Anderson Columbia Co., Inc.

Water Pollution Abatement Plan Modification (WPAP Mod)

AC Tejas Quarry
22845 Old Nacogdoches Rd
New Braunfels, Texas 78132
Comal County

Submitted to: TCEQ Region 13, San Antonio

Prepared By:

WESTWARD
Environmental. Engineering. Natural Resources.

Boerne, Texas
830-249-8284

Date: August 2023
Project No. 10603-189
-NMS-

Signature: _____

Nicolas E. Mercado, PE - License No. 144228
TX PE Firm No. 4524

Date: 8/21/2023

Modification of a Previously Approved Plan Checklist

- **Edwards Aquifer Application Cover Page (TCEQ-20705)**
- **General Information Form (TCEQ-0587)**

  Attachment A - Road Map
  Attachment B - USGS / Edwards Recharge Zone Map
  Attachment C - Project Description

- **Geologic Assessment Form (TCEQ-0585)**

  Attachment A - Geologic Assessment Table (TCEQ-0585-Table)
  Attachment B - Stratigraphic Column
  Attachment C - Site Geology
  Attachment D - Site Geologic Map(s)

- **Modification of a Previously Approved Plan (TCEQ-0590)**

  Attachment A - Original Approval Letter and Approved Modification Letters
  Attachment B - Narrative of Proposed Modification
  Attachment C - Current Site Plan of the Approved Project

- **Application Form (include any applicable to the proposed modification):**

  Aboveground Storage Tank Facility Plan (TCEQ-0575)
  Organized Sewage Collection System Application (TCEQ-0582)
  Underground Storage Tank Facility Plan (TCEQ-0583)
  Water Pollution Abatement Plan Application (TCEQ-0584)
  Lift Station / Force Main System Application (TCEQ-0624)

- **Temporary Stormwater Section (TCEQ-0602)**

  Attachment A - Spill Response Actions
  Attachment B - Potential Sources of Contamination
  Attachment C - Sequence of Major Activities
  Attachment D - Temporary Best Management Practices and Measures
  Attachment E - Request to Temporarily Seal a Feature (if requested)
  Attachment F - Structural Practices
  Attachment G - Drainage Area Map
  Attachment H - Temporary Sediment Pond(s) Plans and Calculations
  Attachment I - Inspection and Maintenance for BMPs
  Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices

- **Permanent Stormwater Section (TCEQ-0600), if necessary**

  Attachment A - 20% or Less Impervious Cover Declaration (if requested for multi-family, school, or small business site)
  Attachment B - BMPs for Upgradient Stormwater

Attachment C - BMPs for On-site Stormwater
Attachment D - BMPs for Surface Streams
Attachment E - Request to Seal Features, if sealing a feature
Attachment F - Construction Plans
Attachment G - Inspection, Maintenance, Repair and Retrofit Plan
Attachment H - Pilot-Scale Field Testing Plan (if requested)
Attachment I -Measures for Minimizing Surface Stream Contamination

- **Agent Authorization Form (TCEQ-0599), if application submitted by agent**
- **Application Fee Form (TCEQ-0574)**
- **Check Payable to the "Texas Commission on Environmental Quality"**
- **Core Data Form (TCEQ-10400)**

Texas Commission on Environmental Quality

Edwards Aquifer Application Cover Page

Our Review of Your Application

The Edwards Aquifer Program staff conducts an administrative and technical review of all applications. The turnaround time for administrative review can be up to 30 days as outlined in 30 TAC 213.4(e). Generally administrative completeness is determined during the intake meeting or within a few days of receipt. The turnaround time for technical review of an administratively complete Edwards Aquifer application is 90 days as outlined in 30 TAC 213.4(e). Please know that the review and approval time is directly impacted by the quality and completeness of the initial application that is received. In order to conduct a timely review, it is imperative that the information provided in an Edwards Aquifer application include final plans, be accurate, complete, and in compliance with 30 TAC 213.

Administrative Review

1. Edwards Aquifer applications must be deemed administratively complete before a technical review can begin. To be considered administratively complete, the application must contain completed forms and attachments, provide the requested information, and meet all the site plan requirements. The submitted application and plan sheets should be final plans. Please submit one full-size set of plan sheets with the original application, and half-size sets with the additional copies.

   To ensure that all applicable documents are included in the application, the program has developed tools to guide you and web pages to provide all forms, checklists, and guidance. Please visit the below website for assistance: http://www.tceq.texas.gov/field/eapp.

2. This Edwards Aquifer Application Cover Page form (certified by the applicant or agent) must be included in the application and brought to the administrative review meeting.

3. Administrative reviews are scheduled with program staff who will conduct the review. Applicants or their authorized agent should call the appropriate regional office, according to the county in which the project is located, to schedule a review. The average meeting time is one hour.

4. In the meeting, the application is examined for administrative completeness. Deficiencies will be noted by staff and emailed or faxed to the applicant and authorized agent at the end of the meeting, or shortly after. Administrative deficiencies will cause the application to be deemed incomplete and returned.

   An appointment should be made to resubmit the application. The application is re-examined to ensure all deficiencies are resolved. The application will only be deemed administratively complete when all administrative deficiencies are addressed.

5. If an application is received by mail, courier service, or otherwise submitted without a review meeting, the administrative review will be conducted within 30 days. The applicant and agent will be contacted with the results of the administrative review. If the application is found to be administratively incomplete, it can be retrieved from the regional office or returned by regular mail. If returned by mail, the regional office may require arrangements for return shipping.

6. If the geologic assessment was completed before October 1, 2004 and the site contains "possibly sensitive" features, the assessment must be updated in accordance with the *Instructions to Geologists* (TCEQ-0585 Instructions).

Technical Review

1. When an application is deemed administratively complete, the technical review period begins. The regional office will distribute copies of the application to the identified affected city, county, and groundwater conservation district whose jurisdiction includes the subject site. These entities and the public have 30 days to provide comments on the application to the regional office. All comments received are reviewed by TCEQ.

2. A site assessment is usually conducted as part of the technical review, to evaluate the geologic assessment and observe existing site conditions. The site must be accessible to our staff. The site boundaries should be

clearly marked, features identified in the geologic assessment should be flagged, roadways marked and the alignment of the Sewage Collection System and manholes should be staked at the time the application is submitted. If the site is not marked the application may be returned.

3. We evaluate the application for technical completeness and contact the applicant and agent via Notice of Deficiency (NOD) to request additional information and identify technical deficiencies. There are two deficiency response periods available to the applicant. There are 14 days to resolve deficiencies noted in the first NOD. If a second NOD is issued, there is an additional 14 days to resolve deficiencies. If the response to the second notice is not received, is incomplete or inadequate, or provides new information that is incomplete or inadequate, the application must be withdrawn or will be denied. Please note that because the technical review is underway, whether the application is withdrawn or denied **the application fee will be forfeited**.
4. The program has 90 calendar days to complete the technical review of the application. If the application is technically adequate, such that it complies with the Edwards Aquifer rules, and is protective of the Edwards Aquifer during and after construction, an approval letter will be issued. Construction or other regulated activity may not begin until an approval is issued.

Mid-Review Modifications

It is important to have final site plans prior to beginning the permitting process with TCEQ to avoid delays.

Occasionally, circumstances arise where you may have significant design and/or site plan changes after your Edwards Aquifer application has been deemed administratively complete by TCEQ. This is considered a "Mid-Review Modification". Mid-Review Modifications may require redistribution of an application that includes the proposed modifications for public comment.

If you are proposing a Mid-Review Modification, two options are available:

- If the technical review has begun your application can be denied/withdrawn, your fees will be forfeited, and the plan will have to be resubmitted.
- TCEQ can continue the technical review of the application as it was submitted, and a modification application can be submitted at a later time.

If the application is denied/withdrawn, the resubmitted application will be subject to the administrative and technical review processes and will be treated as a new application. The application will be redistributed to the affected jurisdictions.

Please contact the regional office if you have questions. If your project is located in Williamson, Travis, or Hays County, contact TCEQ's Austin Regional Office at 512-339-2929. If your project is in Comal, Bexar, Medina, Uvalde, or Kinney County, contact TCEQ's San Antonio Regional Office at 210-490-3096

Please fill out all required fields below and submit with your application.

1. Regulated Entity Name: AC Tejas Quarry						**2. Regulated Entity No.: 108909615**			
3. Customer Name: Anderson Columbia Co., Inc.						**4. Customer No.: 603641549**			
5. Project Type: **(Please circle/check one)**	New		Modification			Extension		Exception	
6. Plan Type: **(Please circle/check one)**	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: **(Please circle/check one)**	Residential		Non-residential			**8. Site (acres):**		~1,321	
9. Application Fee:	$10,000		**10. Permanent BMP(s):**			Earthen berms, NVFS			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Comal		**14. Watershed:**			Guadalupe			

Application Distribution

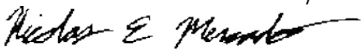
Instructions: Use the table below to determine the number of applications required. One original and one copy of the application, plus additional copies (as needed) for each affected incorporated city, county, and groundwater conservation district are required. Linear projects or large projects, which cross into multiple jurisdictions, can require additional copies. Refer to the "Texas Groundwater Conservation Districts within the EAPP Boundaries" map found at:

http://www.tceq.texas.gov/assets/public/compliance/field_ops/eapp/EAPP%20GWCD%20map.pdf

For more detailed boundaries, please contact the conservation district directly.

Austin Region			
County:	**Hays**	**Travis**	**Williamson**
Original (1 req.)	___	___	___
Region (1 req.)	___	___	___
County(ies)	___	___	___
Groundwater Conservation District(s)	___Edwards Aquifer Authority ___Barton Springs/ Edwards Aquifer ___Hays Trinity ___Plum Creek	___Barton Springs/ Edwards Aquifer	NA
City(ies) Jurisdiction	___Austin ___Buda ___Dripping Springs ___Kyle ___Mountain City ___San Marcos ___Wimberley ___Woodcreek	___Austin ___Bee Cave ___Pflugerville ___Rollingwood ___Round Rock ___Sunset Valley ___West Lake Hills	___Austin ___Cedar Park ___Florence ___Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	_X_	___	___	___
Region (1 req.)	___	_X_	___	___	___
County(ies)	___	_X_	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	_X_Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge _X_New Braunfels _X_Schertz	NA	___San Antonio ETJ (SAWS)	NA

I certify that to the best of my knowledge, that the application is complete and accurate. This application is hereby submitted to TCEQ for administrative review and technical review. Nicolas E. Mercado, P.E. TX License No. 144228 | TX Firm No. 4524
Print Name of Customer/Authorized Agent  8/21/2023 Signature of Customer/Authorized Agent Date

FOR TCEQ INTERNAL USE ONLY				
Date(s)Reviewed:		Date Administratively Complete:		
Received From:		Correct Number of Copies:		
Received By:		Distribution Date:		
EAPP File Number:		Complex:		
Admin. Review(s) (No.):		No. AR Rounds:		
Delinquent Fees (Y/N):		Review Time Spent:		
Lat./Long. Verified:		SOS Customer Verification:		
Agent Authorization Complete/Notarized (Y/N):		Fee Check:	Payable to TCEQ (Y/N):	
Core Data Form Complete (Y/N):			Signed (Y/N):	
Core Data Form Incomplete Nos.:			Less than 90 days old (Y/N):	

General Information Form

Texas Commission on Environmental Quality

For Regulated Activities on the Edwards Aquifer Recharge and Transition Zones and Relating to 30 TAC §213.4(b) & §213.5(b)(2)(A), (B) Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Section 1.01 Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **General Information Form** is hereby submitted for TCEQ review. The application was prepared by:

Print Name of Customer/Agent: Nicolas E. Mercado, P.E.

TX License No. 144228 | TX Firm No. 4525

Date: 8/21/2023

Signature of Customer/Agent:

Section 1.02 Project Information

1. Regulated Entity Name: AC Tejas Quarry
2. County: Comal
3. Stream Basin: Guadalupe
4. Groundwater Conservation District (If applicable): Comal Trinity GCD, EAA
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☒ Transition Zone

6. Plan Type:

   ☒ WPAP
   ☐ SCS
   ☒ Modification
   ☐ AST
   ☐ UST
   ☐ Exception Request

7. Customer (Applicant):

   Contact Person: Scott Cleveland
   Entity: Anderson Columbia Co. Inc.
   Mailing Address: P.O. Box 1829

   City, State: Lake City, FL Zip: 32056

   Telephone: 386-752-7585 FAX: 386-755-9132

   Email Address: scott.cleveland@andersoncolumbia.com

8. Agent/Representative (If any):

   Contact Person: Nick Mercado
   Entity: Westward Environmental, Inc.
   Mailing Address: 4 Shooting Club Rd.

   City, State: Boerne, TX Zip: 78006

   Telephone: 830-249-8284 FAX: _____

   Email Address: nmercado@westwardenv.com

9. Project Location:

   ☐ The project site is located inside the city limits of _____.
   ☒ The project site is located outside the city limits but inside the ETJ (extra-territorial jurisdiction) of Schertz & New Braunfels.
   ☐ The project site is not located within any city's limits or ETJ.

10. ☒ The location of the project site is described below. The description provides sufficient detail and clarity so that the TCEQ's Regional staff can easily locate the project and site boundaries for a field investigation.

    _____East side of Coyote Run approx. 0.4 miles north of Old Nacogdoches Rd.

11. ☒ **Attachment A – Road Map**. A road map showing directions to and the location of the project site is attached. The project location and site boundaries are clearly shown on the map.

12. ☒ **Attachment B - USGS / Edwards Recharge Zone Map**. A copy of the official 7 ½ minute USGS Quadrangle Map (Scale: 1" = 2000') of the Edwards Recharge Zone is attached. The map(s) clearly show:

    ☒ Project site boundaries.
    ☒ USGS Quadrangle Name(s).
    ☒ Boundaries of the Recharge Zone (and Transition Zone, if applicable).
    ☒ Drainage path from the project site to the boundary of the Recharge Zone.

13. ☒ **The TCEQ must be able to inspect the project site or the application will be returned**. Sufficient survey staking is provided on the project to allow TCEQ regional staff to locate

the boundaries and alignment of the regulated activities and the geologic or manmade features noted in the Geologic Assessment.

☒ Survey staking will be completed by this date: 9/17/23

14. ☒ **Attachment C – Project Description**. Attached at the end of this form is a detailed narrative description of the proposed project. The project description is consistent throughout the application and contains, at a minimum, the following details:

☒ Area of the site
☒ Offsite areas
☒ Impervious cover
☒ Permanent BMP(s)
☒ Proposed site use
☒ Site history
☒ Previous development
☒ Area(s) to be demolished

15. Existing project site conditions are noted below:

☐ Existing commercial site
☒ Existing industrial site
☐ Existing residential site
☒ Existing paved and/or unpaved roads
☒ Undeveloped (Cleared)
☒ Undeveloped (Undisturbed/Uncleared)
☐ Other: _____

Section 1.03 Prohibited Activities

16. ☒ I am aware that the following activities are prohibited on the Recharge Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 of this title (relating to Underground Injection Control);

(2) New feedlot/concentrated animal feeding operations, as defined in 30 TAC §213.3;

(3) Land disposal of Class I wastes, as defined in 30 TAC §335.1;

(4) The use of sewage holding tanks as parts of organized collection systems; and

(5) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41(b), (c), and (d) of this title (relating to Types of Municipal Solid Waste Facilities).

(6) New municipal and industrial wastewater discharges into or adjacent to water in the state that would create additional pollutant loading.

17. ☒ I am aware that the following activities are prohibited on the Transition Zone and are not proposed for this project:

(1) Waste disposal wells regulated under 30 TAC Chapter 331 (relating to Underground Injection Control);

(2) Land disposal of Class I wastes, as defined in 30 TAC §335.1; and

(3) New municipal solid waste landfill facilities required to meet and comply with Type I standards which are defined in §330.41 (b), (c), and (d) of this title.

Section 1.04 Administrative Information

18. The fee for the plan(s) is based on:

☒ For a Water Pollution Abatement Plan or Modification, the total acreage of the site where regulated activities will occur.
☐ For an Organized Sewage Collection System Plan or Modification, the total linear footage of all collection system lines.
☐ For a UST Facility Plan or Modification or an AST Facility Plan or Modification, the total number of tanks or piping systems.
☐ A request for an exception to any substantive portion of the regulations related to the protection of water quality.
☐ A request for an extension to a previously approved plan.

19. ☒ Application fees are due and payable at the time the application is filed. If the correct fee is not submitted, the TCEQ is not required to consider the application until the correct fee is submitted. Both the fee and the Edwards Aquifer Fee Form have been sent to the Commission's:

☒ TCEQ cashier
☐ Austin Regional Office (for projects in Hays, Travis, and Williamson Counties)
☐ San Antonio Regional Office (for projects in Bexar, Comal, Kinney, Medina, and Uvalde Counties)

20. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

21. ☒ No person shall commence any regulated activity until the Edwards Aquifer Protection Plan(s) for the activity has been filed with and approved by the Executive Director.

Anderson Columbia Co., Inc.
AC Tejas Quarry

General Information Form Attachment A

Road Map

Please see attached the Vicinity Map on the Cover Page (Sheet C1)

General Information Form Attachment B

USGS / Edwards Recharge Zone Map

Please see attached USGS / Edwards Recharge Zone Map.

General Information Form Attachment C

Project Description

Anderson Columbia Co., Inc. (Anderson Columbia) was approved to construct a limestone quarry on their South Tract of approximately 447.2 acres located near the intersection of Coyote Run and Old Nacogdoches Rd. within the ETJ of Schertz, Comal County, Texas (EAPP ID 13000042, approved 03/04/2016). A subsequent modification was approved on 04/16/2021 (EAPP ID 13001271) that included updating impervious cover, adding additional stormwater measures, and an alteration to the quarry expansion within the 447.2-acre project site. The Edwards Aquifer Recharge/Transition Zone boundary runs through the originally approved South Tract. Of the 447.2-acre South Tract, approximately 314 acres was approved to be quarried on the Recharge Zone. Several existing ranch roads and buildings from the previous agricultural use of the property are currently being used by Anderson Columbia Co., Inc. A plant, including self-contained settlement ponds, shop and supporting operations are located over the Transition Zone.

A second modification added approximately 323.5 acres (located north of the previous 447.2 acres) to the plan and expanded the final quarry pit boundary to the north (EAPP ID 13001636, approved 12/14/2022). In the second modification, the impervious cover over the Transition Zone was removed from the calculations concerning regulated activity. An associated blasting plan, establishing a 275-foot setback between the edge of the quarry pit and the SCS flood control dam (Schuetz Dam) located on-site, was approved 09/14/2022 by the TCEQ Dam Safety Section.

This third modification is being submitted to incorporate an additional (approx.) 550-acres over the Recharge Zone into the quarry area. This will bring the total site area to approx. 1,321-acres. The existing quarry pit will continue to expand as described in the approved WPAP. Temporary BMPs consisting of earthen berms and vegetated buffers will continue to be utilized to control and treat stormwater runoff in the initial stages of construction. Temporary natural existing vegetation will be maintained in a 25-foot buffer along Dry Comal Creek Tributary 23 as well as the FEMA 100-year floodplain of Dry Comal Creek located north of the Recharge Zone boundary. This buffer will be maintained until mining begins in the area and all applicable permits will be obtained before mining through the tributary or the FEMA 100-year floodplain. An SCS flood control dam (Schuetz Dam) exists on the northern tract of the property. The 25-foot buffer will be maintained

as previously approved, and a 275-foot buffer will be maintained between the base of the dam and edge of the pit.

As previously approved, when the pit is of sufficient size, the crushing operation will be moved into the quarry pit, and additional stockpiles will also be stored in the pit. The crushing equipment may be moved to any location within the pit depending on the current mining area. The Proposed Conditions Map - Sheet C4 - depict the area of the site that will be quarried. Permanent BMPs at the site will include the Final Earthen Berm and 50-foot vegetated buffers. There is an existing pipeline which runs along the east/northeastern property boundary and cuts across the northeast corner of the newly-proposed 550-acres. Anderson Columbia Co., Inc. will maintain any setbacks as required by the existing easement until such time as the pipeline may be shut down or removed and the easement is vacated.

The area being added will be used to further expand quarry operations in the future. The quarry pit may be backfilled with clean fill materials and non-sellable overburden. As quarry operations expand, areas of more than 10-acres of common drainage may be disturbed at a time, however these areas will be contained within temporary earthen berms, which will expand with the operation up to the Final Earthen Berm (as shown on the Proposed Conditions Map), and all run-off from these areas will remain contained on-site, ultimately draining to the pit. An initial phase of mining may involve grubbing a shallow area inside the temporary earthen berms for use as a material storage/staging yard. Within these areas, temporary material stockpiles & temporary compacted base access roads, constituting up to approximately 50-acres of impervious cover, may be established and/or relocated as needed. Runoff from this temporary impervious cover will be treated by surrounding natural vegetation and contained on-site by the surrounding temporary earthen berm (as described above and shown on the Proposed Conditions Map). These areas of disturbance and temporary impervious cover will all ultimately be mined out as the quarry pit expands to its final limits, as shown on the Proposed Conditions Map. The final quarry area is expected to encompass about 883 acres.

Trash generated on-site will be disposed of in a dumpster and handled by a licensed waste service. A water truck will be used as necessary to control dust. Existing septic systems are in place on the Transition Zone at the office and employee buildings. These systems will be serviced by a licensed septic contractor as needed. Portable toilets will be used on-site.

Routine maintenance will take place at the shop building. Fueling of large slow-moving equipment will take place on compacted base pads within the quarry pit. Permanent fuel storage tanks have been installed and an AST Plan application was approved (EAPP ID No. 13000890 dated 04/26/2019).

It is not expected that any significant amount of groundwater will be encountered in the quarry excavation. In order to maintain appropriate separation from the groundwater, and as previously approved, the quarry floor will not be lower than 689 ft. amsl.

The original geologic assessment included in this submittal covers the southern 447.2-acre portion of the site over the Recharge Zone. Three (3) sensitive features were discovered on-site (see Existing Conditions Plan). According to Anderson Columbia, Feature S-10, an existing well, had a crack at the concrete base around the casing, which was repaired. Features S-5 and S-12 were

approved in the previous WPAP to be temporarily sealed and removed through mining. No change is proposed for these features and Feature S-5 has already been temporarily sealed.

For the second modification, a second geologic assessment (included here) was completed for the northern 323.5 acres which were added to the WPAP with the 2022 approval. One sensitive feature (S-14) was discovered on-site (see Existing Conditions Plan). Feature S-14 is proposed to be left undisturbed.

For this third modification, a third geologic assessment has been completed for the proposed 550-acre addition and is included with this application. Eleven karst features were identified as sensitive (S-15, S-24, S-26, S-27, S-29, S-36, S-37, S-39, S-41, S-43, and S-44). Of these, 8 features (S-15, S-24, S-26, S-27, S-36, S-41, S-43, and S-44) are proposed to be temporarily sealed and eventually removed through mining, while features S-29 and S-37 are proposed to be permanently sealed.

An AST plan was approved on May 16, 2016 for a 12,000-gallon double-walled diesel tank, three 500-gallon double walled maintenance oil tanks and a 3,000-gallon used oil tank. On April 26, 2019, a 25,000-gallon tri-chambered double-walled tank was approved to replace the 12,000-gallon tank. This tank and one 500-gallon used oil tank are currently on-site. They have been relocated closer to the shop, as approved on March 30, 2020.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
WATER POLLUTION ABATEMENT PLAN
GENERAL CONSTRUCTION NOTES

1. WRITTEN CONSTRUCTION NOTIFICATION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
   - THE NAME OF THE APPROVED PROJECT;
   - THE ACTIVITY START DATE; AND
   - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR
2. ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.
3. IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION, CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
4. NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SYSTEM SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
5. PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR SITE SITUATIONS. THESE CONTROLS MUST REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
6. ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
7. SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.
8. LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
9. ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.
10. IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
11. THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
    - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
    - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
    - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
12. THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
    A. ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
    B. ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
    C. ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

AUSTIN REGIONAL OFFICE	SAN ANTONIO REGIONAL OFFICE
12100 PARK 35 CIRCLE, BLDG A	14250 JUDSON ROAD
AUSTIN, TEXAS 78753-1808	SAN ANTONIO, TEXAS 78233-4480
PHONE (512) 339-2929	PHONE (210) 490-3096
FAX (512) 339-3795	FAX (210) 545-4329

THESE GENERAL CONSTRUCTION NOTES MUST BE INCLUDED ON THE CONSTRUCTION PLANS PROVIDED TO THE CONTRACTOR AND ALL SUBCONTRACTORS.

BMP CONSTRUCTION NOTES

1. COMPACTED EARTHEN BERM
   INSTALLATION:
   COMPRISED OF SOIL AND OVERBURDEN MATTER EITHER GENERATED ONSITE OR DELIVERED FROM OFFSITE. COMPACT WITH HEAVY EQUIPMENT IN 12" (MAX) LIFTS.

   MAINTENANCE (TEMPORARY):
   INSPECT BERMS ONCE A MONTH UNTIL SUFFICIENTLY VEGETATED. REPLACE AS NECESSARY.
2. ROCK BERM
   SHOULD BE SECURED WITH A WOVEN WIRE SHEATING, MAX. OPENING 1" AND MIN. WIRE DIA. 20 GAUGE GALVANIZED. SECURE WITH SHOAT RINGS.

   INSTALLATION:
   AGGREGATE USED SHOULD BE COMPRISED OF OPEN GRADED 3-5" DIAMETER ROCK. BERM SHOULD BE PLACED PERPENDICULAR TO FLOW LINE. SIDE SLOPE MUST BE 2:1 OR FLATTER. WIRE SHEATHING MUST BE SECURED WITH TIE WIRE SO THEY OVERLAP AT LEAST 2".
   BERM SHOULD BE BURIED IN A TRENCH APPROX. 4" DEEP.

   MAINTENANCE (TEMPORARY):
   INSPECT BERMS ONCE A WEEK. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6". REPLACE WHEN ROCK BECOMES CLOGGED WITH SEDIMENT.

   ALTERNATE #1 & #2 ROCK BERMS (WEI)

   INSTALLATION:
   AGGREGATE USED SHOULD BE COMPRISED OF OPEN GRADED 3-5" DIAMETER ROCK. BERM SHOULD BE PLACED PERPENDICULAR TO FLOW LINE.

   MAINTENANCE (TEMPORARY):
   INSPECT BERMS ONCE A WEEK. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6". REPLACE WHEN ROCK BECOMES CLOGGED WITH SEDIMENT.
3. SILT FENCE W/ TRENCHED TOE

   INSTALLATION:
   3.1 STEEL POSTS SHOULD BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POSTS MUST BE EMBEDDED A MIN. OF 1' DEEP AND SPACED NOT MORE THAN 8' ON CENTER. WHERE WATER CONCENTRATES, THE MAX. SPACING SHOULD BE 6'.
   3.2 LAY OUT FENCING DOWN SLOPE OF DISTURBED AREA, FOLLOWING THE CONTOUR AS CLOSELY AS POSSIBLE.
   3.3 THE TOE OF THE SILT FENCE SHOULD BE TRENCHED-IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWN-SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT OR ROCK OUTCROP), WEIGHT FABRIC FLAP WITH 3 IN. OF PEA GRAVEL ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
   3.4 THE TRENCH MUST BE A MIN. OF 6 IN. DEEP AND 6 IN. WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
   3.5 SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST. THERE SHOULD BE A 3-FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
   3.6 INSPECT SILT FENCES ONCE A WEEK. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6". REPLACE SILT FENCES WHEN TORN OR OTHERWISE UNABLE TO FILTER SEDIMENT.
4. STABILIZED CONSTRUCTION ENTRANCE

   INSTALLATION:
   4.1 AVOID CURVES ON PUBLIC ROADS AND STEEP SLOPES. REMOVE VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. GRADE CROWN FOUNDATION FOR POSITIVE DRAINAGE.
   4.2 THE MINIMUM WIDTH OF THE ENTRANCE/EXIT SHOULD BE 12' OR THE FULL WIDTH OF EXIT ROADWAY, WHICHEVER IS GREATER.
   4.3 THE CONSTRUCTION ENTRANCE SHOULD BE 50' LONG.
   4.4 IF THE SLOPE TOWARD THE ROAD EXCEEDS 2%, CONSTRUCT A RIDGE, 6-8" HIGHT WITH 3:1 (H:V) SIDE SLOPES, ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE PUBLIC ROAD.
   4.5 PLACE GEOTEXTILE FABRIC AND GRADE FOUNDATION TO IMPROVE STABILITY, ESPECIALLY WHERE WET CONDITONS ARE ANTICIPATED.
   4.6 PLACE STONE TO DIMENSION AND GRADE SHOWN ON PLANS, LEAVE SURFACE SMOOTH AND SLOPE FOR DRAINAGE.
   4.7 INSTALL A PIPE UNDER PAD AS NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.

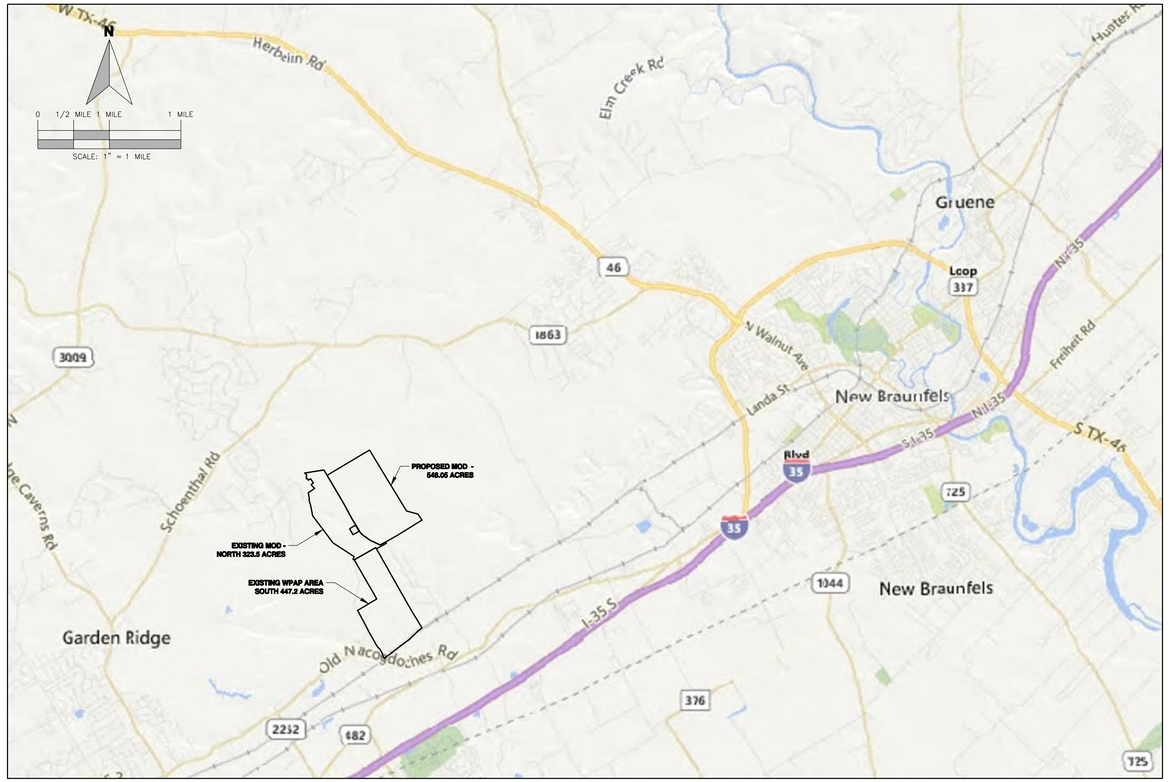
   MAINTENANCE: INSPECT WEEKLY. REPLACE STONE AS NECESSARY TO PREVENT TRACKING OFF-SITE.

