

STIMULATION PROGRAM
40 CFR 146.82(a)(9)

Sugarberry CCS Hub

Facility Information

Facility Name: Sugarberry CCS Hub

Facility Contact: Sugarberry CCS, LLC
14302 FNB Parkway
Omaha, NE 68154

RRC Organization

Report Number: 102245

Well Locations: Projection WGS84

Well	County/State	Latitude	Longitude
SB-01	Hopkins, TX	33.202707	-95.338539
SB-02	Hopkins, TX	33.189225	-95.375952
SB-03	Hopkins, TX	33.196028	-95.405035
SB-04	Hopkins, TX	33.219565	-95.434859
SB-05	Hopkins, TX	33.207361	-95.385666

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Plan revision number: V1.0
Plan revision date: May 2025

List of Acronyms/Abbreviations

KCl Potassium Chloride

A. Introduction/Purpose

Stimulation to enhance the injectivity potential of the injection zone may be necessary. Stimulation may involve, but is not limited to, flowing fluids into or out of the well, increasing or connecting pore spaces in the injection formation, or other activities that are intended to allow the injectate to move more readily into the injection formation. Advance notice of all proposed stimulation activities will be provided to the UIC Program Director, as detailed below, prior to conducting the stimulation. Sugarberry CCS, LLC will describe any fluids to be utilized for stimulation activities and will demonstrate that the stimulation will not interfere with containment.

If post-drilling geologic analysis and testing concludes that stimulation of the injection zone(s) is required, an acid mixture will be pumped across the perforated intervals as needed. An acid mixture can effectively clean the perforations through the breakdown of residual drilling mud and cement while simultaneously dissolving carbonate-based cement within the injection zones.

B. Stimulation Fluids

Stimulation fluids may include industry standard stimulation acids mixed to an appropriate volume in accordance with the manufacture's specifications.

C. Additives

Additives may include, but not be limited to, corrosion inhibitors to reduce the reaction of acids with steel well components, biocides to reduce the development of microbially influenced corrosion, and clay stabilizers to clean up clay from the formation. Additives will be mixed to an appropriate volume in accordance with the manufacture's specifications.

D. Diverters

Diverters may include, but not be limited to, benzoic acid and naphthalene flakes to more evenly distribute the acid across damaged perforations, calcium sulfate inhibitors, and gelling agents to thicken acid. Diverters will be mixed to an appropriate volume in accordance with the manufacturer's specifications.

E. Stimulation Procedures

Detailed procedures for all stimulation activities will be submitted to the UIC Program Director in writing at least 30 days in advance, per 40 CFR 146.91(d)(2). Proposed general procedures for stimulation may include the following:

1. Hold site-specific safety meeting with all crews prior to commencement of operations.
2. Move in and rig up (mobilize and set up) service rig, water tanks, pressure control equipment, and pumps.
3. Fill tanks with fresh water; mix in potassium chloride salt (KCl) to increase fluid density above reservoir pressure to prevent back flow.
4. Pump a column of KCl brine/water mix into the wellbore to prevent back flow of reservoir fluids without the use of pressure control equipment.

5. Trip in hole with (deploy downhole) work string and rental packer and circulate the cased hole with KCl brine mixture.
6. Rig up acid pumper, bulk acid truck, piping equipment, and solids/diverter equipment.
7. Isolate the desired injection zone and pump 500-5000 gallons of acid mixture at 3 to 8 barrels per minute, dropping water soluble diverter at specified intervals. Diverter drops should just exceed the number of casing perforations. (Final acid type, concentration, and volume will be determined based on acid/mineralogy reaction modeling and acquired drilling data).
8. Displace acid to perforations; shut-in well to let acid soak and diverter material to dissolve (approximately 30-60 minutes).
9. Pump KCl brine into formation.
10. Repeat as necessary over additional injection zones.
11. Trip work string and packer(s) out of hole (remove), rig down service rig and ancillary equipment, secure well, move off site (demobilize).