²	Concentration Limit ¹		
				TRRP Tier 1 Residential GW _{Ing} PCL	TRRP Tier 1 Commercial/Industrial GW _{Ing} PCL	^{SW} GW PCL
Silver (total and dissolved)	Annually	SW-6010B/6020A	0.00100	0.12	0.37	0.0008
Zinc (total and dissolved)		SW-6010B/6020A	0.0200	7.3	22	0.123

1 The concentration limit is the basis for determining whether a release has occurred from the waste management unit/area.

2 a. Enter the laboratory expected *Method Detection Limit* if determination of *Statistically Significant Increase* (SSI) occurrence is based on detection of the presence of the constituent of concern in the sample.

2 b. Enter the laboratory expected Method Quantification Limit if determination of SSI is based on statistical analysis of detection monitoring data or direct comparison to a limit value.

This should be based on the laboratory's minimum expected level of performance. Please designate which type of limit has been entered for each constituent, with its value and units.

Notes:

mg/L - milligrams per liter

MQL - method quantitation limit

TRRP - Texas Risk Reduction Program

PCL - protective concentration limit

TRRP PCLs are copied from the April 2018 Tier 1 PCL and supporting tables accessed at <http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html>.

(3) The ^{SW}GW PCLs were approved in the Revised Class 2 Landfill Groundwater Monitoring Plan by Pastor , Behling & Wheeler dated July 31, 2013, and approved by TCEQ in a letter dated April 4, 2014. As described in that report, "TRRP Rules §350.37(i) and §350.51(f) indicate that the ^{SW}GW PCL applies for monitoring wells in locations where there is a potential point of discharge of groundwater to surface water (e.g. down-gradient wells LMW-5, LMW-17 and LMW-22 and cross-gradient well LMW-8). Per TRRP-24, specific aquatic life criteria apply to dissolved rather than total concentrations since the dissolved phase represents the bioavailable form. ^{SW}GW PCLs were conservatively set to ^{SW}SW RBELs (i.e., no dilution factor). ^{SW}SW RBELs are based on acute ecological criteria for Stewart Creek and the North Tributary (intermittent streams), except for those for barium and antimony, which are based on chronic ecological criteria because acute criteria are not established for these constituents. Per TRRP-24, RBELs for cadmium, copper, lead and zinc were adjusted based on a hardness value of 106 mg/L for Lake Lewisville, Segment 0823."

Table VI.B.3.c – Groundwater Detection Monitoring Parameters

Unit/Waste Management Area: **Former Operating Plant (Excluding the North CAMU) – VI.B.3.c-2**

Well No(s): **B3R, B4R, B7N, B9N, DGW-MW-9, MW-10, MW-17, MW-18, MW-21, MW-22, MW-23, MW-26, MW-27, MW-29, MW-44**

Parameter	Sampling Frequency	Analytical Method	Method Detection Limit (MDL) or Method Quantification Limit (MQL) Value, (units), MDL or MQL ²	Concentration Limit ¹				
				TRRP Tier 1 Residential GW _{Ing} PCL	TRRP Tier 1 Commercial/ Industrial GW _{Ing} PCL	SW _{GW} PCL (with dilution factor of 0.15, based on chronic aquatic life criteria) ^{3,4}	SW _{GW} PCL (based on acute aquatic life criteria) ^{3,4}	SW _{GW} PCL (with dilution factor of 0.15, based on contact recreation)
Antimony (total and dissolved)	Quarterly (2 years) / Semiannually (after 2 years)	SW-6010B/6020A	0.00500	0.006	0.006	14.7 (total)	6.60 (total)	1.33
Arsenic (total and dissolved)		SW-6010B/6020A	0.00300	0.01	0.01	1.00 (dissolved)	0.34 (dissolved)	0.19
Cadmium (total and dissolved)		SW-6010B/6020A	0.000500	0.005	0.005	0.0017 (dissolved)	0.00908 (dissolved)	0.99
Lead (total and dissolved)		SW-6010B/6020A	0.00250	0.015	0.015	0.0179 (dissolved)	0.0688 (dissolved)	0.10
Selenium (total and dissolved)		SW-6010B/6020A	0.00250	0.050	0.050	0.0333 (total)	0.02 (total)	27.5

1 The concentration limit is the basis for determining whether a release has occurred from the waste management unit/area.

2 a. Enter the laboratory expected *Method Detection Limit* if determination of *Statistically Significant Increase* (SSI) occurrence is based on detection of the presence of the constituent of concern in the sample.

2 b. Enter the laboratory expected Method Quantification Limit if determination of SSI is based on statistical analysis of detection monitoring data or direct comparison to a limit value.

This should be based on the laboratory's minimum expected level of performance. Please designate which type of limit has been entered for each constituent, with its value and units.

Notes:

mg/L - milligrams per liter

MQL - method quantitation limit

TRRP - Texas Risk Reduction Program

PCL - protective concentration limit

TRRP PCLs are copied from the April 2018 Tier 1 PCL and supporting tables accessed at <http://www.tceq.state.tx.us/remediation/trrp/trrppcls.html>.

(3) The ^{SW}GW PCLs were approved in the Revised Class 2 Landfill Groundwater Monitoring Plan by Pastor, Behling & Wheeler dated July 31, 2013, and approved by TCEQ in a letter dated April 4, 2014. As described in that report, "TRRP Rules §350.37(i) and §350.51(f) indicate that the ^{SW}GW PCL applies for monitoring wells in locations where there is a potential point of discharge of groundwater to surface water (e.g. down-gradient wells LMW-5, LMW-17 and LMW-22 and cross-gradient well LMW-8). Per TRRP-24, specific aquatic life criteria apply to dissolved rather than total concentrations since the dissolved phase represents the bioavailable form. ^{SW}GW PCLs were conservatively set to ^{SW}SW RBELs (i.e., no dilution factor). ^{SW}SW RBELs are based on acute ecological criteria for Stewart Creek and the North Tributary (intermittent streams), except for those for barium and antimony, which are based on chronic ecological criteria because acute criteria are not established for these constituents. Per TRRP-24, RBELs for cadmium, copper, lead and zinc were adjusted based on a hardness value of 106 mg/L for Lake Lewisville, Segment 0823."

Table VII.E.1. - Permitted Unit Closure Cost Summary

Existing Unit Closure Cost Estimate	
Unit	Cost
North CAMU	\$ 1,811,555
Total Existing Unit Closure Cost Estimate	\$ 1,811,555 (in 2022 Dollars) ¹

Proposed Unit Closure Cost Estimate	
Unit	Cost
<i>RCA (Includes Final Closure of Units 001 and 002 within footprint of the RCA)</i>	\$ 24,007,225
Total Proposed Unit Closure Cost Estimate	\$ 24,007,225 (in 2022 Dollars) ¹

¹ As units are added or deleted from these tables through future permit amendments or modifications, the remaining itemized unit costs should be updated for inflation when re-calculating the revised total cost in current dollars.

Table VII.E.2. - Permitted Unit Post-Closure Cost Summary

Existing Unit Post-Closure Cost Estimate	
Unit	Cost
North CAMU	\$ 2,216,649
Total Existing Unit Post-Closure Cost Estimate	\$ 2,216,649 (in 2022 Dollars) ¹

Proposed Unit Post-Closure Cost Estimate	
Unit	Cost
<i>RCA (Includes Final Post-Closure of Units 001 and 002 within footprint of the RCA)</i>	\$ 3,765,605
Total Proposed Unit Post-Closure Cost Estimate	\$ 3,765,605 (in 2022 Dollars) ¹

¹ As units are added or deleted from these tables through future permit amendments or modifications, the remaining itemized unit costs should be updated for inflation when re-calculating the revised total cost in current dollars.

**CP Table I: Waste Management Units and Areas Subject to Groundwater
Corrective Action and Compliance Monitoring**

A. Corrective Action¹ (30 TAC Section 335.166)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed ⁴
1. North Corrective Action Management Unit (CAMU)	012	N/A
2. Remediation Consolidation Unit (RCA) CAMU	Proposed	N/A

B. Compliance Monitoring¹ (30 TAC Section 335.165) (Reserved)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed ⁴
1. (Reserved)		

C. Corrective Action² (30 TAC Section 335.167) (Reserved)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed ⁴
1. (Reserved)		

D. Alternative Corrective Action³ (30 TAC Section 335.151) (Reserved)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed ⁴
1. (Reserved)		

Footnotes:

1. Program applies to RCRA-regulated units only.
2. Program applies to releases from solid waste management units (SWMUs) and/or areas of concern (AOCs).
3. Program applies to commingled releases from RCRA-regulated unit and from one or more SWMUs and/or AOCs.
4. For the purpose of maintaining a historical record to verify the units/areas have met the program requirements in accordance with Permit Provisions XI.A.2, XI.A.3., XI.A.4. and/or XI.A.5., the permittee shall update CP Table I to reflect the new status of the unit/area to include the remedy standard achieved for all media of concern and the date of the Commission's No Further Action (NFA) approval letter. The units/area shall not be deleted from CP Table I until the program objectives have been completed and no further action has been approved through modification or amendment to the Permit. Put "N/A" if a specific program or column item is not applicable.

**CP Table II: Solid Waste Management Units and/or Areas of Concern
 Addressed in Permit Section XI.H. for which Corrective Action Applies Pursuant to 30 TAC
 Section 335.167**

Unit Name	NOR Number, if applicable	SWMU or AOC	Affected Media ¹	Date Program Requirement and Remedy Standard Completed ²
1. South Disposal Area RFI Unit #05	004	SWMU	Soil and Groundwater	Closed-1974, Recapping planned as outlined in Attachment M (RAP)
2. Aerial Deposition from Former Operating Plant Emissions	N/A	AOC	Soil	Operations ceased in November 2012; removal and or engineering controls as outlined in Attachment M (RAP)
3. Former Shooting Range Berm	N/A	AOC	Soil	Soils removed in 2011 as part of Agreed Order actions. Soils removed in 2017 as part of former Undeveloped Buffer Property Remediation. Additional soils within FOP over critical PCLs to be removed as outlined in Attachment M (RAP)
4. Crystallizati on Unit drainage ditch	N/A	AOC	Soil	Portions of ditch removed during Undeveloped Buffer Property Remediation in 2017. Additional soils within FOP to be removed as outlined in Attachment M (RAP)
5. Exposed Battery Chips/Slag	N/A	AOC	Soil, Sediment, Sidewall Soils, and Groundwater	Active throughout Site, to be removed as part of response actions as outlined in Attachment M (RAP)
Remediation Consolidation Area (RCA) CAMU consisting of:				

Unit Name	NOR Number, if applicable	SWMU or AOC	Affected Media ¹	Date Program Requirement and Remedy Standard Completed ²
6. Battery Receiving / Storage Building (also referred to as the Container Storage Area) RCRA Unit No. 002/RFI Unit #01	011	SWMU	Soil and Groundwater	Not Applicable/Inactive - located within the footprint of the proposed RCA and to be closed in conjunction with RCA. (Former Battery Storage Area closed in March 1984)
7. Raw Material Storage Area (also referred to as the Containment Building) RFI Unit #02	N/A	SWMU	Soil and Groundwater	Not Applicable/Inactive - located within the footprint of the proposed RCA and to be closed in conjunction.
8. Raw Material Storage Building (also referred to as the Containment Building) RCRA Unit No. 001/RFI Unit #02	005	SWMU	Soil and Groundwater	Not Applicable/Inactive - located within the footprint of the proposed RCA and to be closed in conjunction with RCA.
9. Slag Landfill RFI Unit #03	007	SWMU	Soil	Closed-1996, To be included within the footprint of the RCA (and capped with an engineered cap) and will be included within the area of the funnel and gate PRB as outlined in Attachment M (RAP).
10. North Disposal Area RFI Unit #04	003	SWMU	Soil and Groundwater	Closed-1978, To be included within the footprint of the RCA (and capped with an engineered cap) and will be included within the area of the funnel and gate PRB as outlined in Attachment M (RAP).

Unit Name	NOR Number, if applicable	SWMU or AOC	Affected Media ¹	Date Program Requirement and Remedy Standard Completed ²
11. Old Drum Storage Area RFI Unit #07	N/A	SWMU	Soil and Groundwater	Closed-1987
12. Stewart Creek Sediment Dredging Waste Pile RFI Unit #08	N/A	SWMU	Soil and Groundwater	Closed (capped)-1989
13. Product Waste Pile RFI Unit #99	006	SWMU	Soil and Groundwater	Removed and closed-2000
14. Slag Treatment Building	008	SWMU	Soil and Groundwater	Inactive/Demolished - located within the footprint of the proposed RCA and to be closed in conjunction with RCA.
15. Wastewater Treatment Plant	009	SWMU	Soil and Groundwater	Inactive, has not been demolished - located within the footprint of the proposed RCA and to be demolished and closed in conjunction with RCA.
16. 3-yard dump hoppers (West side of Battery Breaker Building)	006	SWMU	Soil and Groundwater	Inactive, within RCA footprint
17. Boneyard	N/A	AOC	Soil and Groundwater	Inactive, within RCA footprint
18. Roll-off boxes (Several locations in Affected Property No. 2)	014	SWMU	Soil and Groundwater	Removed

Unit Name	NOR Number, if applicable	SWMU or AOC	Affected Media ¹	Date Program Requirement and Remedy Standard Completed ²
19. Stewart Creek Flood Wall	N/A	AOC	Groundwater	Inactive (Flood wall inspected for seepage quarterly)
20. Boneyard Debris Piles	017	SWMU	Soil	Removed - 2013

Foot Note:

SWMU= Solid Waste Management Units, AOC= Area of Concern

1. Specify media affected [i.e. soil, groundwater (GW), surface water (SW), sediment (SED)].
2. Specify the date of Commission's No Further Action (NFA) approval letter for program requirement and remedy standard completed for all media of concern.

Note: CP Table II lists SWMUs and/or AOC which have been identified in the RFA Report as having a release(s) or potential releases of hazardous waste, hazardous constituents or other constituents of concern. The permittee is thus required to meet corrective action objectives in accordance with Permit Section XI.H. and 30 TAC Section 335.167 consisting of further investigation, and necessary corrective action. For the purpose of maintaining a historical record to verify the SWMUs and/or AOC have met the RCRA Corrective Action Objectives in accordance with Permit Section XI.H., the permittee shall update the CP Table II list of SWMUs and/or AOC to reflect the addition of new units and/or areas new status of the units and/or areas which include the Unit Number, the remedy standard achieved for all media of concern and the date of the Commissions NFA approval letter. SWMUs and/or AOC shall not be deleted from this table even though the Corrective Action Objectives have been completed or no further action determination has been approved for the SWMU and/or AOC.

There may be cases in which the permittee fulfills the corrective action active objectives for soils at SWMUs and/or AOC, however, long term monitoring and necessary corrective action maybe required for groundwater to verify remedy standards are met. In such instances individual SWMU and/or AOC would be listed in CP Table I, Items C and be subject to all applicable provisions of this Compliance Plan, or if the release occurred from one or more SWMU and/or AOC and is commingled with RCRA unit then units/areas would be listed in CP Table I, Item D. Upon completion of the corrective action objectives for groundwater in accordance with Permit Section XI.H., then the permittee shall modify or amend the Compliance Plan to reassign the SWMUs and/or AOC in CP Table I, Item C, or Item D to CP Table II as appropriate. CP Table II would reflect the new status of the SWMU and/or AOC to include the remedy standard achieved for all media of concern and the date of the Commissions NFA approval letter.