GENERAL NOTES

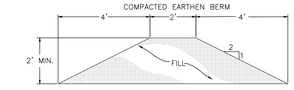
1. THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED FACILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
2. FACILITIES PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE ENGINEER OF RECORD.
3. UPON COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE OF THE WORK, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.
4. AS-BUILT DRAWINGS SHALL BE PREPARED BY A REGISTERED LAND SURVEYOR, REGISTERED IN THE STATE OF TEXAS, AND SUBMITTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD. CONTRACTOR TO PROVIDE RECORD INFORMATION WHICH LOCATES ALL UNDERGROUND UTILITIES, SITE GRADING AND CLEARANCE TO WATER MAIN FROM OTHER UTILITIES HORIZONTAL AND VERTICAL.
5. CONTRACTOR SHALL NOTIFY TEXAS811 ONE CALL SYSTEM (1-800-344-8377) 48 HOURS IN ADVANCE OF CONSTRUCTION.
6. ALL VEGETATION, DEBRIS, CONCRETE OR OTHER UNSUITABLE MATERIAL SHALL BE LEGALLY DISPOSED OF OFF-SITE IN AN APPROPRIATE AREA AT THE CONTRACTORS EXPENSE.
7. CONTRACTOR SHALL UTILIZE CONSTRUCTION METHODS AND DEVICES, SUCH AS TURBIDITY SCREENS, CURTAINS AND FLOATING SILT BARRIERS WHERE NECESSARY IN ORDER TO COMPLY WITH ALL STATE AND LOCAL WATER QUALITY STANDARDS.
8. ALL CONSTRUCTION SHALL BE DONE IN A SAFE MANNER, SPECIFICALLY, THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES SHALL BE STRICTLY OBSERVED.
9. MINIMUM COVER SHALL BE 3.0 FEET FOR ALL PIPES. (TYPICAL) UNLESS OTHERWISE NOTED ON DRAWINGS.
10. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAY OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC.
11. CONTRACTOR SHALL MONITOR AND PROHIBIT THE DEFACING OF FRESHLY PLACED CONCRETE SURFACES. ANY CONCRETE SURFACES DEFACED SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.
12. CLEARING AND GRUBBING SHALL INCLUDE REMOVAL OF ALL VEGETATION AS REQUIRED TO CONSTRUCT THE REQUIRED IMPROVEMENTS.
13. PROJECT SITE SAFETY:
    13.1. THE ENGINEER/OWNER OR THEIR EMPLOYEES HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER THE CONTRACTOR, ANY SUB-CONTRACTOR OR OTHER ENTITY OR THEIR EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY JOBSITE HEALTH OR SAFETY PRECAUTIONS.
    13.2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOBSITE SAFETY, AND WARRANTS THAT THIS INTENT IS MADE EVIDENT BY THE AGREEMENT BETWEEN OWNER AND CONTRACTOR.
    13.3. ALL EXISTING OVERHEAD AND UNDERGROUND UTILITIES SHOWN ON THESE DRAWINGS OR ENCOUNTERED THROUGH THE PROGRESSION OF WORK AT THIS PROJECT SITE ARE ASSUMED TO BE LIVE, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS WHEN WORKING AROUND EXISTING OVERHEAD OR UNDERGROUND UTILITIES.
14. ALL CONCRETE SHALL DEVELOP A MINIMUM OF 4000 p.s.i. COMPRESSIVE STRENGTH AT 28 DAYS, UNLESS OTHERWISE STATED.
15. THE SEQUENCE OF CONSTRUCTION SHALL BE SUCH THAT ALL UNDERGROUND INSTALLATION OF ANY KIND THAT WILL COME UNDER THE PAVEMENT OR WITHIN 10 FEET OF ITS EDGES SHALL BE INSTALLED PRIOR TO THE CONSTRUCTION OF THE BASE.
16. TRENCHES SHALL BE DRY WHEN PIPES ARE INSTALLED. PIPES PLACED BELOW THE WATER TABLE SHALL BE BEDDED ON PEA GRAVEL AND WELL POINT SYSTEMS SHALL BE USED. ALL DEWATERING PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
17. SIX (6) COPIES OF ALL SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO CONSTRUCTION. ALL REQUESTS FOR MATERIAL SUBSTITUTIONS MUST BE APPROVED PRIOR TO DELIVERY TO THE SITE. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL MANUFACTURED ITEMS.
18. ALL ROOTS IN THE PAVED AREA MUST BE REMOVED ONE FOOT BELOW THE BOTTOM OF SUB GRADE.
19. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STDS OF TCEQ
20. CONTRACTOR SHALL PERFORM ALL WORK NECESSARY TO LOCATE, EXCAVATE AND PREPARE FOR CONNECTIONS TO THE EXISTING SYSTEMS AS SHOWN ON THE DRAWINGS.
21. IF SOD IS USED ONSITE, IT SHALL BE PLACED 2" BELOW THE EDGES OF PAVEMENT TO ALLOW WATER TO DRAIN.
22. CONTOURS SHOWN ARE PRE DEVELOPMENT CONTOURS
23. COMPACTION NOTES:
    FOR FILL AREAS WHERE WATER WILL BE IMPOUNDED:
    23.1. PLACE FILL IN LIFTS NO MORE THAN 12" DEEP AT NEAR OPT. MOISTURE CONTENT.
    23.2. COMPACT TO AT LEAST 95% RC (ASTM D698)
    23.3. COMPACT TO SLOPE OF FACE
    FOR ON GRADE BERMS AND OTHER MISC. FILL
    23.4. PLACE CLEAN FILL IN 12" LIFTS
    23.5. COMPACT WITH ON-SITE HEAVY EQUIPMENT
24. ALL CONCRETE SURFACES TO BE BROOM FINISH UNO
25. DRAINAGE STRUCTURES TO MEET MIN. TxDOT SPECIFICATIONS FOR CONSTRUCTION AND PLACEMENT OF TYPE 3 DROP INLET
26. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND GRADING PRIOR TO CONSTRUCTION. ENGINEER OF RECORD SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
27. ALL RIP RAP SHALL BE COURSE GRADED ROCK AND SHALL BE SIZED IN ACCORDANCE WITH THE FOLLOWING TABLE

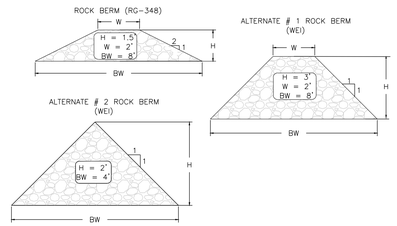
SLOPE	RIP RAP SIZE
0.5%-1%	4" ROCK
1.1% TO 2%	6" ROCK
2.1% TO 4%	8" ROCK
4.1% TO 5%	8"-12" ROCK

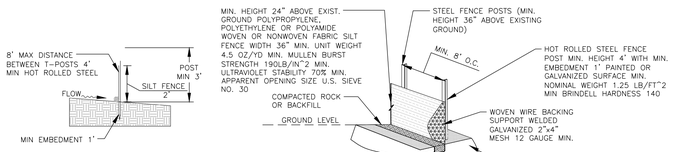
28. MIN THICKNESS OF RIPRAP TO BE 1.5 TIMES THE STONE DIAMETER UNO
29. GEOTEXTILE FABRIC (FILTER FABRIC) SHALL BE A MON-WOVEN POLYPROPALENE FABRIC DESIGNED SPECIFICALLY FOR USE AS A SOIL FILTRATION MEDIA w/ APPROX. WEIGHT 6 OZ/YD^2, A MULLEN BURST RATTING OF 140 PSI, AND AN EQUIVALENT OPENING SIZE (ESO) GREATER THAN #50 SIEVE. TENCATE MIRIFI N-SERIES OF APPROVED EQUAL.
30. BASIN LINERS SHALL COMPLY w/ RG-348 FOR COMPACTED CLAY LINERS OR EQUIVALENT APPROVED BY ENGINEER.
31. ALL DISTURBED AREAS TO BE SEEDED AND MULCHED FOR SLOPE STABILIZATION. SEED TO BE BERMUDA GRASS OR APPROVED ALTERNATES.
32. ALL CONCRETE SLABS TO HAVE #5 BARS EACH WAY AT 12" c/c IN CENTER OF SLAB UNO.



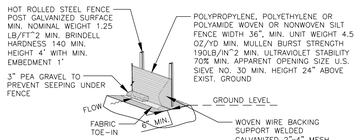
VICINITY MAP
SCALE : 1" = 1 MILE



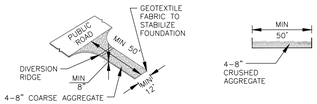




SILT FENCE WITH TRENCHED TOE
NOT TO SCALE



SILT FENCE ON PAVEMENT OR ROCK OUTCROP
NOT TO SCALE



SHEET INDEX

IMAGE:	
BING MAPS 2020	
ISSUE DATE:	8/16/2023
DRAWN BY:	NMS
CHECKED BY:	NEM
SCALE: 1" =	1 MILE
JOB NO.:	10603-176

SHEET NO.:
C1
OF C4

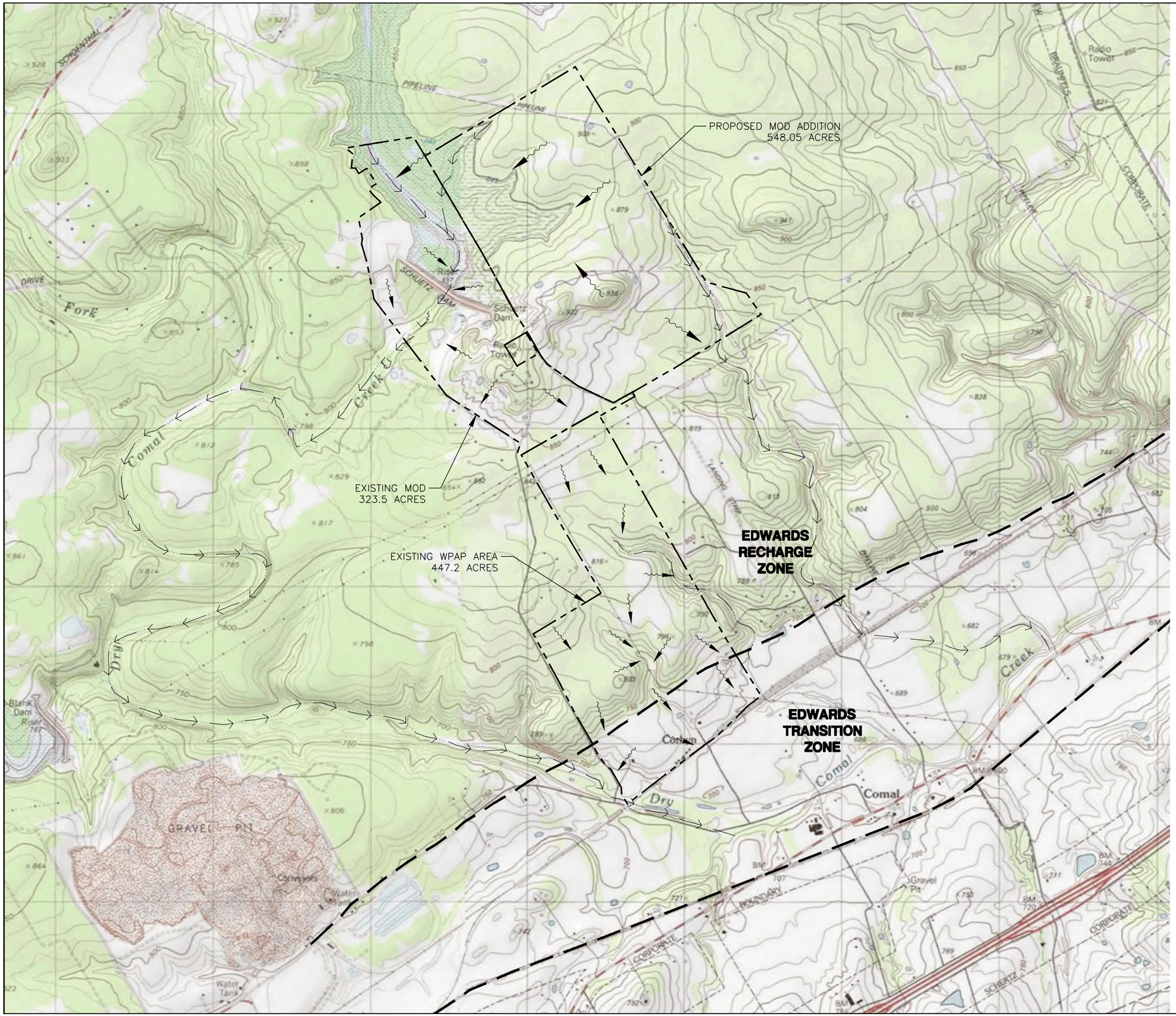
WESTWARD
Environmental, Engineering, Natural Resources.
P.O. Box 2205 Boerne, Texas 78006
(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

REV	DESCRIPTION	BY	DATE

STATE OF TEXAS
NICOLAS E. MERCADO
144228
LICENSED
PROFESSIONAL ENGINEER

Nicolas E. Mercado, P.E.
License No. 144228
8/21/2023

COVER PAGE
WPAP MODIFICATION
ANDERSON COLUMBIA CO., INC.
AC TEJAS QUARRY



N

0 1000 2000 4000

SCALE: 1" = 2000'

LEGEND

- EDWARDS ZONE BOUNDARY
- LINEAR WATER BODIES
- FLOW PATH
- PROPERTY LINE
- FLOW ARROW

WESTWARD
Environmental. Engineering. Natural Resources.
P.O. Box 2205 Boerne, Texas 78006
(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

STATE OF TEXAS
NICOLAS E. MERCADO
144228
LICENSED PROFESSIONAL ENGINEER

Nicolas E. Mercado, P.E.
License No. 144228

8/21/2023

USGS/RECHARGE ZONE MAP

WPAP MODIFICATION
ANDERSON COLUMBIA CO., INC.
AC TEJAS QUARRY

REV.	DESCRIPTION	BY	DATE

IMAGE: USA TOPO MAP

ISSUE DATE:	8/16/2023
DRAWN BY:	NMS
CHECKED BY:	NEM
SCALE: 1" =	2000'
JOB NO.:	10603-189

SHEET NO.:

C2

OF C4

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: Michelle M. Lee Telephone: 830.249.8284

Date: November 30, 2015 Fax: 830.249.0221

Representing: Westward Environmental, Inc. TBPG #50012 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

Michelle M. Lee

Michelle M. Lee
November 30, 2015

Regulated Entity Name: AC Mine Inc

Project Information

1. Date(s) Geologic Assessment was performed: July 15-17 & 20-22, 2015
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
CrD	D	0 - 3
ErG	D	0 - 3
RUD	D	0 - 3
DeB	D	>5
HvB	D	>5

** Soil Group Definitions (Abbreviated)*

A. *Soils having a high infiltration rate when thoroughly wetted.*
B. *Soils having a moderate infiltration rate when thoroughly wetted.*
C. *Soils having a slow infiltration rate when thoroughly wetted.*
D. *Soils having a very slow infiltration rate when thoroughly wetted.*

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

   Applicant's Site Plan Scale: 1" = 300'
   Site Geologic Map Scale: 1" = 300'
   Site Soils Map Scale (if more than 1 soil type): 1" = 300'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.

11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.

12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☒ Geologic or manmade features were not discovered on the project site during the field investigation.

13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.

14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☒ There are 1 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☒ The wells are not in use and will be properly abandoned.
    - ☐ The wells are in use and comply with 16 TAC Chapter 76.

    ☐ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

GEOLOGIC ASSESSMENT TABLE — PROJECT NAME: Anderson Columbia Property

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
S-1	29.6532	-98.28872	SC	20	KEP	0.3	0.3	0.3	250				, O	10	30	X			X	HILLSIDE
S-2	29.65363	-98.24062	MB	30	KEP	0.5	0.5	?	0				X	0	30	X			X	HILLSIDE
S-3	29.65597	-98.24095	SC	20	KEP	0.8	0.8	0.7	260				F, O	13	33	X			X	HILLSIDE
S-4	29.65663	-98.24096	O	5	KEP	9	4	0.5	60	10			F	10	25	X			X	HILLSIDE
S-5	29.65649	-98.24331	C	30	KEP	7	4	>20	56	10			N, O	50	90		X		X	HILLSIDE
S-6	29.65678	-98.24271	SC	20	KEP	0.5	0.8	2.5	50	10			F,O	8	38	X			X	HILLSIDE
S-7	29.65732	-98.24147	SC	20	KEP	3.5	1.3	0.9	340				F,O	11	31	X			X	DRAINAGE
S-8	29.66202	-98.24123	F	20	KEP	1750	10	?	56	10			F	7	37	X			X	HILLSIDE
S-9	29.661654	-98.24084	O	5	KEP	18	7	1.5	144				F,O	10	15	X			X	DRAINAGE
S-10	29.660743	-98.24207	MB	30	KEP	0.7	0.7	240	0				N	35	65		X		X	HILLSIDE
S-11	29.66068	-98.24240	CD	5	KEP	27	10	1	148				F	7	12	X			X	HILLSIDE
S-12	29.66127	-98.23988	Z-SC	30	KEP	100	15	11	145				F,O	17	47		X		X	DRAINAGE
S-13	29.65845	-98.23525	CD	5	KEP	26	20	4	240				F	11	16	X			X	DRAINAGE
S-14	29.65394	-98.23771	SC	20	KEP	0.5	0.7	1.3	60	10			F,O	9	39	X			X	HILLSIDE
S-15	29.65537	-98.24001	SC	20	KEP	0.7	0.9	3.1	240				F	15	35	X			X	HILLSIDE
S-16	29.65649	-98.24099	SC	20	KEP	0.2	0.2	2.5	330				F	10	30	X			X	HILLSIDE
S-17	29.66129	-98.24024	O	5	KEP	17	8	2	90				N	10	15	X			X	DRAINAGE

* DATUM: NAD 83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	BENTONITE

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.
My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Michelle M. Lee

STATE OF TEXAS
MICHELLE M. LEE
GEOLOGY
6071
LICENSED
PROFESSIONAL GEOSCIENTIST

Date November 30, 2015

TCEQ-0585-Table (Rev. 10-01-04)

GEOLOGIC ASSESSMENT TABLE — PROJECT NAME: Anderson Columbia Property

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
S-18	29.66100	-98.23987	This feature is the southern extent of a SCZ and is included with feature S-12.																	
S-19	29.66056	-98.23902	SF	20	KEP	2.1	3.5	4	160				F	10	30	X			X	DRAINAGE
S-20	29.65261	-98.23653	F	20	KEP	3500	10	?	56	10			F	7	37	X			X	HILLSIDE
S-21	29.66016	-98.23923	F	20	KEP	3500	10	?	56	10			F	7	37	X			X	HILLSIDE
S-22	29.66499	-98.24237	F	20	KEP	1750	10	?	56	10			F	7	37	X			X	HILLSIDE
S-23	29.65650	-98.24278	MB	30	KEP	0.5	0.5	?	0				X	0	30	X			X	HILLSIDE
S-24	29.65367	-98.24062	MB	30	KEP	0.5	0.5	?	0				X	0	30	X			X	HILLSIDE
S-25	29.66315	-98.23948	MB	30	KEP	0.5	0.5	?	0				X	0	30	X			X	HILLSIDE
S-26	29.66010	-98.24060	MB	30	KEP	0.5	0.5	?	0				X	0	30	X			X	HILLSIDE
S-27	29.65630	-98.23712	MB	30	KEP	0.5	0.5	?	0				X	0	30	X			X	HILLSIDE
S-28	29.66011	-98.23965	F	20	KEP	3500	10	?	56	10			F	7	37	X			X	HILLSIDE

* DATUM: NAD 83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	BENTONITE

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

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My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Michelle M. Lee

STATE OF TEXAS
MICHELLE M. LEE
GEOLOGY
6071
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Date November 30, 2015

TCEQ-0585-Table (Rev. 10-01-04)

STRATIGRAPHIC COLUMN

Hydrogeologic subdivision			Group formation or member			Hydrologic Function	Thickness (feet)	Lithology	Cavern development	Porosity / permeability type
Upper Cretaceous	Upper confining units		Navarro and Taylor Groups, undivided			CU	600	Clay, chalky limestone	None	Low porosity / low permeability
			Austin Group			CU; rarely AQ	130-150	White to gray limestone	None	Low porosity; rare water production form fractures / low permeability
			Eagle Ford Group			CU	30-50	Brown, flaggy shale and agrillaceous limesone	None	Primary porosity lost / low permeability
			Buda Limestone			CU	40-50	Buff, light gray, dense mudstone	Minor surface karst	Low porosity / low permeability
			Del Rio Clay			CU	40-50	Blue-green to yellow-brown clay	None	Low porosity / low permeability
			Buda Formation			CU	40-50	Buff, light gray, dense mudstone	Minor surface karst	Low porosity /low permeability
			Del Rio Clay			CU	40-50	Blue-green to yellow-brown clay	None	None / primary upper confining unit
Lower Cretaceous	I	Edwards Aquifer	Georgetown Formation			Karst AQ; not karst CU		Reddish-brown, gray to light tan marly limestone	None	Low porosity / low permeability
	II		Edwards Group	Person Fm	Cyclic & marine members undivided	AQ	89-90	Mudstone to packstone; miliolid grainstone; chert	Many sub-surface	Laterally extensive; water yielding
	III				Leached & collapsed members	AQ	70-90	Crystalline limestone; mudstone to grainstone; chert collapsed breccia	Extensive lateral development; large rooms	Majority not fabric / one of the most permeable
	IV				Regional dense members	CU	20-24	Dense, argillaceous mudstone	Very few; only vertical fracture enlargement	Not fabric / low permeability; vertical barrier
	V			Kainer Fm	Grainstone member	AQ	50-60	Miliolid grainstone; mudstone to wackestone; chert	Few	Not fabric / recrystallization reduces permeability
	VI				Kirschberg evaporite member	AQ	50-60	Highly altered crystalline limestone; chalky mudstone; chert	Probably extensive cave development	Majority fabric / one of the most permeable
	VII				Dolomitic member	AQ	110-130	Mudstone to grainstone; crystalline limestone; chert	Caves related to structure or bedding planes	Mostly not fabric; some bedding plane fabric / water-yielding
	VIII				Basal nodular member	Karst AQ; not karst CU	50-60	Shaly, nodular limestone; mudstone and miliolid grainstone	Large lateral caves at surface	Fabric; stratigraphically controlled/ large conduit flow at surface; no permeability in subsurface
	Lower confining unit		Upper member of the Glen Rose Limestone			CU; evaporite beds AQ	350-500	Yellowish tan, thinly bedded limestone and marl	Some surface cave development	Some water production at evaporite beds / relatively impermeable

Reference: U.S.G.S. Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Bexar County, Texas; Water-Resources Investigations Report 95-4030

Note: CU = Confining Unit; AQ = Aquifer

Indicates Mapped Surface Formation

GEOLOGIC NARRATIVE
ANDERSON COLUMBIA PROPERTY

Geologic Assessment
Anderson Columbia
New Braunfels, Comal County, Texas
WEI Proj. No.: 10603-055

Overview

The subject property is approximately 447 acres in size and is located off FM 1337 (Old Nacogdoches Road) & Coyote Run in Comal County. Of the 447 total site acres, this Geologic Assessment (GA) was performed on the Edwards Aquifer Recharge Zone (EARZ) portion of which is approximately 341 acres in size. At the time of field reconnaissance, the area assessed was an undeveloped ranch that had been selectively cleared. The Edwards Aquifer Recharge Zone (EARZ) boundary is the southern boundary for the assessment area. The geologic assessment (GA) was performed over the areas shown on the Geologic Map. A total of twenty-eight (28) features were identified and mapped during this investigation. Three (3) of the mapped features were classified as sensitive in accordance with the *"Instructions for Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones" (TNRCC-0585-Instructions (Rev. 10-1-04).*

Field Work

Field work was performed at the site by registered Texas Professional Geoscientist Michelle M. Lee, Texas Professional Geoscientist #6071, and four field technicians between July 15th & July 22nd, 2015. Field transects of the site were performed utilizing a 50 foot maximum spacing. Geologic and manmade features observed in the field were logged, photographed, labeled and GPS coordinates were collected. GPS data are provided in the Geologic Assessment Table.

The site is undisturbed but has been selectively cleared. Numerous piles of rock, trees and other vegetation are scattered throughout the site. The site is bisected by three compacted base roads in addition to a perimeter road around the site. Only the portion of the site that is located on the EARZ was assessed during this investigation.

Stratigraphy

The Person Member (Kep) of the Edwards Limestone Group (Ked) is present at the surface of the site. This unit is shown on the GA and Soils Map.

Structure

Five (5) faults were mapped at the site. However only three of the five were visually observed in the field. The large amount of clearing that has occurred at the site has significantly obscured the natural ground surface. The mapped faults were verified with

subsurface drilling performed by Anderson Columbia in addition to field reconnaissance. Horst – Graben sequences were identified with the drilling data across the site. The southernmost fault (S-20) is the main Balcones fault that juxtaposes the Kep to the Cretaceous-aged Pecan Gap Formation (Kpg) on the downthrown side. Please refer to the Geologic Map for more information regarding fault locations and movement. The dominant direction for features at the site is between 50 and 65 degrees.

Karst Features

Eleven (11) karst features were identified during field reconnaissance. Two of these features, S-5 & S-12 were determined to be sensitive features. S-5 is a vertical cave that is more than 20 ft. deep and the approximate 7 ft. opening at the surface is oriented at 56 degrees which is the dominant orientation for this sit. S-12 is a solution cavity zone with numerous large cavities and many smaller ones that are located in a rock bluff at the drainage floor. This zone appears to be a paleo spring. Some of the cavities are oriented downwards and back into the subsurface. These features would have a high infiltration rate when water is present in the drainage.

Geologic or Man-made Features

A total of twenty-eight (28) man-made, karst or non-karst features were identified during the field reconnaissance portion of the geologic assessment. These features consisted of one (1) water well, six (6) plugged exploratory borings, five (5) faults, eight (8) solution cavities, one (1) solution cavity zone, one (1) solutioned enlarged fracture, three (3) non-karst closed depressions, one (1) zone and two (2) other natural bedrock features.

Three of the features identified, S-5, S-10 & S-12, are classified as sensitive in accordance with the *"Instructions for Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones" (TNRCC-0585-Instructions (Rev. 10-1-04).*

Each feature identified during field reconnaissance is discussed below.

S-1 (SC): Not Sensitive
S-1 is a small solution cavity located on a hillside in the southern portion of the site. 0.3" in diameter and depth, it has fine-grained sediment infill. Relative infiltration rate (RIR) is low.

S-2 (MB): Not Sensitive
S-2 is an exploratory boring that has been plugged with bentonite. RIR = 0.

S-3 (SC): Not Sensitive
S-3 is a solution cavity with a 9" opening that narrows to 3" at a depth of approximately 8.5". At the back of the opening are a few very small almost 1" openings that go downward into the subsurface. This feature had fine-grained infilling and a low probability of rapid infiltration.

S-4 (F): Not Sensitive
S-4 is a fault that trends at 60° and extends across the site. This feature was observed in a creek bed along with a natural bedrock depression that also includes a solution cavity on the eastern flank of the feature. There was visual evidence that the feature has been holding water in the past with mud staining on the bedrock which indicates a low infiltration rate.

S-5 (C): Sensitive "Sharona Cave"
S-5 is vertical cave located in the lower western portion of the site. The cave extends vertically from an opening that measures approximately 7 ft. x 4 ft. with the trend of the opening being 56° which is dominant. The depth of the cave is estimated to be in excess of 20 ft. with no signs of infill as the bottom of the cave could not be readily seen. Algae stained rocks were observed on the walls. Given the orientation of the cave's opening and vertical shaft, the probability of rapid infiltration is high.

S-6 (SC): Not Sensitive
S-6 is a 6" x 9" solution cavity that extends about 2.5' horizontally into the hillside at 50°. The cavity does not appear to turn downward and infilled with fine-grained sediment and organics. Due to the location on a hillside and only a horizontal entrance, there is a low probability of rapid infiltration.

S-7 (SC): Not Sensitive
S-7 is a series of solution cavities that cover an area that measures approximately 3.5' x 1.3' in the central drainage in a 340° direction. Cavity openings range from approximately 3" to over 8". Most cavities are full of fine-grained sediment and are connected to surface cavities. One cavity at the bottom (1.8' above the drainage) of this outcrop goes back into the bedrock but does not turn downward. Probability of rapid infiltration is low.

S-8 (F): Not Sensitive
S-8 is located in the northern portion of the site and is not visible on aerial imagery. The fault was identified in the central drainage way during field reconnaissance initially as an 'Other' feature in bedrock. It is a slightly depressed flaggy area measuring 54' x 7' x 1.5' and is oriented at 140°. The solid flaggy limestone outcrop is adjacent to a solutioned and pitted, darker gray outcrop. S-8 showed evidence of holding water previously. Probability of rapid infiltration is low.

S-9 (O): Not Sensitive
S-9 is a depressed area in the bedrock that measures ~18' x 7' x 1.5' and is oriented at 144°. The beds in this area are dipping to the northwest and are quite vuggy and pitted. S-9 is located in a drainage and there was evidence of this area holding water previously in addition to lots of vegetation. Probability of rapid infiltration is low.

