INJECTION WELL PLUGGING PLAN
40 CFR 146.92(b) [LAC 43:XVII:3631.A.2]

Venture Global CCS Cameron, LLC CO_2 Sequestration Project

Facility Information

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Well Location: West Cameron Block 5 CS004 Well 001, Cameron Parish, Louisiana
[redacted]

Venture Global CCS Cameron, LLC (Venture Global) will conduct injection well plugging and abandonment according to the procedures below.

1 Introduction and Overview

This Injection Well Plugging Plan provides the steps that Venture Global will take for CS004 Well 001 to plug and abandon the planned injection stages through final abandonment.

The current plan is to complete the well with multiple injection horizons within the gross injection zone. Each injection interval will be utilized for a discrete period, as identified in the plume model. Once that timeframe expires, the interval will be plugged to prevent crossflow conditions between new and old injection intervals. Once the injected interval is plugged, a new horizon will be opened for injection. This process will be repeated until the entire gross injection interval is fully developed. After approximately thirty (30) years of injection, the well will be permanently plugged and abandoned.

The two types of new plugs to be installed include:
- Isolation of injected intervals via recompletion operations.
- Final plugging and permanent abandonment of the well.

2 Injection Well Tests

Class VI permit regulations require bottomhole reservoir pressure to be monitored during the injection phase and the mechanical integrity of the well to be confirmed before plugging and abandoning the well. The procedures that are required to accomplish the above are described in the following sections.

2.1 Planned Tests or Measures to Determine Bottom-Hole Reservoir Pressure

Bottomhole reservoir pressure will be measured using casing ported pressure sensors permanently installed behind the [redacted] long string. Equipment details and testing procedures are included in Module 3 Testing and Monitoring Plan.

2.1.1 Mechanical Integrity Testing – Annulus Pressure Test and Tag Test

Venture Global will conduct at least one of the tests listed in Table 1 to verify external mechanical integrity as specified in 40 CFR 146.89 [LAC 43:XVII.3627] prior to plugging the injection well as required by 40 CFR 146.92(a) [LAC 43:XVII:3631.A.2].

Table 1: Planned Mechanical Integrity Tests (MITs)

Test Description	Location
Pressure Test	Casing, tubing, downhole devices such as packers/retainers/mechanical/cement plugs
Tag Test	Cement plugs, 15 kips pipe weight

Demonstration of mechanical integrity of casing, tubing and packer will be accomplished by performing annular pressure tests after the well is completed, prior to the start of injection, and after any workover operation involving the removal and replacement of the tubing and packer. Pressure tests are conducted by pressuring the tubing annulus to a minimum of 1,000 psi fluid pressure at surface. Test pressure will be monitored and recorded for a minimum duration of thirty (30) minutes using a pressure gauge with sensitivities that can indicate a loss of 5%. Lack of mechanical integrity is indicated by any loss of test pressure exceeding 5% during a minimum elapsed period of thirty (30) minutes. Annulus pressure test results will be submitted to the Director within thirty (30) days of completion as required by 40 CFR 146.91(b)(1) [LAC 43:XVII:3629.A.2.a].

Demonstration of mechanical integrity of cement plugs used for isolation during plugging operations will be accomplished by successfully performing a 15 kips tag test on the cement plug with no plug movement recorded at surface, or a pressure test on the plug (> 1,000 psi, ≥ 30 minutes, < 5% decline).