CP Table III: Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standards (mg/l) at the POC/APOE ^{1,2}	Column C Groundwater Protection Standards Northern Tributary Segment (mg/l) at the POE or APOE ^{1,2}	Column D Groundwater Protection Standards Stewart Creek Segment (mg/l) at the POE or APOE ^{1,2}
1. North CAMU	Antimony (total recoverable)	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}	N/A
	Arsenic (total recoverable)	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}	N/A
	Barium (total recoverable)	2.0 ^{GW} GW _{Ing}	2.0 ^{GW} GW _{Ing}	N/A
	Cadmium (total recoverable)	0.005 ^{GW} GW _{Ing}	0.005 ^{GW} GW _{Ing}	N/A
	Chromium (total recoverable)	0.1 ^{GW} GW _{Ing}	0.1 ^{GW} GW _{Ing}	N/A
	Copper (total recoverable)	1.3 ^{GW} GW _{Ing}	1.3 ^{GW} GW _{Ing}	N/A
	Lead (total recoverable)	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}	N/A
	Mercury (total recoverable)	0.002 ^{GW} GW _{Ing}	0.002 ^{GW} GW _{Ing}	N/A
	Selenium (total recoverable)	0.05 ^{GW} GW _{Ing}	0.02 ^{SW} GW	N/A
	Silver (total recoverable)	0.12 ^{GW} GW _{Ing}	0.12 ^{GW} GW _{Ing}	N/A
	Zinc (total recoverable)	7.3 ^{GW} GW _{Ing}	7.3 ^{GW} GW _{Ing}	N/A
	Antimony (dissolved)	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}	N/A
	Arsenic (dissolved)	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}	N/A
	Barium (dissolved)	2.0 ^{GW} GW _{Ing}	2.0 ^{GW} GW _{Ing}	N/A
	Cadmium (dissolved)	0.005 ^{GW} GW _{Ing}	0.005 ^{GW} GW _{Ing}	N/A
	Chromium (dissolved)	0.1 ^{GW} GW _{Ing}	0.1 ^{GW} GW _{Ing}	N/A
	Copper (dissolved)	1.3 ^{GW} GW _{Ing}	0.015 ^{SW} GW	N/A

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standards (mg/l) at the POC/APOE ^{1,2}	Column C Groundwater Protection Standards Northern Tributary Segment (mg/l) at the POE or APOE ^{1,2}	Column D Groundwater Protection Standards Stewart Creek Segment (mg/l) at the POE or APOE ^{1,2}
	Lead (dissolved)	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}	N/A
	Mercury (dissolved)	0.002 ^{GW} GW _{Ing}	0.002 ^{GW} GW _{Ing}	N/A
	Selenium (dissolved)	0.05 ^{GW} GW _{Ing}	0.02 ^{SW} GW	N/A
	Silver (dissolved)	0.12 ^{GW} GW _{Ing}	0.0008 ^{SW} GW	N/A
	Zinc (dissolved)	7.3 ^{GW} GW _{Ing}	0.123 ^{SW} GW	N/A
2. RCA CAMU	Antimony (total recoverable)	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}
	Arsenic (total recoverable)	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}
	Cadmium (total recoverable)	0.005 ^{GW} GW _{Ing}	0.005 ^{GW} GW _{Ing}	0.005 ^{GW} GW _{Ing}
	Lead (total recoverable)	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}
	Selenium (total recoverable)	0.05 ^{GW} GW _{Ing}	0.02 ^{SW} GW	0.0333 ^{SW} GW
	Antimony (dissolved)	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}
	Arsenic (dissolved)	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}
	Cadmium (dissolved)	0.005 ^{GW} GW _{Ing}	0.005 ^{GW} GW _{Ing}	0.0017 ^{SW} GW
	Lead (dissolved)	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}
	Selenium (dissolved)	0.05 ^{GW} GW _{Ing}	0.05 ^{GW} GW _{Ing}	0.05 ^{GW} GW _{Ing}

Note:

- Columns B through D specify the GWPS assigned at a POC, POE or APOE (i.e. for sites with MNA or PMZ proposals as applicable under TRRP). (i.e. modify Table and Footnotes to support the establishment of GWPS at POC, POE or APOE monitoring points, as appropriate). Put "N/A" if a specific program or column item is not applicable. Column C applies to wells

in the “Northern Tributary Segments” where the Northern Tributary ^{SW}GW GWPS applies. Column D applies to wells in the “Stewart Creek Segment” for which the “Stewart Creek ^{SW}GW GWPS applies. The listed GWPS for each constituent is the lower of the ^{SW}GW or ^{GW}GW_{Ing}

2. For each COC, select the appropriate GWPS designation and include the applicable definition that applies to verify the corrective action program objectives are being achieved either under Risk Reduction Rules (RRR) pursuant to 30 TAC Chapter 335 or Texas Risk Reduction Program (TRRP) pursuant to 30 TAC Chapter 350. The GWPS designation and definitions specified in this table either under 30 TAC Chapter 335 (regarding RRR) or 30 TAC Chapter 350 (regarding TRRP) may not be combined pursuant to 30 TAC Section 350.2(m).

TRRP GWPS Designations and Definitions

^{GW} GW _{Ing}	ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table. In accordance with 30 TAC Section 350.72(b), ^{GW} GW _{Ing} PCLs may need to be adjusted to lower concentrations to meet the cumulative carcinogenic risk level (less than or equal to 1×10^{-4}) and hazard index criteria (less than or equal to 10) when there are more than 10 carcinogenic and/or more than 10 noncarcinogenic chemicals of concern within a source medium.
^{SW} GW	ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for groundwater-to-surface water PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

CP Table IIIA: Corrective Action Program Table of Indicator Parameters and the Groundwater Protection Standard

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standards (mg/l) at the POC/APOE ^{1,2}	Column C Groundwater Protection Standards Northern Tributary Segment (mg/l) at the POE or APOE ^{1,2}	Column D Groundwater Protection Standards Stewart Creek Segment (mg/l) at the POE or APOE ^{1,2}
1. North CAMU	Arsenic (total recoverable)	0.010 ^{GW} GW _{Ing}	0.010 ^{GW} GW _{Ing}	N/A
	Selenium (total recoverable)	0.05 ^{GW} GW _{Ing}	0.02 ^{SW} GW	N/A
	Arsenic (dissolved)	0.010 ^{GW} GW _{Ing}	0.010 ^{GW} GW _{Ing}	N/A
	Selenium (dissolved)	0.05 ^{GW} GW _{Ing}	0.02 ^{SW} GW	N/A
2. RCA CAMU	Antimony (total recoverable)	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}
	Arsenic (total recoverable)	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}
	Cadmium (total recoverable)	0.005 ^{GW} GW _{Ing}	0.005 ^{GW} GW _{Ing}	0.005 ^{GW} GW _{Ing}
	Lead (total recoverable)	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}
	Selenium (total recoverable)	0.05 ^{GW} GW _{Ing}	0.02 ^{SW} GW	0.0333 ^{SW} GW
	Antimony (dissolved)	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}	0.006 ^{GW} GW _{Ing}
	Arsenic (dissolved)	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}	0.01 ^{GW} GW _{Ing}
	Cadmium (dissolved)	0.005 ^{GW} GW _{Ing}	0.005 ^{GW} GW _{Ing}	0.0017 ^{SW} GW
	Lead (dissolved)	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}	0.015 ^{GW} GW _{Ing}
	Selenium (dissolved)	0.05 ^{GW} GW _{Ing}	0.05 ^{GW} GW _{Ing}	0.05 ^{GW} GW _{Ing}

Note:

- Columns B through D specify the GWPS assigned at a POC, POE or APOE (i.e. for sites with MNA or PMZ proposals as applicable under TRRP). (i.e. modify Table and Footnotes to support the establishment of GWPS at POC, POE or APOE monitoring points, as appropriate). Put "N/A" if a specific program or column item is not applicable. Column C applies to wells in the "Northern Tributary Segments" where the Northern Tributary^{SW}GW GWPS applies. Column D applies to wells in the "Stewart Creek Segment" for which the "Stewart Creek^{SW}GW GWPS applies. The listed GWPS for each constituent is the lower of the^{SW}GW or^{GW}GW_{Ing}.

2. For each COC, select the appropriate GWPS designation and include the applicable definition that applies to verify the corrective action program objectives are being achieved either under Risk Reduction Rules (RRR) pursuant to 30 TAC Chapter 335 or Texas Risk Reduction Program (TRRP) pursuant to 30 TAC Chapter 350. The GWPS designation and definitions specified in this table either under 30 TAC Chapter 335 (regarding RRR) or 30 TAC Chapter 350 (regarding TRRP) may not be combined pursuant to 30 TAC Section 350.2(m).

TRRP GWPS Designations and Definitions

^{GW} GW _{Ing}	ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table. In accordance with 30 TAC Section 350.72(b), ^{GW} GW _{Ing} , PCLs may need to be adjusted to lower concentrations to meet the cumulative carcinogenic risk level (less than or equal to 1×10^{-4}) and hazard index criteria (less than or equal to 10) when there are more than 10 carcinogenic and/or more than 10 noncarcinogenic chemicals of concern within a source medium.
^{SW} GW	ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for groundwater-to-surface water PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

**CP Table IV: Compliance Monitoring Program Table of Hazardous and Solid Waste
Constituents and Quantitation Limits (Reserved)**

DRAFT

CP Table IVA: Compliance Monitoring Program Table of Detected Hazardous Constituents and the Groundwater Protection Standard (Reserved)

DRAFT

CP Table V: Designation of Wells

Point of Compliance Wells

1. **North CAMU**
LMW-5, LMW-9R, LMW-17, LMW-22
2. **RCA CAMU**
B7N, DGW-MW-9, MW-21, MW-22

North Tributary Segment

B9N, MW-18, MW-48*, MW-49* (* = proposed)

Stewart Creek Segment

MW-16SR*, MW-17, MW-26, MW-27, MW-29, MW-44, SR-MW-1*, PRB-MW-3*, PRB-MW-4*, PRB-MW-5*, PRB-MW-6*, PRB-MW-7* (* = proposed)

Point of Exposure Wells - NONE

Alternate Point of Exposure Wells

1. **North CAMU**
LMW-5, LMW-9R

North Tributary Segment
LMW-8, MW-41, MW-42
2. **RCA CAMU**
B7N, DGW-MW-9, MW-21, MW-22, MW-23,

North Tributary Segment
B9N, MW-18, MW-48*, MW-49* (* = proposed)

Stewart Creek Segment

MW-16SR*, MW-17, MW-26, MW-27, MW-29, MW-44, SR-MW-1*, PRB-MW-3*, PRB-MW-4*, PRB-MW-5*, PRB-MW-6*, PRB-MW-7* (* = proposed)

Background Wells

1. **North CAMU**
PMW-19R, MW-45
2. **RCA CAMU**
MW-10

Note:

Wells that are not listed in this table but are required by Permit Section XI.B.2 (e.g. AMP wells, CAO wells, etc.) and depicted only in CP Attachment A are subject to change, upon approval by the Executive Director, without modification to the Compliance Plan.

The wells in the "North Tributary Segment" for each CAMU are those wells for which the North Tributary ^{SW}GW GWPS apply.

The wells in the "Stewart Creek Segment" for the RCA CAMU are those wells for which the Stewart Creek ^{SW}GW GWPS apply.

CP Table VI: Compliance Period for RCRA-Regulated Units

North CAMU	Year or Number of Years
Year Waste Management Activities Initiated	1996
Year Closed	N/A
Compliance Period	30 Years
Compliance Period Began	To Be Determined

RCA CAMU	Year or Number of Years
Year Waste Management Activities Initiated	To Be Determined
Year Closed	N/A
Compliance Period	30 Years
Compliance Period Began	To Be Determined

CP Table VII: Reporting Requirements

Item	Program	Reporting Frequency	Requirements
1.	All programs	Semi-annually by January 21 and July 21	Each report shall be certified by a qualified engineer and/or geoscientist.
2.	Corrective Action	Semi-annually by January 21 and July 21	A table of all modifications and amendments made to this Compliance Plan with their corresponding approval dates by the Executive Director or the Commission and a brief description of each action;
3.	Corrective Action	Semi-annually by January 21 and July 21	A summary of any activity within an area subject to institutional control.
4.	Corrective Action	Semi-annually by January 21 and July 21	Tabulation of well casing elevations in accordance with CP Attachment C;
5.	Corrective Action	Semi-annually by January 21 and July 21	Certification and well installation diagram for any new well installation or replacement and certification for any well plugging and abandonment;
6.	Corrective Action	Semi-annually by January 21 and July 21	Recommendation for any changes to the program;
7.	Corrective Action	Semi-annually by January 21 and July 21	Any other items requested by the Executive Director;
8.	Corrective Action	Semi-annually by January 21 and July 21	Water table maps shall be prepared from the groundwater data collected pursuant to Permit Provision XI.G. and shall be evaluated by the permittee with regard to the following parameters: <ul style="list-style-type: none"> a. Direction and gradient of groundwater flow; b. Effectiveness of hydrodynamic control of the contaminated zone during operation; and c. Estimation of the rate and direction of groundwater contamination migration.
9.	Corrective Action	Semi-annually by January 21 and July 21	The permittee shall submit a report to each recipient listed in Provision XI.J.3., which includes the information in items 3 through 27 determined since the previously submitted report, if those items are applicable. If both Corrective Action and Compliance Monitoring Programs are authorized, then the January 21st report shall contain information required for both programs.

Item	Program	Reporting Frequency	Requirements
10.	Corrective Action	Semi-annually by January 21 and July 21	The Corrective Action System(s) authorized under <u>Provision XI.B.3.</u> in operation during the reporting period and a narrative summary of the evaluations made in accordance with Permit Sections XI.E., XI.F., and XI.G. for the preceding reporting period. The reporting periods shall be January 1 through June 30 and July 1 through December 31 for Corrective Action Monitoring, unless an alternative semiannual schedule is approved by the Commission. The period for Compliance Monitoring shall be based on the calendar year;
11.	Corrective Action	Semi-annually by January 21 and July 21	The method(s) utilized for management of recovered/purged groundwater shall be identified in accordance with <u>Provision XI.B.8.</u> The permittee shall maintain this list as part of the facility operating record and make it available for inspection upon request.
12.	Corrective Action	Semi-annually by January 21 and July 21	An updated table and map of all monitoring and corrective action system wells. The wells to be sampled shall be those wells proposed in the Compliance Plan Application referenced in <u>Provision XI.A.7.</u> and any changes subsequently approved by the Executive Director pursuant to <u>Provision XI.B.3.</u> Provide in chronological order, a list of those wells which have been added to, or deleted from, the groundwater monitoring and remediation systems since original issuance of the Compliance Plan. Include the date of the Commission's approval for each entry;
13.	Corrective Action	Semi-annually by January 21 and July 21	The results of the chemical analyses, submitted in a tabulated format acceptable to the Executive Director which clearly indicates each parameter that exceeds the Groundwater Protection Standard (GWPS). Copies of the original laboratory report for chemical analyses showing detection limits and quality control and quality assurance data shall be provided.
14.	Corrective Action	Semi-annually by January 21 and July 21	Tabulation of all water level elevations required in <u>Provision XI.F.3.d.(1)</u> , depth to water measurements, and total depth of well measurements collected since the data that was submitted in the previous monitoring report;
15.	Corrective Action	Semi-annually by January 21 and July 21	Potentiometric surface maps showing the elevation of the water table at the time of sampling, delineation of the radius of influence of the Corrective Action System, and the direction of groundwater flow gradients outside any radius of influence;

Item	Program	Reporting Frequency	Requirements
16.	Corrective Action	Semi-annually by January 21 and July 21	Tabulation of all data evaluation results pursuant to <u>Provision XI.F.4.</u> and status of each well with regard to compliance with the Corrective Action objectives and compliance with the GWPS;
17.	Corrective Action	Semi-annually by January 21 and July 21	An updated summary as required by CP Table VIII;
18.	Corrective Action	Semi-annually by January 21 and July 21	Summary of any changes made to the monitoring/corrective action program and a summary of well inspections, repairs, and any operational difficulties;
19.	Corrective Action only	Semi-annually by January 21 and July 21	Tabulation of the total contaminant mass recovered from each recovery system for each reporting period;
20.	Corrective Action only	Semi-annually by January 21 and July 21	Maps of the contaminated area where GWPSs are exceeded depicting concentrations of CP Table IIIA constituents and any newly detected CP Table III constituents as isopleth contours or discrete concentrations if isopleth contours cannot be inferred. Areas where concentrations of constituents exceed the GWPS should be clearly delineated. Depict the boundary of the plume management zone (PMZ), if applicable;
21.	Corrective Action only	Annually by July 21	Corrective Measures Implementation (CMI) Progress Report or Response Action Effectiveness Report or Response Action Completion Report to be submitted as a section of the Compliance Plan report in accordance with <u>Provision XI.H.6.</u> , if necessary. The permittee will include a narrative summary of the status of the approved final corrective measures conducted in accordance with the approved CMI Workplan or RAP, and that the requirements of <u>Provision XI.H.7.</u> are being met.
22.	Corrective Action only	Semi-annually by January 21 and July 21	The permittee will include a narrative summary of the status of each Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) subject to the requirements of <u>Permit Provision XI.H.</u> and ICM Program for a SWMU and/or AOC which documents that the objectives of <u>Provision XI.H.8.b.</u> are being achieved. This summary shall be included as a section of the Compliance Plan groundwater monitoring report.