S-10 (MB): Sensitive
S-10 is an abandoned water well located in the northern portion of the site. The concrete seal at the surface has been broken and ½" gap is present all around the well casing. This

provides an avenue for rapid infiltration from rains. Additionally the well top is not sealed and can easily be removed. Probability of rapid infiltration is high.

S-11 (CD): Not Sensitive
S-13 is a non-karst closed depression that measure ~27' x 10' x 1' and is oriented at 148°. There is a thick dark soil bottom and showed evidence of holding water for some time. Probability of rapid infiltration is low.

S-12 (SCZ): Sensitive
S-12 is a solution cavity zone that is located in the central drainage channel that measures approximately 100' x 15' x 11'. Orientation if this zone varies between 120° and 145°. This area appears to be a paleo spring. Several small patches of algae were observed in the upper portions of the rock outcrop. There are numerous cavities with some openings as large as one foot. The cavities are scattered over the outcrop with some being at the base in the drainage. Although most of the cavities appear connected to surface openings and are mostly filled with fine-grained sediment, there are some cavities that appear to extend back and downwards toward the subsurface. Water must be present in the drainage to actively infiltrate to the subsurface. The relative infiltration rate is 17.

S-13 (CD): Not Sensitive
This feature is a closed depression caused by the construction of the eastern perimeter road in the drainage way. The feature measures approximately 26' x 20' x 4' and is oriented at 240°. The depression has a fine-grained soil floor and showed evidence of holding water in the recent past. The road has been raised approximately 3' to 4' above the natural drainage and has boulders acting as erosion control on the road base Probability of rapid infiltration is low.

S-14 (SC): Not Sensitive
S-14 is a solution cavity that measures ~8" x 6" x 1.3' located on a hillside with a 60° orientation. There is fine-grained infilling as well as organic matter in the feature. Probability of rapid infiltration is low.

S-15 (SC): Not Sensitive
S-15 is a solution cavity that measures ~8" x 11" x 3.1' and s located on a hillside and oriented at 240°. The feature has organics and fine-grained infill. Probability of rapid infiltration is low.

S-16 (SC): Not Sensitive
S-16 is a 3" round solution cavity located on a hillside. The depth of he feature is ~2.5" and is oriented at 330°. There is fine-grained sediment and organic material infilling the feature. Probability of rapid infiltration is low.

S-17 (O): Not Sensitive
S-17 is a depressed area in the bedrock that showed evidence of holding water. It measures approximately 17' x 8' x 2' and is in a drainage. Fine-grained sediment as well as organic material was observed in the feature at the time of field reconnaissance.

S-18 is the southern extent of the S-12 zone and has been deleted from the table.

S-19 (SF): Not Sensitive
S-19 is a solutioned enlarged fracture located in a drainage that stands approximately 3.5' tall, is ~2.1' wide and goes back 4' into the rock face. The direction of the opening is upward towards the surface at an orientation of 160°. Probability of rapid infiltration is low.

S-20, S-21, S-22 & S-28 (F): Not Sensitive
These features are faults that trend between 55° and 60° are approximately 3,500' (S-20) and 1,750' (S-21 & S-22) in length. S-20 is the southernmost fault that is along the main Balcones fault line. S-21 & S-22 were inferred from drilling data and were not visible on the ground surface during field reconnaissance. Probability of rapid infiltration is low.

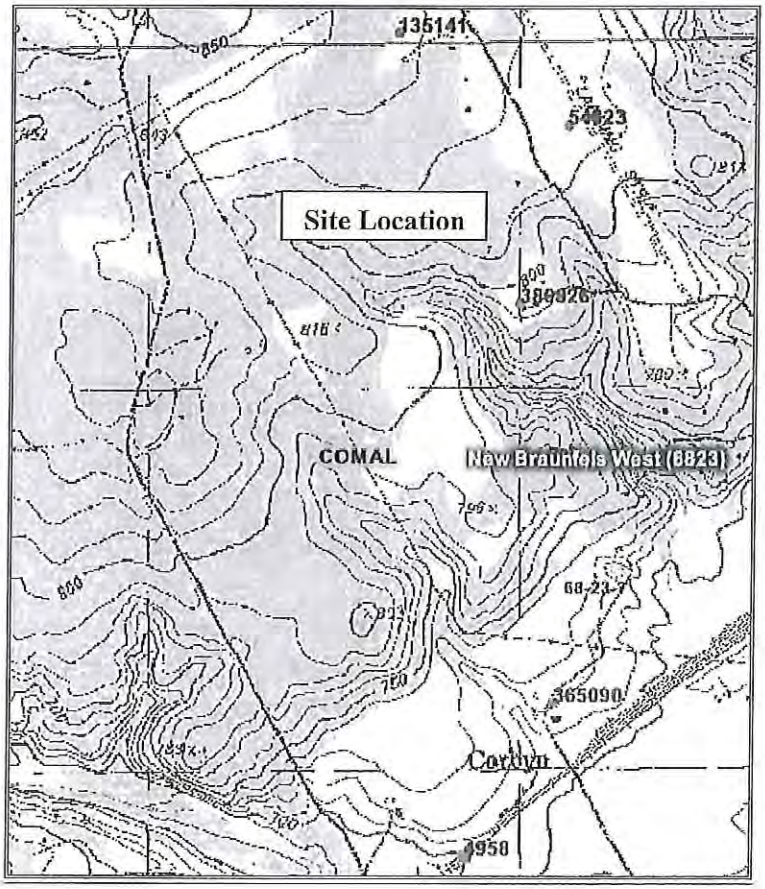
S-23, S-24, S-25, S-26 & S-27 (MB): Not Sensitive
These five features are exploratory borings and were observed to be plugged completely with bentonite at the time of field reconnaissance. Probability of rapid infiltration is low.

Groundwater Elevation

The Texas Water Development Board WIID website was reviewed for water well information and for water elevation data. The WIDD did not contain a log for the existing well onsite (S-10).

Water well information was found for State Well Nos.: #4958, #380826, #365090 and #135141 which are located south and east of the subject site. State Well Nos.: #380826 and #135141 are identified as the nearest Edwards Aquifer wells. A copy of the well logs are attached.

Well #380826 was drilled in 2014 to a depth of 220 feet below ground surface (bgs) and a water elevation measurement was collected on 9/15/2014 at a depth of 140 ft. below ground surface (bgs). Although there is no surface elevation data present in the well log, Google Earth estimates the surface elevation here to be approximately 799 ft. above mean sea level (AMSL). This equivocates a top of groundwater elevation of 659 ft. Well #135141 was drilled in 2008 to a completion depth of 330 ft. On 2/21/208 top of groundwater was measured at 177 ft. bgs. With a Goggle Earth estimated surface elevation of 841 ft. this equals a groundwater elevation of 664 ft. amsl. Here is a copy of the TWDB map for this site and surrounding area:



STATE OF TEXAS WELL REPORT for Tracking #4958

Owner:	kyle hillert	Owner Well #:	No Data
Address:	new braunfels , TX	Grid #:	68-23-7
Well Location:	No Data	Latitude:	29° 38' 51" N
Well County:	Comal	Longitude:	098° 14' 14" W
Elevation:	No Data	GPS Brand Used:	garmin
Type of Work:	New Well	Proposed Use:	Domestic

Drilling Date:	Started: **10/3/2001** Completed: **10/7/2001**
Diameter of Hole:	Diameter: **8 in From Surface To 30 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	**Straight Wall**
Annular Seal Data:	1st Interval: **From 0 ft to 278 ft with 37 (#sacks and material)** 2nd Interval: **No Data** 3rd Interval: **No Data** Method Used: **poured** Cemented By: **s w owen** Distance to Septic Field or other Concentrated Contamination: **150 ft** Distance to Property Line: **No Data** Method of Verification: **tape** Approved by Variance: **No Data**
Surface Completion:	**Surface Slab Installed**
Water Level:	Static level: **90 ft. below land surface on 10/7/2001** Artesian flow: **No Data**
Packers:	**1 rubber 278**
Plugging Info:	Casing or Cement/Bentonite left in well: **No Data**
Type Of Pump:	**Submersible** Depth to pump bowl: **(No Data) ft**
Well Tests:	**Jetted** Yield: **15 GPM with 100 ft drawdown after 3 hours**
Water Quality:	Type of Water: **sweet** Depth of Strata: **300-380 ft.** Chemical Analysis Made: **No** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No Data**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.

Company Information:	**sw owen drilling** **3409 fm 32** **san marcos , tx 78666**
Driller License Number:	**1589**
Licensed Well Driller Signature:	**S.W. Owen**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #4958) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-1 top soil
1-400 broken yellow lime

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
5 new pvc 0-278 sch 40

STATE OF TEXAS WELL REPORT for Tracking #380826

Owner:	**Justin D, Robbins**	Owner Well #:	**No Data**
Address:	**14334 Purple Martin** **San Antonio , TX 78233**	Grid #:	**68-23-7**
Well Location:	**1195 Pathfinder** **New Braunfels , TX 78132**	Latitude:	**29° 39' 38" N**
Well County:	**Comal**	Longitude:	**098° 14' 08" W**
Elevation:	**No Data**	GPS Brand Used:	**garmin**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:	Started: **9/10/2014** Completed: **9/16/2014**
Diameter of Hole:	Diameter: **9 in From Surface To 220 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	**Straight Wall**
Annular Seal Data:	1st Interval: **From 0 ft to 140 ft with 127 portland (#sacks and material)** 2nd Interval: **From 140 ft to 160 ft with hole plug (#sacks and material)** 3rd Interval: **No Data** Method Used: **tremie** Cemented By: **flugrath** Distance to Septic Field or other Concentrated Contamination: **180 ft** Distance to Property Line: **52 ft** Method of Verification: **No Data** Approved by Variance: **No Data**
Surface Completion:	**Surface Slab Installed**
Water Level:	Static level: **140 ft. below land surface on 9/15/2014** Artesian flow: **No Data**
Packers:	**neoprene 160**
Plugging Info:	Casing or Cement/Bentonite left in well: **No Data**
Type Of Pump:	**Submersible** Depth to pump bowl: **200 ft**
Well Tests:	**Estimated** Yield: **30 GPM with (No Data) ft drawdown after (No Data) hours**
Water Quality:	Type of Water: **edweards** Depth of Strata: **180 ft.** Chemical Analysis Made: **No** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein

	are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**flugrath construction** **1235 lone oak rd** **new braunfels , TX 78132**
Driller License Number:	**56058**
Licensed Well Driller Signature:	**david flugrath**
Registered Driller Apprentice Signature:	**luke flugrath**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #380826) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL	CASING, BLANK PIPE & WELL SCREEN DATA
From (ft) To (ft) Description	Dia. New/Used Type Setting From/To
0-100 hard limestone lost returns	**0-220 sdr 17 pvc 5" od slitted 180-220**

STATE OF TEXAS WELL REPORT for Tracking #365090

Owner:	**Johnny Weismann**	Owner Well #:	**No Data**
Address:	**Coyote Run** **New Braunfels , TX 78132**	Grid #:	**68-23-7**
Well Location:	**Coyote Run** **New Braunfels , TX 78132**	Latitude:	**29° 39' 04" N**
Well County:	**Comal**	Longitude:	**098° 14' 05" W**
Elevation:	**No Data**	GPS Brand Used:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Date:
Started: **5/12/2014**
Completed: **6/6/2014**

Diameter of Hole:
Diameter: **12 in From Surface To 60 ft**
Diameter: **9 in From 60 ft To 400 ft**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

Annular Seal Data:
1st Interval: **From 0 ft to 20 ft with 2.5 bags cement (#sacks and material)**
2nd Interval: **From 345 ft to 365 ft with 2.5 bags cement (#sacks and material)**
3rd Interval: **No Data**
Method Used: **Handmixed**
Cemented By: **Kutscher Drilling**
Distance to Septic Field or other Concentrated Contamination: **150+ ft**
Distance to Property Line: **50+ ft**
Method of Verification: **No Data**
Approved by Variance: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level:
Static level: **100 ft. below land surface on (No Data)**
Artesian flow: **No Data**

Packers:
Screen - 365'
Rubber - 370'

Plugging Info: Casing or Cement/Bentonite left in well: **No Data**

Type Of Pump: **No Data**

Well Tests: **Estimated**
Yield: **20+ GPM with (No Data) ft drawdown after (No Data) hours**

Water Quality:
Type of Water: **No Data**
Depth of Strata: **No Data**
Chemical Analysis Made: **No Data**
Did the driller knowingly penetrate any strata which contained undesirable constituents: **No Data**

Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Kutscher Drilling** **3810 Hunter Road** **San Marcos , TX 78666**
Driller License Number:	**58773**
Licensed Well Driller Signature:	**Canon Kutscher**
Registered Driller Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Comments:	**No Data**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #**365090**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft)	To (ft)	Description
0	**20**	**Topsoil & gravel**
20	**50**	**Yellow Clay**
50	**175**	**Blue Clay**
175	**210**	**Light Blue Limestone**
210	**365**	**Blue Clay**
365	**400**	**Blue Limestone**

CASING, BLANK PIPE & WELL SCREEN DATA

Dia.	New/Used	Type	Setting From/To
8"	**U**	**.188 Steel**	**0-60'**
4.5"	**N**	**SDR-17**	**0-380'**

STATE OF TEXAS WELL REPORT for Tracking #135141

Owner:	ALFRED ALBRECHT	Owner Well #:	1
Address:	2815 BUNKER ST. NEW BRAUNFELS , TX 78132	Grid #:	68-23-4
Well Location:	2885 BUNKER ST. NEW BRAUNFELS , TX 78132	Latitude:	29° 40' 01" N
Well County:	Comal	Longitude:	098° 14' 20" W
Elevation:	No Data	GPS Brand Used:	GARMIN
Type of Work:	New Well	Proposed Use:	Domestic

Drilling Date:	Started: **2/6/2008** Completed: **2/15/2008**
Diameter of Hole:	Diameter: **12 in From Surface To 4 ft** Diameter: **8 in From 4 ft To 330 ft**
Drilling Method:	**Air Rotary**
Borehole Completion:	**Straight Wall**
Annular Seal Data:	1st Interval: **From 0 ft to 2 ft with 2 CEMENT (#sacks and material)** 2nd Interval: **From 2 ft to 180 ft with 12 BENSEAL (#sacks and material)** 3rd Interval: **No Data** Method Used: **POS DISP EXT** Cemented By: **DRILLER** Distance to Septic Field or other Concentrated Contamination: **150+ ft** Distance to Property Line: **50 ft** Method of Verification: **OWNER** Approved by Variance: **No Data**
Surface Completion:	**Surface Slab Installed**
Water Level:	Static level: **177 ft. below land surface on 2/21/2008** Artesian flow: **No Data**
Packers:	**NEOPRENE CONE 180**
Plugging Info:	Casing or Cement/Bentonite left in well: **No Data**
Type Of Pump:	**Submersible** Depth to pump bowl: **294 ft**
Well Tests:	**Pump** Yield: **10 GPM with 0 ft drawdown after 1 hour**
Water Quality:	Type of Water: **EDWARDS** Depth of Strata: **UNKNOWN ft.** Chemical Analysis Made: **No** Did the driller knowingly penetrate any strata which contained undesirable constituents: **No**
Certification Data:	The driller certified that the driller drilled this well (or the well was drilled under

	the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	NEWBORN WATERWELL SERVICE8 8015 JETHRO LN. #1 SAN ANTONIO , TX 78266
Driller License Number:	54808
Licensed Well Driller Signature:	RONALD E. NEWBORN
Registered Driller Apprentice Signature:	No Data
Apprentice Registration Number:	No Data
Comments:	STEEL SLEEVE INSTALLED

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking number (Tracking #135141) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

DESC. & COLOR OF FORMATION MATERIAL

From (ft) To (ft) Description
0-1 OVERBURDEN
1-70 WHITE EDWARDS ROCK
70-? YELLOW EDWARDS ROCK
LOST CIRCULATION @90

CASING, BLANK PIPE & WELL SCREEN DATA

Dia. New/Used Type Setting From/To
10 NEW STEEL -1 TO 4
5 NEW PVC SDR-17 -1 TO 330

Selected Photographs

S-2: plugged core hole

S-4: solution cavity in a bedrock closed depression

S-5: cave, sensitive

S-7: solution cavity

S-9: closed depression

S-10: water well with separated casing, sensitive

S-12: solution cavity, one of many in a zone here, sensitive


S-13: man-made closed depression

Soils Narrative

A total of six (6) soil types were identified at the subject site. These are presented on the Geologic Assessment form as well as in the table below. The majority of the site is covered by the Comfort Rock Outcrop which has a moderately slow infiltration rate when thoroughly wetted. The Denton silty clay (DeB), Heiden gravelly clay (HgD) and the Houston black gravelly clay (HvB) occur only at the extreme southern end of the site and are not located on the recharge zone.

Soil Units, Infiltration Characteristics & Thickness			
Soil Name	Group *	Thickness (feet)	Description
Comfort Rock Outcrop (CrD) 1 – 8% slopes	D	0 - 1	0 to 2 inches to lithic bedrock, well drained, moderately low to very high (0.06 to 19.98 in/hr) Ksat capacity
Eckrant-Rock Outcrop (ErG) 8 to 30% slopes	D	0 - 3	8 to 20 inches to lithic bedrock, well drained, moderately low to moderately high Ksat (0.06 to 0.57 in/hr)
Rumple-Comfort association (RUD) 1 – 8% slopes	D	0 - 3	20 to 40 inches to lithic bedrock, well drained, moderately high Ksat (0.20 to 0.57 in/hr)
Denton Silty Clay (DeB) 1 – 3% slopes	D	>5	22 to 60 inches to lithic bedrock, well drained, high runoff, moderately low to moderately high (0.06 to 0.20 in/hr) Ksat
Heiden Gravelly clay (HgD) 3 – 8% slopes	D	>5	39 to 65 inches to densic material, well drained, very high runoff, very low to moderately low (0.00 to 0.06 in/hr) Ksat
Houston Black gravelly clay (HvB) 1 – 3% slopes	D	>5	More than 80 inches to restrictive feature, well drained, , very low to moderately low (0.00 to 0.06 in/hr) Ksat

References

- Geologic Map of the New Braunfels, Texas. 30 X 60 Minute Quadrangle: Geologic Framework of an Urban-Growth Corridor along the Edwards Aquifer, South-Central Texas, Texas Bureau of Economic Geology, 2000

- Instructions for Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones (TNRCC-0585-Instructions (Rev. 10-1-04)

- Texas Water Development Board WIID website, http://twdb.state.tx.us , well logs and groundwater data.

- Urban Hydrology for Small Watersheds, Technical Release No.: 55, Appendix A, Soil Conservation Service, 1986

- United States Department of Agriculture, Natural Resource Conservation Service, Web Soil Survey interactive map, http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

N

0 150 300 600

SCALE: 1" = 300'

LEGEND

Kep – PERSON FORMATION
Qle – LEONA FORMATION
GEOLOGIC FEATURE
FAULT
INFERRED FAULT
U UP THROW
D DOWN THROW

STATE OF TEXAS
MICHELLE M. LEE
6071
LICENSED PROFESSIONAL GEOSCIENTIST
GEOLOGY
November 30, 2015

IMAGE:	BING ROADS
ISSUE DATE:	11/30/2015
DRAWN BY:	JJS
CHECKED BY:	ML
SCALE: 1" =	300'
JOB #:	10603-055

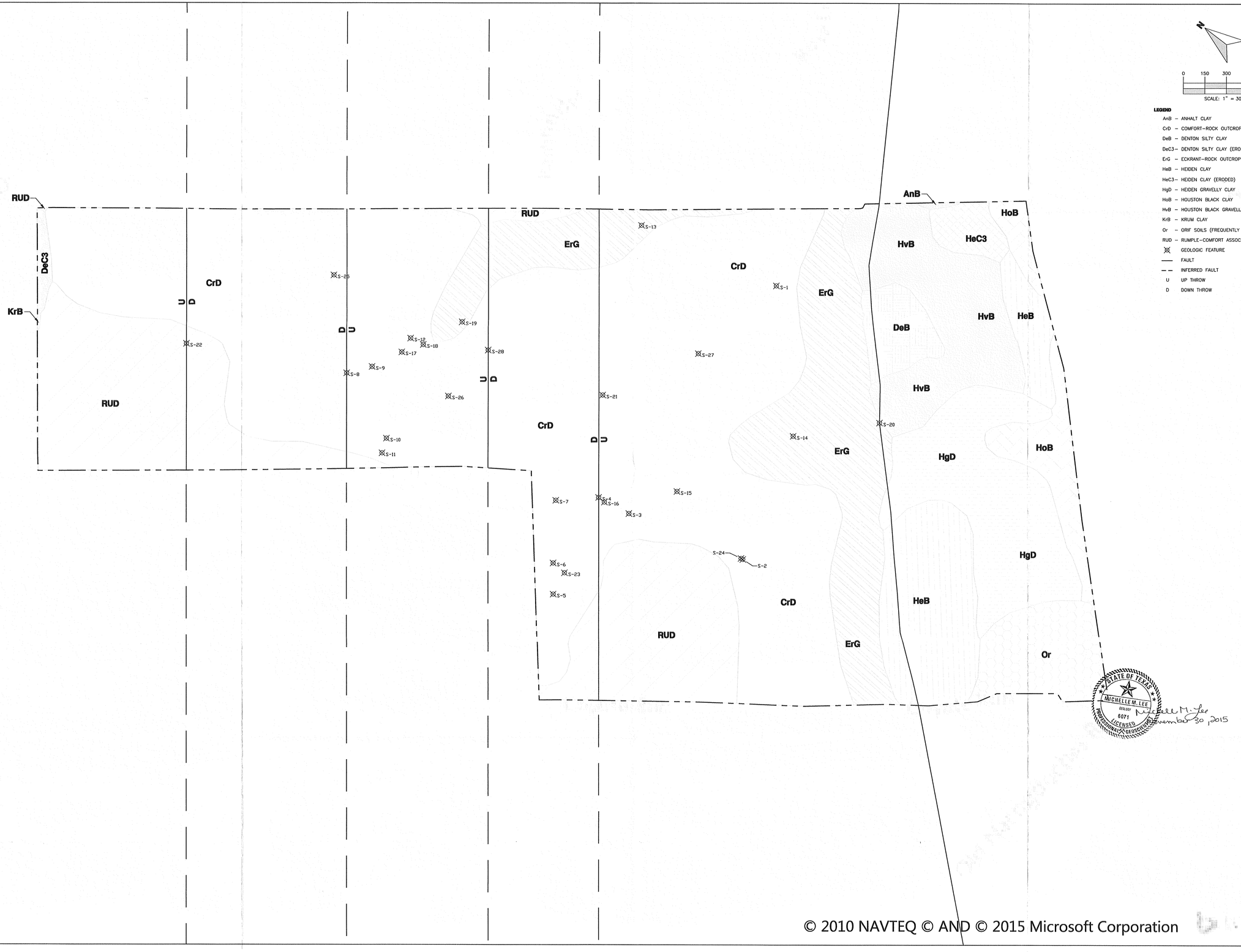
SHEET #: **01** OF 01

WESTWARD
Environmental. Engineering. Natural Resources.
P.O. Box 2205 Boerne, Texas 78006
(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

REV	DESCRIPTION	BY	DATE

GEOLOGY MAP

ANDERSON COLUMBIA PROPERTY
ANDERSON COLUMBIA CO., INC.
FM 1337, NEW BRAUNFELS, TEXAS



0 150 300 600

SCALE: 1" = 300'

LEGEND

- AnB – ANHALT CLAY
- CrD – COMFORT–ROCK OUTCROP COMPLEX
- DeB – DENTON SILTY CLAY
- DeC3 – DENTON SILTY CLAY (ERODED)
- ErG – ECKRANT–ROCK OUTCROP COMPLEX
- HeB – HEIDEN CLAY
- HeC3 – HEIDEN CLAY (ERODED)
- HgD – HEIDEN GRAVELLY CLAY
- HoB – HOUSTON BLACK CLAY
- HvB – HOUSTON BLACK GRAVELLY CLAY
- KrB – KRUM CLAY
- Or – ORIF SOILS (FREQUENTLY FLOODED)
- RUD – RUMPLE–COMFORT ASSOCIATION
- ⊠ GEOLOGIC FEATURE
- —— FAULT
- – – INFERRED FAULT
- U UP THROW
- D DOWN THROW

IMAGE: BING ROADS	
ISSUE DATE:	11/30/2015
DRAWN BY:	JJS
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REV	DESCRIPTION	BY	DATE

STATE OF TEXAS
MICHELLE M. LEE
GEOLOGY
6971
LICENSED
PROFESSIONAL GEOSCIENTIST
Michelle M. Lee
November 30, 2015

SOILS MAP

ANDERSON COLUMBIA PROPERTY
ANDERSON COLUMBIA CO., INC.
FM 1337, NEW BRAUNFELS, TEXAS

Anderson Columbia Co., Inc.

GEOLOGIC ASSESSMENT

AC Tejas Quarry: ~323.5 Acre Tract
140 Coyote Run
New Braunfels, Texas 78132
Comal County

Submitted to: TCEQ Region 13, San Antonio

Prepared By:

WESTWARD
Environmental. Engineering. Natural Resources.
Boerne, Texas
830-249-8284

Date: August 2021
Project No. 10603-157
-JG-

STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED
PROFESSIONAL GEOSCIENTIST

Signature: _____
John J. Sackrider, P.G. - License No. 12654
TX PG Firm No. 50112
Date: 8/19/2021

Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: John J. Sackrider, PG #12654

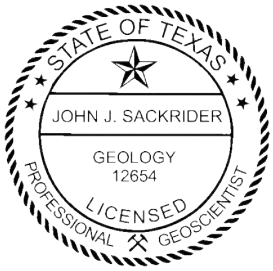
Telephone: 830-249-8284

Fax: 830-249-0221

Date: 8/19/2021

Representing: Westward Environmental, Inc., TBPG Registered Geoscience Firm 50012 (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: AC Tejas Quarry

Project Information

1. Date(s) Geologic Assessment was performed: June 21, 23, & 24,2021
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone

☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
CrD	D	< 2
DeC3	D	< 4
ErG	D	< 7
KrB	C	> 6
MEC	D	< 5
MED	D	< 5
RUD	D	< 4

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.
B. Soils having a moderate infiltration rate when thoroughly wetted.
C. Soils having a slow infiltration rate when thoroughly wetted.
D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

   Applicant's Site Plan Scale: 1" = 300'
   Site Geologic Map Scale: 1" = 300'
   Site Soils Map Scale (if more than 1 soil type): 1" = 300'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.
12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☐ Geologic or manmade features were not discovered on the project site during the field investigation.
13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate.
14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☒ There are 2 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☐ The wells are not in use and will be properly abandoned.
    - ☒ The wells are in use and comply with 16 TAC Chapter 76.

    ☐ There are no wells or test holes of any kind known to exist on the project site.

Administrative Information

15. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

Attachment A

Geologic Assessment Table (Form TCEQ-0585)

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: AC TEJAS QUARRY

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOD	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
S-1	29.668385	-98.247403	CD	5	Kdr	250	130	2	134				F,N	5	10	X			X	Hillside
S-2	29.670478	-98.245592	MB	30	Kbu	6	6	8	N/A				X	5	35	X		X		Hillside
S-3	29.670305	-98.246142	MB	30	Kbu	0.5		Unknown	N/A				X	5	35	X		X		Hilltop
S-4	29.671189	-98.247105	CD	5	Kbu	20	10	2	39	10			X	5	20	X				Hillside
S-5	29.673813	-98.248446	CD	5	Kdr	150	70	10	54	10			X	5	20	X			X	Hillside
S-6	29.670580	-98.248090	MB	30	Kbu	0.5		Unknown	N/A				X	5	35	X				Hillside
S-7	29.673379	-98.250541	CD	5	Kdr	300	175	15	34				X	5	10	X			X	Hillside
S-8	29.673229	-98.251451	CD	5	Kpcm	220	135	15	55	10			X	5	20	X			X	Hillside
S-9	29.670151	-98.249109	CD	5	Kdr	135	70	8	27				X	5	10	X				Hillside
S-10	29.683811	-98.256321	CD	5	Kpcm	Unknown	30	3	154				F,V,X	5	10	X			X	Floodplain
S-11	29.682335	-98.253764	CD	5	Kpcm	7	6	2	34				O,V	5	10	X		X		Floodplain
S-12	29.681516	-98.252470	CD	5	Kpcm	7	4	1.5	159				O,V	5	10	X		X		Floodplain
S-13	29.678728	-98.250178	O	5	Kpcm	20	8	1.5	69				F	5	10	X		X		Floodplain
S-14	29.676110	-98.250814	Z-SC	30	Kpcm	800	150	Unknown	32				X	35	65		X		X	Floodplain
S-15	29.675300	-98.249885	CD	5	Kpcm	125	60	3	104				V	5	10	X				Floodplain
S-16	29.680565	-98.253981	SC	20	Kpcm	0.33	0.5	1	111				O	5	25	X			X	Floodplain
S-17	29.669229	-98.241409	CD	5	Kgt	40	25	6	34				F,X	5	10	X		X		Hillside

Note: Fault coordinates recorded at eastern property boundary, length corresponds to the extent across the site.

* DATUM: NAD 83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed

I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.

My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED PROFESSIONAL GEOSCIENTIST

Date 8/19/2021

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: AC TEJAS QUARRY

LOCATION			FEATURE CHARACTERISTICS												EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11		12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
S-18	29.669181	-98.240912	CD	5	Kgt	35	40	6	109				X	5	10	X		X		Hillside
S-19	29.668417	-98.245956	CD	5	Kdr	114	100	10	134				X	5	10	X		X		Hillside
S-20	29.669955	-98.247646	CD	5	Kdr	280	59	8	134				X	5	10	X			X	Hillside
S-21	29.677569	-98.249913	CD	5	Kpcm	1000	215	10	34				C,O,V	5	10	X			X	Floodplain
S-22	29.682592	-98.252372	F	20	Kpcm	2200		Unknown	40	10			X	5	35	X			X	Floodplain
S-23	29.675308	-98.247639	F	20	Kpcm	2240		Unknown	60	10			X	5	35	X			X	Hillside
															0					
															0					
															0					
															0					
															0					
															0					
															0					
															0					
															0					
															0					

Note: Fault coordinates recorded at eastern property boundary, length corresponds to the extent across the site.