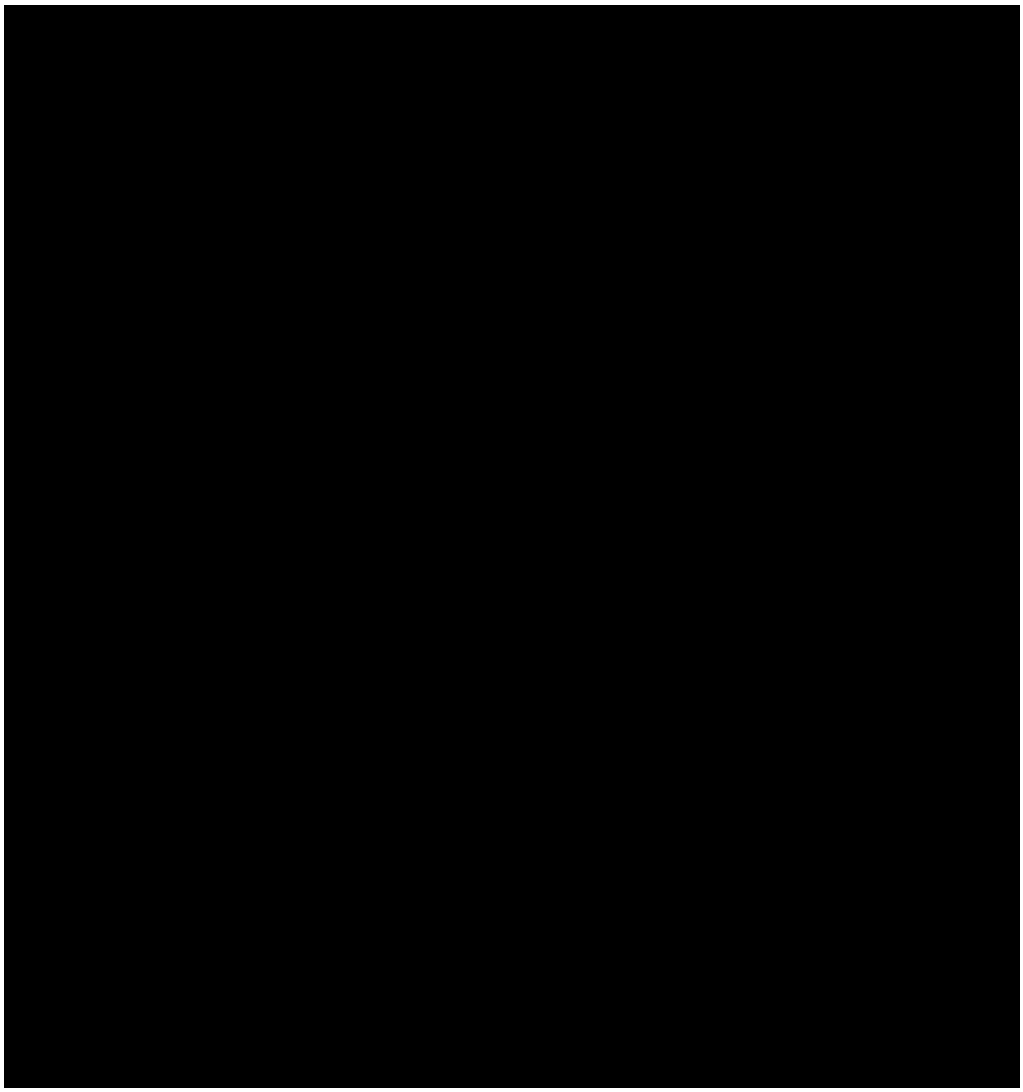
2.1.2 External Mechanical Integrity Testing – Temperature Log

Annual external MITs will be performed by conducting a temperature log through tubing. Temperature logs will be run before initiating injection operations to establish a baseline for future logs. The well will be shut in for a duration of approximately thirty-six (36) hours prior to running the temperature logs to allow temperatures to stabilize. Satisfactory mechanical integrity is demonstrated by proper correlation between the baseline and subsequent logs.

All temperature logs recorded during the MIT will be submitted to the Director within thirty (30) days of log run completion.

3 Information on Plugs

Plug materials and methods to plug the injection well are provided in Table 2. Plug depths and volumes will depend on the final geology and downhole conditions of the well as assessed during construction. Cement(s) formulated for plugging will be compatible with the carbon dioxide stream. Cement formulation and certification documents will be submitted to the Director along with a well plugging report within sixty (60) days after plugging. The owner or operator will report the wet density and will retain duplicate samples of the cement used for each plug.