Item	Program	Reporting Frequency	Requirements
23.	PMZ	Semi-annually by January 21 and July 21	A summary evaluating the effectiveness of the corrective action system in controlling migration beyond the downgradient boundary and vertical limit of the PMZ to achieve the GWPS. The summary shall include an evaluation of whether the attenuation action levels are not exceeded at their respective attenuation monitoring points pursuant to 30 TAC Sections 350.33(f)(4)(A) and 350.33(f)(4)(D)(ii), if applicable;
25.	PMZ	Semi-annually by January 21 and July 21	An estimate of the percentage of the response action which has been completed within the PMZ, if applicable;
26.	PMZ	Semi-annually by January 21 and July 21	An estimate in years of the additional time necessary to complete the response actions for the PMZ, if applicable;
27.	PMZ	Semi-annually by January 21 and July 21	A determination whether sufficient progress is being made to achieve the selected remedy standard within a reasonable time frame given the circumstance of the affected property in the PMZ, if applicable.

CP Table VIII: Compliance Schedule

Item	Compliance Schedule (from the date of issuance of the Compliance Plan unless otherwise specified)	Regulatory Citation	Requirement
A.	60 days	Compliance Plan	Submit to the Executive Director a schedule summarizing all activities required by the Compliance Plan. The schedule shall list the starting dates of all routine activities. The permittee shall include an updated schedule in the groundwater monitoring report required by <u>Provision XI.G.3</u> . The schedule shall list the activity or report, the Compliance Plan Section which requires the activity or report and the calendar date the activity or report is to be completed or submitted (if this date can be determined.)
B.	For years 1 and 2, sampling shall be conducted within the first thirty (30) days of each first, second, third and fourth quarter	30 TAC §335.166	For those units listed in CP Table I.A subject to corrective action. Corrective action monitoring shall be conducted on a quarterly basis for all point-of-compliance, background and alternate point-of-exposure wells identified in CP Table V and shown in CP Attachment A.
C.	For year 3 and beyond, sampling shall be conducted during the first thirty (30) days of each first and third quarter.	30 TAC §335.166	For those units listed in CP Table I.A subject to corrective action. Corrective action monitoring shall be conducted on a semiannual basis for all background, point-of-compliance wells, and alternate point of exposure wells identified in CP Table V and shown in CP Attachment A.
D.	120 Days	30 TAC §350.31(g)	Submit to the Executive Director proof of compliance with institutional control requirements which provides notice of the existence and location of the Plume Management Zone (PMZ) which prevents exposure to groundwater from this zone until such a time as constituents of concern may be reduced to below the GWPS of CP Table III - Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard.

Item	Compliance Schedule (from the date of issuance of the Compliance Plan unless otherwise specified)	Regulatory Citation	Requirement
E.	Notify within 30 days	30 TAC §350.33(k)	After an unexpected event occurs, or a condition is detected, during post-response action care period which indicates that additional response actions will be required at an affected property.
F.	180 Days	30 TAC §350.93 and §350.95	<p>The Site-Wide Response Action Plan (RAP) shall be approved upon issuance of this Permit Renewal application dated May 12, 2017 as revised November 21, 2019. Begin implementation of response action in accordance with Site-Wide RAP:</p> <ul style="list-style-type: none"> • Construction of the funnel and gate system and installation of monitor wells. • Response Action Effectiveness Report (RAER) to be submitted on the third anniversary of RAP implementation (if necessary). • Response Action Completion Report (RACR) to be submitted six months after confirming response action completion. • Submit Post Response Action Care Reports (PRACRs) within six months of completion of the response action and annually thereafter as an appendix to the Annual Groundwater Monitoring Report required by CP Table VII. • Groundwater monitoring will be conducted on a quarterly basis for two years and semi-annually thereafter.



LEGEND

- Creek Centerline
- Existing Building
- Former Building
- Corrective Action Management Unit
- Plume Management Zone (PMZ)
- Approximate RCRA Permitted Boundary
- Proposed PRB (Gate) Location
- Proposed Slurry Wall Locations
- Proposed Sheet Pile (Funnel) Location

REFERENCE

1. AERIAL IMAGERY - SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

TITLE
GENERAL SITE INFORMATION

CONSULTANT	YYYY-MM-DD	2019-10-25
	PREPARED	EFT
	DESIGN	JWT
	REVIEW	EPW
	APPROVED	AMF

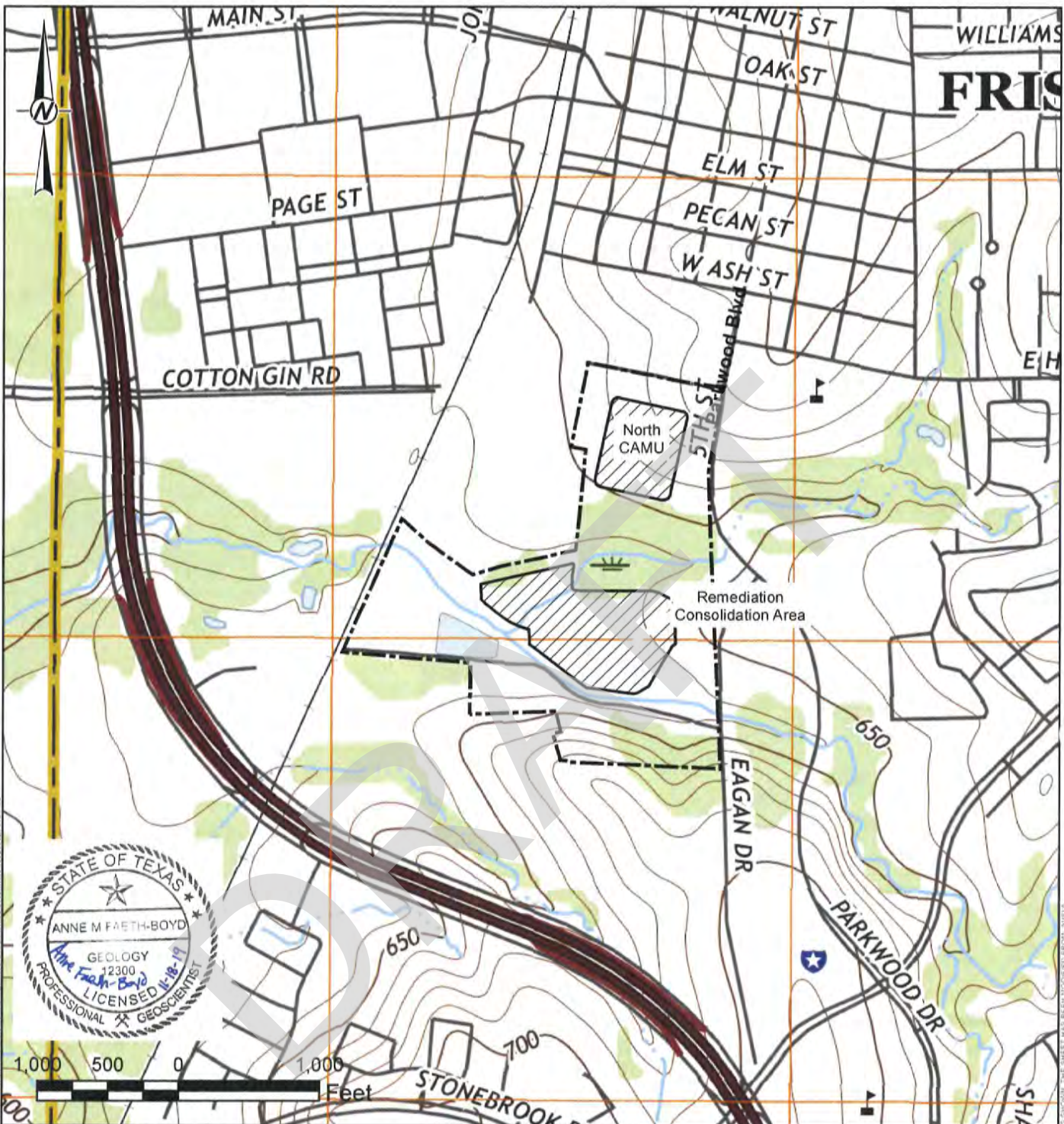


PROJECT No.
13-0208606



CONTROL
1302086ZF011.mxd

Rev
1

CP ATTACHMENT A
Sheet 1 of 4



LEGEND

-  Corrective Action Management Unit
-  Approximate RCRA Permitted Boundary

REFERENCE

1. BASEMAP - USGS DIGITAL RASTER GRAPHIC FRISCO, TX 2016, UNITED STATES GEOLOGICAL SURVEY GEOPDF 2016

CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

TITLE
TOPOGRAPHIC MAP OF THE ENTIRE FACILITY

CONSULTANT



YYYY-MM-DD	2019-10-30
PREPARED	EFT
DESIGN	JWT
REVIEW	EPW
APPROVED	AMF

PROJECT No
13-02086-06

CONTROL
1302086ZF012.mxd

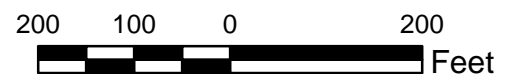
Rev
1

CP ATTACHMENT A
Sheet 2 of 4



REFERENCE

1. AERIAL IMAGERY - SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY



- ⊗ Background Well
- ⊕ Observation Well
- ⊕ APOE Well/POC
- ⊕ Attenuation Monitoring Point/POC
- ⊕ Attenuation Monitoring Point
- ⊕ Abandoned Well
- ⊕ APOE Well

- Creek Centerline
- ▨ Corrective Action Management Unit
- ▨ Plume Management Zone (PMZ)
- Protective Concentration Level Exceedance (PCLE) Zone
- Approximate RCRA Permitted Boundary
- Groundwater Flow Direction

NOTES

1. APOE - ALTERNATE POINT OF EXPOSURE
2. BGS - BELOW GROUND SURFACE
3. AAL - ATTENUATION ACTION LEVEL
4. POC - POINT OF COMPLIANCE
5. TD - TOTAL DEPTH

Permit Number: HW-50206
Solid Waste Registration Number: 30516
NOR Unit Number: 012
Unit Description: North Corrective Action Management Unit

CLIENT
EXIDE TECHNOLOGIES

PROJECT
RCRA PERMIT RENEWAL

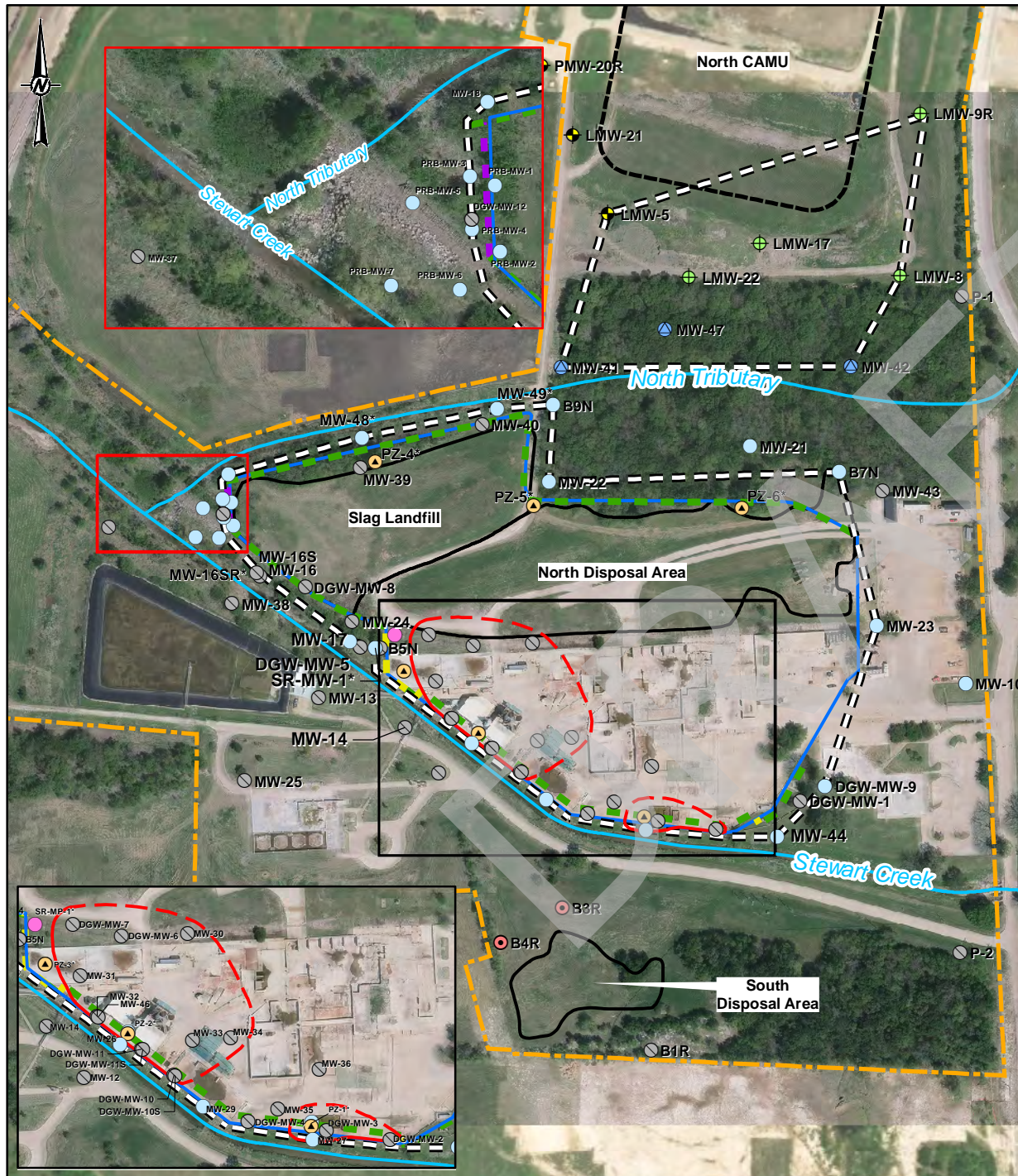
TITLE
NORTH CAMU PMZ BOUNDARY LOCATION MAP

CONSULTANT	YYYY-MM-DD	2020-03-26
	PREPARED	EFT
	DESIGN	EFT
	REVIEW	EPW
	APPROVED	AMF



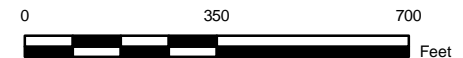
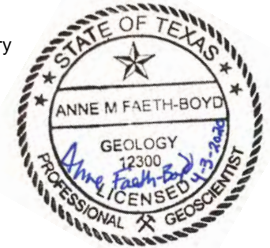
PROJECT No. 13-02086-06
CONTROL 1302086ZF013.mxd

Rev. 2
CP ATTACHMENT A
Sheet 3 of 4



LEGEND

- North CAMU Detection Monitoring Well
- North CAMU Detection/Corrective Action Monitoring Well
- North CAMU Corrective Action Monitoring Well
- SDA Observation Well
- FOP Corrective Action Monitoring Well
- Existing Wells to be Decommissioned
- Piezometer Location
- Sump Reactor Monitoring Point
- Surface Water Centerline
- Proposed PRB (Gate) Location
- Proposed Slurry Wall Locations
- Proposed Sheet Pile (Funnel) Location
- Protective Concentration Level Exceedance (PCLE) Zone
- Disposal Area
- Remediation Consolidation Area
- Approximate North CAMU Extent
- Approximate RCRA Permitted Boundary
- Plume Management Zone



REFERENCE(S)

1. SITE FEATURES - GOLDER, 2014
2. AERIAL IMAGERY - SOURCE: ESRI, DIGITAL GLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, THE GIS USER COMMUNITY AND SITE AERIAL PROVIDED BY DALLAS AERIAL SURVEY DATED APRIL, 2017.