* DATUM: NAD 83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
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STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED
PROFESSIONAL GEOSCIENTIST

Date 8/19/2021

Attachment B

Stratigraphic Column

Generalized Stratigraphic Column – Comal County, Texas

Hydrogeologic subdivision			Group formation or member			Hydrologic Function	Thickness (feet)	Lithology	Cavern development	Porosity / permeability type
Quaternary			Alluvium			AQ	0-30	Siltstone to sandstone	None	High porosity/high permeability
			Fluviatile terrace deposits			AQ where saturated	0-45	Coarse gravel, sand, and sitl	None	High porosity/high permeability
Upper Cretaceous	Upper confining units		Navarro and Taylor Groups, undivided			CU	600	Clay, chalky limestone	None	Low porosity / low permeability
			Austin Group			CU; rarely AQ	130-150	White to gray limestone	None	Low porosity; rare water production form fractures / low permeability
			Eagle Ford Group			CU	30-50	Brown, flaggy shale and agrillaceous limesone	None	Primary porosity lost / low permeability
			Buda Limestone			CU	40-50	Buff, light gray, dense mudstone	Minor surface karst	Low porosity / low permeability
			Del Rio Clay			CU	40-50	Blue-green to yellow-brown clay	None	Low porosity / low permeability
Lower Cretaceous	I	Edwards Aquifer	Georgetown Formation			Karst AQ; not karst CU		Reddish-brown, gray to light tan marly limestone	None	Low porosity / low permeability
	II		Edwards Group	Person Fm	Cyclic & marine members undivided	AQ	89-90	Mudstone to packstone; miliolid grainstone; chert	Many sub-surface	Laterally extensive; water yielding
	III				Leached & collapsed members	AQ	70-90	Crystalline limestone; mudstone to grainstone; chert collapsed breccia	Extensive lateral development; large rooms	Majority not fabric / one of the most permeable
	IV				Regional dense members	CU	20-24	Dense, argillaceous mudstone	Very few; only vertical fracture enlargement	Not fabric / low permeability; vertical barrier
	V			Kainer Fm	Grainstone member	AQ	50-60	Miliolid grainstone; mudstone to wackestone; chert	Few	Not fabric / recrystallization reduces permeability
	VI				Kirschberg evaporite member	AQ	50-60	Highly altered crystalline limestone; chalky mudstone; chert	Probably extensive cave development	Majority fabric / one of the most permeable
	VII				Dolomitic member	AQ	110-130	Mudstone to grainstone; crystalline limestone; chert	Caves related to structure or bedding planes	Mostly not fabric; some bedding plane fabric / water-yielding
	VIII				Basal nodular member	Karst AQ; not karst CU	50-60	Shaly, nodular limestone; mudstone and miliolid grainstone	Large lateral caves at surface	Fabric; stratigraphically controlled/ large conduit flow at surface; no permeability in subsurface
	Lower confining unit		Upper member of the Glen Rose Limestone			CU; evaporite beds AQ	350-1150	Yellowish tan, thinly bedded limestone and marl. Thick massive limestone baed at base.	Some surface cave development.	Some water production at evaporite beds / relatively impermeable
			Lower Member of the Glen Rose Limestone							

Indicates surface unit mapped onsite. Note: CU = confining unit; AQ = Aquifer

Adapted from Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Bexar County, Texas, USGS Water-Resources Investigations Report 95-4030 (USGS, 1995)

Attachment C

Site Geology (Geologic Narrative)

Geologic Narrative for AC Tejas Quarry in Comal County, Texas.

1.0 PURPOSE

Westward Environmental, Inc. (WESTWARD) was retained by Anderson Columbia, Co., Inc. (Client) to prepare a Geologic Assessment (GA) of a ~323.5 acre tract located adjacent to the north of the existing AC Tejas Quarry (Site) in New Braunfels, Comal County, Texas. This GA was prepared as a required attachment to a Water Pollution Abatement Plan (WPAP) Modification application for the Site as required by the Texas Commission of Environmental Quality (TCEQ).

2.0 REGULATORY GUIDANCE

Chapter 30 of the Texas Administrative Code

This report was prepared in accordance with *Instructions for Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones (TCEQ-0585 (Rev. 10-01-04))* and will be reviewed pursuant to Title 30, Chapter 213 of the Texas Administrative Code.

3.0 PROJECT LOCATION

The Site is located within the western portion of the New Braunfels extraterritorial jurisdiction. The address is 140 Coyote Run, New Braunfels, Texas 78132. The Site is located over the Edwards Aquifer Recharge Zone (EARZ).

4.0 METHODOLOGY

As part of the GA, WESTWARD performed a desktop review of selected published information, and conducted a field investigation in accordance with *(TCEQ-0585 (Rev. 10-01-04))*.

4.1 Desktop Review

WESTWARD geologists conducted a review of aerial imagery, the University of Texas Bureau of Economic Geology (BEG) Geologic Database of Texas (GDT) San Antonio Sheet, applicable U.S. Geological Survey (USGS) Topographic quadrangle(s), the Texas Natural Resources Information System (TNRIS), the Texas Water Development Board's (TWDB) Water Data Interactive Groundwater Data Viewer (Well Viewer), the Railroad Commission of Texas (RRC), and the U.S. Department of Agriculture (USDA) National Resource Conservation Service (NRCS) Web Soil Survey prior to the field investigation.

4.2 Field Investigation

A field investigation was performed at the Site by WESTWARD staff, under the direction of John J. Sackrider, P.G. (TBPG Lic. No.: 12654) on June 21, 23, & 24, 2021. Field transects of the Site were walked in accordance with TCEQ-0585 (rev. 10-01-04).

5.0 DESKTOP REVIEW

The desktop review was utilized for preliminary planning of the field investigation. The accuracy of the desktop review was limited by the accessibility, scale, and age of the data available.

5.1 Published Surface Geology

A review of published geologic maps resulted in four (4) hydrostratigraphic units mapped at the Site. They include the Person Formation (Kpcm) and Georgetown Formation (Kgt) of the Edwards Group, the Del Rio Clay (Kdr), and Buda Limestone (Kbu). (USGS, 2007).

5.2 Published Structure

There are two (2) mapped faults that transect the Site in a southwest to northeast direction. One fault transects the northern portion of the Site with an approximate trend of 40° and the other transects the center of the Site with an approximate trend of 60°. For the purpose of this assessment, the average of these two faults is calculated to derive the dominant trend, resulting in 50°. The dominant trend range for this Site is approximated to be between 35° and 65°.

5.3 Karst Features

Mapped karst features were not encountered during the Desktop Review.

5.4 Non-karst & Manmade Features

There were no water wells identified through the TWDB Well Viewer and no other manmade features were encountered during the Desktop Review.

5.5 Soils

Seven (7) soil units were identified on the Site through the NRCS Web Soil Survey. They are detailed below as well as included on the Geologic Assessment Form TCEQ-0585 (Rev. 02-11-15).

Published Soil Unit Descriptions			
Soil Name	*Group*	*Thickness (Inches)*	*Description*
Comfort-Rock outcrop complex, 1 to 8 percent slopes (CrD)	D	< 20	Moderately low to moderately high (0.06 to 0.20 in/hr) Ksat values
Denton silty clay, 1 to 5 percent slopes (DeC3)	D	< 39	Moderately low to moderately high (0.06 to 0.20 in/hr) Ksat values
Eckrant-Rock outcrop association, 8 to 30 percent slopes (ErG)	D	< 80	Moderately low to very high (0.06 to 19.98 in/hr) Ksat values
Krum clay, 1 to 3 percent slopes (KrB)	C	80+	Moderately low to moderately high (0.06 to 0.20 in/hr) Ksat values
Medlin, warm-Eckrant association, 1 to 8 percent slopes (MEC)	D	< 60	Very low to moderately high (0.00 to 0.57 in/hr) Ksat values
Medlin, warm-Eckrant association, 8 to 30 percent slopes (MED)	D	< 60	Very low to moderately high (0.00 to 0.57 in/hr) Ksat values
Rumple-Comfort, rubbly association, 1 to 8 percent slopes (RUD)	D	< 40	Moderately low to moderately high (0.06 to 0.20 in/hr) Ksat values

6.0 FIELD INVESTIGATION

The field investigation was performed under the direction of John J. Sackrider, P.G. (TBPG Lic. No.: 12654) on June 21, 23, & 24, 2021 to verify the presence or absence of potential recharge features identified in the desktop review and to identify other potential recharge features not encountered during the desktop review. Field reconnaissance was performed in accordance with the *(TCEQ-0585-Instructions (Rev. 10-1-04)).* An adjustment for magnetic declination was not made in the field. Therefore, +4° was added to each trend estimated in the field to account for the 3.77° East declination at the Site (NOAA, 2020).

6.1 Surface Geology

Much of the Site was obscured by dense vegetation, making confirmation of mapped surface units difficult for a large part of the Site. The mapped surface geology was confirmed in several places where bedrock was exposed. Published surface geology is included on the Site Geologic Map (Attachment D).

6.2 Structure

Direct evidence of the two (2) mapped faults identified in the Desktop Review was not observed during field reconnaissance. However, as the faults are published and included in the attached maps, they have been recorded as features herein.

6.3 Karst Features

One (1) solution cavity, one (1) zone of solution cavities, and one (1) other natural bedrock feature were identified and recorded during the field investigation. The zone of solution cavities, feature S-14, is rated sensitive.

6.4 Non-karst & Manmade Features

Fifteen (15) non-karst closed depressions and three (3) manmade features in bedrock were identified and recorded during the field investigation.

6.5 Feature Descriptions

S-1 (CD) **Not Sensitive**

Feature S-1 is a large non-karst closed depression that measures approximately 250 ft. x 130 ft. x 2 ft. with an approximate bearing of 134° according to Google Earth aerial imagery. It is located near the intersection of Coyote Run and Pvt Rd at Coyote Run on the southern part of the Site that is mapped Kdr. The feature was observed to have a fine-grained soil floor with exposed Kdr. Mud cracks, scattered pebbles and shells were observed on the floor at the time of field reconnaissance. The catchment area is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-2 (MB) **Not Sensitive**

Feature S-2 is a manmade feature in bedrock that consists of a septic tank made of concrete with a removable concrete cap that sits loosely over the manhole opening. The approximate dimensions are 6 ft. x 6 ft. x 8 ft. At the time of field reconnaissance, the feature was holding water and was observed to be functioning as water was entering from a pipe connected to a nearby primary residence near the intersection of Pvt Rd at Coyote Run and

Schuetz Rd, located on the Kbu. The catchment area is less than 1.6 acres. The interpreted probability of rapid infiltration is low and the feature is rated not sensitive.

S-3 (MB) **Not Sensitive**

Feature S-3 is a water well located in the Kbu ~185 ft. from S-2 on the south side of the house. It has a 6" diameter PVC casing that sits approximately 1 ft. above a 2 ft. x 2 ft. concrete surface slab. The ground appeared to have a gradual slope and was slightly eroded at the base beneath the slab on the downslope. The erosion did not appear significant enough to compromise the integrity of the well casing or annular seal. The well appeared to be in use at the time of field reconnaissance. This well was not found on the Texas Water Development Board (TWDB) Groundwater Database and the depth is unknown. The catchment area for this feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-4 (CD) **Not Sensitive**

Feature S-4 is a non-karst closed depression located in the Kbu that measures approximately 20 ft. x 10 ft. x 2 ft. with an approximate bearing of 39°. The feature was holding water and trash at the time of field reconnaissance. The walls of the feature above the water line appeared to consist of fine-grained sediment and the feature was surrounded by tall grass and brush. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-5 (CD) **Not Sensitive**

Feature S-5 is a large non-karst closed depression located in the Kgt that appears to be used as a stock tank. It measures approximately 150 ft. x 70 ft. x 10 ft. with an approximate bearing of 54°. The feature was holding water at the time of field reconnaissance and is surrounded by thick grass and sparse mesquite trees. The catchment area is greater than 1.6 acres and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-6 (MB) **Not Sensitive**

Feature S-6 is a water well located in the Kbu ~625 ft. west of S-3, adjacent to an abandoned residence. It has a 6" diameter PVC casing that sits approximately 1.5 ft. above a 2 ft. x 2 ft. concrete surface slab. The seal was intact and the well appeared to be in use at the time of field investigation. This well was not found on the Texas Water Development Board (TWDB) Groundwater Database and the depth is unknown. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-7 (CD) **Not Sensitive**

Feature S-7 is a large non-karst closed depression that measures approximately 300 ft. x 175 ft. and has an estimated depth of 15 ft. according to GoogleEarth aerial imagery and topographic data. It has a bearing of approximately 34° and is located adjacent along a published fault. The feature was holding water with tall grass growing from it at the time of field reconnaissance. It is located between two sloping areas and has a catchment area greater than 1.6 acres. The interpreted probability of rapid infiltration is low and the feature is rated not sensitive.

S-8 (CD) **Not Sensitive**

Feature S-8 is a large non-karst closed depression that measures approximately 220 ft. x 135 ft. and has an estimated depth of 15 ft. The long axis of the feature has a bearing of approximately 55° and it is located adjacent to the north side of the same published fault adjacent to feature S-7. The feature appeared to be a stock tank and was holding water at the time of field reconnaissance. The ground around the feature is heavily covered with tall grass and the feature is mostly surrounded by trees. The catchment area for this feature is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-9 (CD) **Not Sensitive**

Feature S-9 is a non-karst closed depression that measures approximately 135 ft. x 70 ft. x 8 ft. with an approximate bearing of 27°. It is located adjacent to a road on the south-central part of the Site in the Kdr. It appeared to be a stock tank and was holding water at the time of field reconnaissance. Boulders and vegetation were also observed on the floor of the feature. The catchment area for this feature is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-10 (CD) **Not Sensitive**

Feature S-10 is a closed depression located where an internal road along the northern property boundary crosses Dry Comal Creek. The feature measures approximately 30 ft. wide and 3 ft. deep with an approximate bearing of 154°. The length is unknown as the feature extends upstream beyond the property line. A series of closed depressions were also observed along the same creek but were not recorded as they appear to be formed from transported debris. The catchment area for this feature is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-11 (CD) **Not Sensitive**

Feature S-11 is a small non-karst closed depression that measures approximately 7 ft. x 6 ft. x 2 ft. with an approximate bearing of 34°. The bottom of the feature consists of vegetation and soft dark soil. It is located on the northeastern part of the Site. The feature was likely formed from the removal of a root ball as extensive tree clearing occurred on this part of the Site since January 2017. The catchment area for this feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-12 (CD) **Not Sensitive**

Feature S-12 is a small non-karst closed depression that measures approximately 7 ft. x 4 ft. x 1.5 ft. with an approximate bearing of 159°. The bottom of the feature consists of vegetation and soft dark soil. It is also located on the northeastern part of the Site in the same general area as S-11 and is also likely from the removal of a root ball. Other features with similar interpreted origin were observed but not recorded. The catchment area for this feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-13 (O-CD) **Not Sensitive**

Feature S-13 was identified and recorded as an other natural bedrock feature measuring approximately 20 ft. x 8 ft. x 1.5 ft. It consists of a closed depression in a natural drainage infilled with broken vuggy rock and fine-grained sediment plugging most of the vugs. Mud cracks were observed at the time of field reconnaissance. The feature's elongated axis is parallel with the drainage and has an approximate trend of 69°. The catchment area for this feature is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-14 (Z-SC) **Sensitive**

Feature S-14 represents a zone of solution cavities within the reservoir of the dam. The zone measures approximately 800 ft. x 150 ft. and has an approximate trend of 32°. Soft soil, dried vegetation and scattered cobbles covered the area surrounding the features, most of which were not plugged at the time of field reconnaissance. The largest solution cavity observed in this zone measured approximately 3 ft. x 2 ft. x 5+ ft. with an approximate trend of 129°. Exposed bedrock was observed inside the solution cavity after removing loose vegetative debris. The catchment area for this feature is greater than 1.6 acres, and the interpreted probability of rapid infiltration is high. This feature is rated sensitive.

S-15 (CD) **Not Sensitive**

Feature S-15 is a large non-karst closed depression located along the upstream toe of the dam. It measures approximately 125 ft. x 60 ft. x 3 ft. and has an approximate trend of 104°. It is infilled with thick tall grass and has a catchment area greater than 1.6 acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-16 (SC) **Not Sensitive**

Feature S-16 is a solution cavity located on the north central part of the Site. It measures approximately 0.33 ft. x 0.50 ft. x 1 ft. and has an approximate trend of 111°. The feature appeared to be plugged with dark soil at the time of field reconnaissance. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-17 (CD) **Not Sensitive**

Feature S-17 is a non-karst closed depression located on Schuetz Dr. near the entrance gate on the southeastern part of the property. It is ovular-shaped with approximate dimensions of 40 ft. x 25 ft. X 6 ft. and an approximate trend of 34°. The feature appears to have been a test pit as piles of dug-out material lay nearby. The material dug out of the pit as well as its walls consisted of fine-grained sediment and the feature was holding water at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-18 (CD) **Not Sensitive**

Feature S-18 is a non-karst closed depression located along Schuetz Dr. approximately 158 ft. east of S-17. It appears to be a stock tank measuring approximately 35 ft. x 40 ft. X 6 ft. with an approximate trend of 109°. The feature was surrounded with overgrown vegetation and large trees and was holding water at the time of field reconnaissance. The

catchment area for this feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-19 (CD) **Not Sensitive**

Feature S-19 is a non-karst closed depression located along Pvt Rd at Coyote Run on the southern part of the Site in the Kdr. It appears to be a stock tank measuring approximately 114 ft. x 100 ft. x 10 ft. with an approximate trend of 134°. The feature was holding water at the time of field reconnaissance and is surrounded by mature trees and heavy vegetation. The catchment area for this feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-20 (CD) **Not Sensitive**

Feature S-20 is a non-karst closed depression located adjacent to a berm along the south-central part of the Site in the Kdr. It appears to be a stock tank measuring approximately 280 ft. x 59 ft. x 8 ft. with an approximate trend of 134°. The feature was holding water at the time of field reconnaissance and is surrounded by heavy vegetation. The catchment area for this feature is greater than 1.6 acres and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-21 (CD) **Not Sensitive**

Feature S-21 is a closed depression located in the reservoir of the dam which encompasses the depressed area below the invert elevation of the primary dam outfall structure. The feature measures approximately 1000 ft. x 215 ft. x 10 ft. with an approximate trend of 34°. The catchment area for this feature is greater than 1.6 acres, and the interpreted probability of rapid infiltration is high. This feature is rated not sensitive.

S-22 (F) **Not Sensitive**

Feature S-22 is a published fault that transects the northern part of the Site with an approximate trend of 40° (USGS, 2016). Direct evidence of the feature was not observed onsite at the time of field reconnaissance. The feature measures approximately 2200 ft. across the Site. The catchment area for this feature is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-23 (F) **Not Sensitive**

Feature S-23 is a published fault that transects the central part of the Site with an approximate trend of 60° (USGS, 2016). Direct evidence of the feature was not observed onsite at the time of field reconnaissance. The feature measures approximately 2240 ft. across the Site. The catchment area for this feature is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

7.0 REFERENCES

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(TWDB, 2021) Texas Water Development Board. Water Data Interactive Groundwater Data Viewer. Available online at https://www3.twdb.texas.gov/apps/WaterDataInteractive/GroundwaterDataViewer/?map=sdr.

(USGS, 1995) Stein, W.G. and Ozuna, G.B., 1995, Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Bexar County, Texas, USGS Water-Resources Investigations Report 95-4030, 8 p.

(USGS, 2007) United Stated Geological Survey, et.al, 2007. Geologic Database of Texas Viewer. Available online at https://txpub.usgs.gov/txgeology/.

(USGS, 2016) Clark, A.K., Golab, J.A., and Morris, R.R., 2017, Geologic Framework and Hydrostratigraphy of the Edwards and Trinity Aquifers within Northern Bexar and Comal Counties, Texas: U.S. Geological Survey Scientific Investigations Map 3366, 1 sheet. Available online at https://doi.org/10.3133/sim3366.

SELECT PHOTOGRAPHS

Feature S-1: Floor of closed depression on the southern part of the Site with exposed Kdr.

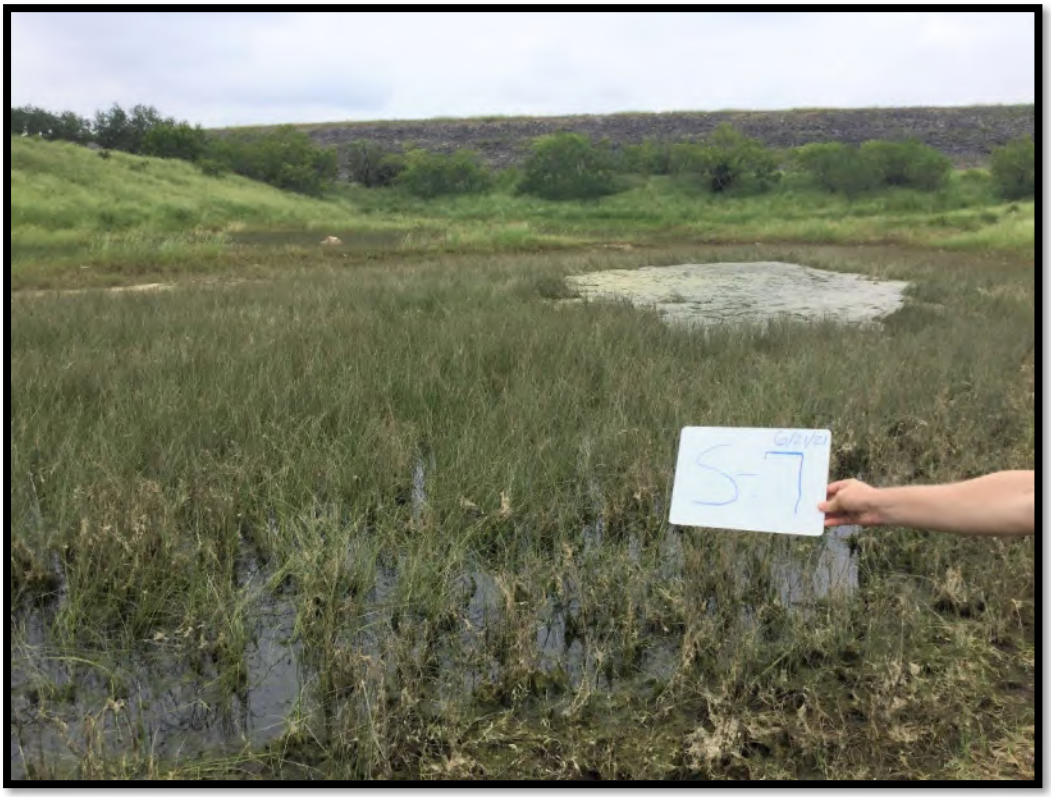
Feature S-2: Septic tank manhole near primary residence.

Feature S-2: View of inner septic tank wall.

Feature S-3: Water well by the primary residence.

Feature S-4: Closed depression holding water and trash.

Feature S-6: Water well by an abandoned residence.



Feature S-7: Closed depression located to along fault S-23.

Feature S-9: Closed depression on the south-central part of the Site.

Feature S-13: Vuggy rock within a small closed depression.

Feature S-13: View of feature floor.

Feature S-14: Open solution cavity within the sensitive feature zone.

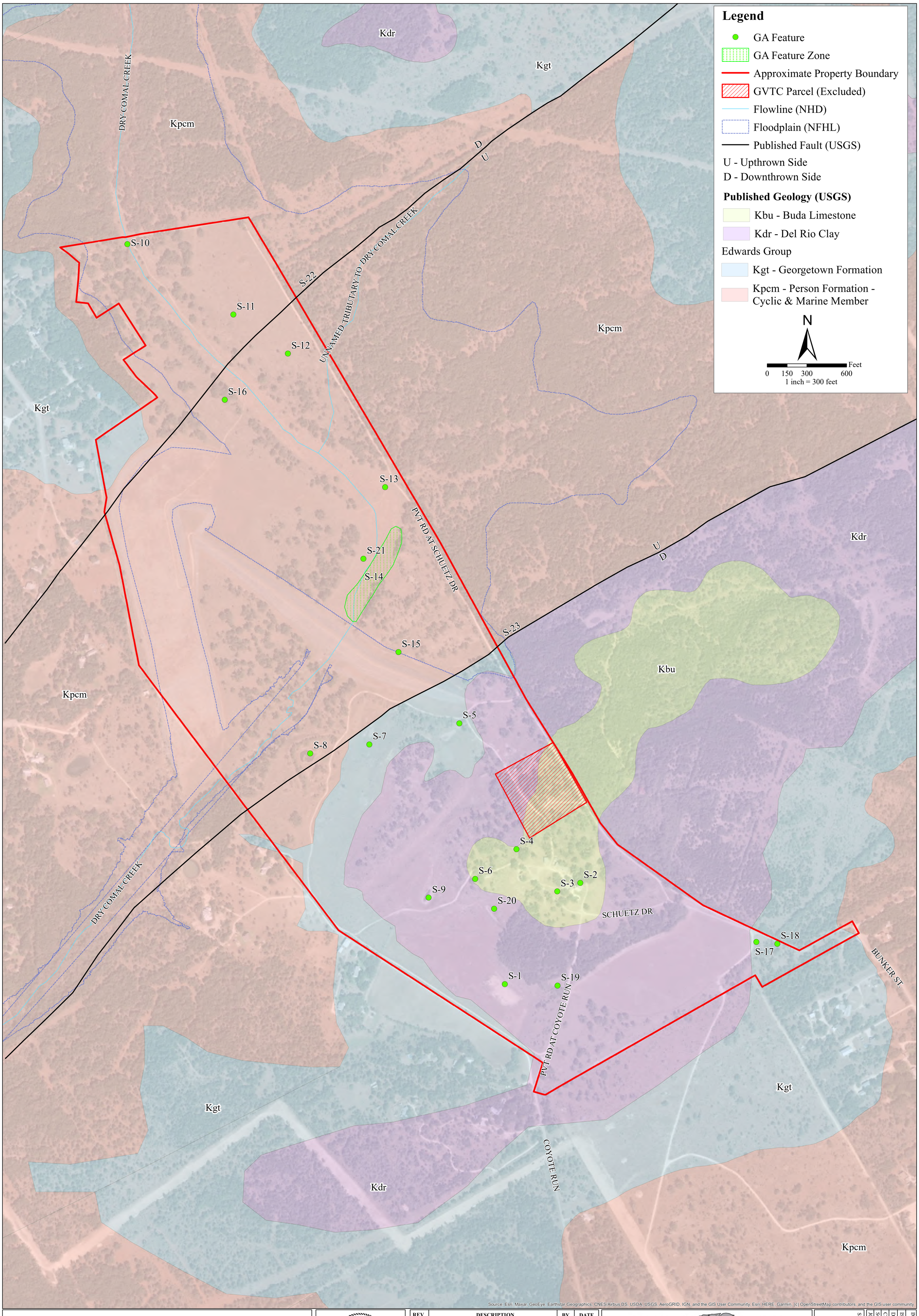
Feature S-14: Close-up view of opening.

Feature S-17: Closed depression with piles of material.

Feature S-20: Closed depression south of the primary residence.

Attachment D

Site Geologic Map
Site Soils Map



SITE GEOLOGIC MAP

AC TEJAS QUARRY
ANDERSON COLUMBIA CO., INC.
NEW BRAUNFELS, COMAL COUNTY, TEXAS

STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED
PROFESSIONAL GEOSCIENTIST

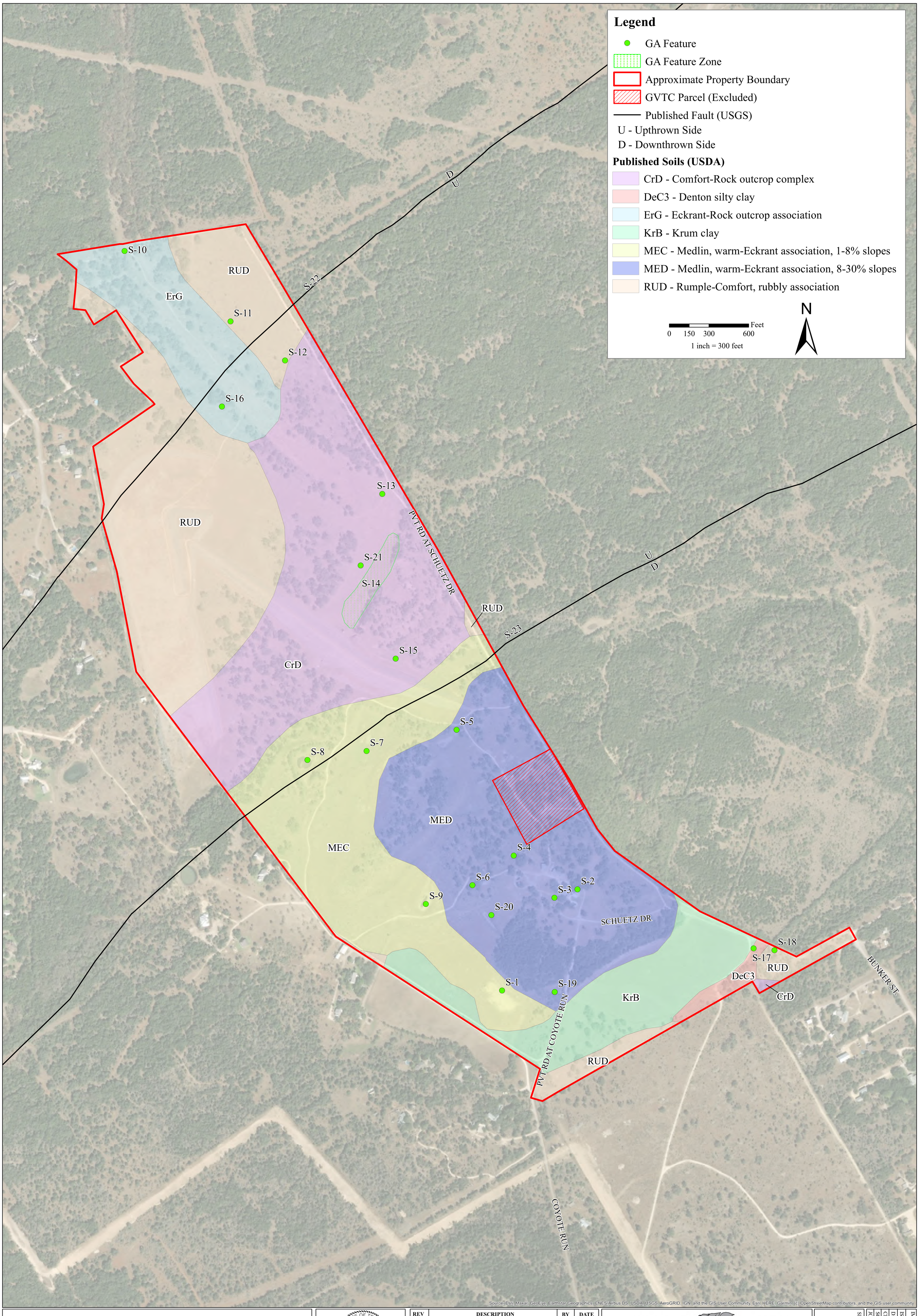
8/19/2021

REV	DESCRIPTION	BY	DATE

WESTWARD
Environmental. Engineering. Natural Resources.
P.O. Box 2205, Boerne, Texas 78006
(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

SHEET NO.: 01 OF 02

JOB NO.:	10603-157
SCALE: 1" =	300'
CHECKED BY:	JJS
DRAWN BY:	JG
ISSUE DATE:	08/17/2021
IMAGE: ESRI WORLD IMAGERY	



SITE SOILS MAP

AC TEJAS QUARRY
ANDERSON COLUMBIA CO., INC.
NEW BRAUNFELS, COMAL COUNTY, TEXAS

STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
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REV	DESCRIPTION	BY	DATE

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JOB NO.:	10603-157
SCALE: 1" =	300'
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ISSUE DATE:	08/17/2021

IMAGE: ESRI WORLD IMAGERY

ANDERSON COLUMBIA CO., INC.