4 Narrative Description of Plugging Procedures

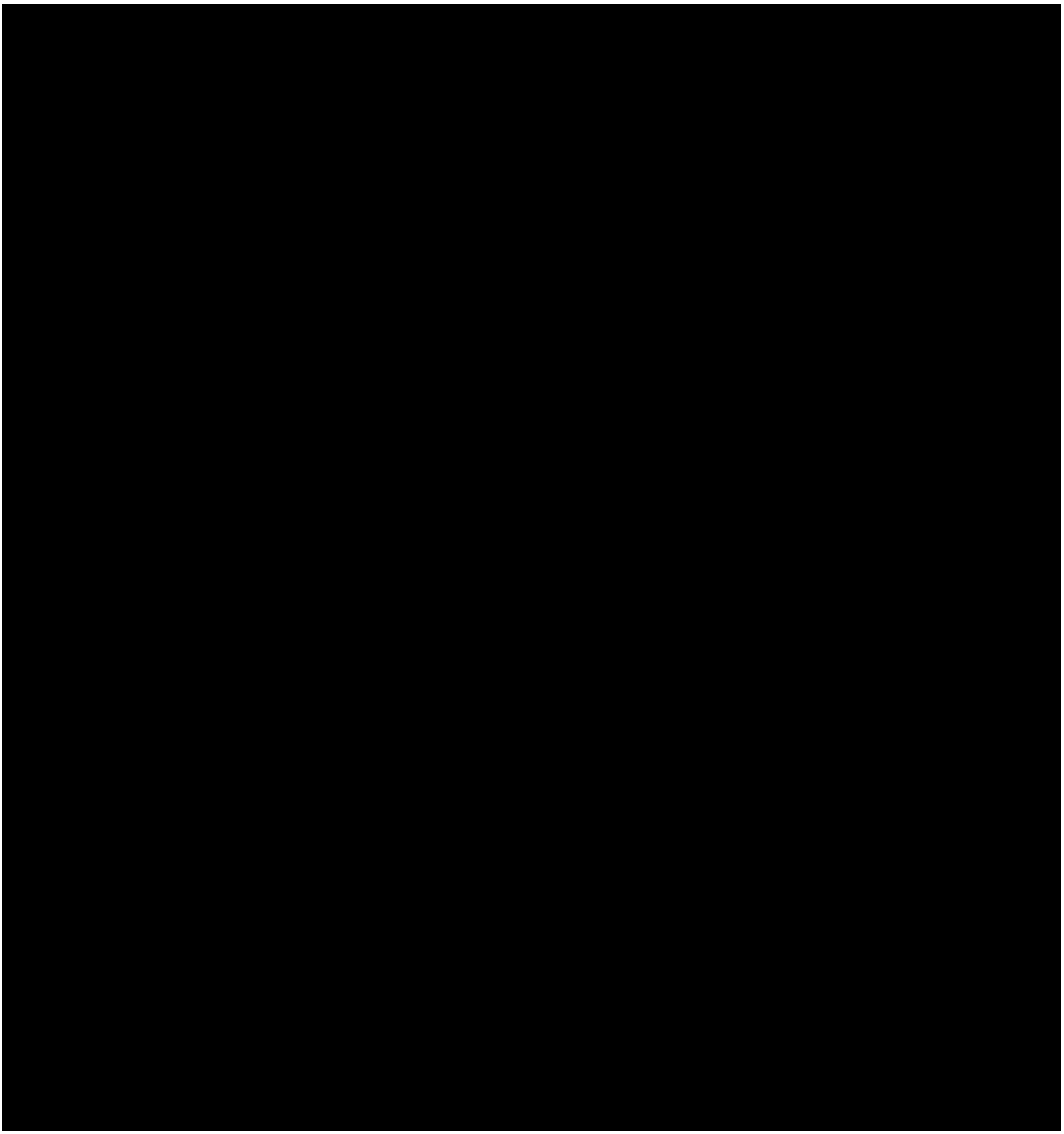
In compliance with 40 CFR 146.92(c) [LAC 43:XVII.3631.A.4], Venture Global will notify the Director at least sixty (60) days before plugging the well and provide an updated Injection Well Plugging Plan, if applicable.