CLIENT

EXIDE TECHNOLOGIES

PROJECT

RCRA PERMIT RENEWAL

TITLE

RCA CAMU CORRECTIVE ACTION MONITORING PROGRAM

CONSULTANT



YYYY-MM-DD 2020-03-30

PREPARED EFT

DESIGNED EPW

REVIEWED EPW

APPROVED AMF

PROJECT NO.
13-0208606

CONTROL
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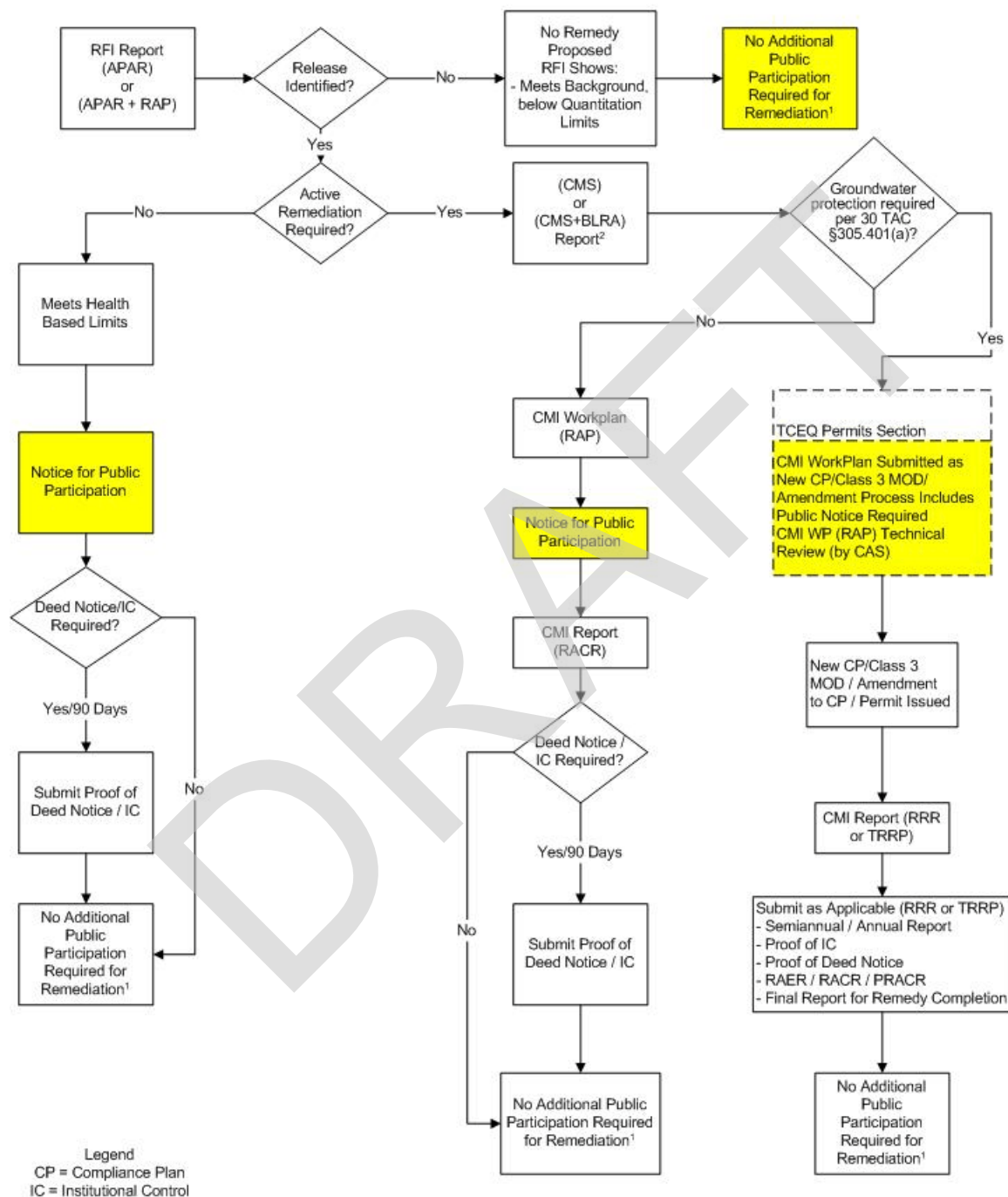
REV.
2

CP ATTACHMENT A
Sheet 4 of 4

CP Attachment B, Sheet 1 of 1

Public Participation in HSWA Corrective Action

6/22/2005



1 To Incorporate a Status Change to RFI unit(s) in the Permit or CP Requires Modification and Public Notice through the Permits Section

2 As Required by Rule, Permit, or CP

CP Attachment C: Well Design, Construction, Installation, Certification, Plugging and Abandonment Procedures and Specifications

1. The Permittee shall use well drilling methods that minimize potential adverse effects on the quality of water samples withdrawn from the well, and that minimize or eliminate the introduction of foreign fluids into the borehole.
2. All wells constructed to meet the terms of this Compliance Plan shall be constructed such that the wells can be routinely sampled with a pump, bailer, or alternate sampling device. Piping associated with recovery wells should be fitted with sample ports or an acceptable alternative sampling method to facilitate sampling of the recovered groundwater on a well by well basis.
3. Above the saturated zone, the well casing may be two (2)-inch diameter or larger Schedule 40 or 80 polyvinyl chloride (PVC) rigid pipe or stainless steel or polytetrafluoroethylene (PTFE or "Teflon®") or an approved alternate material. The PVC casing must bear the National Sanitation Foundation logo for potable water applications (NSF-pw). Solvent cementing compounds shall not be used to bond joints and all connections shall be flush-threaded. In and below the saturated zone, the well casing shall be stainless steel or PTFE.

The Permittee may use PVC or fiberglass reinforced resin as an alternate well casing material in and below the saturated zone provided that it yields samples for groundwater quality analysis that are unaffected by the well casing material.

4. The Permittee shall replace any well that has deteriorated due to incompatibility of the casing material with the groundwater contaminants or due to any other factors. Replacement of the damaged well shall be completed within ninety (90) days of the date of the inspection that identified the deterioration.
5. Well casings and screens shall be steam cleaned prior to installation to remove all oils, greases, and waxes. Well casings and screens made of fluorocarbon resins shall be cleaned by detergent washing.
6. For wells constructed after the date of issuance of this Compliance Plan, the screen length shall not exceed ten (10) feet within a given transmissive zone unless otherwise approved by the Executive Director. Screen lengths exceeding ten (10) feet may be installed in groundwater recovery or injection wells to optimize the groundwater remediation process in accordance with standard engineering practice.
7. The Permittee shall design and construct the intake portion of a well so as to allow sufficient water flow into the well for sampling purposes and minimize the passage of formation materials into the well during pumping. The intake portion of a well shall consist of commercially manufactured stainless steel or PTFE screen or approved alternate material. The annular space between the screen and the borehole shall be filled with clean siliceous granular material (i.e., filter pack) that has a proper size gradation to provide mechanical retention of the formation sand and silt. The well screen slot size shall be compatible with the filter pack size as determined by sieve analysis data. The filter pack should extend no more than three (3) feet above the well screen. A silt trap, no greater than one (1) foot in length, may be added to the bottom of the well screen to collect any silt that may enter the well. The bottom of the well casing shall be capped with PTFE or stainless steel or approved alternate material.

Groundwater recovery and injection wells shall be designed in accordance with standard engineering practice to ensure adequate well production and accommodate ancillary equipment. Silt traps exceeding one (1) foot may be utilized to accommodate ancillary equipment. Well heads shall be fitted with mechanical well seals, or equivalent, to prevent entry of surface water or debris.

8. A minimum of two (2) feet of pellet or granular bentonite shall immediately overlie the filter pack in the annular space between the well casing and borehole, except in the case of a monitoring well where

the water to be monitored is at a more shallow depth and the filter pack extends to less than four feet within the ground surface, in which case, less than two feet of pellet or granular bentonite may be used in accordance with 15 Texas Administrative Code (TAC) 76.100(e). Where the saturated zone extends above the filter pack, pellet or granular bentonite shall be used to seal the annulus. The bentonite shall be allowed to settle and hydrate for a sufficient amount of time prior to placement of grout in the annular space. Above the bentonite seal, the annular space shall be sealed with a cement/bentonite grout mixture. .

The cement/bentonite grout mixture or TCEQ approved alternative grout mixture shall fill the annular space to within two (2) feet of the surface, except in the case of a monitoring well when the water to be monitored is at a more shallow depth and the bentonite seal extends to less than two feet within the ground surface, and the pellet or granular bentonite may extend to within one foot of the surface.. A suitable amount of time shall be allowed for settling to occur. The annular space shall be sealed with concrete, blending into a cement apron at the surface that extends at least two (2) feet from the outer edge of the monitor well for above-ground completions. Alternative annular-space seal material may be proposed with justification and must be approved by the Executive Director prior to installation.

In cases where flush-to-ground completions are unavoidable, a protective structure such as a utility vault or meter box should be installed around the well casing and the concrete pad design should prevent infiltration of water into the vault. In addition, the Permittee must ensure that 1) the well/cap juncture is watertight; 2) the bond between the cement surface seal and the protective structure is watertight; and 3) the protective structure with a steel lid or manhole cover has a rubber seal or gasket. **The surface completion for flush to ground completion must include concrete two feet below the base of the vault in accordance with 16 TAC 76.100(f)(4).**

9. Water added as a drilling fluid to a well shall contain no bacteriological or chemical constituents that could interfere with the formation or with the chemical constituents being monitored. For groundwater recovery and injection wells, drilling fluids containing freshwater and treatment agents may be utilized in accordance with standard engineering practice to facilitate proper well installation. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All such additives shall be removed to the extent practicable during well development.
10. Upon completion of installation of a well, the well must be developed to remove any fluids used during well drilling and to remove fines from the formation to provide a particulate-free discharge to the extent achievable by accepted completion methods and by commercially available well screens. Development shall be accomplished by reversing flow direction, surging the well or by air lift procedures. No fluids other than formation water shall be added during development of a well unless the aquifer to be screened is a low-yielding water-bearing aquifer. In these cases, the water to be added should be chemically analyzed to evaluate its potential impact on in-situ water quality, and to assess the potential for formation damage.

For recovery and injection wells, well development methods may be utilized in accordance with standard engineering practice to remove fines and maximize well efficiency and specific capacity. Addition of freshwater and treatment agents may be utilized during well development or re-development to remove drilling fluids, inorganic scale or bacterial slime. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All such additives shall be removed to the extent practicable during well development.

11. Each well shall be secured and/or designed to maintain the integrity of the well borehole and groundwater.
12. The Permittee shall protect the above-ground portion of the well by bumper guards and/or metal outer casing protection when wells are located in traffic areas or outside the secured plant area.

13. The attached Table of Well Construction Details is to be completed or updated for each well installed and kept on site. Items in the table that require a yes or no answer indicate diagrams, plans, or procedures that shall be kept on site and made available to inspection. The completed table and other records shall include all of the following information:

- name/number of well (well designation);
- intended use of the well (sampling, recovery, etc.);
- date/time of construction;
- drilling method and drilling fluid used;
- well location (± 0.5 ft.);
- borehole diameter and well casing diameter;
- well depth (± 0.1 ft.);
- drilling and lithologic logs;
- depth to first saturated zone;
- casing materials;
- screen materials and design;
- casing and screen joint type;
- screen slot size/length;
- filter pack material/size;
- filter pack volume (how many bags, buckets, etc.);
- filter pack placement method;
- sealant materials;
- sealant volume (how many bags, buckets, etc.);
- sealant placement method;
- surface seal design/construction;
- well development procedure;
- type of protective well cap;
- ground surface elevation (± 0.01 ft. MSL);
- top of casing elevation (± 0.01 ft. MSL); and,
- detailed drawing of well (include dimensions).

14. The Permittee shall clearly mark and maintain the well number on each well at the site.

15. The Permittee shall measure and keep a record of the elevation of the top of each well casing in feet above mean sea level to the nearest 0.01 foot and permanently mark the measuring point on the well. The Permittee shall compare old and new elevations from previously surveyed wells and determine a frequency of surveying not to exceed five (5) year intervals.

16. A well's screened interval shall be appropriately designed and installed to meet the well's specific objective (i.e., recovery of either DNAPL, LNAPL, or both, or other objective of the well). All wells designed to detect, monitor, or recover DNAPL must be drilled to intercept the bottom confining layer of the aquifer. The screened interval to detect DNAPL should extend from the top of the lower confining layer to above the portion of the aquifer saturated with DNAPL. The screened interval for all wells designed to detect, monitor, or recover LNAPL must extend high enough into the vadose zone to provide for fluctuations in the seasonal water table. In addition, the filter pack for the recovery or monitoring well's screened interval shall be coarser than surrounding media to ensure the movement of NAPL to the well.

Certification, Plugging and Abandonment Procedures

17. Prior to installation of a Point of Compliance (POC), FOA Boundary of Compliance (FBOC), Point of Exposure (POE), Alternate Point of Exposure (APOE) or Background replacement well listed in CP Table V, the Permittee shall submit to the Executive Director for approval, the replacement well specifications and an explanation of why the well is being replaced. For any such well to be considered as a replacement well and not as a new well, the well shall have no substantive design changes from the well being replaced as determined by the Executive Director. The well shall be drilled within fifteen

(15) feet of the well being replaced unless an alternate location is authorized by the Executive Director. The Permittee shall submit a replacement well certification to the Executive Director in accordance with CP Table VII and CP Attachment C, Provision 19.

18. Plugging and abandonment of a Corrective Action System Background, POC, FBOC, POE, and/or APOE wells in Provision XI.B.1, shall be subject to the Compliance Plan modification provisions in 30 TAC Chapter 305 Subchapter D. Plugging and abandonment of Corrective Action Observation, Corrective Action System and/or Attenuation Monitoring Point wells in Provision XI.B.2, shall commence upon written approval of the Executive Director. The well shall be plugged and abandoned in accordance with requirements of this Attachment C. The Permittee shall certify proper plugging and abandonment in accordance with CP Table VII and CP Attachment C, Provision 19.
19. The Permittee shall complete construction or plugging and abandonment of each well in accordance with the requirements of this Permit and 16 TAC Chapter 76 and shall certify such proper construction or plugging and abandonment in the first report submitted pursuant to CP Table VII following installation or plugging and abandonment. Copies of the State of Texas Plugging Report filed with the Texas Department of Licensing and Regulation and completion logs for each newly installed or replaced well shall be included with the report. The certification shall be prepared by a qualified geoscientist or engineer. Each well certification shall be accompanied by a certification report, including an accurate log of the soil boring, which thoroughly describes and depicts the location, elevations, material specifications, construction details, and soil conditions encountered in the boring for the well. A copy of the certification and certification report shall be kept on-site, and a second copy shall be submitted to the Executive Director. Required certification shall be in the following format, edited as appropriate, and shall specify the Compliance Plan Number as indicated:

"This is to certify that installation (or plugging and abandonment) of the following facility components authorized or required by TCEQ Permit No. (Insert Permit number) has been completed, and that construction (or plugging) of said components has been performed in accordance with and in compliance with the design and construction specifications of this Permit No. (Insert Permit number):"
(Add description of facility components with reference to applicable Compliance Plan provisions).
20. Wells may be replaced at any time the Permittee or Executive Director determines that the well integrity or materials of construction or well placement no longer enable the well to yield samples representative of groundwater quality.
21. The Permittee shall plug soil test borings and wells removed from service after issuance of the Compliance Plan with a cement/bentonite grout mixture so as to prevent the preferential migration of fluids in the area of the borehole. Certification of each plugging shall be reported in accordance with Provision 19 of CP Attachment C of this Compliance Plan. The plugging of wells shall be in accordance with 16 TAC Chapter 76 dealing with Well Drilling, Completion, Capping and Plugging.