GEOLOGIC ASSESSMENT

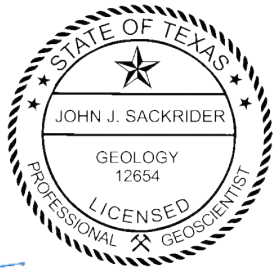
AC TEJAS QUARRY
140 COYOTE RUN
NEW BRAUNFELS, TEXAS 78132
COMAL COUNTY

Submitted to: TCEQ Region 13, San Antonio

Prepared By:

WESTWARD
Environmental. Engineering. Natural Resources.
Boerne, Texas
830-249-8284

Date: August 2023
Project No. 10603-189
-JG-



Signature: _____
John J. Sackrider, P.G. - License No. 12654
TX PG Firm No. 50112
Date: 8/18/2023

Article I. Geologic Assessment

Texas Commission on Environmental Quality

For Regulated Activities on The Edwards Aquifer Recharge/transition Zones and Relating to 30 TAC §213.5(b)(3), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Section 1.01 Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Print Name of Geologist: John J. Sackrider, P.G. #12654

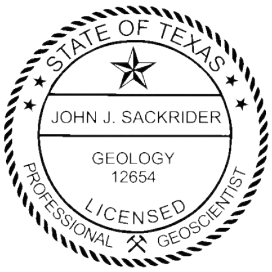
Telephone: 830-249-8284

Fax: 830-249-0221

Date: 8/18/2023

Representing: Westward Environmental, Inc., TBPG Registered Geoscience Firm 50012
(Name of Company and TBPG or TBPE registration number)

Signature of Geologist:



Regulated Entity Name: AC Tejas Quarry

Section 1.02 Project Information

1. Date(s) Geologic Assessment was performed: June 6-9, 13-15, & 20-22, 2023
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☐ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

4. ☒ **Attachment A - Geologic Assessment Table**. Completed Geologic Assessment Table (Form TCEQ-0585-Table) is attached.

5. ☒ Soil cover on the project site is summarized in the table below and uses the SCS Hydrologic Soil Groups* (Urban Hydrology for Small Watersheds, Technical Release No. 55, Appendix A, Soil Conservation Service, 1986). If there is more than one soil type on the project site, show each soil type on the site Geologic Map or a separate soils map.

Article II. Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
CrD	D	< 2
DeC3	D	< 4
KrB	C	> 6
MEC	D	< 5
MED	D	< 5
RUD	D	< 4

** Soil Group Definitions (Abbreviated)*

A. Soils having a high infiltration rate when thoroughly wetted.

B. Soils having a moderate infiltration rate when thoroughly wetted.

C. Soils having a slow infiltration rate when thoroughly wetted.

D. Soils having a very slow infiltration rate when thoroughly wetted.

6. ☒ **Attachment B – Stratigraphic Column**. A stratigraphic column showing formations, members, and thicknesses is attached. The outcropping unit, if present, should be at the top of the stratigraphic column. Otherwise, the uppermost unit should be at the top of the stratigraphic column.

7. ☒ **Attachment C – Site Geology**. A narrative description of the site specific geology including any features identified in the Geologic Assessment Table, a discussion of the potential for fluid movement to the Edwards Aquifer, stratigraphy, structure(s), and karst characteristics is attached.

8. ☒ **Attachment D – Site Geologic Map(s)**. The Site Geologic Map must be the same scale as the applicant's Site Plan. The minimum scale is 1": 400'

   Applicant's Site Plan Scale: 1" = 300'
   Site Geologic Map Scale: 1" = 300'
   Site Soils Map Scale (if more than 1 soil type): 1" = 300'

9. Method of collecting positional data:

   ☒ Global Positioning System (GPS) technology.
   ☐ Other method(s). Please describe method of data collection: _____

10. ☒ The project site and boundaries are clearly shown and labeled on the Site Geologic Map.
11. ☒ Surface geologic units are shown and labeled on the Site Geologic Map.
12. ☒ Geologic or manmade features were discovered on the project site during the field investigation. They are shown and labeled on the Site Geologic Map and are described in the attached Geologic Assessment Table.

    ☐ Geologic or manmade features were not discovered on the project site during the field investigation.
13. ☒ The Recharge Zone boundary is shown and labeled, if appropriate. (N/A)
14. All known wells (test holes, water, oil, unplugged, capped and/or abandoned, etc.): If applicable, the information must agree with Item No. 20 of the WPAP Application Section.

    ☒ There are 2 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply.)
    - ☐ The wells are not in use and have been properly abandoned.
    - ☒ The wells are not in use and will be properly abandoned.
    - ☒ The wells are in use and comply with 16 TAC Chapter 76.

    ☐ There are no wells or test holes of any kind known to exist on the project site.

Section 2.01 Administrative Information

15. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

Attachment A

Geologic Assessment Table (Form TCEQ-0585)

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: AC TEJAS QUARRY

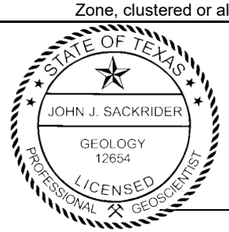
LOCATION			FEATURE CHARACTERISTICS											EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11	12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)		TOPOGRAPHY
						X	Y	Z		10					10	<40	>40	<1.6	>1.6	
S-1	29.754970	-98.687390	CD	5	Kg	18	5	0.5	20				X	5	10	X		X		Hillside
S-2	29.672805	-98.243780	MB	30	Kdr	18	15	35	none				O	5	35	X			X	Hillside
S-3	29.672793	-98.243638	MB	30	Kdr	15	12	3	none				O	5	35	X		X		Hilltop
S-4	29.669570	-98.241130	CD	5	Kdr	15	7	1.5	160				V	5	10	X		X		Hillside
S-5	29.672755	-98.241767	CD	5	Kdr	10	3.5	0.75	100				F	5	10	X			X	Drainage
S-6	29.673402	-98.240068	O	5	Kdr	6	4	1	80				X	5	10	X			X	Drainage
S-7	29.673260	-98.237260	SC	20	Kg	0.5	0.17	0.5	100				O	5	25	X		X		Hillside
S-8	29.674705	-98.233453	CD	5	Kpcm	8	4	1.5	140				V	5	10	X		X		Hillside
S-9	29.674112	-98.232488	CD	5	Kpcm	55	30	3	180				F	5	10	X		X		Hillside
S-10	29.674229	-98.231169	CD	5	Kpcm	6	3	1	132				V	5	10	X		X		Hillside
S-11	29.675564	-98.234790	CD	5	Kpcm	15	10	2	150				O	5	10	X		X		Hilltop
S-12	29.674866	-98.233962	CD	5	Kpcm	60	30	2	11				V	5	10	X			X	Hillside
S-13	29.676259	-98.238711	CD	5	Kdr	160	95	unknown	175				X	5	10	X			X	Hillside
S-14	29.676892	-98.238378	MB-W	30	Kdr	0.67		unknown	none				X	5	35	X		X		Hillside
S-15	29.678229	-98.236971	Z-SC	30	Kdr	100	20	unknown	0				O	15	45		X		X	Hillside
S-16	29.677619	-98.238950	SC	20	Kdr	2	0.5	2+	120				O	15	35	X		X		Hilltop
S-17	29.679553	-98.237201	CD	5	Kdr	15	10	1	135				V	5	10	X		X		Hillside
S-18	29.680017	-98.238324	SC	20	Kpcm	0.66	0.33	2+	165				O	15	35	X		X		Hillside
S-19	29.674286	-98.240973	CD	5	Kdr	40	17	2	55	10			X	5	20	X			X	HIllside
S-20	29.675646	-98.244665	CD	5	Kb	70	30	1.5	30				V	5	10	X			X	Hillside
S-21	29.675401	-98.244993	CD	5	Kdr	300	70	9	30				X	5	10	X			X	Hillside
S-22	29.674040	-98.242630	Z-SC	30	Kdr	20	5	2+	30				O	5	35	X		X		Hillside
S-23	29.673333	-98.244312	CD	5	Kb	115	18	unknown	19				X	5	10	X			X	Hillside
S-24	29.672120	-98.244143	MB-W	30	Kdr	0.5		unknown	none				X	35	65		X	X		Hillside

* DATUM: NAD 83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
MB	Manmade feature in bedrock	30
SW	Swallow hole	30
SH	Sinkhole	20
CD	Non-karst closed depression	5
Z	Zone, clustered or aligned features	30

8A INFILLING	
N	None, exposed bedrock
C	Coarse - cobbles, breakdown, sand, gravel
O	Loose or soft mud or soil, organics, leaves, sticks, dark colors
F	Fines, compacted clay-rich sediment, soil profile, gray or red colors
V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
X	Other materials

12 TOPOGRAPHY
Cliff, Hilltop, Hillside, Drainage, Floodplain, Streambed



I have read, I understood, and I have followed the Texas Commission on Environmental Quality's Instructions to Geologists. The information presented here complies with that document and is a true representation of the conditions observed in the field.
My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date 8/18/2023

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: AC TEJAS QUARRY

LOCATION			FEATURE CHARACTERISTICS											EVALUATION			PHYSICAL SETTING		
1A	1B *	1C*	2A	2B	3	4			5	5A	6	7	8A	8B	9	10		11	12
FEATURE ID	LATITUDE	LONGITUDE	FEATURE TYPE	POINTS	FORMATION	DIMENSIONS (FEET)			TREND (DEGREES)	DOM	DENSITY (NO/FT)	APERTURE (FEET)	INFILL	RELATIVE INFILTRATION RATE	TOTAL	SENSITIVITY		CATCHMENT AREA (ACRES)	TOPOGRAPHY
						X	Y	Z		10						<40	>40	<1.6	>1.6	
S-25	29.677869	-98.240039	SC	20	Kdr	0.25	0.33	0.75	60	10			F	5	35	X		X		Hillside
S-26	29.677070	-98.240782	Z-SH-SC	30	Kdr	30	10	3+	120	10			C,O	35	65		X	X		Hillside
S-27	29.680863	-98.239159	Z-SH	30	Kpcm	30	30	2+	none				C,O	20	50		X	X		Hillside
S-28	29.676920	-98.248511	SC	20	Kpcm	0.5	0.33	1	145				O	15	35	X			X	Floodplain
S-29	29.678541	-98.245302	Z-SC	30	Kpcm	40	10	0.83	55	10			C,O	5	45		X	X		Floodplain
S-30	29.384537	-98.258657	CD	5	Kpcm	12	8	0.5	100				V	5	10	X		X		Floodplain
S-31	29.678687	-98.245507	CD	5	Kpcm	15	10	0.5	50	10			V,O	5	20	X		X		Floodplain
S-32	29.680015	-98.242933	SC	20	Kpcm	0.17	0.25	0.67	none				O,V	5	25	X		X		Floodplain
S-33	29.678204	-98.241634	CD	5	Kdr	7	5	0.5	70	10			V	5	20	X		X		Hillside
S-34	29.683820	-98.242268	SC	20	Kg	1.5	1	4.5	180				O	15	35	X		X		Hillside
S-35	29.684992	-98.241647	CD	5	Kdr	170	135	unknown	30				X	5	10	X		X		Hilltop
S-36	29.684055	-98.242036	Z-SH-SC	30	Kg	40	10	4	60	10			C,X	35	75		X	X		Hillside
S-37	29.682697	-98.239065	Z-SC	30	Kg	30	10	4	25				C,O	35	65		X	X		Hillside
S-38	29.682230	-98.239296	SC	20	Kg	0.83		1	none				O	5	25	X		X		Hillside
S-39	29.682177	-98.249880	SC	20	Kpcm	0.5	0.25	2	110				O	35	55		X	X		Floodplain
S-40	29.683741	-98.249669	CD	5	Kpcm	9	8	0.5	130				V	5	10	X		X		Floodplain
S-41	29.683707	-98.246835	Z-SC	30	Kpcm	100	5	4	52	10			O,X	35	75		X		X	Hillside
S-42	29.682572	-98.242802	CD	5	Kg	7	6	0.5	47	10			V	5	20	X		X		Hillside
S-43	29.685546	-98.243192	Z-SC	30	Kg	15	15	2	None				O,X	20	50		X	X		HIllside
S-44	29.683710	-98.241411	SC	20	Kdr	4	1.5	2	130				C,O	35	55		X	X		Hillside
S-45	29.685438	-98.241347	SH	20	Kdr	6	3	0.5	50	10			O	5	35	X		X		Hillside
S-46	29.683456	-98.251284	F	20	Kpcm	2,050		unknown	52	10			X	5	35	X			X	Hillside
S-47	29.677376	-98.243591	F	20	Kpcm/Kdr	3,740		unknown	62	10			X	5	35	X			X	Hillside
S-48	29.681569	-98.251294	SC	20	Kpcm	0.25		1.33	20				X	5	25	X		X		Floodplain

* DATUM: NAD 83

2A TYPE	TYPE	2B POINTS
C	Cave	30
SC	Solution cavity	20
SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
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V	Vegetation. Give details in narrative description
FS	Flowstone, cements, cave deposits
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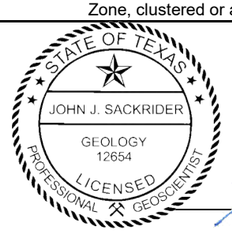

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My signature certifies that I am qualified as a geologist as defined by 30 TAC Chapter 213.

Date 8/18/2023

Attachment B

Stratigraphic Column

Generalized Stratigraphic Column – Comal County, Texas

Hydrogeologic subdivision			Group formation or member			Hydrologic Function	Thickness (feet)	Lithology	Cavern development	Porosity / permeability type
Quaternary			Alluvium			AQ	0-30	Siltstone to sandstone	None	High porosity/high permeability
			Fluviatile terrace deposits			AQ where saturated	0-45	Coarse gravel, sand, and sitl	None	High porosity/high permeability
Upper Cretaceous	Upper confining units		Navarro and Taylor Groups, undivided			CU	600	Clay, chalky limestone	None	Low porosity / low permeability
			Austin Group			CU; rarely AQ	130-150	White to gray limestone	None	Low porosity; rare water production form fractures / low permeability
			Eagle Ford Group			CU	30-50	Brown, flaggy shale and agrillaceous limesone	None	Primary porosity lost / low permeability
			Buda Limestone			CU	40-50	Buff, light gray, dense mudstone	Minor surface karst	Low porosity / low permeability
			Del Rio Clay			CU	40-50	Blue-green to yellow-brown clay	None	Low porosity / low permeability
Lower Cretaceous	I	Edwards Aquifer	Georgetown Formation			Karst AQ; not karst CU		Reddish-brown, gray to light tan marly limestone	None	Low porosity / low permeability
	II		Edwards Group	Fm	Cyclic & marine members undivided	AQ	89-90	Mudstone to packstone; miliolid grainstone; chert	Many sub-surface	Laterally extensive; water yielding
	III			Person	Leached & collapsed members	AQ	70-90	Crystalline limestone; mudstone to grainstone; chert collapsed breccia	Extensive lateral development; large rooms	Majority not fabric / one of the most permeable
	IV				Regional dense members	CU	20-24	Dense, argillaceous mudstone	Very few; only vertical fracture enlargement	Not fabric / low permeability; vertical barrier
	V			Fm	Grainstone member	AQ	50-60	Miliolid grainstone; mudstone to wackestone; chert	Few	Not fabric / recrystallization reduces permeability
	VI				Kirschberg evaporite member	AQ	50-60	Highly altered crystalline limestone; chalky mudstone; chert	Probably extensive cave development	Majority fabric / one of the most permeable
	VII			Kainer	Dolomitic member	AQ	110-130	Mudstone to grainstone; crystalline limestone; chert	Caves related to structure or bedding planes	Mostly not fabric; some bedding plane fabric / water-yielding
	VIII				Basal nodular member	Karst AQ; not karst CU	50-60	Shaly, nodular limestone; mudstone and miliolid grainstone	Large lateral caves at surface	Fabric; stratigraphically controlled/ large conduit flow at surface; no permeability in subsurface
	Lower confining unit		Upper member of the Glen Rose Limestone			CU; evaporite beds AQ	350-1150	Yellowish tan, thinly bedded limestone and marl. Thick massive limestone baed at base.	Some surface cave development.	Some water production at evaporite beds / relatively impermeable
			Lower Member of the Glen Rose Limestone							

Indicates surface unit mapped onsite. Note: CU = confining unit; AQ = Aquifer

Adapted from Geologic Framework and Hydrogeologic Characteristics of the Edwards Aquifer Recharge Zone, Bexar County, Texas, USGS Water-Resources Investigations Report 95-4030 (USGS, 1995)

Attachment C

Site Geology (Geologic Narrative)

Geologic Narrative

1.0 PURPOSE

Westward Environmental, Inc. (WESTWARD) was retained by Anderson Columbia Co., Inc. (Client) to prepare a Geologic Assessment (GA) on a ~550-acre tract (Site). This GA was prepared as a required attachment to a Water Pollution Abatement Plan (WPAP) modification for the Site as required by the Texas Commission of Environmental Quality (TCEQ).

2.0 REGULATORY GUIDANCE

Title 30, Chapter 213 of the Texas Administrative Code

This report was prepared in accordance with *Instructions for Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones (TCEQ-0585 (Rev. 10-01-04))* and will be reviewed pursuant to Title 30, Chapter 213 of the Texas Administrative Code.

3.0 PROJECT LOCATION

The Site is located within the western portion of the New Braunfels extraterritorial jurisdiction, just west of Interstate 35 between San Antonio and New Braunfels. The address is listed as 140 Coyote Run, New Braunfels, Texas 78132. It is adjacent to the north of the currently active AC Tejas Quarry. The entire Site is located over the Edwards Aquifer Recharge Zone (EARZ).

4.0 METHODOLOGY

As part of the GA, WESTWARD performed a desktop review of selected published information. WESTWARD also conducted a field investigation in accordance with *TCEQ-0585 (Rev. 10-01-04)*.

4.1 Desktop Review

WESTWARD conducted a review of aerial imagery, the University of Texas Bureau of Economic Geology (BEG) Geologic Atlas of Texas (GAT) San Antonio Sheet, applicable U.S. Geological Survey (USGS) Topographic quadrangle(s) and geospatial dataset(s), the Texas Natural Resources Information System (TNRIS), the Texas Water Development Board's (TWDB) Water Data Interactive Groundwater Data Viewer (WDIGDV), the Railroad Commission of Texas (RRC), and the U.S. Department of Agriculture (USDA) National Resource Conservation Service (NRCS) Web Soil Survey prior to the field investigation.

4.2 Field Investigation

A field investigation was performed in the Assessment Area by WESTWARD staff under the direction of John J. Sackrider, P.G. (TBPG Lic. No. 12654) from June 6-9, 13-15, and 20-22, 2023. Field transects of the Assessment Area were walked in accordance with TCEQ-0585 (Rev. 10-01-04).

5.0 DESKTOP REVIEW

The desktop review was utilized for preliminary planning of the field investigation. The accuracy of the desktop review was limited by the accessibility, scale, and age of the data available.

5.1 Published Surface Geology

A review of published geologic maps revealed four (4) hydrostratigraphic units mapped at the Site. They include the Cretaceous-aged Buda Limestone (Kb), the Del Rio Clay (Kdr), the Georgetown Formation (Kg) and the Person Formation, Cyclic and marine members, undivided (Kpcm) of the Edwards Group (USGS, 2014).

5.2 Published Structure

The Site is located within the Balcones Fault Zone (BFZ). The desktop review revealed two (2) mapped faults that transect the Site in a southwest to northeast direction. The faults are shown on the Site Geologic Map (Attachment D).

The northernmost fault transects the Site with an approximate trend of 52° and the other fault transects the center of the Site with an approximate trend of 62°. The average of these two faults was calculated to establish the dominant fault trend range at this Site, which for the purpose of this assessment, is approximated to be between 42° and 72°.

5.3 Karst Features

The desktop review did not reveal karst features within the Site.

5.4 Non-karst & Manmade Features

A review of aerial imagery revealed what appear to be three (3) stock ponds at the Site.

5.5 Soils

Six (6) soil units were identified on the Site through the NRCS Web Soil Survey. They are detailed below as well as included on the Geologic Assessment Form TCEQ-0585 (Rev. 02-11-15). A Site Soils Map is included in Attachment D.

Published Soil Unit Descriptions			
Soil Name	*Group*	*Thickness (Feet)*	*Description*
Comfort-Rock outcrop complex (CrD), 1 to 8 percent slopes	D	< 2	10 to 20 inches to lithic bedrock, well drained, moderately low to moderately high (0.06 to 0.20 in/hr) Ksat capacity
Denton silty clay (DeC3), 1 to 5 percent slopes	D	< 4	25 to 39 inches to lithic bedrock, well drained, moderately low to moderately high (0.06 to 0.20 in/hr) Ksat capacity
Krum clay (KrB), 1 to 3 percent slopes	C	> 6	More than 80 inches to restrictive feature, well drained, moderately low to moderately high (0.06 to 0.20 in/hr) Ksat capacity
Medlin, warm-Eckrant association (MEC), 1 to 8 percent slopes	D	< 5	35 to 60 inches to densic material, well drained, very low to moderately low (0.00 to 0.06 in/hr) Ksat capacity
Medlin, warm-Eckrant association (MED), 8 to 30 percent slopes	D	< 5	40 to 60 inches to densic material, well drained, very low to moderately low (0.00 to 0.06 in/hr) Ksat capacity
Rumple-Comfort, rubbly association (RUD), 1 to 8 percent slopes	D	< 4	24 to 40 inches to lithic bedrock, well drained, moderately low to moderately high (0.06 to 0.20 in/hr) Ksat capacity

6.0 FIELD INVESTIGATION

The field investigation was performed on June 6-9, 13-15, and 20-22, 2023 by WESTWARD staff under the direction of John J. Sackrider, P.G. to verify the presence or absence of potential recharge features identified in the desktop review and to identify recharge features not found during the desktop review. Field reconnaissance was performed in accordance with the *TCEQ-0585-Instructions (Rev. 10-1-04)*.

6.1 Surface Geology

Much of the Site was obscured by dense vegetation, making confirmation of mapped surface units difficult for many areas across the Site. However, the presence of mapped surface geologic units were confirmed in several places where bedrock was exposed, as well as in areas where broken rock was scattered at the surface. For example, the small oyster fossils (*ilymatogyra arietina*) of the Kdr were observed in several locations. Limestone consistent with the Kpcm was also observed during the field investigation. The published surface geology is included on the Site Geologic Map (Attachment D).

6.2 Structure

Direct evidence of the two (2) mapped faults identified in the Desktop Review was not observed during field reconnaissance. However, they are recorded as features in this report because the faults are part of the published geologic literature and indirect evidence such as topography and lineations in aerial imagery were observed.

6.3 Karst Features

Eleven (11) solution cavities, one sinkhole (1), one (1) other natural bedrock feature, and nine (9) zones of karst features were identified and recorded during the field investigation. Ten (10) of these karst features (S-15, S-26, S-27, S-29, S-36, S-37, S-39, S-41, S-43, and S-44) are rated sensitive.

6.4 Non-karst & Manmade Features

Twenty (20) non-karst closed depressions and four (4) manmade features in bedrock were identified and recorded during the field investigation. Two (2) of the manmade features in bedrock are wells. One (1) of the wells (S-24) is rated sensitive.

6.5 Feature Descriptions

S-1 (CD) **Not Sensitive**

Feature S-1 is a non-karst closed depression that appears to have been created as a result of the road construction. It is located by the road on the southwest corner of the Site. The feature measures approximately 18 ft. x 5 ft. x 0.5 ft. and has an approximate trend of 20°. It was holding water at the time of field reconnaissance. The catchment area of the feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-2 (MB) **Not Sensitive**

Feature S-2 is an old rock-lined, hand-dug well. For safety reasons and to be conservative, this feature is assumed to be a manmade feature in bedrock. The feature measures approximately 18 ft. x 15 ft. x 35 ft. and the floor consists of dark soil that was scattered with pebbles, cobbles, large sticks, and animal bones at the time of field reconnaissance. The catchment area of the feature is less than 1.6 acres. Due primarily to its shallow depth, absence of observed water, soil floor, and small drainage area, the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

Based on its construction, this feature is more like a small “borrow pit” than a well as understood in 16 TAC, Chapter 76. It is therefore not included in the accounting of water wells in item 14 of the geologic assessment form, TCEQ-0585 and does not require proper abandonment.

S-3 (MB) **Not Sensitive**

Feature S-3 is an old rock-lined, hand-dug well. For safety reasons and to be conservative, this feature is assumed to be a manmade feature in bedrock. The feature measures approximately 15 ft. x 12 ft. x 3 ft. and the floor consists of dark soil, growing vegetation, and scattered tree litter. It is located downhill from feature S-2 which will likely capture most surface runoff. Therefore, the catchment area is less than 1.6 acres. Due primarily to

its shallow depth, absence of observed water, soil floor, and small drainage area, the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

Based on its construction, this feature is more like a small "borrow pit" than a well as understood in 16 TAC, Chapter 76. It is therefore not included in the accounting of water wells in item 14 of the geologic assessment form, TCEQ-0585 and does not require proper abandonment.

S-4 (CD) **Not Sensitive**
Feature S-4 is a non-karst closed depression located on the southwest part of the Site. The feature measures approximately 15 ft. x 7 ft. x 1.5 ft. and has an approximate trend of 160°. The floor consists of soil covered with vegetation. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-5 (CD) **Not Sensitive**
Feature S-5 is a non-karst closed depression located along a drainage on the southwest part of the Site. The feature measures approximately 10 ft. x 3.5 ft. x 0.75 ft. and has an approximate trend of 100°. The floor consists of fine-grained, compacted soil. The catchment area is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-6 (O) **Not Sensitive**
Feature S-6 is a pool of water on a large bedrock outcrop classified as other natural bedrock feature. The feature measures approximately 6 ft. x 4 ft. x 1 ft. with an approximate trend of 80°. It is located along a drainage on the south-central part of the Site and has a catchment area greater than 1.6 acres. There did not appear to be any connectivity or flow into to the subsurface as evidenced by the standing water. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-7 (SC) **Not Sensitive**
Feature S-7 is a solution cavity located on the south-central part of the Site. The feature measures approximately 0.5 ft. x 0.17 ft. x 0.5 ft. and has an approximate trend of 100°. It was infilled with dark soil at the time of field reconnaissance. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-8 (CD) **Not Sensitive**
Feature S-8 is a non-karst closed depression located along the pipeline easement on the southeast part of the Site. The feature measures approximately 8 ft. x 4 ft. x 1.5 ft. and has an approximate trend of 140°. The floor consists of compacted soil with rocks and vegetation. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-9 (CD) **Not Sensitive**
Feature S-9 is a large non-karst closed depression located on the southeast corner of the Site. The feature measures approximately 55 ft. x 30 ft. x 3 ft. and has an approximate trend of 180°. It appears to be a stock tank floored with clay and was holding water at the time

of the field reconnaissance. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-10 (CD) **Not Sensitive**

Feature S-10 is a non-karst closed depression located on the far southeast corner of the Site. The feature measures approximately 6 ft. x 3 ft. x 1 ft. and has an approximate trend of 132°. The floor was covered with fine-grained soil and vegetation at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-11 (CD) **Not Sensitive**

Feature S-11 is a non-karst closed depression located on the southeastern part of the Site. The feature measures approximately 15 ft. x 10 ft. x 2 ft. and has an approximate trend of 150°. The floor consists of soil and organics. The catchment area for this feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. The feature is rated not sensitive.

S-12 (CD) **Not Sensitive**

Feature S-12 is a non-karst closed depression located along the periphery of a drainage near the pipeline easement on the southeastern part of the Site. The feature measures approximately 60 ft. x 30 ft. x 2 ft. and has an approximate trend of 11°. The catchment area for this feature is greater than 1.6 acres and the interpreted probability of rapid infiltration is low due to the vegetated floor cover. This feature is rated not sensitive.

S-13 (CD) **Not Sensitive**

Feature S-13 is a non-karst closed depression that consists of a large stock tank located on the southcentral part of the Site. The feature measures approximately 160 ft. x 95 ft. and has an approximate trend of 175°. The depth is unknown as the feature was holding water at the time of field reconnaissance. The catchment area for this feature is greater than 1.6 acres and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-14 (MB) **Not Sensitive**

Feature S-14 is a windmill water well that is classified as a manmade feature in bedrock. The feature has a steel casing that measures approximately 0.67 ft. in diameter and is capped with a steel plate cover. The well extends approximately 2 inches above the ground surface and the depth is unknown as there was no public information available pertaining to this well during the desktop review. The well is plumbed with an electric pump and appeared to be in use and compliant at the time of field reconnaissance. The catchment area for the feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-15 (Z-SC) **Sensitive**

Feature S-15 is a zone of solution cavities located on the east-central part of the Site. The zone measures approximately 100 ft. x 20 ft. and has an approximate trend of 0°. The largest solution cavity within the zone measures approximately 12 ft. x 6 ft. The depth of the feature is unknown. Loose dark soil and organics were dug out of the feature with hand

tools at the time of field reconnaissance. The catchment area is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low to medium. This feature is rated sensitive.

S-16 (SC) **Not Sensitive**

Feature S-16 is a solution cavity located on a hilltop on the east-central part of the Site. The feature measures approximately 2 ft. x 0.5 ft. x 2+ ft. and has an approximate trend of 120°. Bedrock was exposed on three sides, and it was infilled with loose dark soil and organic debris at the time of field reconnaissance. The catchment area of the feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low to medium. This feature is rated not sensitive.