4.1 Plugging Procedures

In this section, detailed plugging schematics are presented in Figure 1 and Figure 2. A detailed description of the isolation procedure for each of the [redacted] injection stages at the end of their respective injection durations is discussed.

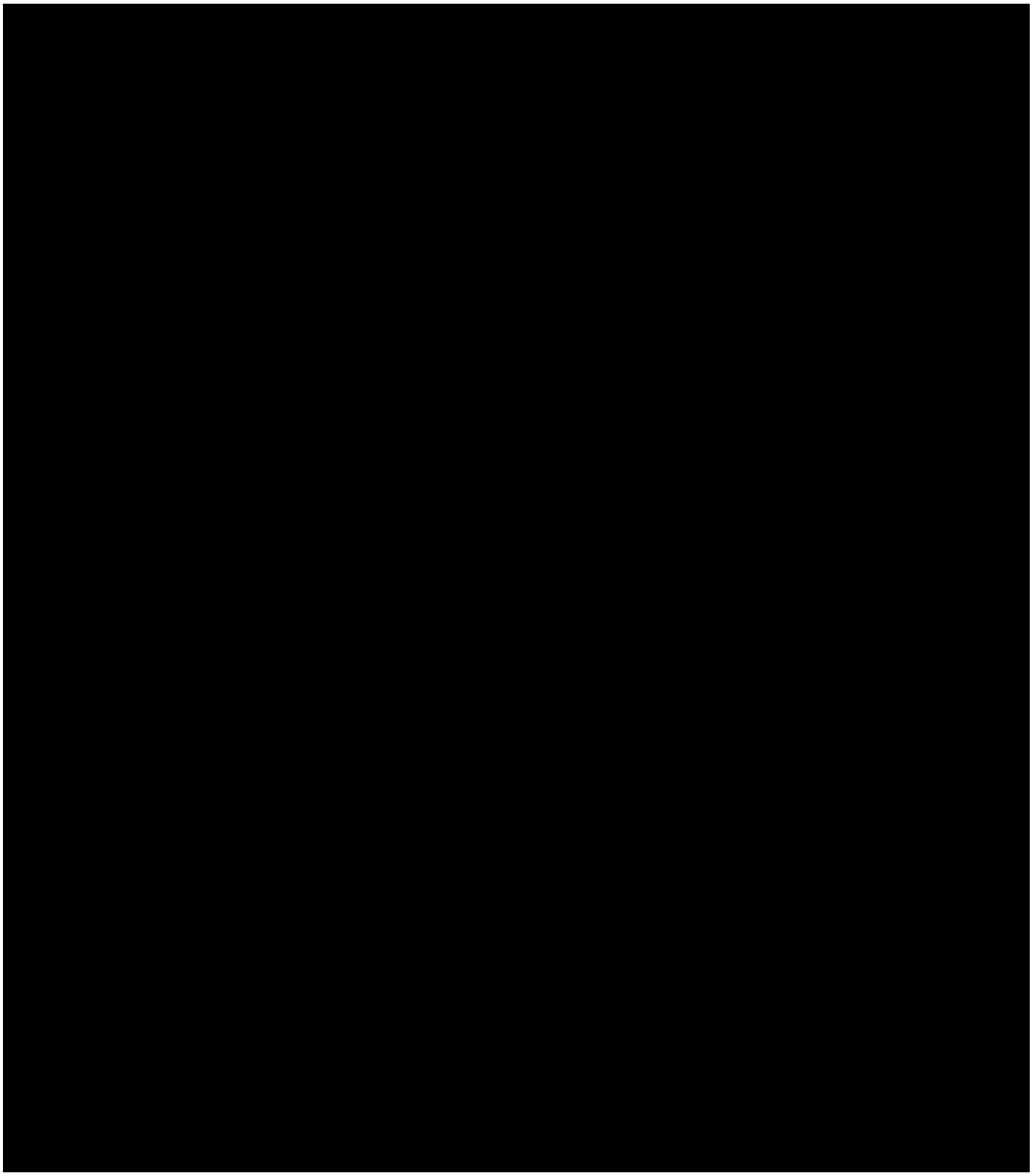
4.1.1 Isolation of Injection Stages [redacted]

[redacted]



4.1.2 *Plugging and Abandonment (Permanent Abandonment)*

[redacted]



4.1.3 Zonal Isolation of Injection Zone / Intermediate Plugback Plan

When the current zone's available pore space is exhausted or the plume migration tracking indicates storage capacity is reached, the zone will be abandoned. The general procedure for zonal isolation for each injection stage is described below.