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Well number	PMW-19R	MW-45	LMW-8
Hole diameter (in)	7.75	8.25	6
Well diameter (in)	2	2	2
Total borehole depth (ft)	20.0	20.0	22.0
Constructed well depth (ft)	19.0	20.0	22.0
Well location available (Y/N)	Yes	Yes	Yes
Intended Use of Well (sampling, recovery, etc.)	North CAMU Background	North CAMU Background	North CAMU Corrective Action Monitoring/APOE
Drilling & lithologic logs available (Y/N)	Yes	Yes	Yes
Drill method	Hollow stem auger	Hollow stem auger	Hollow stem auger
Date drilled	02/26/2013	01/07/2014	02/04/1995
Casing I.D.(in)	2	2	2
Casing type/materials	Sch 40 FJT PVC	Sch 40 PVC	Sch 40 PVC
How joined	Threaded	Threaded	Threaded
Stick-up length	3.34	2.96	3.11
Top of casing (+0.01 MSL)	681.79	660.86	648.72
Ground surface elevation (+0.01 MSL)	678.45	657.90	645.57
Capped/lockable	Yes	Yes	Yes
Surface pad size(ft)	2.9 ft. x 3 ft.	3.9 ft. x 3.9 ft.	4 ft. x 4 ft.
Detailed drawing of well (include dimensions) Y/N	No	Yes	Yes
Depth to surface seal(ft)	0.5	1.5 (Driller indicated 2.0, to be reconciled)	0.0
Surface seal design & construction available (Y/N)	Yes	Yes	Yes
Well development procedure available (Y/N)	No	Yes	No
Annulus fill	Bentonite grout	Not applicable	Cement/bentonite grout
Depth to annulus seal(ft)	1.0	Not applicable	3.0
Depth to gravel pack(ft)	Not applicable	Not applicable	Not applicable
Depth to 1st saturated zone	Not available	Not available	10.0
Length of gravel pack(ft)	Not applicable	Not applicable	Not applicable
Size-gravel pack	Not applicable	Not applicable	Not applicable
Filter pack volume (how many bags, buckets, etc.)	Not available	350 lbs	Not available
Filter pack placement method	Not available	Not available	Not available
Depth to screen(ft)	4.0	10.0	7.0
Sealant materials	Bentonite hole plug	Bentonite chips	Bentonite
Sealant volume (how many bags, buckets, etc.)	Not available	100 lbs	Not available
Sealant placement method	Not available	Not available	Not available
Screen slot size/length(in)	0.010	0.010	0.01
Screen type	Sch 40 FJT PVC	Sch 40 PVC slotted	Sch 40 PVC machine slot
Screen length(ft)	15	10.0	14.5
Blank length(ft)	Not available	Not available	0.5
Dev. method	Not available	Pump and surge	Not available
Well coordinates (lat & long)	Latitude: 33.145220 Longitude: -96.825695	Latitude: 33.145934 Longitude: -96.827698	Latitude: 33.143110 Longitude: -96.826061

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Well number	LMW-9R	LMW-5	LMW-17
Hole diameter (in)	7	6	8
Well diameter (in)	2	2	4
Total borehole depth (ft)	30	22.0	23.0
Constructed well depth (ft)	30	22.0	23.0
Well location available (Y/N)	Yes	Yes	Yes
Intended Use of Well (sampling, recovery, etc.)	North CAMU Corrective Action Point of Compliance//APOE	North CAMU Corrective Action Point of Compliance//APOE	North CAMU Corrective Action Point of Compliance//AMP
Drilling & lithologic logs available (Y/N)	Yes	Yes	Yes
Drill method	Hollow stem auger	Hollow stem auger	Hollow stem auger
Date drilled	03/01/2016	02/03/1995	07/21/1995
Casing I.D.(in)	2	2	4
Casing type/materials	Sch 40 PVC	Sch 40 PVC	Sch 40 PVC
How joined	Threaded	Threaded	Threaded
Stick-up length	2.92	3.34	2.50
Top of casing (+0.01 MSL)	664.31	646.07	648.70
Ground surface elevation (+0.01 MSL)	661.39	643.27	646.34
Capped/lockable	Yes	Yes	Yes
Surface pad size(ft)	2.8 ft. x 2.84 ft.	3.8 ft. x 3.8 ft.	3.1 ft. x 3.3 ft.
Detailed drawing of well (include dimensions) Y/N	Yes	Yes	Yes
Depth to surface seal(ft)	3.0	0.0	0.0
Surface seal design & construction available (Y/N)	Yes	Yes	Yes
Well development procedure available (Y/N)	Yes	No	No
Annulus fill	Not applicable	Cement/bentonite grout	Cement/bentonite grout
Depth to annulus seal(ft)	Not applicable	3.0	6.0
Depth to gravel pack(ft)	Not applicable	Not applicable	Not applicable
Depth to 1st saturated zone	Not available	10.0	10.0
Length of gravel pack(ft)	Not applicable	Not applicable	Not applicable
Size-gravel pack	Not applicable	Not applicable	Not applicable
Filter pack volume (how many bags, buckets, etc.)	Eight 50-lb bags	Not available	Not available
Filter pack placement method	Gravity fed	Not available	Not available
Depth to screen(ft)	15	7.0	10.0
Sealant materials	Bentonite	Bentonite	Bentonite
Sealant volume (how many bags, buckets, etc.)	Three 50-lb bags	Not available	Not available
Sealant placement method	Not Available	Not available	Not available
Screen slot size/length(in)	0.010	0.01	0.01
Screen type	Sch 40 PVC	Sch 40 machine slot PVC	Sch 40 machine slot PVC
Screen length(ft)	15	14.5	10.0
Blank length(ft)	Not available	0.5	Not available
Dev. method	Pump and surge	Not available	Not available
Well coordinates (lat & long)	Latitude: 33.144094 Longitude: -96.825896	Latitude: 33.143514 Longitude: -96.828159	Latitude: 33.143323 Longitude: -96.827067

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Well number	PMW-20R	LMW-21	LMW-22
Hole diameter (in)	7.75	7.75	7.75
Well diameter (in)	2	2	2
Total borehole depth (ft)	25.0	25.0	20.0
Constructed well depth (ft)	25.0	25.0	20.0
Well location available (Y/N)	Yes	Yes	Yes
Intended Use of Well (sampling, recovery, etc.)	North CAMU /Observation	North CAMU/Observation	North CAMU Corrective Action Point of Compliance/AMP
Drilling & lithologic logs available (Y/N)	Yes	Yes	Yes
Drill method	Hollow stem auger	Hollow stem auger	Hollow stem auger
Date drilled	02/26/2013	02/27/2013	02/27/2013
Casing I.D.(in)	2	2	2
Casing type/materials	Sch 40 FJT PVC	Sch 40 FJT PVC	Sch 40 FJT PVC
How joined	Threaded	Threaded	Threaded
Stick-up length	2.89	3.16	3.67
Top of casing (+0.01 MSL)	648.09	648.28	646.99
Ground surface elevation (+0.01 MSL)	645.2	645.11	643.32
Capped/lockable	Yes	Yes	Yes
Surface pad size(ft)	2.8 ft. x 2.8 ft.	2.8 ft. x 2.8 ft.	2.8 ft. x 2.8 ft.
Detailed drawing of well (include dimensions) Y/N	No	No	No
Depth to surface seal(ft)	2.0	2.0	0.5
Surface seal design & construction available (Y/N)	Yes	Yes	Yes
Well development procedure available (Y/N)	Yes	Yes	Yes
Annulus fill	Bentonite grout	Bentonite grout	Bentonite grout
Depth to annulus seal(ft)	2.0	2.0	0.5
Depth to gravel pack(ft)	Not applicable	Not applicable	Not applicable
Depth to 1st saturated zone	19.5	15.8	Not Available
Length of gravel pack(ft)	Not applicable	Not applicable	Not applicable
Size-gravel pack	Not applicable	Not applicable	Not applicable
Filter pack volume (how many bags, buckets, etc.)	Not available	Not available	Not available
Filter pack placement method	Not available	Not available	Not available
Depth to screen(ft)	10.0	10.0	5.0
Sealant materials	Bentonite hole plug	Bentonite hole plug	Bentonite hole plug
Sealant volume (how many bags, buckets, etc.)	Not available	Not available	Not available
Sealant placement method	Not available	Not available	Not available
Screen slot size/length(in)	0.010	0.010	0.010
Screen type	Sch 40 FJT PVC	Sch 40 FJT PVC	Sch 40 FJT PVC
Screen length(ft)	15.0	15.0	15.0
Blank length(ft)	Not available	Not available	Not available
Dev. method	Pump (typhoon) and surge	Pump (typhoon) and surge	Pump (typhoon) and surge
Well coordinates (lat & long)	Latitude: 33.144417 Longitude: -96.828619	Latitude: 33.143996 Longitude: -96.828400	Latitude: 33.143120 Longitude: -96.827581

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Well number	MW-41	MW-42	MW-47
Hole diameter (in)	8.25	8.25	4
Well diameter (in)	2	2	2
Total borehole depth (ft)	17.0	15.0	15.0
Constructed well depth (ft)	16.0	15.0	15.0
Well location available (Y/N)	Yes	Yes	Yes
Intended Use of Well (sampling, recovery, etc.)	North CAMU Corrective Action Monitoring/ /APOE	North CAMU Corrective Action Monitoring/ /APOE	North CAMU Corrective Action Monitoring/AMP
Drilling & lithologic logs available (Y/N)	Yes	Yes	Yes
Drill method	Hollow stem auger	Hollow stem auger	Hollow stem auger/CME 75
Date drilled	01/08/2014	01/14/2014	05/02/2017
Casing I.D.(in)	2	2	2
Casing type/materials	Sch 40 PVC	Sch 40 PVC	Sch 40 PVC
How joined	Threaded	Threaded	Threaded
Stick-up length	3.03	3.53	3
Top of casing (+0.01 MSL)	642.17	642.24	638.28
Ground surface elevation (+0.01 MSL)	639.14	638.71	635.65
Capped/lockable	Yes	Yes	Yes
Surface pad size(ft)	3 ft. x 3 ft.	2.9 ft. x 2.9 ft.	3 ft. x 3 ft.
Detailed drawing of well (include dimensions) Y/N	Yes	Yes	Yes
Depth to surface seal(ft)	1.5 (Driller indicated 2.0, to be reconciled)	1.5 (Driller indicated 2.0, to be reconciled)	1
Surface seal design & construction available (Y/N)	Yes	Yes	Yes
Well development procedure available (Y/N)	Yes	Yes	Yes
Annulus fill	Not applicable	Not applicable	Not applicable
Depth to annulus seal(ft)	Not applicable	Not applicable	Not applicable
Depth to gravel pack(ft)	Not applicable	Not applicable	Not applicable
Depth to 1st saturated zone	10.0	10.0	6
Length of gravel pack(ft)	Not applicable	Not applicable	Not applicable
Size-gravel pack	Not applicable	Not applicable	Not applicable
Filter pack volume (how many bags, buckets, etc.)	325 lbs	300 lbs	3.5 bags
Filter pack placement method	Not available	Not applicable	Not available
Depth to screen(ft)	6.0	5.0	7.5
Sealant materials	Bentonite chips	Bentonite Chips	Bentonite chips
Sealant volume (how many bags, buckets, etc.)	50 lbs	50 lbs	3.5 bags
Sealant placement method	Not available	3.0	Not available
Screen slot size/length(in)	0.010	0.010	0.010
Screen type	2" Sch 40 PVC	2" Sch 40 PVC	2" Sch 40 PVC
Screen length(ft)	10.0	10.0	7.5
Blank length(ft)	Not available	Not available	Not available
Dev. method	Pump and surge	Pump and surge	Pump and surge
Well coordinates (lat & long)	Latitude: 33.142588 Longitude: -96.828512	Latitude: 33.142567 Longitude: -96.826428	Latitude: 33.1428084 Longitude: -96.8277614

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Well number	B3R	B4R	B7N
Hole diameter (in)	8.25	8.25	8.25
Well diameter (in)	4.0	4.0	4.0
Total borehole depth (ft)	14.0	9.0	25.0
Constructed well depth (ft)	14.0	9.0	24.0
Well location available (Y/N)	Yes	Yes	Yes
Intended Use of Well (sampling, recovery, etc.)	FOP (SDA)/observation	FOP (SDA)/observation	FOP Corrective Action Monitoring/POC/APOE
Drilling & lithologic logs available (Y/N)	Yes	Yes	Yes
Drill method	Hollow stem auger	Hollow stem auger	Hollow stem auger
Date drilled	07/21/1990	07/11/1990	05/10/1990
Casing I.D.(in)	4.0	4.0	4.0
Casing type/materials	Sch 40 PVC	Sch 40 PVC	Sch 40 PVC
How joined	Threaded	Threaded	Threaded
Stick-up length	1.16	1.36	1.24
Top of casing (+0.01 MSL)	650.23	664.58	648.60
Ground surface elevation (+0.01 MSL)	649.23	661.40	644.08
Capped/lockable	Yes	Yes	Yes
Surface pad size(ft)	3 ft. x 3 ft.	3 ft. x 3 ft.	3.9 ft. x 3.9 ft.
Detailed drawing of well (include dimensions) Y/N	Yes	Yes	Yes
Depth to surface seal(ft)	1.0	1.0	1.0
Surface seal design & construction available (Y/N)	Yes	Yes	Yes
Well development procedure available (Y/N)	Yes	Yes	Yes
Annulus fill	Bentonite/Cement Grout	Bentonite/Cement Grout	Bentonite/Cement Grout
Depth to annulus seal(ft)	1.0	1.0	11.0
Depth to gravel pack(ft)	3.0	3.0	13.0
Depth to 1st saturated zone	Not available	Not available	Not available
Length of gravel pack(ft)	11.0	6.0	12.0
Size-gravel pack	Not available	Not available	Not available
Filter pack volume (how many bags, buckets, etc.)	Not available	Not available	Not available
Filter pack placement method	Not available	Not available	Not available
Depth to screen(ft)	4.0	4.0	14.0
Sealant materials	Pelletized Bentonite	Pelletized Bentonite	Pelletized Bentonite
Sealant volume (how many bags, buckets, etc.)	Not available	Not available	Not available
Sealant placement method	Not available	Not available	Not available
Screen slot size/length(in)	0.010	0.010	0.010
Screen type	Sch 40 PVC slotted	Sch 40 PVC slotted	Sch 40 PVC
Screen length(ft)	10.0	5.0	10.0
Blank length(ft)	Not available	Not available	Not available
Dev. method	Not available	Waterra (hand pump)	Not available
Well coordinates (lat & long)	Latitude: 33.139319 Longitude: -96.828565	Latitude: 33.139111 Longitude: -96.829010	Latitude: 33.141929 Longitude: -96.826521