S-17 (CD) **Not Sensitive**

Feature S-17 is a non-karst closed depression located along the pipeline easement near the eastern property boundary of the Site. The feature measures approximately 15 ft. x 10 ft. x 1 ft. and has an approximate trend of 135°. The floor of the feature is covered with vegetation and tree litter. Large boulder-sized pieces of rock line the feature along the easement side. The catchment area for this feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-18 (SC) **Not Sensitive**

Feature S-18 is a solution cavity located at the base of a large oak tree near the eastern property boundary of the Site. The feature measures approximately 0.66 ft. x 0.33 ft. x 2+ ft. and has an approximate trend of 165°. It is filled with dark soil and organic debris. The catchment area of the feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low to medium. This feature is rated not sensitive.

S-19 (CD) **Not Sensitive**

Feature S-19 is a pond classified as a non-karst closed depression located on the south-central part of the Site. The feature measures approximately 40 ft. x 17 ft. x 2 ft. and has an approximate trend of 55° which is within the dominant fault trend range. The feature is floored with fine-grained sediment and vegetation and was holding shallow water at the time of field reconnaissance. The catchment area is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-20 (CD) **Not Sensitive**

Feature S-20 is non-karst closed depression located on the west-central part of the Site. The feature measures approximately 70 ft. x 30 ft. x 1.5 ft. and has an approximate trend of 30°. The floor was densely covered with grass and short vegetation/weeds at the time of field reconnaissance. The catchment area is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-21 (CD) **Not Sensitive**

Feature S-21 is a non-karst closed depression located in a clearing surrounded by trees approximately 135 ft. northwest of S-20. The feature measures approximately 300 ft. x 70 ft. x 9 ft. and has an approximate trend of 30°. The feature is floored with fine-grained sediment and vegetation and was holding shallow water at the time of field reconnaissance.

The catchment area is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-22 (Z-SC) **Not Sensitive**

Feature S-22 is a zone of four solution cavities located below a rock wall on the southwestern part of the Site. The zone measures approximately 20 ft. x 5 ft. and has an approximate trend of 30°. The largest solution cavity within the zone measures approximately 1 ft. x 0.5 ft. x 2+ ft. The solution cavities were filled with dark soil, organics, and cobbles at the time of field reconnaissance. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-23 (CD) **Not Sensitive**

Feature S-23 is a stock pond classified as a non-karst closed depression located near the southwest property boundary of the Site. The feature measures approximately 115 ft. x 18 ft. and has an approximate trend of 19°. The depth of the feature is unknown as it was holding water at the time of field reconnaissance. The catchment area is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-24 (MB) **Sensitive**

Feature S-24 is a windmill water well that is classified as a manmade feature in bedrock located on the southwest part of the Site. The feature has a metal casing that measures approximately 0.5 ft. in diameter and has a cap that extended approximately 4-6 inches above the ground surface which was fully covered in black tape at the time of field reconnaissance. The well is flush with the ground and there is an open space between the casing and the well pipe. The depth of the feature is unknown as there was no public information available pertaining to this well during the desktop review. This well is not in use and will be properly abandoned. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is high. This feature is rated sensitive.

S-25 (SC) **Not Sensitive**

Feature S-25 is a small round solution cavity located on the central part of the Site. The feature measures approximately 0.25 ft. x 0.33 ft. x 0.75 ft. and has an approximate trend of 60° which is within the dominant fault trend range. It was plugged with reddish-brown soil at the time of field reconnaissance. The catchment area of the feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-26 (Z-SH-SC) **Sensitive**

Feature S-26 is a zone that encompasses a sinkhole and solution cavity located on the center of the Site. The zone measures approximately 30 ft. x 10 ft. with an approximate trend of 120°. The sinkhole measures approximately 15 ft. x 10 ft. x 1.5 ft. and is floored with cobbles, organics, and a fallen tree. The solution cavity measures approximately 1 ft. x 2 ft. x 3+ ft. and is infilled with loose cobbles. Both follow the same approximate trend of the zone, 120°. Many of the rocks had moss cover and many daddy long leg spiders were present around the feature at the time of field reconnaissance. The catchment area for the

feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is high. This feature is rated sensitive.

S-27 (Z-SH) **Sensitive**

Feature S-27 is a zone that includes three (3) sinkholes in a triangular pattern located on the west-central part of the Site. The zone measures approximately 30 ft. x 30 ft. with the largest of the sinkholes measuring approximately 8 ft. x 6 ft. x 2+ ft. The floor of the sinkhole consists of vegetated compact soil scattered with coarse cobbles, boulders, and organics. The catchment area for the zone is less than 1.6 acres, and the interpreted probability of rapid infiltration is medium. This feature is rated sensitive.

S-28 (SC) **Not Sensitive**

Feature S-28 is a solution cavity located in a drainage along the western property boundary of the Site. The feature measures approximately 0.5 ft. x 0.33 ft. x 1 ft. and has an approximate trend of 145°. It was infilled with dark soil and organic debris at the time of field reconnaissance. The catchment area of the feature is greater than 1.6 acres, and the interpreted probability of rapid infiltration is medium to low. This feature is rated not sensitive.

S-29 (Z-SC) **Sensitive**

Feature S-29 is a zone that includes four (4) solution cavities located along a hillside just outside the floodplain on the west-central part of the Site. The zone measures approximately 40 ft. x 10 ft. and has an approximate trend of 55° which is within the dominant fault trend range. The largest of the solution cavities measures approximately 0.5 ft. x 0.67ft. x 0.83 ft. and has an approximate trend of 160°. The solution cavities were filled with loose soil, coarse cobbles, and tree litter. Two (2) of them appeared plugged at the time of field reconnaissance. The catchment area for the feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. However, due to the base point value for a zone and the trend falling within the dominant fault trend range, this feature is rated sensitive.

S-30 (CD) **Not Sensitive**

Feature S-30 is a non-karst closed depression located in the floodplain on the west-central part of the Site. The feature measures approximately 12 ft. x 8 ft. x 0.5 ft. and has an approximate trend of 100°. The floor of the feature consists of dark fine-grained soil partly covered with short, sparse vegetation and scattered cobbles. Mud cracks were present on the floor at the time of field reconnaissance. The catchment area of the feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-31 (CD) **Not Sensitive**

Feature S-31 is a non-karst closed depression in the floodplain on the west-central part of the Site just east of S-30. The feature measures approximately 15 ft. x 10 ft. x 0.5 ft. and has an approximate trend of 50° which is within the dominant fault trend range. The floor of the feature consists of dark fine-grained soil covered with excessive tree litter, short, sparse vegetation, and scattered cobbles. The catchment area is less than 1.6 acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-32 (SC) **Not Sensitive**

Feature S-32 is a round solution cavity located just outside the floodplain boundary in the center of the Site. The feature measures approximately 0.17 ft. x 0.25 ft. x 0.67 ft. and has no apparent trend as it opens vertically into the surface. The rock appeared to have popped up from the tree root inside the solution cavity at the time of field reconnaissance and it appears that water may flow down along the root. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-33 (CD) **Not Sensitive**

Feature S-33 is a non-karst closed depression located approximately 50 ft. south of the fault that is mapped at the center of the Site. The feature measures approximately 7 ft. x 5 ft. x 0.5 ft. and has an approximate trend of 70° which is within the dominant fault trend range. The floor of the feature consists of fine-grained soil covered with vegetation and sparsely scattered cobbles and boulders. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-34 (SC) **Not Sensitive**

Feature S-34 is a solution cavity located in a drainage along the western property boundary of the Site. The feature measures approximately 1.5 ft. x 1 ft. x 4.5 ft. and has an approximate trend of 180°. It was infilled with loose dark soil and large cobbles at the time of field reconnaissance. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is medium to low. This feature is rated not sensitive.

S-35 (CD) **Not Sensitive**

Feature S-35 is a non-karst closed depression located just south of the pipeline easement on the northeastern part of the Site. The feature measures approximately 170 ft. x 135 ft. and has an approximate trend of 30°. The depth of the feature could not be determined as it was holding water at the time of field reconnaissance. The catchment area of the feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-36 (Z-SH-SC) **Sensitive**

Feature S-36 is a zone that includes a solution cavity within a sinkhole located on the northeastern part of the Site. The zone measures approximately 40 ft. x 10 ft. with an approximate trend of 60° which is within the dominant fault trend range. The sinkhole measures approximately 15 ft. x 8 ft. x 0.5 ft. and is floored with sparsely vegetated loose soil, tree litter, and large cobbles. The solution cavity measures approximately 1 ft. x 5 ft. x 4 ft. Moss-covered cobbles and daddy long leg spiders were observed at the opening of the solution cavity at the time of field reconnaissance. The catchment area is less than 1.6 acres. The interpreted probability of rapid infiltration is high. This feature is rated sensitive.

S-37 (Z-SC) **Sensitive**

Feature S-37 is a zone that includes two (2) solution cavities that appear to be connected. The zone is located by the pipeline easement near the western property boundary on the northcentral part of the Site. The zone measures approximately 30 ft. x 10 ft. x 4 ft. with an approximate trend of 25°. One solution cavity measures approximately 2.5 ft. x 1 ft. x 4 ft. with an approximate trend of 115° and is infilled with loose soil, organics, and large

cobbles at the base while remaining open with exposed bedrock at the top. The other solution cavity measures approximately 2 ft. x 1 ft. x 4 ft. and opens vertically with no trend. It was infilled with loose soil and cobbles at the base. The air near the openings of the solution cavities felt cooler than the ambient air and daddy long leg spiders were observed at both openings at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres and the interpreted probability of rapid infiltration is high. This feature is rated sensitive.

S-38 (SC) **Not Sensitive**

Feature S-38 is a round solution cavity located approximately 175 ft. southwest of S-37. The feature measures approximately 0.83 ft. in diameter x 1 ft. in depth. The feature was surrounded by solutioned and broken rock that may be the result of uplifted tree roots. The catchment area for this feature is less than 1.6 acres and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-39 (SC) **Sensitive**

Feature S-39 is a solution cavity located within the floodplain on the northwestern part of the Site. The feature measures approximately 0.5 ft. x 0.25 ft. x 2 ft. and has an approximate trend of 110°. It has a funnel shape at the surface that goes down into the feature. The funnel dimensions are 4 ft. x 3 ft. x 1 ft. Large sticks and leaves were pulled out of the feature which was also infilled with loose soil at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres and the interpreted probability of rapid infiltration is high. This feature is rated sensitive.

S-40 (CD) **Not Sensitive**

Feature S-40 is a non-karst closed depression located within the floodplain on the northwestern part of the Site. It measures approximately 9 ft. x 8 ft. x 0.5 ft. and has an approximate trend of 130°. The floor of the feature consists of fine-grained compacted soil, very sparsely vegetated and embedded with limestone cobbles, and covered with sticks at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres, and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-41 (Z-SC) **Sensitive**

Feature S-41 is a zone that includes two (2) solution cavities located on the northcentral part of the Site. The zone measures approximately 100 ft. x 5 ft. and has an approximate trend of 52° which is within the dominant fault trend range. The larger solution cavity measures approximately 0.25 ft. x 0.33 ft. x 4 ft. and the smaller solution cavity measures approximately 0.16 ft. x 0.33 ft. x 2.5 ft. Both solution cavities had exposed bedrock at the top and were infilled with loose soil. Daddy long leg spiders and white crickets were observed coming out of the openings at the time of field reconnaissance. The catchment area for this feature is greater than 1.6 acres and the interpreted probability of rapid infiltration is high. This feature is rated sensitive.

S-42 (CD) **Not Sensitive**

Feature S-42 is a large non-karst closed depression that appears to be an old hog wallow located on the northeastern part of the Site. The feature measures approximately 7 ft. x 6

ft. x 0.5 ft. and has an approximate trend of 47° which is within the dominant fault trend range. The feature was floored with compacted fine-grained sediment and vegetation at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-43 (Z-SC) **Sensitive**

Feature S-43 is a zone that includes three (3) solution cavities that appear to be connected and are located on the northeastern part of the Site. The zone measures approximately 15 ft. x 15 ft. x 2 ft. and the largest of the solution cavities measures 1 ft. x 0.67 ft. x 2 ft. The zone was covered with loose dark soil and short-growth vegetation/weeds. The solution cavities had exposed bedrock at the top and were infilled with a lot of loose soil. Daddy long leg spiders were observed coming out of the openings at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres and the interpreted probability of rapid infiltration is medium. This feature is rated sensitive.

S-44 (SC) **Sensitive**

Feature S-44 is a rectangular-shaped solution cavity located on the northeastern part of the Site. The feature measures approximately 4 ft. x 1.5 ft. x 2 ft. and has an approximate trend of 130°. The feature was infilled with loose soil, coarse cobbles, and had a small persimmon tree growing out of it at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres and the interpreted probability of rapid infiltration is medium to high. This feature is rated sensitive.

S-45 (SH) **Not Sensitive**

Feature S-45 is a sinkhole located within 50 ft. of S-44 on the northeastern part of the Site. The feature measures approximately 6 ft. x 3 ft. x 0.5 ft. and has an approximate trend of 50° which is within the dominant fault trend range. It is rimmed with bedrock and had persimmon trees growing out of it at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-46 (F) **Not Sensitive**

Feature S-46 is published fault that is mapped across the center of the Site and runs southwest to northeast with an approximate trend of 52°. Direct evidence of this fault was not observed onsite during field investigation. It is included in this report because it is part of the published geologic literature and indirect evidence such as topography and lineations in aerial imagery were observed. The extent of the mapped fault within the Site boundaries measures approximately 2,050 ft. The catchment area is greater than 1.6 acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-47 (F) **Not Sensitive**

Feature S-47 is published fault that is mapped across the center of the Site and runs southwest to northeast with an approximate trend of 62°. Direct evidence of this fault was not observed onsite during field investigation. It is included in this report because it is part of the published geologic literature and indirect evidence such as topography and lineations in aerial imagery were observed. The extent of the mapped fault within the Site boundaries

measures approximately 3,740 ft. The catchment area is greater than 1.6 acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-48 (SC) **Not Sensitive**

Feature S-48 is a round solution cavity located in a drainage within the floodplain on the northwestern part of the Site. The feature measures approximately 0.25 ft. diameter x 1.33 ft. in depth and has an approximate trend of 20°. The feature was holding water at the time of field reconnaissance. The catchment area for this feature is less than 1.6 acres and the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

SELECT PHOTOGRAPHS

S-1: Closed depression near the entrance of the Site.

S-2: Old rock-lined, hand-dug well.

S-5: Non-karst closed depression located along a drainage.

S-6: Other natural bedrock feature located along a drainage.

S-13: Non-karst closed depression on the south-central part of the Site.

S-21: Non-karst closed depression on the west-central part of the Site.

S-24: Water well historically powered by a windmill located on the southwest part of the Site.

S-25: Solution cavity located on the central part of the Site.

S-26: Sinkhole that is part of the zone feature.

S-27: Hand excavation of loose cobbles of one of the sinkholes that make up this zone feature.

S-29: Hand excavation of one of the solution cavities that make up this zone feature.

S-32: Solution cavity located on the floodplain boundary in the center of the Site.

S-36: A solution cavity within a sinkhole in this zone feature.

S-37: One of two solution cavities that make up this the zone feature.

S-39: A solution cavity within the floodplain on the northwest part of the Site.

S-41: One of two solution cavities that make up this zone feature.

S-45: A sinkhole located on the northeastern part of the Site.

Piece of Del Rio Clay (Kdr) at the surface.

Attachment D

Site Geologic Map
Site Soils Map

The entire mapped area is within the Edwards Aquifer Recharge Zone (EARZ).

LEGEND

- GA Project Boundary*
- GA Features
- Floodplain (NFHL**)
- Pipeline Easement (Observed)

Published Geology (Hydrostratigraphic Units)***

- Kb - Buda Limestone
- Kdr - Del Rio Clay
- Kg - Georgetown Formation
- Kpcm - Person Formation, Cyclic & marine
- Published Fault
- Inferred Fault (Recorded in 2021 GA)

N

Feet
0 150 300 600
1 inch = 300 feet

U - Upthrown Side
D - Downthrown Side

* *Project boundary provided by Client.*

** *National Flood Hazard Layer*

*** *Geologic framework and hydrostratigraphy of the Edwards and Trinity aquifers within northern Bexar and Comal Counties, Texas*

Kg
Kdr
Kg
Kpcm
Kg
Kdr
Kpcm
Kdr
Kg
Kb
Kb
Kdr
Kdr
Kg
Kpcm

D
U

U
D

Schuetz Dr.

Dry Comal Creek

S-46
S-40
S-48
S-39
S-41
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S-24
S-5
S-4
S-11
S-7
S-12
S-8
S-6
S-9
S-1
S-10

SITE GEOLOGIC MAP

AC TEJAS QUARRY
ANDERSON COLUMBIA CO., INC.
NEW BRAUNFELS, COMAL COUNTY, TEXAS

STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED
PROFESSIONAL GEOSCIENTIST

8/18/2023

REV	DESCRIPTION	BY	DATE

WESTWARD
Environmental. Engineering. Natural Resources.
P.O. Box 2205, Boerne, Texas 78006
(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

SHEET NO.: 01 OF 02

JOB NO.:	10603-189
SCALE: 1" =	300'
CHECKED BY:	JJS
DRAWN BY:	JG
ISSUE DATE:	08/17/2023
IMAGE: ESRI WORLD IMAGERY	

LEGEND

- GA Project Boundary*
- GA Features
- Floodplain (NFHL**)
- Pipeline Easement (Observed)

Published Soil Units (USDA NCRS)**

- CrD - Comfort-Rock outcrop complex
- DeC3 - Denton silty clay
- KrB - Krum clay
- MEC - Medlin, warm-Eckrant association, 1-8% slopes
- MED - Medlin, warm-Eckrant association, 8-30% slopes
- RUD - Rumple-Comfort, rubbly association

** Project boundary provided by Client.*

*** United States Department of Agriculture Natural Resources Conservation Service*

N

0 150 300 600 Feet

1 inch = 300 feet

Dry Comal Creek

Schuetz Dr.

SITE SOILS MAP

AC TEJAS QUARRY
ANDERSON COLUMBIA CO., INC.
NEW BRAUNFELS, COMAL COUNTY, TEXAS

STATE OF TEXAS
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IMAGE: ESRI WORLD IMAGERY	
ISSUE DATE:	08/17/2023
DRAWN BY:	JG
CHECKED BY:	JJS
SCALE: 1" =	300'
JOB NO.:	10603-189

Modification of a Previously Approved Plan

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Transition Zone and Relating to 30 TAC 213.4(j), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This request for a **Modification of a Previously Approved Plan** is hereby submitted for TCEQ review and executive director approval. The request was prepared by:

Print Name of Customer/Agent: Nicolas E. Mercado, P.E.
TX License No. 144228 | TX Firm No. 4524

Date: 8/21/2023

Signature of Customer/Agent:

Project Information

1. Current Regulated Entity Name: AC Tejas Quarry
   Original Regulated Entity Name: AC Tejas Quarry
   Regulated Entity Number(s) (RN): 108909615
   Edwards Aquifer Protection Program ID Number(s): 13000042, 13001271 and 13001636
   ☒ The applicant has not changed and the Customer Number (CN) is: 603641549
   ☐ The applicant or Regulated Entity has changed. A new Core Data Form has been provided.

2. ☒ **Attachment A: Original Approval Letter and Approved Modification Letters**. A copy of the original approval letter and copies of any modification approval letters are attached.

3. A modification of a previously approved plan is requested for (check all that apply):
   - ☒ Physical or operational modification of any water pollution abatement structure(s) including but not limited to ponds, dams, berms, sewage treatment plants, and diversionary structures;
   - ☐ Change in the nature or character of the regulated activity from that which was originally approved or a change which would significantly impact the ability of the plan to prevent pollution of the Edwards Aquifer;
   - ☐ Development of land previously identified as undeveloped in the original water pollution abatement plan;
   - ☐ Physical modification of the approved organized sewage collection system;
   - ☐ Physical modification of the approved underground storage tank system;
   - ☐ Physical modification of the approved aboveground storage tank system.

4. ☒ Summary of Proposed Modifications (select plan type being modified). If the approved plan has been modified more than once, copy the appropriate table below, as necessary, and complete the information for each additional modification.

WPAP Modification Summary	***Approved Project***	***First Modification***	***Second Modification***
Acres	447	447	771
Type of Development	Quarry, roads, plant, shop	Quarry, roads, plant, shop	Quarry, roads, plant, shop
Number of Residential Lots	N/A	N/A	N/A
Impervious Cover (acres)	96.99	~50	~50
Impervious Cover (%)	21.7	11.1	6.5
Permanent BMPs	Earthen Berms, NVFS	Earthen Berms, NVFS	Earthen Berms, NVFS
Other	____	____	____

WPAP Modification Cont.	***Proposed Modification***
Acres	1,321
Type of Development	Quarry, roads, plant, shop
Number of Residential Lots	N/A
Impervious Cover (acres)	50
Impervious Cover (%)	3.8
Permanent BMPs	Earthen Berms, NVFS
Other	____

AST Modification Summary	***Approved Project***	***Proposed Modification***
Number of ASTs	____	____
Volume of ASTs	____	____
Other	____	____

UST Modification Summary	***Approved Project***	***Proposed Modification***
Number of USTs	____	____
Volume of USTs	____	____
Other	____	____

5. ☒ **Attachment B: Narrative of Proposed Modification**. A detailed narrative description of the nature of the proposed modification is attached. It discusses what was approved, including any previous modifications, and how this proposed modification will change the approved plan.

6. ☒ **Attachment C: Current Site Plan of the Approved Project**. A current site plan showing the existing site development (i.e., current site layout) at the time this application for modification is attached. A site plan detailing the changes proposed in the submitted modification is required elsewhere.
   ☐ The approved construction has not commenced. The original approval letter and any subsequent modification approval letters are included as Attachment A to document that the approval has not expired.

☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was constructed as approved.

☐ The approved construction has commenced and has been completed. Attachment C illustrates that the site was **not** constructed as approved.

☒ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was constructed as approved.

☐ The approved construction has commenced and has **not** been completed. Attachment C illustrates that, thus far, the site was **not** constructed as approved.

7. ☒ The acreage of the approved plan has increased. A Geologic Assessment has been provided for the new acreage.

   ☐ Acreage has not been added to or removed from the approved plan.

8. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.

Anderson Columbia Co., Inc.
AC Tejas Quarry

Modification to Previous Plan Attachment A

Original Approval Letter and Approved Modification Letters

Please see attached Approval Letter dated March 4, 2016 (EAPP ID 13000042), first Modification Approval Letter dated April 16, 2021 (EAPP ID 13001271), and second Modification Approval Letter dated December 14, 2022(EAPP ID 13001636).

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 4, 2016

Mr. Scott Cleveland
Anderson Columbia Co., Inc.
P.O. Box 1829
Lake City, Florida 32056

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: AC Mine; Located approximately 0.4 miles north of the intersection of Coyote Run & Old Nacogdoches Road; Schertz, Texas

TYPE OF PLAN: Request for Approval of a Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer

Regulated Entity No. RN108909615; Additional ID No. 13000042

Dear Mr. Cleveland:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP Application for the above-referenced project submitted to the San Antonio Regional Office by Westward Environmental on behalf of Anderson Columbia Co., Inc. on December 9, 2016. Final review of the application was completed after additional materials were received on January 26, 2016 and February 17, 2016. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) were selected and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

PROJECT DESCRIPTION

The proposed commercial project will have an area of approximately 447 acres. It will include the construction of commercial buildings, a quarry excavation pit, a railway spur, rock crushing facilities, and other associated quarry operations. The impervious cover will be 96.99 acres (21.7 percent). Project wastewater will be disposed of by conveyance to the proposed OSSF that will be located on the Edwards Aquifer Transition Zone.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site after construction, a combination of grass stabilized earthen berms, and natural vegetation buffers will be situated around the perimeter of the site to filter or prevent sediment laden stormwater from escaping the site. Additionally, a 25 foot natural vegetated buffer will be located on each side of the Comal Creek Tributary that flows across the northern portion of the site.

GEOLOGY

The majority of the site (north) is located over the Edwards Aquifer Recharge Zone and a portion of the site (south) is located over the Transition Zone. According to the geologic assessment included with the application, the site is located over the Person Formation. There were 28 features identified in the report; nine solution cavities, five faults, seven man-made features in bedrock, three other features in bedrock, one cave, two non-karst closed depressions, and one zone of solution cavities. Three (3) of the 28 features, S-5, (cave), S-10 (existing well), and s-12 (zone of solution cavities) were rated as sensitive. The existing well (feature S-10) will be repaired and made compliant with 16 TAC 76. The San Antonio Regional Office site assessment conducted on January 8, 2016 revealed the site was generally as described in the geologic assessment.

SPECIAL CONDITIONS

I. The grass stabilized earthen berms and natural vegetated buffers shall be fully established prior to the commencement of quarry operations. The vegetated buffers shall be appropriately demarcated and access controlled to prevent damage from vehicles and equipment.

II. It is understood that sensitive features S-5 and S-12 will be removed through future mining operations and these features will be temporarily sealed prior to excavation. Temporary sediment control BMPs must be installed, and remain installed, around the sensitive features prior to commencement of any construction activity that is within 500 feet of the feature locations. These temporary BMPs will be maintained and inspected in accordance with RG-348, until temporary sealing of the features has been completed.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ

Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.

3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.
5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
6. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
9. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

During Construction:

10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to

installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.

12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.
13. One well exists on site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
15. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

<u>After Completion of Construction:</u>

18. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
19. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the

new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.

21. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
22. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Mr. Michael Isley of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210-403-4057

Sincerely,

Lynn Bumguardner, Water Section Manager
San Antonio Region
Texas Commission on Environmental Quality

LB/MI/eg

Enclosure: Deed Recordation Affidavit, Form TCEQ-0625
Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Ms. Mary-Ellen P. Schulle, P.E., Westward Environmental
The Honorable Michael Carpenter, City of Schertz
Mr. Tom Hornseth, P.E., Comal County
Mr. George Wissmann, Comal-Trinity GCD
Mr. Roland Ruiz, Edwards Aquifer Authority
TCEQ Central Records, Building F, MC 212

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 16, 2021

Mr. Scott Cleveland
Anderson Columbia Company, Inc.
P.O. Box 1829
Lake City, FL 32056

Re: Edwards Aquifer, Comal County

Name of Project: AC Tejas Quarry; Located approximately 0.4 miles east of Coyote Run and Old Nacogdoches Rd intersection; New Braunfels, Texas

Plan Type: Request for Modification of an Approved Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213; Edwards Aquifer

Regulated Entity No.: RN108909615; Additional ID No.: 13001271

Dear Mr. Cleveland:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP modification application for the above-referenced project submitted to the San Antonio Regional Office by Westward Environmental, Inc. on behalf of Anderson Columbia Company, Inc. on December 18, 2020. Final review of the WPAP was completed after additional material was received on February 5, 2021. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) were selected and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

BACKGROUND

Anderson Columbia (AC) Tejas is an operating quarry located within the Edwards Aquifer recharge and transition zones. The original WPAP was submitted by Westward Environmental, Inc. for AC Mine Quarry (13000042), approved March 4, 2016. The approval included excavation of limestone within a quarry pit located within a 447-acre project site, 96.99 acres of impervious cover and a 50-ft natural vegetative perimeter buffer, earthen berms, and a tributary buffer as the permanent BMPs.

PROJECT DESCRIPTION

AC Tejas Quarry currently has approximately 17 acres mined, and 85 acres disturbed related to the approved activity. The proposed modification for the quarry project will include updating impervious cover, adding additional stormwater measures, and an alteration to the quarry expansion within the overall 447-acre project site.

Impervious cover constitutes approximately 50 acres (11-percent) within the recharge zone boundaries. The impervious cover in the recharge zone consists of haul roads, temporary stockpiles, and a portion of the proposed rail loop track. All other impervious cover related to quarry operations such as the quarry plant, shop, and supporting structures are located over the transition zone.

Two additional stormwater sedimentation ponds are proposed within the transition zone and will be designed and maintained in accordance with the existing Mutli-Sector General Permit, TXR05CV17.

The excavated quarry pit will take place within approximately 320 acres, all located within the recharge zone. The major activity includes excavation and grading of the quarry pit to extend to the previously approved established elevation of 689 mean sea level (msl). This modification does not propose any changes to the final quarry pit elevation.

Project wastewater will be collected in the existing onsite sewage facility located by the main shop and portable toilets. All wastewater will be collected and disposed of by a TCEQ registered waste disposal service.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating onsite or upgradient of the site and potential flowing across and off the site, the various controls described below will be utilized.

A 50-ft natural vegetative buffer will be maintained along the perimeter of the property and a 25-ft natural vegetative buffer will be maintained along the tributary located across the northern portion of the project site.

An earthen berm composed of compacted soil and/or overburden will be maintained within the quarry site. The earthen berm will continue to be constructed in stages, in advance of and in coordination with quarry disturbances. At the full extent of the quarry pit, the earthen berm will encircle the quarry pit. During the operational life of the quarry, the pit areas will not drain to surface waters. Upgradient storm water will be diverted around the site and onsite flows will be prevented from leaving the site.

Grade breaks were approved in the previous plan to ensure that runoff from disturbed areas of the transition zone would not drain onto the recharge zone. This modification does not propose changes to the grade breaks. Maximum disturbance for areas, not within the quarry perimeter, will be less than 10-acres.

The buffers, earthen berm, and grade breaks are within the Edwards Aquifer recharge zone to divert, retain and treat stormwater runoff. The total suspended solids (TSS) treatment for this project is 44,880 pounds of TSS generated from approximately 50 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

Refueling and maintenance activities for vehicles and equipment will not be performed within the recharge zone. If emergency maintenance occurs or if refueling within the recharge zone must occur, appropriate protection measures will be implemented. Portable secondary containment will be utilized and will be disposed of in accordance with 30 TAC 335.

Process water management will take place within the transition zone and is designed and operating as a closed loop system. Process water is not commingled with accumulated stormwater or discharged offsite.

GEOLOGY

According to the geologic assessment included with the application, approximately 341 acres of the 447-acre project site is within the recharge zone and is located over the Person Formation. A total of twenty-eight (28) features were evaluated by the project geologist. Two (2) geologic features and one (1) manmade feature were rated sensitive. The two sensitive geologic features will be protected, until mined through as documented in the previous approval. The TCEQ site assessment conducted on February 25, 2021 revealed that the site was generally as described in the application.