4.1.3.1 Pre-Plugging Activities

1. Venture Global will comply with reporting and notification provisions as required by 40 CFR 146.92(c) [LAC 43:XVII:3631.A.4].
    a. The Director will be notified in writing sixty (60) days in advance of planned plugging efforts via a Notice of Intent to plug. If any changes have been made to the original well plugging plan, Venture Global will also provide a revised well plugging plan.

    During the injection process, bottomhole reservoir pressure will be monitored using the casing ported pressure gages permanently installed on the [redacted] long string.
2. External mechanical integrity will be demonstrated through approved temperature logging methods.
3. Casing inspection and cement bond logs will be performed prior to plugging.

4.1.3.2 Plugging Activities

1. Run in and perform casing inspection and bond log.
2. A Corrosion Resistant Alloy (CRA) TTCR will be set above the injection zone to be isolated. Corrosion resistant cement will be spotted below the retainer into the injection interval's opening into the wellbore. An attempt will be made to squeeze the perforations with corrosion resistant cement.
3. The squeeze cement plug will be qualified by conducting a pressure test.

This well will not require any well components to be removed during zonal isolation operations in the permitted injection zone. All intermediate plugging operations can be conducted via well intervention services, providing a more efficient and safer recompletion process.

4.1.4 Final Plug and Abandonment

At the conclusion of injection operations, as depicted in Figure 2, the well will be prepared for final permanent abandonment. The general final plug and abandonment procedures, as depicted in Figure 3, are described below.

4.1.4.1 Pre-Plugging Activities

1. Venture Global will comply with all reporting and notification provisions. The Director will be notified sixty (60) days in advance of planned plugging efforts via a Notice of Intent to plug pursuant to 40 CFR 146.92(c) [LAC 43:XVII:3631.A.4]. If any changes have been made to the original well plugging plan, Venture Global will also provide a revised well plugging plan.

As discussed above, bottomhole reservoir pressure will be measured using casing ported pressure gages permanently installed on the [redacted] long string.

2. As discussed above, external mechanical integrity will be demonstrated through approved temperature logging methods.
3. All uncemented, non-permanent components of the well will be removed.
4. Casing inspection and cement bond logs will be performed prior to plugging.

4.1.4.2 Plugging Activities

Plugging activities are described in full detail in Section 4.1.2 "Plugging and Abandonment (Permanent Abandonment)" above.

Final plugging reports, certified by the owner or operator and the person who performed the plugging operation (if other than the owner or operator), will be submitted to the Director within sixty (60) days after plugging as required by 40 CFR 146.92(d) [LAC 43:XVII:3631.A.5].