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Well number	B9N	DGW-MW-9	MW-10
Hole diameter (in)	8.25	7.25	8.25
Well diameter (in)	4.0	2.0	4.00
Total borehole depth (ft)	18.0	25.0	19.0
Constructed well depth (ft)	17.0	25.0	17.0
Well location available (Y/N)	Yes	Yes	Yes
Intended Use of Well (sampling, recovery, etc.)	FOP Corrective Action Monitoring/POC/APOE	FOP Corrective Action Monitoring/POC/APOE	FOP Corrective Action Monitoring/Background (Upgradient)
Drilling & lithologic logs available (Y/N)	Yes	Yes	Yes
Drill method	Hollow stem auger	Hollow stem auger	Hollow stem auger
Date drilled	06/12/1990	05/16/2018	06/13/1990
Casing I.D.(in)	4.0	2.0	4.0
Casing type/materials	Sch 40 PVC	Sch 40 PVC	Sch 40 PVC
How joined	Threaded	Threaded	Threaded
Stick-up length	1.23	2.59	Not Applicable
Top of casing (+0.01 MSL)	640.61	644.81	644.80
Ground surface elevation (+0.01 MSL)	637.02	642.22	645.12
Capped/lockable	Yes	Yes	Yes
Surface pad size(ft)	4 ft. x 4 ft.	2.9 ft. x 3 ft.	3.8 ft. x 3.8 ft.
Detailed drawing of well (include dimensions) Y/N	Yes	Yes	Yes
Depth to surface seal(ft)	1.0	2	1.0
Surface seal design & construction available (Y/N)	Yes	Yes	Yes
Well development procedure available (Y/N)	Yes	Yes	Yes
Annulus fill	Bentonite/Cement Grout	Bentonite Plug	Bentonite/Cement Grout
Depth to annulus seal(ft)	4.0	2	4.0
Depth to gravel pack(ft)	6.0	8.0	6.0
Depth to 1st saturated zone	Not available	16.0	Not available
Length of gravel pack(ft)	12.0	17.0	13.0
Size-gravel pack	Not available	16/30	Not available
Filter pack volume (how many bags, buckets, etc.)	Not available	350 lbs	Not available
Filter pack placement method	Not available	Not available	Not available
Depth to screen(ft)	7.0	10.2	7.0
Sealant materials	Pelletized Bentonite	Bentonite Plug	Pelletized Bentonite
Sealant volume (how many bags, buckets, etc.)	Not available	125 lbs	Not available
Sealant placement method	Not available	Not available	Not available
Screen slot size/length(in)	0.010	0.010	0.010
Screen type	Sch 40 PVC	Sch 40 PVC	Sch 40 PVC
Screen length(ft)	10.0	14.5	10.0
Blank length(ft)	Not available	0.5	Not available
Dev. method	Not available	Stainless Steel Bailer and Monsoon Pump	Not available
Well coordinates (lat & long)	Latitude: 33.142363 Longitude: -96.828571	Latitude: 33.1400275 Longitude: -96.8266602	Latitude: 33.1406346 Longitude: -96.8256360

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Well number	MW-17	MW-18	MW-21
Hole diameter (in)	8.25	8.25	7.75
Well diameter (in)	4.0	4.0	2
Total borehole depth (ft)	19.0	18.0	15
Constructed well depth (ft)	17.0	15.5	13
Well location available (Y/N)	Yes	Yes	Yes
Intended Use of Well (sampling, recovery, etc.)	FOP Corrective Action Monitoring/POC/APOE	FOP Corrective Action Monitoring/POC/APOE	FOP Corrective Action Monitoring/POC/APOE
Drilling & lithologic logs available (Y/N)	Yes	Yes	Yes
Drill method	Hollow stem auger	Hollow stem auger	Direct Push/Hollow Stem Auger
Date drilled	6/7/1990	6/12/1990	3/5/2013
Casing I.D.(in)	4	4	2
Casing type/materials	Sch 40 PVC	Sch 40 PVC	Sch 40 FJT PVC
How joined	Threaded	Threaded	Threaded
Stick-up length	0.56	1.29	2.33
Top of casing (+0.01 MSL)	629.00	633.00	635.99
Ground surface elevation (+0.01 MSL)	628.58	631.84	633.66
Capped/lockable	Yes	Yes	Yes
Surface pad size(ft)	3.1 ft. x 3.3 ft.	3 ft. x 3 ft.	2.9 ft. x 2.9 ft.
Detailed drawing of well (include dimensions) Y/N	Yes	Yes	Yes
Depth to surface seal(ft)	1.0	1.0	1.0
Surface seal design & construction available (Y/N)	Yes	Yes	Yes
Well development procedure available (Y/N)	Yes	Yes	Yes
Annulus fill	Not applicable	Not applicable	Not applicable
Depth to annulus seal(ft)	3.0	2.5	1.0
Depth to gravel pack(ft)	5.0	4.5	2.5
Depth to 1st saturated zone	Not available	Not available	Not available
Length of gravel pack(ft)	13.0	13.5	12.5
Size-gravel pack	Not available	Not available	20/40 Silica Sand
Filter pack volume (how many bags, buckets, etc.)	Not available	Not available	Not available
Filter pack placement method	Not available	Not available	Not available
Depth to screen(ft)	7.0	5.5	3.0
Sealant materials	Pelletized Bentonite	Pelletized Bentonite	Bentonite Hole Plug
Sealant volume (how many bags, buckets, etc.)	Not available	Not available	Not available
Sealant placement method	Not available	Not available	Not available
Screen slot size/length(in)	0.01	0.01	0.01
Screen type	Sch 40 PVC	Sch 40 PVC	Sch 40 FJT PVC
Screen length(ft)	10	10	10
Blank length(ft)	Not available	Not available	Not available
Dev. method	Not available	Not available	Pump and surge
Well coordinates (lat & long)	Latitude: 33.140951 Longitude: -96.830061	Latitude: 33.141976 Longitude: -96.830915	Latitude: 33.142091 Longitude: -96.827158

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Well number	MW-22	MW-23	MW-26
Hole diameter (in)	7.75	7.75	7.75
Well diameter (in)	2	2	2
Total borehole depth (ft)	15	20	15
Constructed well depth (ft)	13	19.5	15
Well location available (Y/N)	Yes	Yes	Yes
Intended Use of Well (sampling, recovery, etc.)	FOP Corrective Action Monitoring/POC/APOE	FOP Corrective Action Monitoring/APOE (Upgradient)	FOP Corrective Action Monitoring/POC/APOE
Drilling & lithologic logs available (Y/N)	Yes	Yes	Yes
Drill method	Direct Push/Hollow Stem Auger	Direct Push/Hollow Stem Auger	Hollow Stem Auger
Date drilled	3/5/2013	3/5/2013	3/6/2013
Casing I.D.(in)	2	2	2
Casing type/materials	Sch 40 FJT PVC	Sch 40 FJT PVC	Sch 40 FJT PVC
How joined	Threaded	Threaded	Threaded
Stick-up length	3.60	Not applicable	3.59
Top of casing (+0.01 MSL)	636.89	644.15	631.93
Ground surface elevation (+0.01 MSL)	633.29	644.32	628.34
Capped/lockable	Yes	Yes	Yes
Surface pad size(ft)	2 ft diameter circle	2.8 ft. x 3 ft.	2 ft. diameter circle
Detailed drawing of well (include dimensions) Y/N	Yes	Yes	Yes
Depth to surface seal(ft)	1.0	2.0	2.0
Surface seal design & construction available (Y/N)	Yes	Yes	Yes
Well development procedure available (Y/N)	Yes	Yes	Yes
Annulus fill	Not applicable	Not applicable	Not applicable
Depth to annulus seal(ft)	1.0	2.0	2.0
Depth to gravel pack(ft)	2.5	3.5	4.0
Depth to 1st saturated zone	Not available	Not available	Not available
Length of gravel pack(ft)	12.5	16.0	11.0
Size-gravel pack	20/40 Silica Sand	20/40 Silica Sand	20/40 Silica Sand
Filter pack volume (how many bags, buckets, etc.)	Not available	Not available	Not available
Filter pack placement method	Not available	Not available	Not available
Depth to screen(ft)	3.0	4.5	5.0
Sealant materials	Bentonite Hole Plug	Bentonite Hole Plug	Bentonite Hole Plug
Sealant volume (how many bags, buckets, etc.)	Not available	Not available	Not available
Sealant placement method	Not available	Not available	Not available
Screen slot size/length(in)	0.01	0.01	0.01
Screen type	Sch 40 FJT PVC	Sch 40 FJT PVC	Sch 40 FJT PVC
Screen length(ft)	10	15	10
Blank length(ft)	Not available	Not available	Not available
Dev. method	Pump and surge	Pump and surge	Disposable bailer
Well coordinates (lat & long)	Latitude: 33.141896 Longitude: -96.828613	Latitude: 33.140996 Longitude: -96.826268	Latitude: 33.140321 Longitude: -96.829199

Table of Well Construction Details (Item 13) (Page 13 of 13)

Well number	MW-27	MW-29	MW-44
Hole diameter (in)	7.75	7.75	8.25
Well diameter (in)	2	2	2
Total borehole depth (ft)	15	15	15
Constructed well depth (ft)	15	14.5	15
Well location available (Y/N)	Yes	Yes	Yes
Intended Use of Well (sampling, recovery, etc.)	FOP Corrective Action Monitoring/POC/APOE	FOP Corrective Action Monitoring/POC/APOE	FOP Corrective Action Monitoring/POC/APOE
Drilling & lithologic logs available (Y/N)	Yes	Yes	Yes
Drill method	Direct Push/Hollow Stem Auger	Direct Push/Hollow Stem Auger	Hollow stem auger
Date drilled	3/6/2013	3/6/2013	1/14/2014
Casing I.D.(in)	2	2	2
Casing type/materials	Sch 40 FJT PVC	Sch 40 FJT PVC	Sch 40 PVC
How joined	Threaded	Threaded	Threaded
Stick-up length	3.53	4.12	3.17
Top of casing (+0.01 MSL)	633.42	633.51	637.50
Ground surface elevation (+0.01 MSL)	629.89	629.39	634.33
Capped/lockable	Yes	Yes	Yes
Surface pad size(ft)	2 ft. diameter circle	2' diameter circle	3 ft. x 3 ft.
Detailed drawing of well (include dimensions) Y/N	Yes	Yes	Yes
Depth to surface seal(ft)	2.0	2.0	1.5 (Driller indicated 2.0, to be reconciled)
Surface seal design & construction available (Y/N)	Yes	Yes	Yes
Well development procedure available (Y/N)	Yes	Yes	Yes
Annulus fill	Not applicable	Not applicable	Not applicable
Depth to annulus seal(ft)	2.0	2.0	1.5
Depth to gravel pack(ft)	4.0	4.0	3.0
Depth to 1st saturated zone	Not available	Not available	Not available
Length of gravel pack(ft)	11.0	10.5	12.0
Size-gravel pack	20/40 Silica Sand	20/40 Silica Sand	20/40 Silica Sand
Filter pack volume (how many bags, buckets, etc.)	Not available	Not available	325 lbs
Filter pack placement method	Not available	Not available	Not available
Depth to screen(ft)	5.0	4.5	5.0
Sealant materials	Bentonite Hole Plug	Bentonite Hole Plug	Bentonite chips
Sealant volume (how many bags, buckets, etc.)	Not available	Not available	50 lbs
Sealant placement method	Not available	Not available	Not available
Screen slot size/length(in)	0.01	0.01	0.01
Screen type	Sch 40 FJT PVC	Sch 40 FJT PVC	Sch 40 PVC
Screen length(ft)	10	10	10
Blank length(ft)	Not available	Not available	Not available
Dev. method	Pump and surge	Disposable bailer	Pump and surge
Well coordinates (lat & long)	Latitude: 33.139782 Longitude: -96.827955	Latitude: 33.139974 Longitude: -96.828665	Latitude: 33.139727 Longitude: -96.827010

Attachment A

Legal Description of Facility

DRAFT

STATE OF TEXAS
COUNTY OF COLLIN

DESCRIPTION OF LOT 2 BLOCK A STEWART CREEK BUSINESS PARK ADDITION

BEING part of a 55.48 acre tract of land situated in the L.H. McNeil SURVEY, Abstract No. 618, City of Frisco, Collin County, Texas, said tract described in Collin County Deed Record Volume 2034, Page 751, dated 11/8/84, Collin County, Texas, and being Lot 2, Block A of a Conveyance Plat of the Stewart Creek Business Park Addition, as recorded in Cabinet 2019, Page 121 of the Plat Records of Collin County, Texas, dated 2/19/2019, and more particularly described as follows:

COMMENCING from a 3/4" pipe found for the southwest corner of the tract of land described above, said pipe also being in the eastern one hundred foot (100') Right of Way of Burlington Northern Rail Road according to Collin County Deed Record Volume 121, Page 20, Collin County, Texas, said pipe also being in the northwest corner of a tract of land described in Collin County Deed Record Volume 3154, Page 520, dated 10/25/89, Collin County, Texas;

THENCE South 24°02'29" West, 8.59 feet to a point for corner, said point also being the POINT OF BEGINNING;

THENCE North 24°02'29" East, 816.58 feet along the eastern Right of Way of Burlington Northern Rail Road according to Collin County Deed Record Volume 121, Page 20, Collin County, Texas to an 1/2" Iron Rod with cap stamped RPLS 6079 set for corner;

THENCE South 46°28'37" East, 473.74 feet to an 1/2" Iron Rod with cap stamped RPLS 6079 set for corner;

THENCE South 05°11'33" West, 476.21 feet to an 1/2" Iron Rod with cap stamped RPLS 6079 set for corner;

THENCE North 85°03'27" West, 635.44 feet to a point for the POINT OF BEGINNING and containing 7.66 acres of land, more or less.

THIS description is based on the Land Title Survey and Survey Plat made by Dan Franke, Registered Professional Surveyor #6079, on February 20, 2019.

BASIS OF BEARINGS:

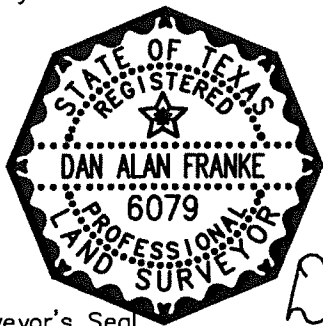
Bearings are based on the City of Frisco Geodetic Control Monuments Nos. 1 & C263 and on the State Plane Nad 83 coordinates established by RTK method using Geoshack Data RTK Network.

EASEMENTS RECORDED IN THE FOLLOWING VOLUMES AND PAGES DO NOT AFFECT THE ABOVE DESCRIBED PROPERTY: VOL. 467, PG. 361; VOL. 1715, PG. 504, VOL. 252, PG. 341;

EASEMENTS RECORDED IN THE FOLLOWING VOLUMES AND PAGES ARE NOT LOCATABLE BECAUSE OF THE VAGUENESS OF THE DESCRIPTION: VOL. 644, PG. 306;

SURVEYOR'S CERTIFICATE

The undersigned Registered Professional Land Surveyor (Dan Franke) does hereby certifies to the Frisco Community Development Cooperation, Reunion Title Company and First American Title Insurance Company, in connection with the transaction described in G.F. # 2018-16473 that this description correctly represents the facts found at the time of survey and that this professional service conforms to the current Texas Surveyor's Association Standards and Specifications for a Category 1A, Condition II Survey."



Surveyor's Seal

Dan Franke

RPLS # 6079
Date: 2-20-2019

Signature and Texas Registration Number **SHEET 2 of 2**

NOTE: A GRAPHICAL DEPICTION OF EVEN DATE ACCOMPANIES THIS DESCRIPTION.

CITY OF FRISCO
11300 RESEARCH RD. (972) 292-5821
FRISCO, TX. 75033 FX. (972) 731-4960

PATH: C:\JOBS\EXIDE1\Lot2 -Block A - Legal.DWG

DRAWN: CAD
DATE: 2/20/19

BASIS OF BEARING:

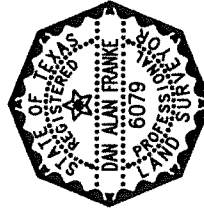
Bearings are based on the City of Frisco Geodetic Control Monuments Nos. 1 & C263 and on the State Plane Nad 83 coordinates established by RTK method using Geoshack Data RTK Network.

NOTE: A METES & BOUNDS DESCRIPTION OF EVEN DATE ACCOMPANIES THIS EXHIBIT.



SURVEYOR'S CERTIFICATE

The undersigned Registered Professional Land Surveyor (Dan Franke) does hereby certify to the Frisco Community Development Corporation, Reunion Title Company and First American Title Insurance Company, in connection with the transaction described in G.F. # 2018-16473 that this survey was made on the ground, that this plat (map drawing) correctly represents the facts found at the time of survey and that this professional service conforms to the current Texas Surveyor's Association Standards and Specifications for a Category 1A, Condition II Survey. The property is located in Zone AE or in an identified "Flood Prone Area" as defined by Flood Insurance Rate Map (FIRM) Map No. 48085C0240K, dated June 7, 2017, prepared by Federal Emergency Management Agency (FEMA) for Collin County, Texas.