SPECIAL CONDITIONS

I. This modification is subject to all Special and Standard Conditions listed in the WPAP approval letter dated March 4, 2016.

II. This approval does not authorize the construction or installation of aboveground storage tanks within the Edwards Aquifer recharge zone.

III. The modification proposes corrective action to revegetate an established buffer area along the perimeter disturbed by utility activity. The permanent BMP will be repaired and maintained as documented in approved application(s). If vegetation cannot be restored the design deviation must be communicated to the TCEQ for review.

IV. All permanent pollution abatement measures, other BMPs, and measures proposed in the application or described in this letter must be maintained and operational during the life of the quarry.

V. TCEQ must be notified within 30 days prior to the construction of the proposed rail loop and provided a copy of plan and profile sheets of the track design submitted by the subcontractor. A TCEQ investigator will conduct a site assessment to verify the altered topography is protective to environmentally sensitive areas and ensure existing BMPs will not be impacted by construction activities.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.
3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.

5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
6. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.
7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction, and maintained during construction. Temporary E&S controls may be removed when vegetation is established, and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
9. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

<u>During Construction:</u>

10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.
12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.
13. One well exists on site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being

washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.

15. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.
17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

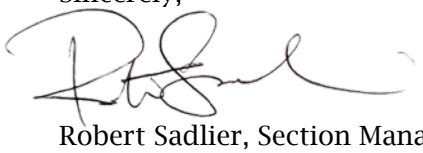
<u>After Completion of Construction:</u>

18. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
19. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
21. An Edwards Aquifer protection plan approval or extension will expire, and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.

22. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Ms. Lillian Butler of the Edwards Aquifer Protection Program of the San Antonio Regional Office at (210)490-3096.

Sincerely,



Robert Sadlier, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

RCS/lb

Enclosures: Deed Recordation Affidavit, Form TCEQ-0625
Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Mr. Curt G. Campbell, PE, Westward Environmental, Inc.
Mr. Roland Ruiz, Edwards Aquifer Authority
Mr. Thomas H. Hornseth, PE, Comal County
Mr. Mark Enders, City of New Braunfels
Mr. H. L. Saur, Comal Trinity Groundwater Conservation District

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 14, 2022

Mr. Scott Cleveland
Anderson Columbia Co., Inc.
P.O. Box 1829
Lake City, Florida 32056

Re: Edwards Aquifer, Comal County

NAME OF PROJECT: AC Tejas Quarry; Located on the east side of Coyote Run approximately 0.4 miles north of Old Nacogdoches Rd; New Braunfels, Texas

TYPE OF PLAN: Request for Modification of an Approved Water Pollution Abatement Plan (WPAP); 30 Texas Administrative Code (TAC) Chapter 213 Edwards Aquifer

Regulated Entity No. RN108909615; Additional ID No. 13001636

Dear Mr. Cleveland:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP Modification application for the above-referenced project submitted to the San Antonio Regional Office by Westward Environmental, Inc. on behalf of Anderson Columbia Co., Inc. on October 20, 2022. Final review of the WPAP Modification was completed after additional material was received on December 8, 2022, and December 13, 2022. As presented to the TCEQ, the Temporary and Permanent Best Management Practices (BMPs) were selected and construction plans were prepared by a Texas Licensed Professional Engineer to be in general compliance with the requirements of 30 TAC Chapter 213. These planning materials were sealed, signed, and dated by a Texas Licensed Professional Engineer. Therefore, based on the engineer's concurrence of compliance, the planning materials for construction of the proposed project and pollution abatement measures are hereby approved subject to applicable state rules and the conditions in this letter. The applicant or a person affected may file with the chief clerk a motion for reconsideration of the executive director's final action on this Edwards Aquifer Protection Plan. A motion for reconsideration must be filed no later than 23 days after the date of this approval letter. *This approval expires two (2) years from the date of this letter unless, prior to the expiration date, more than 10 percent of the construction has commenced on the project or an extension of time has been requested.*

BACKGROUND

The original WPAP for AC Mine was approved by letter dated March 4, 2016, and had a site of 447.2 acres within the Edwards Aquifer recharge and transition zones. The project included the development of a limestone quarry with associated quarry pit, 96.99 acres of impervious cover and a 50-foot natural vegetative buffer, earthen berms, and a tributary buffer as permanent BMPs.

A WPAP Modification was approved by letter dated April 16, 2021, which included an update to the impervious cover on site, additional stormwater measures, and an alteration to the quarry expansion within the overall 447.2-acre project site. Specifically, impervious cover was updated

to be 50 acres within the recharge zone boundaries consisting of haul roads, temporary stockpiles, and a portion of the rail loop track. All other impervious cover related to quarry operations, such as the quarry plant, shop, and supporting structures, are located within the transition zone. Two additional stormwater sedimentation ponds were proposed within the transition zone. The excavated quarry pit would take place within approximately 320 acres within the recharge zone. The excavation and grading of the quarry pit would extend to the previously established elevation of 689 feet above mean sea level (a.m.s.l.).

PROJECT DESCRIPTION

The current modification will add 323.5 acres to the site and 122.61 acres to the quarry pit. The new overall site area will be 770.7 acres, of which 442.61 acres will be quarry pit within the recharge zone. Excavation and grading of the quarry pit will extend to the previously established elevation of 689 feet a.m.s.l. There are no proposed changes to previously approved impervious cover on site. Existing septic systems are in place on the transition zone and will be serviced by a licensed septic contractor. Portable toilets will be used on site.

PERMANENT POLLUTION ABATEMENT MEASURES

To prevent the pollution of stormwater runoff originating on-site or upgradient of the site and potentially flowing across and off the site, the various controls described below will be utilized.

A 50-foot natural vegetative buffer will be maintained along the perimeter of the property and a 25-foot natural vegetative buffer will be maintained along the tributary located across the northern portion of the project site.

An earthen berm composed of compacted soil and/or overburden will be maintained within the quarry site. The earthen berm will continue to be constructed in stages, in advance of and in coordination with quarry disturbances. At the full extent of the quarry pit, the earthen berm will encircle the quarry pit. During the operational life of the quarry, the pit areas will not drain to surface waters. Upgradient stormwater will be diverted around the site and onsite flows will be prevented from leaving the site.

Grade breaks were approved in the previous plan to ensure the runoff from disturbed areas of the transition zone would not drain onto the recharge zone. The modification does not propose changes to the grade breaks. Maximum disturbance for areas, not within the quarry perimeter, will be less than 10-acres.

The buffers, earthen berm, and grade breaks are within the Edwards Aquifer recharge zone to divert, retain, and treat stormwater run-off. The total suspended solids (TSS) treatment for this project is 44,880 pounds of TSS generated from approximately 50 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS cause by the project.

Equipment maintenance and refueling will take place in designated areas, located away from drainage courses. Secondary containment measures will be used to catch spills and leaks during such activities. If emergency maintenance occurs or if refueling within the recharge zone must occur, appropriate protection measures will be implemented. Portable secondary containment will be utilized and will be disposed of in accordance with 30 TAC §335.

Process water management will take place within the transition zone and is designed and operating as a closed loop system. Process water will not commingle with accumulated stormwater or discharged offsite.

GEOLOGY

According to the geologic assessment included with the application for the 323.5-acre site addition, the site lies on the Person Formation, Georgetown Formation, Del Rio Clay, and Buda Limestone. Twenty-three (23) features, three (3) manmade features in bedrock and twenty (20) geologic features were identified by the project geologist. One sensitive feature, S-14 (zone of solution cavities), was identified. The feature is outside the current proposed quarrying activities and will remain undisturbed. The site assessment conducted on December 13, 2022, revealed the site was generally as described in the geologic assessment.

SPECIAL CONDITIONS

I. This modification is subject to all Special and Standard Conditions listed in the WPAP approval letter dated March 4, 2016, and subsequent modification dated April 16, 2021.

II. All permanent pollution abatement measures, other BMPs, and measures proposed in the application or described in this letter must be maintained and operational during the life of the quarry.

III. This approval does not authorize the construction or installation of aboveground storage tanks at the site.

IV. Intentional discharges of sediment laden water from regulated activities are not allowed. If dewatering becomes necessary, appropriate measures must be taken.

V. This letter addresses regulated activities (as defined in Chapter 213) and for best management practices presented in the application. Failure to obtain all necessary authorizations may result in enforcement actions.

STANDARD CONDITIONS

1. Pursuant to Chapter 7 Subchapter C of the Texas Water Code, any violations of the requirements in 30 TAC Chapter 213 may result in administrative penalties.
2. The holder of the approved Edwards Aquifer protection plan must comply with all provisions of 30 TAC Chapter 213 and all best management practices and measures contained in the approved plan. Additional and separate approvals, permits, registrations and/or authorizations from other TCEQ Programs (i.e., Stormwater, Water Rights, UIC) can be required depending on the specifics of the plan.
3. In addition to the rules of the Commission, the applicant may also be required to comply with state and local ordinances and regulations providing for the protection of water quality.

Prior to Commencement of Construction:

4. Within 60 days of receiving written approval of an Edwards Aquifer Protection Plan, the applicant must submit to the San Antonio Regional Office, proof of recordation of notice in the county deed records, with the volume and page number(s) of the county deed records of the county in which the property is located. A description of the property boundaries shall be included in the deed recordation in the county deed records. A suggested form (Deed Recordation Affidavit, TCEQ-0625) that you may use to deed record the approved WPAP is enclosed.
5. All contractors conducting regulated activities at the referenced project location shall be provided a copy of this notice of approval. At least one complete copy of the approved WPAP and this notice of approval shall be maintained at the project location until all regulated activities are completed.
6. Modification to the activities described in the referenced WPAP application following the date of approval may require the submittal of a plan to modify this approval, including the payment of appropriate fees and all information necessary for its review and approval prior to initiating construction of the modifications.

7. The applicant must provide written notification of intent to commence construction, replacement, or rehabilitation of the referenced project. Notification must be submitted to the San Antonio Regional Office no later than 48 hours prior to commencement of the regulated activity. Written notification must include the date on which the regulated activity will commence, the name of the approved plan and program ID number for the regulated activity, and the name of the prime contractor with the name and telephone number of the contact person. The executive director will use the notification to determine if the approved plan is eligible for an extension.
8. Temporary erosion and sedimentation (E&S) controls, i.e., silt fences, rock berms, stabilized construction entrances, or other controls described in the approved WPAP, must be installed prior to construction, and maintained during construction. Temporary E&S controls may be removed when vegetation is established and the construction area is stabilized. If a water quality pond is proposed, it shall be used as a sedimentation basin during construction. The TCEQ may monitor stormwater discharges from the site to evaluate the adequacy of temporary E&S control measures. Additional controls may be necessary if excessive solids are being discharged from the site.
9. All borings with depths greater than or equal to 20 feet must be plugged with non-shrink grout from the bottom of the hole to within three (3) feet of the surface. The remainder of the hole must be backfilled with cuttings from the boring. All borings less than 20 feet must be backfilled with cuttings from the boring. All borings must be backfilled or plugged within four (4) days of completion of the drilling operation. Voids may be filled with gravel.

<u>During Construction:</u>

10. During the course of regulated activities related to this project, the applicant or agent shall comply with all applicable provisions of 30 TAC Chapter 213, Edwards Aquifer. The applicant shall remain responsible for the provisions and conditions of this approval until such responsibility is legally transferred to another person or entity.
11. This approval does not authorize the installation of temporary aboveground storage tanks on this project. If the contractor desires to install a temporary aboveground storage tank for use during construction, an application to modify this approval must be submitted and approved prior to installation. The application must include information related to tank location and spill containment. Refer to Standard Condition No. 6, above.
12. If any sensitive feature (caves, solution cavities, sink holes, etc.) is discovered during construction, all regulated activities near the feature must be suspended immediately. The applicant or his agent must immediately notify the San Antonio Regional Office of the discovery of the feature. Regulated activities near the feature may not proceed until the executive director has reviewed and approved the methods proposed to protect the feature and the aquifer from potentially adverse impacts to water quality. The plan must be sealed, signed, and dated by a Texas Licensed Professional Engineer.
13. Three wells exist on site. All water wells, including injection, dewatering, and monitoring wells must be in compliance with the requirements of the Texas Department of Licensing and Regulation under Title 16 TAC Chapter 76 (relating to Water Well Drillers and Pump Installers) and all other locally applicable rules, as appropriate.
14. If sediment escapes the construction site, the sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain). Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50 percent. Litter, construction debris, and construction chemicals shall be prevented from becoming stormwater discharge pollutants.
15. Intentional discharges of sediment laden water are not allowed. If dewatering becomes necessary, the discharge will be filtered through appropriately selected best management practices. These may include vegetated filter strips, sediment traps, rock berms, silt fence rings, etc.
16. The following records shall be maintained and made available to the executive director upon request: the dates when major grading activities occur, the dates when construction

activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

17. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, and construction activities will not resume within 21 days. When the initiation of stabilization measures by the 14th day is precluded by weather conditions, stabilization measures shall be initiated as soon as practicable.

After Completion of Construction:

18. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the San Antonio Regional Office within 30 days of site completion.
19. The applicant shall be responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. The regulated entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred. A copy of the transfer of responsibility must be filed with the executive director through San Antonio Regional Office within 30 days of the transfer. A copy of the transfer form (TCEQ-10263) is enclosed.
20. Upon legal transfer of this property, the new owner(s) is required to comply with all terms of the approved Edwards Aquifer protection plan. If the new owner intends to commence any new regulated activity on the site, a new Edwards Aquifer protection plan that specifically addresses the new activity must be submitted to the executive director. Approval of the plan for the new regulated activity by the executive director is required prior to commencement of the new regulated activity.
21. An Edwards Aquifer protection plan approval or extension will expire and no extension will be granted if more than 50 percent of the total construction has not been completed within ten years from the initial approval of a plan. A new Edwards Aquifer protection plan must be submitted to the San Antonio Regional Office with the appropriate fees for review and approval by the executive director prior to commencing any additional regulated activities.
22. At project locations where construction is initiated and abandoned, or not completed, the site shall be returned to a condition such that the aquifer is protected from potential contamination.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality. If you have any questions or require additional information, please contact Mr. Joshua Vacek of the Edwards Aquifer Protection Program of the San Antonio Regional Office at 210-403-4028.

Sincerely,

Lillian Butler

Lillian Butler, Section Manager
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality

LIB/jv

Enclosures: Deed Recordation Affidavit, Form TCEQ-0625
Change in Responsibility for Maintenance of Permanent BMPs, Form TCEQ-10263

cc: Mr. Curt G. Campbell, P.E., Westward Environmental, Inc.

Anderson Columbia Co., Inc.
AC Tejas Quarry

Modification to Previous Plan Attachment B

Narrative of Proposed Modification

This modification to the previous WPAP approval is to add the northeast 550 acres to the plan within the Recharge Zone and expand the final quarry pit boundary to the north/northeast. This will bring the total site area to approx. 1,321-acres. The previously approved minimum quarry floor bottom elevation of 689 ft amsl, will not change.

On the Transition Zone:
No changes to the previously approved modification are proposed within the Transition Zone.

On the Recharge Zone:
The existing quarry pit will continue to expand as described in the approved WPAP. Temporary BMPs consisting of earthen berms and vegetated buffers will continue to be utilized to control and treat stormwater runoff in the initial stages of construction. Temporary natural existing vegetation will be maintained in a 25-foot buffer along the unnamed tributary of Dry Comal Creek as well as the FEMA 100-year floodplain of Dry Comal Creek located north of the Recharge Zone boundary. This buffer will be maintained until mining begins in the area and all applicable permits will be obtained before mining through the unnamed tributary of Dry Comal Creek or the FEMA 100-year floodplain. An SCS flood control dam exists on the northern tract of the property. The 25-foot buffer will be maintained as previously approved, and a 275-foot buffer will be maintained between the base of the dam and edge of the pit.

As previously approved, when the pit is of sufficient size, the crushing operation will be moved into the quarry pit, and additional stockpiles will also be stored in the pit. The crushing equipment may be moved to any location within the pit depending on the current mining area. The Proposed Conditions Map (Sheet C4) depicts the area of the site that will be quarried. Permanent BMPs at the site will include the Final Earthen Berm and 50-foot vegetated buffers. There is an existing pipeline which runs along the east/northeastern property boundary and cuts across the northeast corner of the newly proposed 550-acres. Anderson Columbia Co., Inc. will maintain any setbacks as required by the existing easement until such time as the pipeline may be shut down or removed and the easement is vacated.

The area being added will be used to further expand quarry operations in the future. The quarry pit may be backfilled with clean fill materials and non-sellable overburden. As quarry operations expand, areas of more than 10-acres of common drainage may be disturbed at a time, however these areas will be contained within temporary earthen berms, which will expand with the operation up to the Final Earthen Berm (as shown on the Proposed Conditions Map), and all run-off from these areas will remain contained on-site, ultimately draining to the pit. An initial phase of mining may involve grubbing a shallow area inside the temporary earthen berms for use as a material storage/staging yard. Within these areas, temporary material stockpiles & temporary compacted base access roads, constituting up to approximately 50-acres of impervious cover, may be established and/or relocated as needed. Runoff from this temporary impervious cover will be treated by surrounding natural vegetation and contained on-site by the surrounding temporary earthen berm (as described above and shown on the Proposed Conditions Map). These areas of disturbance and temporary impervious cover will all ultimately be mined out as the quarry pit

expands to its final limits, as shown on the Proposed Conditions Map. The final quarry area is expected to encompass approximately 882.76 acres.

Eleven karst features were identified as sensitive (S-15, S-24, S-26, S-27, S-29, S-36, S-37, S-39, S-41, S-43, and S-44). Of these, 8 features (S-15, S-24, S-26, S-27, S-36, S-41, S-43, and S-44) are proposed to be temporarily sealed and eventually removed through mining, while features S-29 and S-37 are proposed to be permanently sealed.

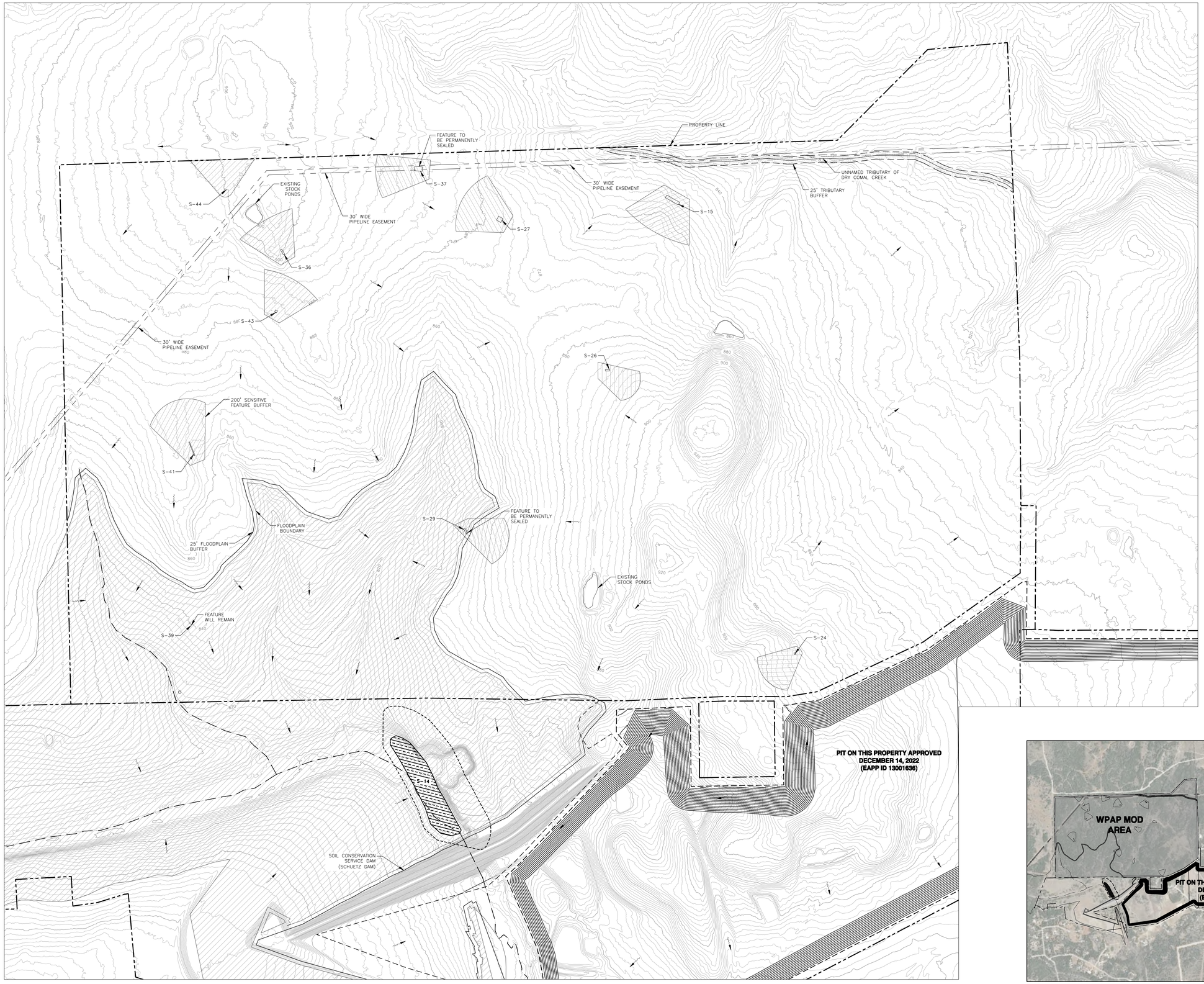
It is not expected that any significant amount of groundwater will be encountered in the quarry excavation. In order to maintain appropriate separation from the groundwater, and as previously approved, the quarry floor will not be lower than 689 ft. amsl. The attached Proposed Conditions Map (Sheet C4) shows updated grading for the final anticipated quarry bottom to incorporate the newest tract into the plan.

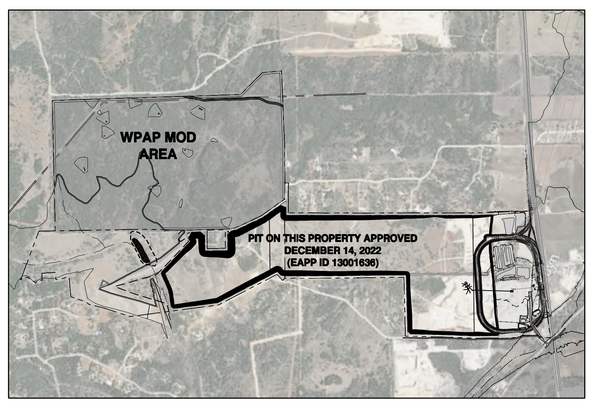
Anderson Columbia Co., Inc.
AC Tejas Quarry

Modification to Previous Plan Attachment C

Current Site Plan of the Approved Project

Please attached Sheet C3 (Interim Conditions Map)





N

0 150 300 600

SCALE: 1" = 300'

LEGEND

- PROPERTY LINE
- 900 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 920 PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LINEAR WATER BODIES
- PIPELINE EASEMENT
- BERM
- ASPHALT AREA
- BASE AREA
- FLOODPLAIN
- SENSITIVE FEATURE BUFFER
- TRIBUTARY BUFFER
- FLOW ARROW

NOTES:

1. FEATURES S-41, S-43, S-36, S-44, S-27, S-15, S-26, S-24 WILL BE TEMPORARILY SEALED REMOVED THROUGH MINING.
2. FEATURE S-29 & S-37 WILL BE PERMANENTLY SEALED.
3. FEATURE S-39 WILL REMAIN.

IMAGE:	N/A
ISSUE DATE:	8/21/2023
DRAWN BY:	NMS
CHECKED BY:	NEM
SCALE: 1" =	300'
JOB NO.:	10603-176

SHEET NO.:

C3

OF C4

WESTWARD
Environmental, Engineering, Natural Resources.
P.O. Box 2205 Boerne, Texas 78006
(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

REV.	DESCRIPTION	BY	DATE

STATE OF TEXAS
NICOLAS E. MERCADO
144228
LICENSED PROFESSIONAL ENGINEER

Nicolas E. Mercado

8/21/2023

Nicolas E. Mercado, P.E.
License No. 144228

INTERIM CONDITIONS MAP

WPAP MODIFICATION
ANDERSON COLUMBIA, INC.
AC TEJAS QUARRY

Water Pollution Abatement Plan Application

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Section 1.01 Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Water Pollution Abatement Plan Application Form** is hereby submitted for TCEQ review and Executive Director approval. The form was prepared by:

Print Name of Customer/Agent: Nicolas E. Mercado, P.E.
TX License No. 144228 | TX Firm No. 4525

Date: 8/21/2023

Signature of Customer/Agent:

Regulated Entity Name: AC Tejas Quarry

Section 1.02 Regulated Entity Information

1. The type of project is:

   ☐ Residential: Number of Lots:_____
   ☐ Residential: Number of Living Unit Equivalents:_____
   ☐ Commercial
   ☒ Industrial
   ☐ Other:_____

2. Total site acreage (size of property):1,322

3. Estimated projected population:20

4. The amount and type of impervious cover expected after construction are shown below:

Article II. Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops		÷ 43,560 =	
Parking		÷ 43,560 =	
Other paved surfaces	2,178,000	÷ 43,560 =	50
Total Impervious Cover	2,178,000	÷ 43,560 =	50

Total Impervious Cover 50 **÷ Total Acreage** 1321 **X 100 =** 3.8**% Impervious Cover**

5. ☒ **Attachment A - Factors Affecting Surface Water Quality**. A detailed description of all factors that could affect surface water and groundwater quality that addresses ultimate land use is attached.

6. ☒ Only inert materials as defined by 30 TAC §330.2 will be used as fill material.

Section 2.01 For Road Projects Only

(a) Complete questions 7 - 12 if this application is exclusively for a road project.

7. Type of project:

☐ TXDOT road project.
☐ County road or roads built to county specifications.
☐ City thoroughfare or roads to be dedicated to a municipality.
☐ Street or road providing access to private driveways.

8. Type of pavement or road surface to be used:

☐ Concrete
☐ Asphaltic concrete pavement
☐ Other: _____

9. Length of Right of Way (R.O.W.): _____ feet.

Width of R.O.W.: _____ feet.
L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.

10. Length of pavement area: _____ feet.

Width of pavement area: _____ feet.
L x W = _____ Ft^2 ÷ 43,560 Ft^2/Acre = _____ acres.
Pavement area _____ acres ÷ R.O.W. area _____ acres x 100 = _____% impervious cover.

11. ☐ A rest stop will be included in this project.

☐ A rest stop will not be included in this project.

12. ☐ Maintenance and repair of existing roadways that do not require approval from the TCEQ Executive Director. Modifications to existing roadways such as widening roads/adding shoulders totaling more than one-half (1/2) the width of one (1) existing lane require prior approval from the TCEQ.

Section 2.02 Stormwater to be generated by the Proposed Project

13. ☒ **Attachment B - Volume and Character of Stormwater**. A detailed description of the volume (quantity) and character (quality) of the stormwater runoff which is expected to occur from the proposed project is attached. The estimates of stormwater runoff quality and quantity are based on the area and type of impervious cover. Include the runoff coefficient of the site for both pre-construction and post-construction conditions.

Section 2.03 Wastewater to be generated by the Proposed Project

14. The character and volume of wastewater is shown below:

100% Domestic	100 Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day

TOTAL gallons/day 100

15. Wastewater will be disposed of by:

☒ On-Site Sewage Facility (OSSF/Septic Tank):

☒ **Attachment C - Suitability Letter from Authorized Agent**. An on-site sewage facility will be used to treat and dispose of the wastewater from this site. The appropriate licensing authority's (authorized agent) written approval is attached. It states that the land is suitable for the use of private sewage facilities and will meet or exceed the requirements for on-site sewage facilities as specified under 30 TAC Chapter 285 relating to On-site Sewage Facilities.

☐ Each lot in this project/development is at least one (1) acre (43,560 square feet) in size. The system will be designed by a licensed professional engineer or registered sanitarian and installed by a licensed installer in compliance with 30 TAC Chapter 285.

☐ Sewage Collection System (Sewer Lines):

☐ Private service laterals from the wastewater generating facilities will be connected to an existing SCS.

☐ Private service laterals from the wastewater generating facilities will be connected to a proposed SCS.

☐ The SCS was previously submitted on_____.

☐ The SCS was submitted with this application.

☐ The SCS will be submitted at a later date. The owner is aware that the SCS may not be installed prior to Executive Director approval.

☐ The sewage collection system will convey the wastewater to the _____ (name) Treatment Plant. The treatment facility is:

☐ Existing.
☐ Proposed.

16. ☐ All private service laterals will be inspected as required in 30 TAC §213.5.

Section 2.04 Site Plan Requirements

(a) Items 17 – 28 must be included on the Site Plan.

17. ☒ The Site Plan must have a minimum scale of 1" = 400'.

Site Plan Scale: 1" = 300'.

18. 100-year floodplain boundaries:

☒ Some part(s) of the project site is located within the 100-year floodplain. The floodplain is shown and labeled.
☐ No part of the project site is located within the 100-year floodplain.

The 100-year floodplain boundaries are based on the following specific (including date of material) sources(s): FEMA 48091C0440F & 48091C0420F both effective 9/1/2009

19. ☒ The layout of the development is shown with existing and finished contours at appropriate, but not greater than ten-foot contour intervals. Lots, recreation centers, buildings, roads, open space, etc. are shown on the plan.

☐ The layout of the development is shown with existing contours at appropriate, but not greater than ten-foot intervals. Finished topographic contours will not differ from the existing topographic configuration and are not shown. Lots, recreation centers, buildings, roads, open space, etc. are shown on the site plan.

20. All known wells (oil, water, unplugged, capped and/or abandoned, test holes, etc.):

☒ There are 7 (#) wells present on the project site and the locations are shown and labeled. (Check all of the following that apply)

☐ The wells are not in use and have been properly abandoned.
☒ The wells are not in use and will be properly abandoned.
☒ The wells are in use and comply with 16 TAC §76.

☐ There are no wells or test holes of any kind known to exist on the project site.

21. Geologic or manmade features which are on the site:

☒ All sensitive geologic or manmade features identified in the Geologic Assessment are shown and labeled.
☐ No sensitive geologic or manmade features were identified in the Geologic Assessment.

☐ **Attachment D - Exception to the Required Geologic Assessment**. A request and justification for an exception to a portion of the Geologic Assessment is attached.

22. ☒ The drainage patterns and approximate slopes anticipated after major grading activities.
23. ☒ Areas of soil disturbance and areas which will not be disturbed.
24. ☒ Locations of major structural and nonstructural controls. These are the temporary and permanent best management practices.
25. ☒ Locations where soil stabilization practices are expected to occur.
26. ☒ Surface waters (including wetlands).