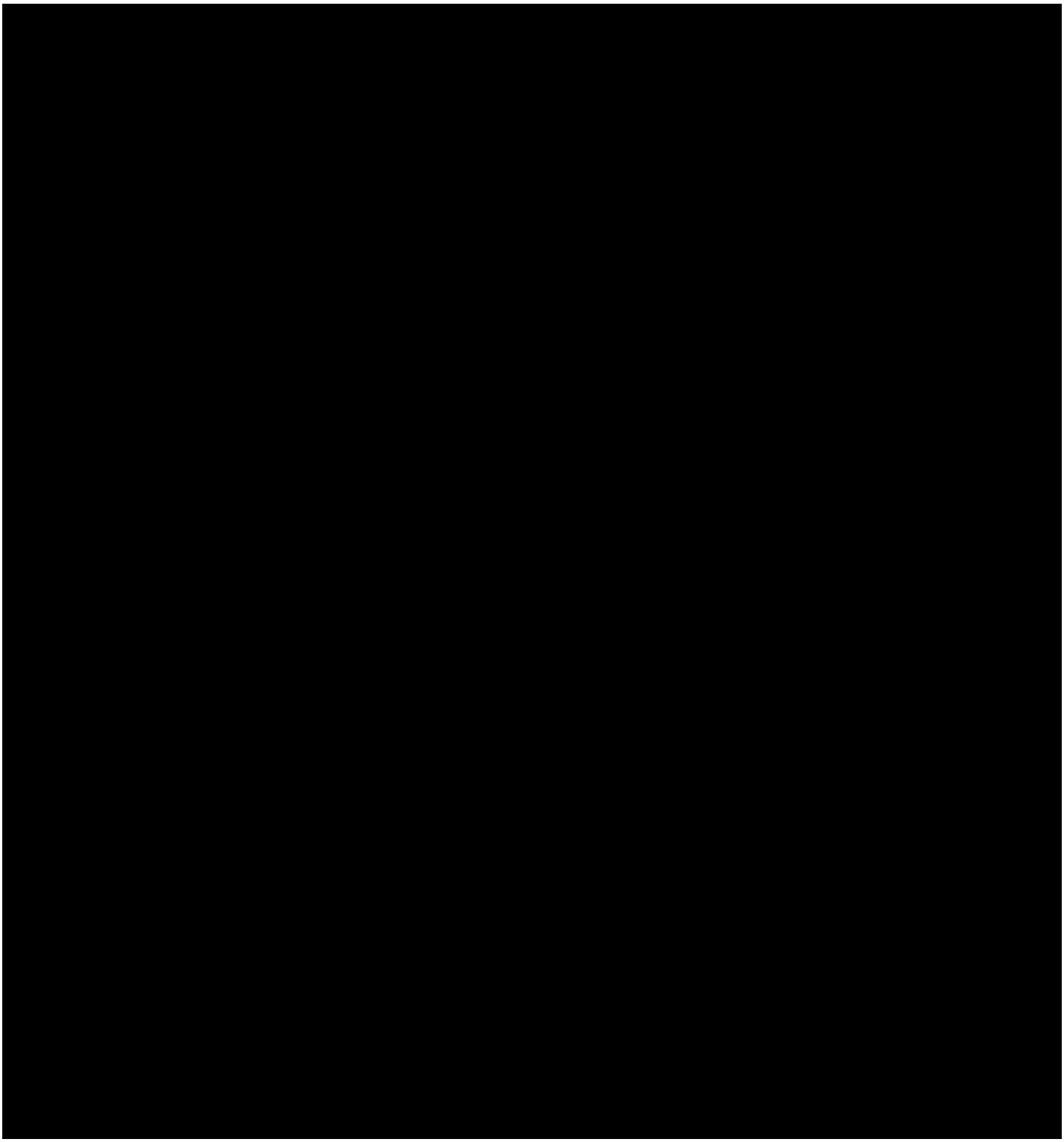
4.1.5 Monitor Wells Plugging and Abandonment

The owner or operator shall monitor the site following the cessation of injection to show the position of the carbon dioxide plume and pressure front and demonstrate that ground water and USDWs are not being endangered. Following the cessation of injection, the owner or operator shall continue to conduct monitoring as specified in the Director-approved post-injection site care and site closure plan for at least 50 years, for the duration of an alternative timeframe approved by the Director pursuant to 40 CFR 146.93(c) [LAC 43:XVII:3633.A.3], or until a demonstration can be made that the geologic sequestration project no longer poses an endangerment to USDWs pursuant to 40 CFR 146.93(b) [LAC 43:XVII:3633.A.2]. After approval by the Director of the demonstration that there is no endangerment to ground water or USDWs, the monitoring wells will be prepared for plugging and abandonment.

4.1.5.1 In Zone Monitor Well 002 Plugging Activities

- A cement retainer # 1 will be set within the long string at [redacted], above the perforated monitoring interval, [redacted]

[redacted]



4.1.5.2 Above Zone Monitor Well 001 Plugging Activities

[redacted]

[redacted]