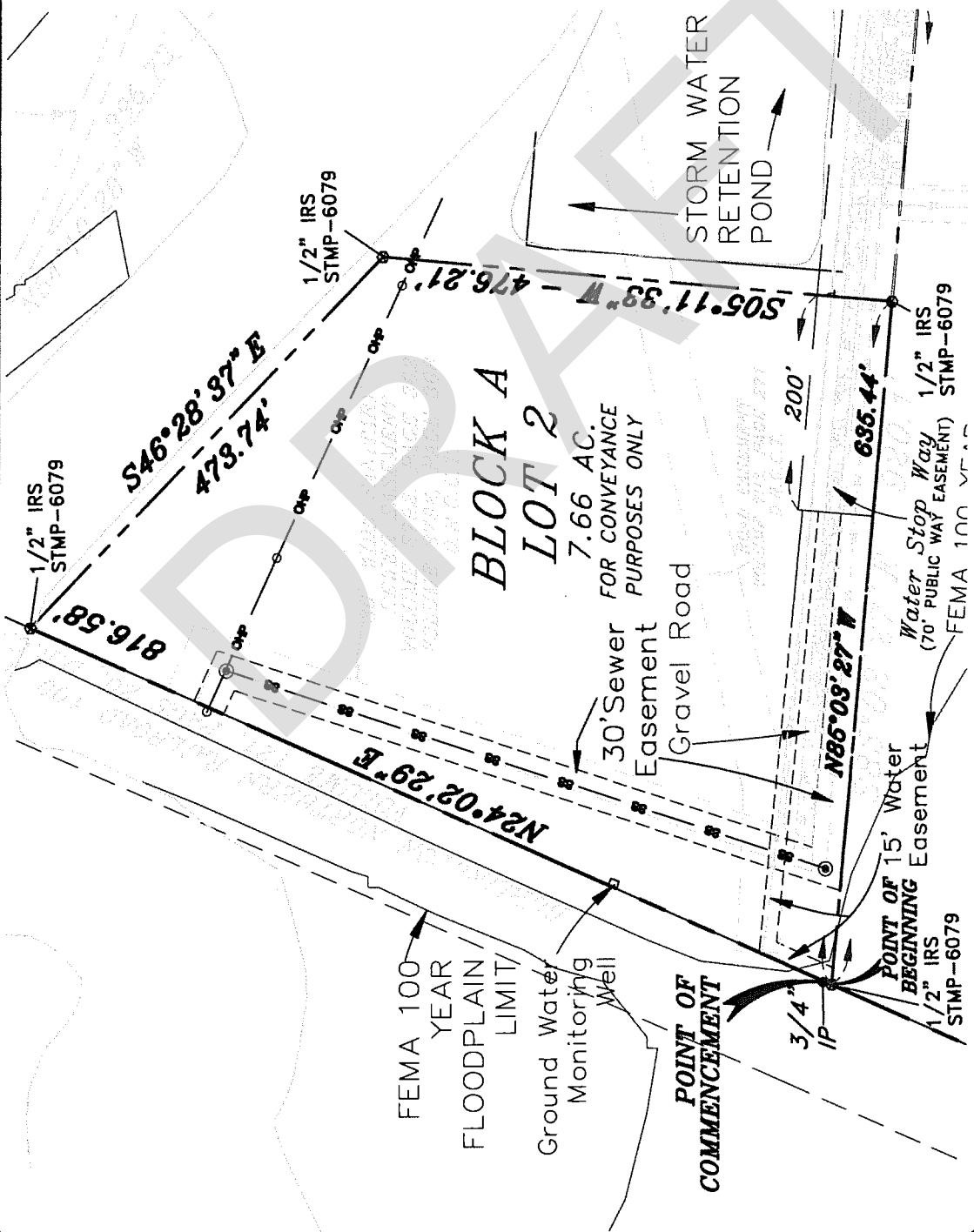


RPLS #6079
Date: 2-20-2019

Dan Franke
Signature and Texas Registration Number

Surveyor's Seal

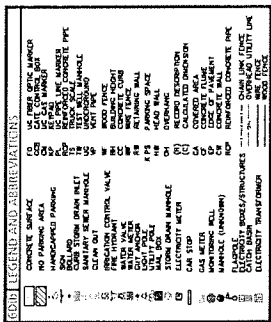
SHEET 1 of 2

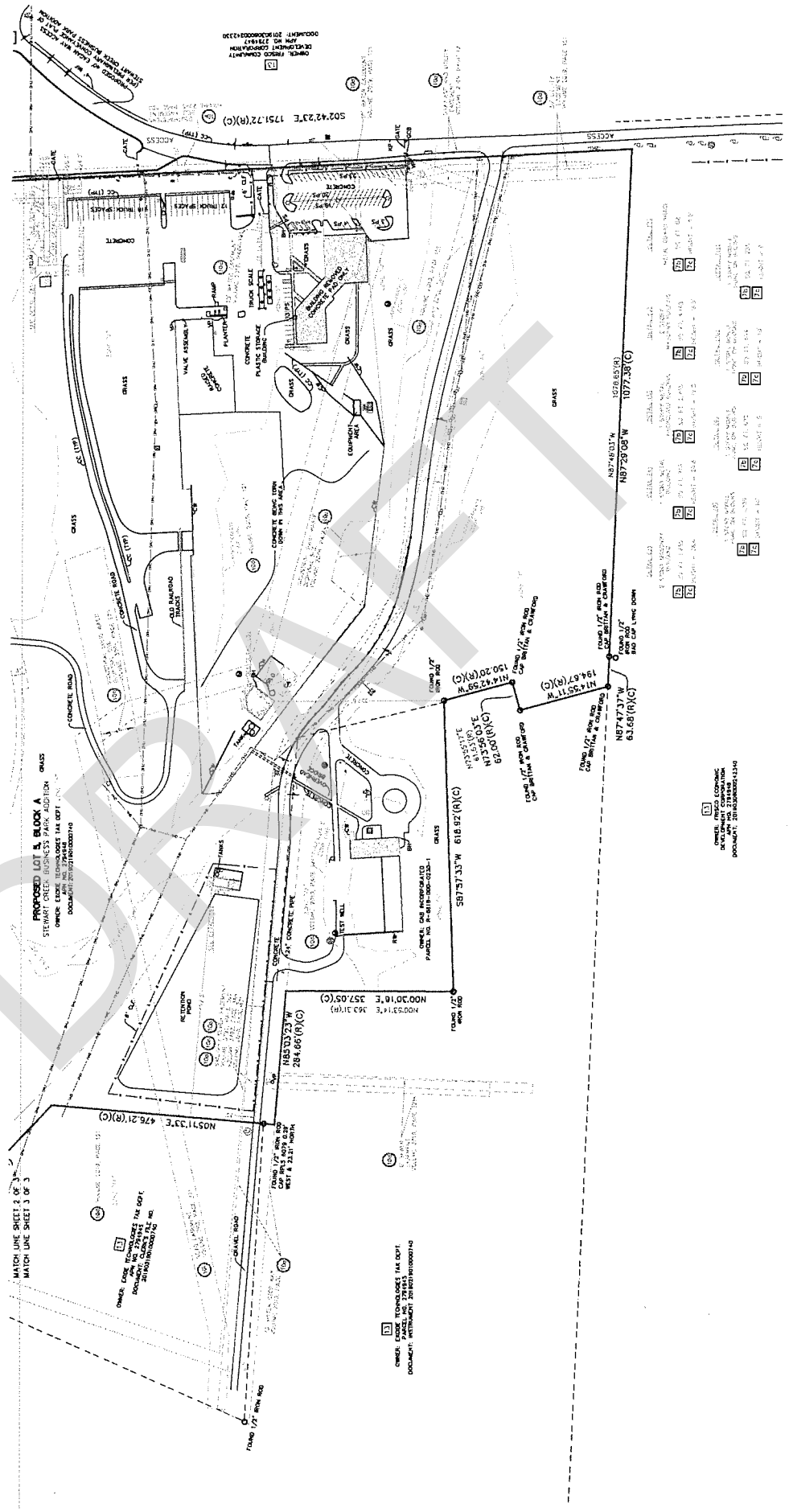


CITY OF FRISCO
11300 RESEARCH RD. (972) 262-8821
FRISCO, TX 76033 FX (972) 731-4900

LOT 2 BLOCK A
STEWART CREEK BUSINESS PARK ADDITION
PATH: c:\0051\00001\lot2 -Block A - Legal.DWG

DRAWN: CAD
DATE: 02/20/19
SCALE: 1"=100'



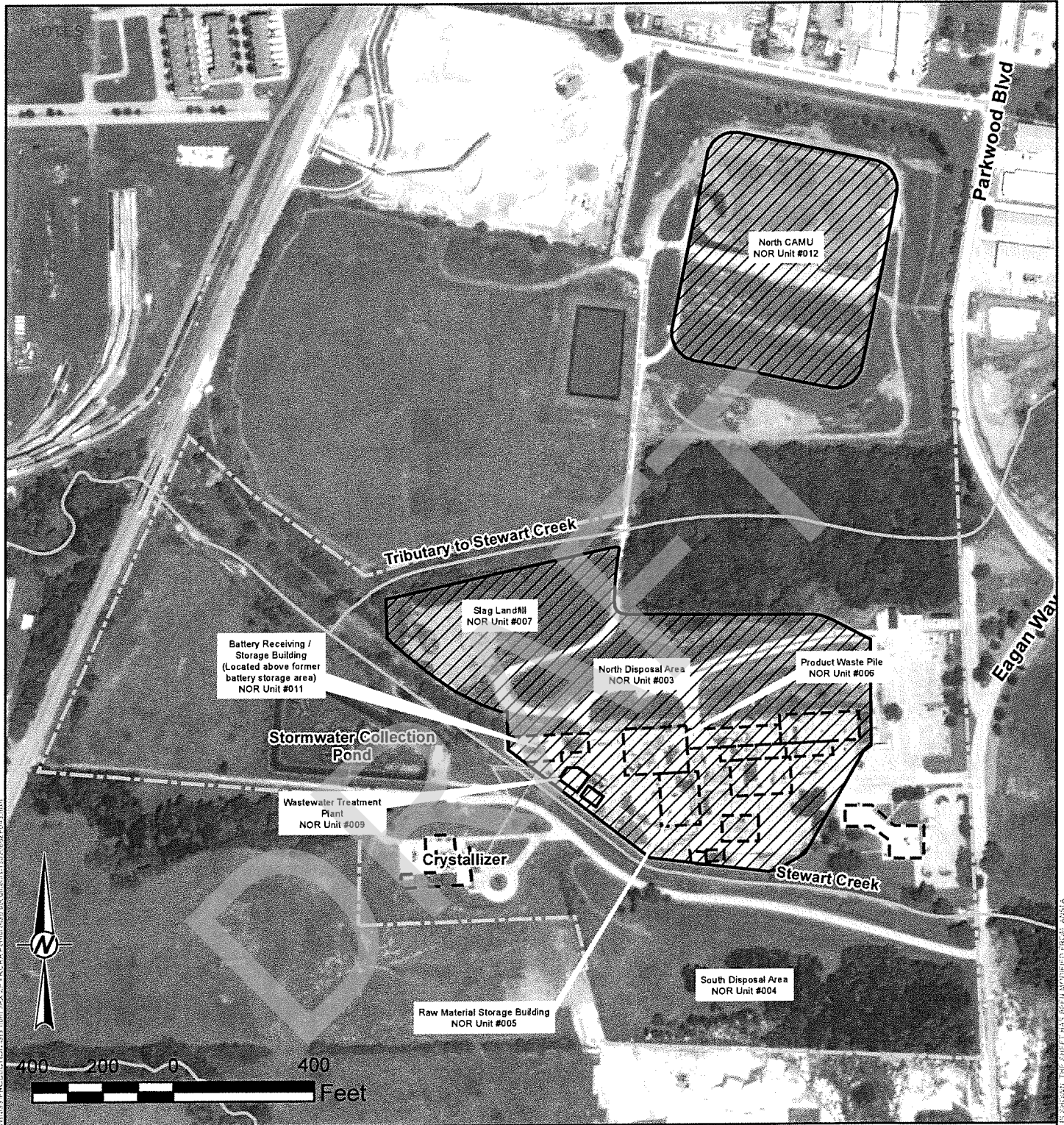
[illegible]

1.3
OWNER: FREDCO ECONOMIC
DEVELOPMENT CORPORATION
APP NO. 2794948
DOCUMENT: 2018030400242340

Attachment B

Facility Map

DRAFT



LEGEND

- Creek Centerline
- Approximate RCRA Permitted Boundary
- Existing Building
- Former Building
- Corrective Action Management Unit

REFERENCE

1. NOR - NOTICE OF REGISTRATION
2. AERIAL IMAGERY - SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY

CLIENT

EXIDE TECHNOLOGIES

PROJECT

RCRA PERMIT RENEWAL

TITLE

FACILITY MAP

CONSULTANT



GOLDER

YYYY-MM-DD	2020-02-05
PREPARED	EFT
DESIGN	EFT
REVIEW	EPW
APPROVED	AMF

PROJECT No.
13-0208606

CONTROL
1302086ZF043.mxd

Rev.
1

FIGURE
Figure 1

Attachment C – Permit Application Revision Chronology

Classification	Revision No.¹	Application Date²	Purpose
Renewal	0	5/29/19	Permit Renewal
Renewal	1	11/18/2019	Permit Renewal, response to TCEQ comments
Renewal	2	3/27/2020	Permit Renewal, FDP
Class 1ED Modification	-	August 19, 2022	Transfer permit from Exide Technologies, LLC to Frisco Community Development Corporation (FCDC)

¹ Start from Revision 0 using the new permit or permit renewal Application Date, and sequentially increase the revision numbers for each subsequent submittal.

² Use the application signature page date as the Application Date.

Attachment D - List of Incorporated Application Materials

The following is a list of Part A and Part B Industrial & Hazardous Waste Application elements which are incorporated into all Industrial & Hazardous Waste permits by reference as per Section I.B.

TCEQ Part A Application Form

- I. General Information
- II. Facility Background Information
- III. Wastes and Waste Management
- IV. Index of Attachments

TCEQ Part B Application Form

- I. General Information
 - A. Applicant Name
 - B. Facility Owner
 - C. Facility Contact
 - D. Application Type and Facility Status
 - E. Facility Siting Summary
 - F. Wastewater and Stormwater Disposition
 - G. Information Required to Provide Notice
 - H. TCEQ Core Data Form Requirements
 - I. Signature on Application
- II. Facility Siting Criteria
 - A. Requirements for Storage or Processing Facilities, Land Treatment Facilities, Waste Piles, Storage Surface Impoundments, and Landfills
 - B. Additional Requirements for Land Treatment Facilities - RESERVED
 - C. Additional Requirements for Waste Piles - RESERVED
 - D. Additional Requirements for Storage Surface Impoundments - RESERVED
 - E. Additional Requirements for Landfills (and Surface Impoundments Closed as Landfills with Wastes in Place) - RESERVED
 - F. Flooding
 - G. Additional Information Requirements
- III. Facility Management
 - A. Compliance History and Applicant Experience
 - B. Personnel Training Plan
 - C. Security
 - D. Inspection Schedule
 - E. Contingency Plan
 - F. Emergency Response Plan - RESERVED

Table III.D. - Inspection Schedule
Table III.E.1. - Arrangements with Local Authorities
Table III.E.2. - Emergency Coordinators
Table III.E.3. - Emergency Equipment
- IV. Wastes And Waste Analysis
 - A. Waste Management Information - RESERVED

Attachment D - List of Incorporated Application Materials

- B. Wastes Managed In Permitted Units
- C. Sampling and Analytical Methods
- D. Waste Analysis Plan

Table IV.B. - Wastes Managed in Permitted Units
Table IV.C. - Sampling and Analytical Methods

V. Engineering Reports

- A. General Engineering Reports
- B. Container Storage Areas
- C. Tanks and Tank Systems - RESERVED
- D. Surface Impoundments - RESERVED
- E. Waste Piles - RESERVED
- F. Land Treatment Units - RESERVED
- G. Landfills - RESERVED
- H. Incinerators - RESERVED
- I. Boilers and Industrial Furnaces - RESERVED
- J. Drip Pads - RESERVED
- K. Miscellaneous Units
- L. Containment Buildings

Table V.A. Facility Waste Management Handling Units
Table V.B. - Container Storage Areas
Table V.K. - Miscellaneous Units
Table V.L. - Containment Buildings

VI. Geology Report

- A. Geology and Topography
- B. Facility Groundwater
- C. Exemption from Groundwater Monitoring for an Entire Facility - RESERVED
- D. Unsaturated Zone Monitoring - RESERVED

Table VI.A.1. - Major Geologic Formations
Table VI.A.4. - Waste Management Area Subsurface Conditions
Table VI.B.3.b. - Unit Groundwater Detection Monitoring System
Table VI.B.3.c. - Groundwater Sample Analysis

VII. Closure And Post-Closure Plans

- A. Closure
 - B. Closure Cost Estimate
 - C. Post-closure
 - D. Post-closure Cost Estimate
- Closure and Post-Closure Cost Summary

Table VII.A. - Unit Closure
Table VII.B. - Unit Closure Cost Estimate
Table VII.D. - Unit Post-Closure Cost Estimate
Table VII.E.1. - Permitted Unit Closure Cost Summary
Table VII.E.2. - Permitted Unit Post-Closure Cost Summary

VIII. Financial Assurance

Attachment D - List of Incorporated Application Materials

- A. Financial Assurance Information Requirements for all Applicants
 - B. Applicant Financial Disclosure Statements for a new permit, permit amendment, or permit modification, or permit renewal
 - C. Applicants Requesting Facility Expansion, Capacity Expansion, or New Construction Information for Applicants Subject to Financial Capability Requirements
- IX. Releases From Solid Waste Units And Corrective Action
- A. Preliminary Review Checklists
 - For Applications for a New Hazardous Waste Permit
 - For Applications for a Renewal/Amendment/Modification of an Existing Hazardous Waste Permit
 - Instructions for Preliminary Review Facility Checklist
 - Instructions for Preliminary Review Unit Checklist (Continued)
 - Preliminary Review Facility Checklist
 - Preliminary Review Unit Checklist
 - Appendices to Preliminary Review (PR)
- X. Air Emission Standards - RESERVED
- A. Process Vents - RESERVED
 - B. Equipment Leaks - RESERVED
 - C. Tanks, Surface Impoundments, and Containers - RESERVED
 - D. "One - Stop" Permits - RESERVED
- XI. Compliance Plan
- A. Site Specific Information
 - B. Groundwater Protection Standard
 - C. Compliance Monitoring Program - RESERVED
 - D. Corrective Action Program
 - E. Cost Estimates for Financial Assurance
- Table XI.A.1. - Facility History for Waste Management Units
- Table XI.E.1. - Corrective Action Program Cost Estimate
- Table XI.E.2. - Groundwater Monitoring Cost Estimate
- Table XI.E.3. - Financial Assurance Summary
- CP Table I - Waste Management Units and Areas Subject to Groundwater Corrective Action and Compliance Monitoring
- CP Table II - Solid Waste Management Units and Areas of Concern for which Corrective Action applies pursuant to 30 TAC 335.167
- CP Table III - Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard
- CP Table IIIA - Corrective Action Program Table of Indicator Parameters and t Groundwater Protection Standard
- CP Table IV - Compliance Monitoring Program Table of Hazardous and Solid Waste Constituents and Practical Quantitation Limits
- CP Table IVA - Compliance Monitoring Program Table of Detected Hazardous Constituents and the Groundwater Protection Standard
- CP Table V - Designation of Wells by Function
- CP Table VI - Compliance Period for RCRA-Regulated Units
- CP Table VIII - Compliance Schedule

Attachment D - List of Incorporated Application Materials

Attachment A

Alternate Concentration Limits
Alternate Concentration Limit Demonstration
Required Information for Alternate Concentration Limits

Attachment B

Well Design and Construction Specifications
Table of Well Construction Details

Attachment C

Sampling and Analysis Plan

XII Hazardous Waste Permit Application Fee

Table XII.A. - Hazardous Waste Units (For Application Fee Calculations)
Table XII.B. - Hazardous Waste Permit Application Fee Worksheet

XIII. Confidential Material - RESERVED

Attachment E - List of Permitted Facility Units

Authorized Permitted Units

TCEQ Permit Unit Number 1	Unit Name	NOR No. ¹	Unit Description	Capacity	Unit Status ²
001	Raw Material Storage Building	005	Containment building (building has been demolished)	4,150 tons	Inactive FCDC is seeking closure of this unit upon implementation and approval of completion of the FOP RAP since it is located within the footprint of the RCA (Proposed Unit 004), which is addressed in the RAP.
002	Battery Receiving/Stora ge Building	011	Container storage area (building has been demolished)	3,581 cy	Inactive FCDC is seeking closure of this unit upon implementation and approval of completion of the FOP RAP since it is located within the footprint of the RCA (Proposed Unit 004) which is addressed in the RAP.
Propose d (003)	North CAMU (listed in NOR as "Landfill, North Property, 1996")	012	Miscellaneous unit (listed in NOR as a landfill)/CAMU	190,000 cy	Active; being added to permit boundary
Propose d (004)	Remediation Consolidation Area (RCA)	Proposed	Miscellaneous unit/CAMU	82,000 cy	Proposed (not yet built) To include contaminated media to be managed in place and consolidated remediation wastes from implementation of RAP. It is noted that inactive Units 001 and 002 are located within the footprint of the RCA.

**Attachment E - List of Permitted Facility Units
Historical Permitted Units No Longer Subject to this Permit⁴**

TCEQ Permit Unit No. ¹	Unit Name	NOR No. ¹	Unit Description ³	Capacity	Unit Status ²

¹Permitted Unit No. and NOR No. cannot be reassigned to new units or used more than once and all units that were in the Attachment D of a previously issued permit must be listed.

²Unit Status options: Active, Closed, Inactive (built but not managing waste), Proposed (not yet built), Never Built, Transferred, Post-Closure.

³If a unit has been transferred, the applicant should indicate which facility/permit it has been transferred to in the Unit Description column of Table V.A.

⁴The historical units are closed and/or no longer subject to RCRA permit requirements and [is/are] included in this table for informational purposes.

Attachment F - Well Design and Construction Specifications

1. The Permittee shall use well drilling methods that minimize potential adverse effects on the quality of water samples withdrawn from the well, and that minimize or eliminate the introduction of foreign fluids into the borehole.
2. All wells constructed to meet the terms of this Permit shall be constructed such that the wells can be routinely sampled with a pump, bailer, or alternate sampling device. Piping associated with recovery wells should be fitted with sample ports or an acceptable alternative sampling method to facilitate sampling of the recovered groundwater on a well by well basis.
3. Above the saturated zone the well casing may be two (2)-inch diameter or larger schedule 40 or 80 polyvinyl chloride (PVC) rigid pipe or stainless steel or polytetrafluoroethylene (PTFE or "teflon") or an approved alternate material. The PVC casing must bear the National Sanitation Foundation logo for potable water applications (NSF-pw). Solvent cementing compounds shall not be used to bond joints and all connections shall be flush-threaded. In and below the saturated zone, the well casing shall be stainless steel or PTFE.

The Permittee may use PVC or fiberglass reinforced resin as an alternate well casing material below the saturated zone provided that it yields samples for groundwater quality analysis that are unaffected by the well casing material.
4. The Permittee shall replace any well that has deteriorated due to incompatibility of the casing material with the groundwater contaminants or due to any other factors. Replacement of the damaged well shall be completed within ninety (90) days of the date of the inspection that identified the deterioration.
5. Well casings and screens shall be steam cleaned prior to installation to remove all oils, greases, and waxes. Well casings and screens made of fluorocarbon resins shall be cleaned by detergent washing.
6. For wells constructed after the date of issuance of this Permit, the screen length shall not exceed ten (10) feet within a given transmissive zone unless otherwise approved by the Executive Director. Screen lengths exceeding ten (10) feet may be installed in groundwater recovery or injection wells to optimize the groundwater remediation process in accordance with standard engineering practice.
7. The Permittee shall design and construct the intake portion of a well so as to allow sufficient water flow into the well for sampling purposes and to minimize the passage of formation materials into the well during pumping. The intake portion of a well shall consist of commercially manufactured stainless steel or PTFE screen or approved alternate material. The annular space between the screen and the borehole shall be filled with clean siliceous granular material (i.e., filter pack) that has a proper size gradation to provide mechanical retention of the formation sand and silt.

The well screen slot size shall be compatible with the filter pack size as determined by sieve analysis data. The filter pack should extend no more than three (3) feet above the well screen. A silt trap, no greater than one (1) foot in length, may be added to the bottom of the well screen to collect any silt that may enter the well. The bottom of the well casing shall be capped with PTFE or stainless steel or approved alternate material.

Groundwater recovery and injection wells shall be designed in accordance with standard engineering practice to ensure adequate well production and to accommodate ancillary equipment. Silt traps exceeding one (1) foot may be utilized to accommodate ancillary equipment. Well heads shall be fitted with mechanical wellseals, or equivalent, to prevent entry of surface water or debris.

8. A minimum of two (2) feet of pellet or granular bentonite (bentonite seal) shall immediately overlie the filter pack in the annular space between the well casing and borehole, except in the case of a monitoring well where the water to be monitored is at a more shallow depth and the filter pack extends to less than four feet within the ground surface, in which case less than two feet of pellet or granular bentonite may be used in accordance with 16 TAC 76.100(e). Where the saturated zone extends above the filter pack, pellet or granular bentonite shall be used to seal the annulus. The bentonite shall be allowed to settle and hydrate for a sufficient amount of time prior to placement of grout in the annular space (if any). Above the bentonite seal, the annular space shall be sealed with a cement/bentonite grout mixture.

The cement/bentonite grout mixture, TCEQ approved alternative grout mixture or the bentonite seal shall fill the annular space to within two (2) feet of the surface, except in the case of a monitoring well where the water to be monitored is at a more shallow depth and the bentonite seal extends to less than two feet within the ground surface, and the pellet or granular bentonite may extend to within one foot of the surface. A suitable amount of time shall be allowed for settling to occur. The annular space shall be sealed with concrete, blending into a cement apron at the surface that extends at least two (2) feet from the outer edge of the monitor well borehole for above-ground completions. Alternative annular-space seal material may be proposed with justification and must be approved by the Executive Director prior to installation.

In cases where flush-to-ground completions are unavoidable, a protective structure such as a utility vault or meter box should be installed around the well casing and the concrete pad design should prevent infiltration of water into the vault. In addition, the Permittee must ensure that 1) the well/cap juncture is watertight; 2) the bond between the cement surface seal and the protective structure is watertight; and 3) the protective structure with a steel lid or manhole cover has a rubber seal or gasket. The surface completion for flush to ground completion must include concrete two feet below the base of the vault in accordance with 16 TAC 76.100(f)(4).

9. Water added as a drilling fluid to a well shall contain no bacteriological or chemical constituents that could interfere with the formation or with the chemical constituents being monitored. For groundwater recovery and injection wells, drilling fluids containing freshwater and treatment agents may be utilized in accordance with standard engineering practice to facilitate proper well installation. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All

such additives shall be removed to the extent practicable during well development.

10. Upon completion of installation of a well, the well must be developed to remove any fluids used during well drilling and to remove fines from the formation to provide a particulate-free discharge to the extent achievable by accepted completion methods and by commercially available well screens. Development shall be accomplished by reversing flow direction, surging the well or by air lift procedures. No fluids other than formation water shall be added during development of a well unless the aquifer to be screened is a low-yielding water-bearing aquifer. In these cases, the water to be added should be chemically analyzed to evaluate its potential impact on in-situ water quality, and to assess the potential for formation damage.

For recovery and injection wells, well development methods may be utilized in accordance with standard engineering practice to remove fines and maximize well efficiency and specific capacity. Addition of freshwater and treatment agents may be utilized during well development or re-development to remove drilling fluids, inorganic scale or bacterial slime. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All such additives shall be removed to the extent practicable during well development.

11. Each well shall be secured and/or designed to maintain the integrity of the well borehole and groundwater.
12. The Permittee shall protect the above-ground portion of the well by bumper guards and/or metal outer casing protection.
13. Copies of drilling and construction details demonstrating compliance with the items of this provision shall be kept on site. This record shall include the following information:
 - name/number of well (well designation);
 - intended use of the well(sampling, recovery, etc.);
 - date/time of construction;
 - drilling method and drilling fluid used;
 - well location (\pm 0.5 ft.);
 - bore hole diameter and well casing diameter;
 - well depth (\pm 0.1 ft.);
 - drilling and lithologic logs;
 - depth to first saturated zone;
 - casing materials;
 - screen materials and design;
 - casing and screen joint type;
 - screen slot size/length;
 - filter pack material/size;
 - filter pack volume (how many bags, buckets, etc.);
 - filter pack placement method;
 - sealant materials;
 - sealant volume (how many bags, buckets, etc.);
 - sealant placement method;
 - surface seal design/construction;

- well development procedure;
 - type of protective well cap;
 - ground surface elevation (± 0.01 ft. MSL);
 - top of casing elevation (± 0.01 ft. MSL); and,
 - detailed drawing of well (include dimensions).
14. The Permittee shall complete construction or abandonment and plugging of each well in accordance with the requirements of this Permit and 16 TAC 76.100 through 76.109 and shall certify such proper construction or abandonment within sixty (60) days of installation or abandonment. If the Permittee installs any additional or replacement wells, well completion logs for each well shall be submitted within sixty (60) days of well completion and development in accordance with 16 TAC Chapter 76. Certification of each well shall be submitted within sixty (60) days of installation for an individual well project or within sixty (60) days from the date of completion of a multiple well installation project. The certification shall be prepared by a qualified geologist or geotechnical engineer. For each well drilled, deepened, or altered submit a copy of the State of Texas Well Report in accordance with 16 TAC 76.70. Each well certification shall be accompanied by a certification report, including an accurate log of the soil boring, which thoroughly describes and depicts the location, elevations, material specifications, construction details, and soil conditions encountered in the boring for the well. A copy of the certification and certification report shall be kept on-site, and a second copy shall be submitted to the Executive Director. Required certification shall be in the following form:
- This is to certify that installation (or abandonment and plugging) of the following facility components authorized or required by TCEQ Permit No. HW- ***** has been completed, and that construction (or plugging) of said components has been performed in accordance with and in compliance with the design and construction specifications of Permit No. HW-*****." (Description of facility components with reference to applicable permit provisions).
15. The Permittee shall clearly mark and maintain the well number on each well at the site.
16. The Permittee shall measure and keep a record of the elevation of the top of each well casing in feet above mean sea level to the nearest 0.01 foot and permanently mark the measuring point on the well. The Permittee shall compare old and new elevations from previously surveyed wells and determine a frequency of surveying not to exceed five (5) year intervals.
17. Wells may be replaced at any time the Permittee or Executive Director determines that the well integrity or materials of construction or well placement no longer enable the well to yield samples representative of groundwater quality.

18. The Permittee shall plug soil test borings and wells removed from service after issuance of the Compliance Plan with a cement/bentonite grout mixture so as to prevent the preferential migration of fluids in the area of the borehole. Certification of each plugging shall be reported in accordance with Provision 14 of this attachment to this permit. The plugging of wells shall be in accordance with 16 TAC § 76.100 through § 76.109 dealing with Well Drilling, Completion, Capping and Plugging.
19. A well's screened interval shall be appropriately designed and installed to meet the well's specific objective (i.e., either DNAPL, LNAPL, both, or other objective of the well). All wells designed to detect, monitor, or recover DNAPL must be drilled to intercept the bottom confining layer of the aquifer. The screened interval to detect DNAPL should extend from the top of the lower confining layer to above the portion of the aquifer saturated with DNAPL. The screened interval for all wells designed to detect, monitor, or recover LNAPL must extend high enough into the vadose zone to provide for fluctuations in the seasonal water table. In addition, the sandpacks for the recovery or monitoring well's screened interval shall be coarser than surrounding media to ensure the movement of NAPL to the well.