    ☐ N/A

27. ☒ Locations where stormwater discharges to surface water or sensitive features are to occur.

    ☐ There will be no discharges to surface water or sensitive features.

28. ☒ Legal boundaries of the site are shown.

Section 2.05 Administrative Information

29. ☒ Submit one (1) original and one (1) copy of the application, plus additional copies as needed for each affected incorporated city, groundwater conservation district, and county in which the project will be located. The TCEQ will distribute the additional copies to these jurisdictions. The copies must be submitted to the appropriate regional office.
30. ☒ Any modification of this WPAP will require Executive Director approval, prior to construction, and may require submission of a revised application, with appropriate fees.

Anderson Columbia Co., Inc.
AC Tejas Quarry

Water Pollution Abatement Plan Attachment A

Factors Affecting Surface Water Quality

The major factor that could potentially affect water quality is sediment in stormwater runoff after the clearing of vegetation. More remote factors include fuels and lubricants from vehicles and equipment and trash/debris items.

Earthen berms or rock berms and vegetated buffers located downgradient of the disturbed area(s) are proposed to capture sediment and control the flow of stormwater over the Recharge Zone. Upgradient berms prevent run-on to disturbed areas of the site. In the portion of the property over the Edwards Recharge Zone, stormwater will be retained in the mining pit. Over the Edwards Transition Zone, stormwater will be retained in the various settling ponds around the property. Any spills or leaks will be cleaned up immediately and will be disposed of properly. A trash receptacle will be placed on-site for use by employees and visitors.

Water Pollution Abatement Plan Attachment B

Volume and Character of Stormwater

The area of the proposed final quarry pit, as shown on the Proposed Conditions Map (Sheet C3), is an approximate 866.5-acre portion of the overall 1,321-acre property. The stormwater from this disturbed area will carry an increased level of total suspended solids (TSS); however, stormwater from this area will be retained in the pit.

Areas on the Transition Zone will drain to existing and proposed settling ponds where runoff will be retained. Temporary BMPs (rock/earthen berms, vegetative filter strips, silt fence, etc.) will be used to control stormwater until the ponds are complete.

Due to the use of Temporary BMPs during construction, the character of stormwater runoff which is expected to occur from the proposed project will be essentially the same as prior to the site. As quarrying activities continue, the volume of stormwater runoff from the site will be reduced because the quarry pit will ultimately retain the anticipated on-site and upgradient stormwater runoff. The runoff coefficient for the impervious areas is 0.9 and the runoff coefficient for predevelopment is 0.03 per TCEQ guidance.

Water Pollution Abatement Plan Attachment C

Suitability Letter from Authorized Agent

Please see attached approved permit to construct an OSSF.

COMAL COUNTY

ENGINEER'S OFFICE

Permit of Authorization to Construct an On-Site Sewage Facility
Permit Valid For One Year From Date Issued

Permit Number: 110129

Issued This Date: 12/18/2019

This permit is hereby given to: Junction City Mining Co, LLC

To start construction of a private, on-site sewage facility located at:

140 COYOTE RUN
NEW BRAUNFELS, TX 78132

Subdivision: V. Bennet Survey No. 100, Abst 72 &
Unit: F. Rodriguez Sur No. 99, Abst 484
Lot:
Block:
Acreage:

APPROVED MINIMUM SIZES AS PER ATTACHED DESIGN

Type of System: Aerobic
Surface Irrigation

This permit gives permission for the construction of the above referenced on-site facility to commence. Installation must be completed by an installer holding a valid registration card from the Texas Commission on Environmental Quality (TCEQ). Installation and inspection must comply with current TCEQ and Comal County requirements.

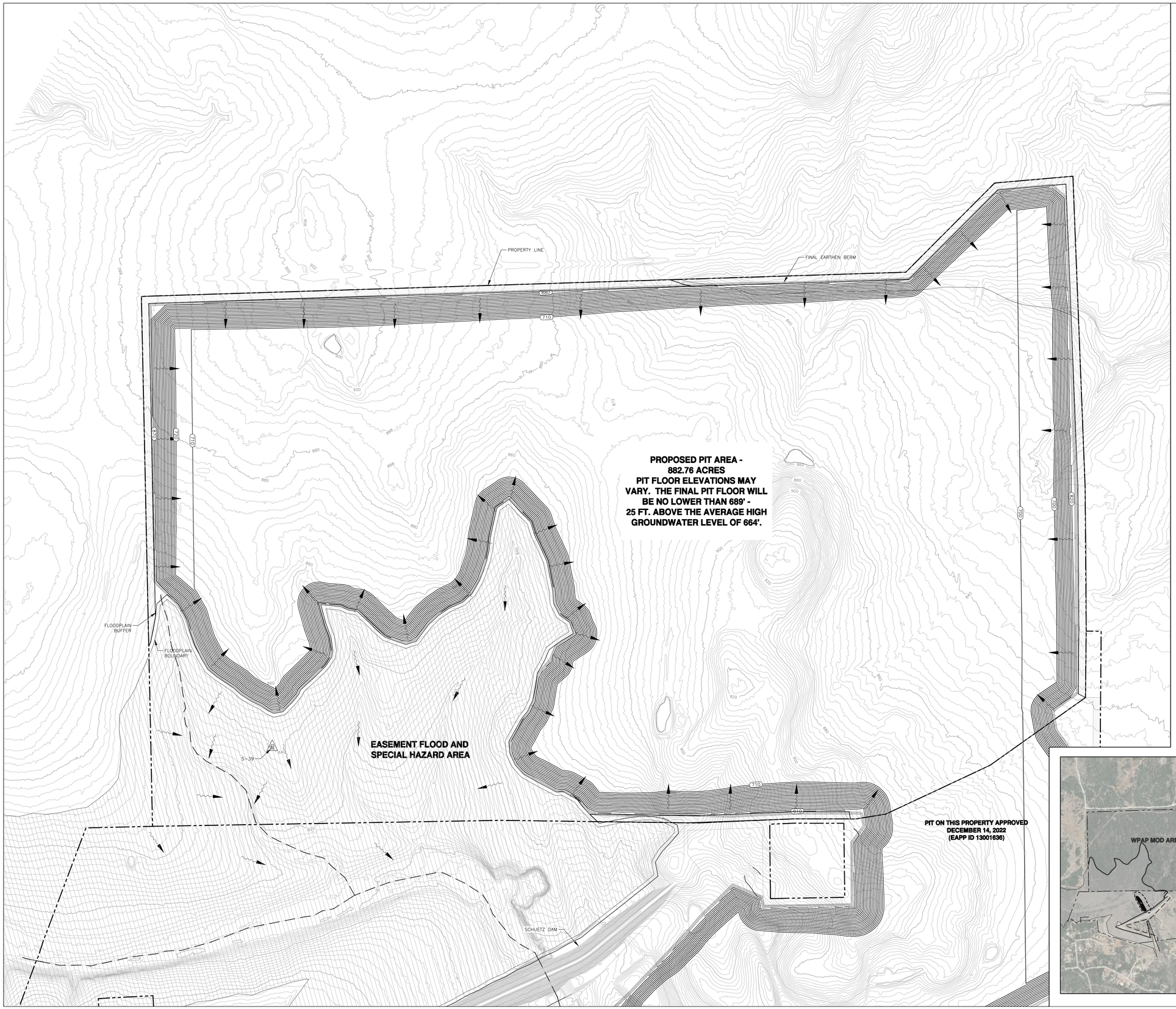
Call (830) 608-2090 to schedule inspections.

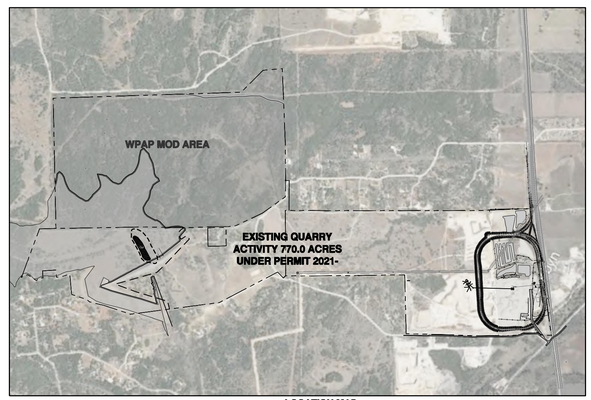
Anderson Columbia Co., Inc.
AC Tejas Quarry

Water Pollution Abatement Plan Site Plan

Site Plan

Please see attached Proposed Conditions Map (Sheet C4) for the final pit layout of the site.





LOCATION MAP
SCALE: 1" =2,000'

N

0 150 300 600

SCALE: 1" = 300'

LEGEND

- BERM
- PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- FLOW ARROW
- FLOODPLAIN BOUNDARY

NOTES:
1. FEATURES S-41, S-43, S-36, S-44, S-27, S-15, S-26, S-24 WILL BE TEMPORARILY SEALED REMOVED THROUGH MINING.
2. FEATURE S-29 & S-37 WILL BE PERMANENTLY SEALED.
3. FEATURE S-39 WILL REMAIN.

IMAGE:	N/A
ISSUE DATE:	8/21/2023
DRAWN BY:	NMS
CHECKED BY:	NEM
SCALE: 1" =	300'
JOB NO.:	10603-176

SHEET NO.:
C4
OF C4

WESTWARD
Environmental, Engineering, Natural Resources.
P.O. Box 2205 Boerne, Texas 78006
(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

REV	DESCRIPTION	BY	DATE

STATE OF TEXAS
NICOLAS E. MERCADO
144228
LICENSED PROFESSIONAL ENGINEER

8/21/2023

Nicolas E. Mercado, P.E.
License No.: 144228

PROPOSED CONDITIONS MAP

WPAP MODIFICATION
ANDERSON COLUMBIA CO., INC.
AC TEJAS QUARRY

Temporary Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(A), (B), (D)(I) and (G); Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Section 1.01 Signature

To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Temporary Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Nicolas E. Mercado, P.E.

TX License No. 144228 | TX Firm No. 4525

Date: 8/21/2023

Signature of Customer/Agent:

Regulated Entity Name: AC Tejas Quarry

Section 1.02 Project Information

Section 1.03 Potential Sources of Contamination

Examples: Fuel storage and use, chemical storage and use, use of asphaltic products, construction vehicles tracking onto public roads, and existing solid waste.

1. Fuels for construction equipment and hazardous substances which will be used during construction:

   ☒ The following fuels and/or hazardous substances will be stored on the site: Diesel & gasoline

   These fuels and/or hazardous substances will be stored in:

☐ Aboveground storage tanks with a cumulative storage capacity of less than 250 gallons will be stored on the site for less than one (1) year.

☐ Aboveground storage tanks with a cumulative storage capacity between 250 gallons and 499 gallons will be stored on the site for less than one (1) year.

☒ Aboveground storage tanks with a cumulative storage capacity of 500 gallons or more will be stored on the site. An Aboveground Storage Tank Facility Plan application must be submitted to the appropriate regional office of the TCEQ prior to moving the tanks onto the project.

☐ Fuels and hazardous substances will not be stored on the site.

2. ☒ **Attachment A - Spill Response Actions**. A site specific description of the measures to be taken to contain any spill of hydrocarbons or hazardous substances is attached.

3. ☒ Temporary aboveground storage tank systems of 250 gallons or more cumulative storage capacity must be located a minimum horizontal distance of 150 feet from any domestic, industrial, irrigation, or public water supply well, or other sensitive feature.

4. ☒ **Attachment B - Potential Sources of Contamination**. A description of any activities or processes which may be a potential source of contamination affecting surface water quality is attached.

Section 1.04 Sequence of Construction

5. ☒ **Attachment C - Sequence of Major Activities**. A description of the sequence of major activities which will disturb soils for major portions of the site (grubbing, excavation, grading, utilities, and infrastructure installation) is attached.

   ☒ For each activity described, an estimate (in acres) of the total area of the site to be disturbed by each activity is given.

   ☒ For each activity described, include a description of appropriate temporary control measures and the general timing (or sequence) during the construction process that the measures will be implemented.

6. ☒ Name the receiving water(s) at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project: Dry Comal Creek, Tributary 23

Section 1.05 Temporary Best Management Practices (TBMPs)

Erosion control examples: tree protection, interceptor swales, level spreaders, outlet stabilization, blankets or matting, mulch, and sod. Sediment control examples: stabilized construction exit, silt fence, filter dikes, rock berms, buffer strips, sediment traps, and sediment basins. Please refer to the Technical Guidance Manual for guidelines and specifications. All structural BMPs must be shown on the site plan.

7. ☒ **Attachment D – Temporary Best Management Practices and Measures**. TBMPs and measures will prevent pollution of surface water, groundwater, and stormwater. The

construction-phase BMPs for erosion and sediment controls have been designed to retain sediment on site to the extent practicable. The following information is attached:

☒ A description of how BMPs and measures will prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site.

☒ A description of how BMPs and measures will prevent pollution of surface water or groundwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

☒ A description of how BMPs and measures will prevent pollutants from entering surface streams, sensitive features, or the aquifer.

☒ A description of how, to the maximum extent practicable, BMPs and measures will maintain flow to naturally-occurring sensitive features identified in either the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

8. ☒ The temporary sealing of a naturally-occurring sensitive feature which accepts recharge to the Edwards Aquifer as a temporary pollution abatement measure during active construction should be avoided.

   ☒ **Attachment E - Request to Temporarily Seal a Feature**. A request to temporarily seal a feature is attached. The request includes justification as to why no reasonable and practicable alternative exists for each feature.

   ☐ There will be no temporary sealing of naturally-occurring sensitive features on the site.

9. ☒ **Attachment F - Structural Practices**. A description of the structural practices that will be used to divert flows away from exposed soils, to store flows, or to otherwise limit runoff discharge of pollutants from exposed areas of the site is attached. Placement of structural practices in floodplains has been avoided.

10. ☒ **Attachment G - Drainage Area Map**. A drainage area map supporting the following requirements is attached:

    ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin will be provided.

    ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a smaller sediment basin and/or sediment trap(s) will be used.

    ☐ For areas that will have more than 10 acres within a common drainage area disturbed at one time, a sediment basin or other equivalent controls are not attainable, but other TBMPs and measures will be used in combination to protect down slope and side slope boundaries of the construction area.

    ☐ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. A smaller sediment basin and/or sediment trap(s) will be

used in combination with other erosion and sediment controls within each disturbed drainage area.

☒ There are no areas greater than 10 acres within a common drainage area that will be disturbed at one time. Erosion and sediment controls other than sediment basins or sediment traps within each disturbed drainage area will be used.

11. ☐ **Attachment H - Temporary Sediment Pond(s) Plans and Calculations**. Temporary sediment pond or basin construction plans and design calculations for a proposed temporary BMP or measure have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer. All construction plans and design information must be signed, sealed, and dated by the Texas Licensed Professional Engineer. Construction plans for the proposed temporary BMPs and measures are attached.

    ☒ N/A

12. ☒ **Attachment I - Inspection and Maintenance for BMPs.** A plan for the inspection of each temporary BMP(s) and measure(s) and for their timely maintenance, repairs, and, if necessary, retrofit is attached. A description of the documentation procedures, recordkeeping practices, and inspection frequency are included in the plan and are specific to the site and/or BMP.

13. ☒ All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices. If periodic inspections by the applicant or the executive director, or other information indicate a control has been used inappropriately, or incorrectly, the applicant must replace or modify the control for site situations.

14. ☒ If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize offsite impacts to water quality (e.g., fugitive sediment in street being washed into surface streams or sensitive features by the next rain).

15. ☒ Sediment must be removed from sediment traps or sedimentation ponds not later than when design capacity has been reduced by 50%. A permanent stake will be provided that can indicate when the sediment occupies 50% of the basin volume.

16. ☒ Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from becoming a pollutant source for stormwater discharges (e.g., screening outfalls, picked up daily).

Section 1.06 Soil Stabilization Practices

Examples: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, or preservation of mature vegetation.

17. ☒ **Attachment J - Schedule of Interim and Permanent Soil Stabilization Practices**. A schedule of the interim and permanent soil stabilization practices for the site is attached.

18. ☒ Records must be kept at the site of the dates when major grading activities occur, the dates when construction activities temporarily or permanently cease on a portion of the site, and the dates when stabilization measures are initiated.

19. ☒ Stabilization practices must be initiated as soon as practicable where construction activities have temporarily or permanently ceased.

Section 1.07 Administrative Information

20. ☒ All structural controls will be inspected and maintained according to the submitted and approved operation and maintenance plan for the project.

21. ☒ If any geologic or manmade features, such as caves, faults, sinkholes, etc., are discovered, all regulated activities near the feature will be immediately suspended. The appropriate TCEQ Regional Office shall be immediately notified. Regulated activities must cease and not continue until the TCEQ has reviewed and approved the methods proposed to protect the aquifer from any adverse impacts.

22. ☒ Silt fences, diversion berms, and other temporary erosion and sediment controls will be constructed and maintained as appropriate to prevent pollutants from entering sensitive features discovered during construction.

Anderson Columbia Co., Inc.
AC Tejas Quarry

Temporary Stormwater Section Attachment A

Spill Response Actions

Education

(1) Be aware that different materials pollute in different amounts. Make sure that each employee knows what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills. Employees should also be aware of when spill must be reported to the TCEQ.

(2) Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.

(3) Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).

(4) Establish a continuing education program to indoctrinate new employees.

(5) Have contractor's superintendent or representative oversee and enforce proper spill prevention and control measures.

General Measures

(1) To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up in a timely manner.

(2) Store hazardous materials and wastes in covered containers and protect from vandalism.

(3) Place a stockpile of spill clean-up materials where it will be readily accessible.

(4) Train employees in spill prevention and cleanup.

(5) Designate responsible individuals to oversee and enforce control measures.

(6) Spills should be covered and protected from stormwater run-on during rainfall to the extent that it doesn't compromise cleanup activities.

(7) Do not bury or wash spills with water.

(8) Store and dispose of used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose in conformance with the provisions in applicable BMPs.

(9) Do not allow water used for cleaning and decontamination to enter storm drains or watercourses. Collect and dispose of contaminated water in accordance with applicable regulations.

(10) Contain water overflow or minor water spillage and do not allow it to discharge into drainage facilities or watercourses.

(11) Place Material Safety Data Sheets (MSDS), as well as proper storage, cleanup, and spill reporting instructions for hazardous materials stored or used on the project site in an open, conspicuous, and accessible location.

(12) Keep waste storage areas clean, well-organized, and equipped with ample cleanup supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers, and liners should be repaired or replaced as needed to maintain proper function.

Cleanup

(1) Clean up leaks and spills in a timely manner.

(2) Use a rag for small spills on paved surfaces, a damp mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be disposed of as hazardous waste.

(3) Never hose down or bury dry material spills. Clean up as much of the material as possible and dispose of properly. See the waste management BMPs in this section for specific information.

Minor Spills

(1) Minor spills typically involve small quantities of oil, gasoline, paint, etc. which can be controlled by the first responder at the discovery of the spill.

(2) Use absorbent materials on small spills rather than hosing down or burying the spill.

(3) Absorbent materials should be promptly removed and disposed of properly.

(4) Follow the practice below for a minor spill:

(5) Contain the spread of the spill.

(6) Recover spilled materials.

(7) Clean the contaminated area and properly dispose of contaminated materials.

Semi-Significant Spills

Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.

Spills should be cleaned up in a timely manner:

(1) Contain spread of the spill.
(2) Notify the project foreman in a timely manner.

(3) If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.

(4) If the spill occurs in dirt areas, contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.

(5) If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Significant/Hazardous Spills

For significant or hazardous spills that are in reportable quantities:

(1) Notify the TCEQ by telephone as soon as possible and within 24 hours at 512-339-2929 (Austin) or 210-490-3096 (San Antonio) between 8 AM and 5 PM. After hours, contact the Environmental Release Hotline at 1-800-832-8224. It is the contractor's responsibility to have all emergency phone numbers at the construction site.

(2) For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110,119, and 302, the contractor should notify the National Response Center at (800) 424-8802.

(3) Notification should first be made by telephone and followed up with a written report.

(4) The services of a spills contractor or a Haz-Mat team should be obtained in a timely manner. Construction personnel should not attempt to clean up until the appropriate and qualified staffs have arrived at the job site.

(5) Other agencies which may need to be consulted include, but are not limited to, the City Police Department, County Sheriff Office, Fire Departments, etc.

Anderson Columbia Co., Inc.
AC Tejas Quarry

In the event of a reportable spill, the following Emergency Response Agencies can be contacted for assistance. Always inform your supervisor of a reportable spill in a timely manner. Follow company policy when responding to an emergency.

State Emergency Response Commission	(512) 463-7727
National Response Center	(800) 424-8802
US EPA Region 6, Dallas, 24-hr Number	(866) 372-7745
National Weather Service	(281) 337-5074
TCEQ 24-hr	(800) 832-8224
TCEQ Region 13	(210) 490-3096

Vehicle and Equipment Maintenance

(1) If maintenance must occur on-site, use a designated area and a secondary containment, located away from drainage courses, to prevent the run-on of stormwater and the runoff of spills.

(2) Regularly inspect on-site vehicles and equipment for leaks and repair in a timely manner.

(3) Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site.

(4) Always use secondary containment, such as a drain pan or drop cloth, to catch spills or leaks when removing or changing fluids.

(5) Place drip pans or absorbent materials under paving equipment when not in use.

(6) Use absorbent materials on small spills rather than hosing down or burying the spill. Remove the absorbent materials promptly and dispose of properly.

(7) Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

(8) Oil filters disposed of in trashcans or dumpsters can leak oil and pollute stormwater. Place the oil filter in a funnel over a waste oil-recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask the oil supplier or recycler about recycling oil filters.

(9) Store cracked batteries in a non- leaking secondary container. Do this with all cracked batteries even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling

(1) If fueling must occur on site, use designated areas, located away from drainage courses, to prevent the run-on of stormwater and the runoff of spills.

(2) Discourage "topping off" of fuel tanks.

(3) Always use secondary containment, such as a drain pan, when fueling to catch spills/ leaks.

(4) Equipment fueling will take place on a flex base pad. A diesel and gasoline tank have been approved with an Aboveground Storage Tank Plan dated May 16, 2016 (EAPP ID 13000110). A nurse tank may fuel on this flex base pad. The flex base pad will be 1 ft. thick with a 1 ft. berm on all sides. Fueling of plant equipment located in the pit will be conducted on a flex base pad.

Anderson Columbia Co., Inc.
AC Tejas Quarry

DETAILED TELEPHONE SPILL REPORT FORM

Date of Incident: _____

Location of Incident: _____

Description of material spilled: _____

Quantity of material spilled: _____

Cause of spill: _____

Authorities notified: _____

Remediation/clean-up action: _____

_____

_____

_____

_____

Corrective measures taken for prevention of reoccurrence: _____

_____

_____

_____

_____

Signature: _____

Notes: _____

_____

_____

_____

Portable Toilet BMPs:

Portable toilets and/or sewage pump-out tanks will be used on-site and will be handled in accordance with the following guidelines:

- A licensed waste collector should service all the toilets/tanks. **The following tasks will be performed by the portable toilet supplier:**
  - Empty portable toilets/tanks before transporting them.
  - Securely fasten the toilets/tanks to the transport truck.
  - Use hand trucks, dollies, and power tailgates whenever possible.
  - Suppliers should carry bleach for disinfection in the event of a spill or leak.
  - Inspect the toilets frequently for leaks and have the units serviced and sanitized at time intervals that will maintain sanitary conditions of each toilet.
  - Pump-out tanks should be checked periodically for leaks. (Methods may include, but are not limited to: visual inspection, water level monitoring, pump-out volume comparisons, etc.)
- Locate portable toilets at least 20 feet from the nearest storm-drain inlet or sensitive-feature buffer area
- A berm will be constructed around all portable toilet facilities.
- Prepare a level ground surface with clear access to the toilets.
- Secure all portable toilets to prevent tipping by accident, weather, or vandalism.

Sewage pump-out tanks may be associated with modular or trailer-style buildings (i.e. – plant office, scale house, etc.). These tanks operate with the same nature and character as the portable toilets: they temporarily hold sewage from modular building restrooms and will be serviced by the same contractor, in the same way, as portable toilets. These tanks may be partially or fully buried but are still considered temporary/portable as they are intended to be repositioned on site over time to meet operational needs, and therefore do not constitute an OSSF or holding tank as defined by 30 TAC 285, nor any other type of organized sewage collection system.

Temporary Stormwater Section Attachment B

Potential Sources of Contamination

Potential sources of contamination in the project area are the soil, fuels and lubricants from vehicles and equipment, and trash/debris items.

Temporary Stormwater Section Attachment C

Sequence of Major Activities

The quarry operation will continue as approved. Clearing will continue for the quarry progression in 10-acre or less area increments. The cleared topsoil will be used to construct earthen berms surrounding the cleared area. Berms will be 2-4 feet high.

The earthen berms surrounding the quarry will expand as the quarry expands to the Final Earthen Berm.

Anderson Columbia Co., Inc.
AC Tejas Quarry

Temporary Stormwater Section Attachment D

Temporary Best Management Practices (TBMPs) and Measures

7a) TBMPs and measures will prevent pollution of surface water, groundwater and stormwater that originates upgradient from the site and flows across the site.

As the incremental quarry area is cleared and topsoil is removed, earthen berms will be constructed. Upgradient berms will direct stormwater runoff around disturbed areas of the site.

As the size of the quarry expands, the earthen berms will expand throughout the life of the project, up to the buffer zones to provide additional controls as mining nears the sensitive features. Temporary natural existing vegetation will be maintained in a 25-foot buffer along Dry Comal Creek Tributary 23 and along the FEMA 100-year floodplain of Dry Comal Creek. This buffer will be maintained until mining begins in the area. In addition, a natural vegetated buffer with a minimum width of 50 feet will be maintained between the edge of disturbance for the quarry activities and the property line. This natural vegetated buffer will serve as a final buffer for stormwater runoff leaving the active portion of the site.

7b) TBMPs and measures will prevent pollution of surface water, groundwater and stormwater that originates on-site or flows off site, including pollution caused by contaminated stormwater runoff from the site.

As the size of the quarry expands, the earthen berms will expand throughout the life of the project to the Final Earthen Berm. Temporary natural existing vegetation will be maintained in a 25-foot buffer along Dry Comal Creek Tributary 23 and along the FEMA 100-year floodplain of Dry Comal Creek. This buffer will be maintained until mining begins in the area. In addition, a natural vegetated buffer with a minimum width of 50 feet will be maintained between the edge of disturbance for the quarry activities and the property line. This natural vegetated buffer will serve as a final buffer for stormwater runoff leaving the active portion of the site.

7c) TBMPs and measures will prevent pollution of surface streams, sensitive features and the aquifer.

Earthen berms and vegetated areas will be constructed/maintained as shown on the attached WPAP Site Plan to prevent pollutants from entering surface streams, sensitive features and the aquifer.

Temporary natural existing vegetation will be maintained in a 25-foot buffer along Dry Comal Creek Tributary 23 and along the FEMA 100-year floodplain of Dry Comal Creek. This buffer will be maintained until mining begins in the area. In addition, a natural vegetated buffer with a minimum width of 50 feet will be maintained between the edge of disturbance for the quarry activities and the property line (except where noted on the WPAP Site Map). This natural vegetated buffer will serve as a final buffer for stormwater runoff leaving the active portion of the site. Buffers will be located around sensitive features until they are temporarily or permanently sealed.

7d) To the maximum extent practicable TBMPs and measures will maintain flow to naturally-occurring sensitive features identified in the geologic assessment, TCEQ inspections, or during excavation, blasting, or construction.

For this third modification, a third geologic assessment has been completed for the proposed 550-acre addition and is included with this application. Within this 550-acre area, eleven karst features were identified as sensitive (S-15, S-24, S-26, S-27, S-29, S-36, S-37, S-39, S-41, S-43, and S-44). Of these, 8 features (S-15, S-24, S-26, S-27, S-36, S-41, S-43, and S-44) are proposed to be temporarily sealed and eventually removed through mining, while features S-29 and S-37 are proposed to be permanently sealed. No changes are proposed for the approved treatment of any previously identified sensitive features.

As clearing progresses to within approximately 200' of a sensitive feature, rock berms and/or silt fences will be established around the feature. These BMPs will slow the flow of water, allowing for sedimentation. Flow will be maintained to each of these features until such time as quarrying or construction of berms progresses into the buffer. Prior to this, each will be sealed with flowable fill/concrete until they are removed through mining (or left permanently sealed, as in the case of S-29 and S-37). Earthen berms, vegetative buffer, and the quarry, which store flows, will be used as pollution prevention measures to mitigate runoff from larger disturbed areas. These larger disturbed areas (the pit) have a greater potential to contain sediment, therefore these BMPs will be used to provide a higher level of protection to the aquifer.

Anderson Columbia Co., Inc. will provide initial feature recognition training to mining staff within 90 days of approval of this WPAP application. Initial feature recognition training will also be provided to applicable new employees (site supervisors and quarry operators) within 90 days of hire. Refresher training will be provided to quarry operators as needed. All training will be conducted by the Site Supervisor or his designee using a training program prepared by a PG.

The site supervisor or his designee will maintain records of when features are identified by mining staff. These records will include the date the feature was identified, the general location of the feature, a general description of the feature, and what action was taken regarding the potential feature. These records will be maintained for five years and will be made available to the TCEQ upon request.

Any possibly sensitive geologic feature discovered by mining staff will be handled in the following manner: Sediment that can be easily removed from the area adjacent to the feature without disturbing the feature will be removed. Then a rock berm will be placed around the feature to control and filter any potential flows into the feature. After placement of the rock berm, the active work area of the quarry will be moved to another portion of the pit where the feature cannot be impacted by the continuing quarry operations. A Professional Geologist will be called to the site to observe and rate the feature. If the feature is determined to be sensitive in accordance with TAC 213 rules, the TCEQ will be notified and an appropriate method for addressing the feature will be formulated and submitted for TCEQ approval. Work will not resume in the area of the feature until the TCEQ approved method for addressing the feature has been carried out.

Anderson Columbia Co., Inc.
AC Tejas Quarry

Temporary Stormwater Section Attachment E

Request to Temporarily Seal a Feature

Per the previous approved plan, the following sensitive features are proposed to be temporarily sealed and removed through mining: S-5 and S-12. Feature S-14 was left undisturbed.

With this modification, Anderson Columbia Co., Inc. requests to temporarily seal the following features before they are ultimately removed through mining: S-15, S-24, S-26, S-27, S-36, S-41, S-43, and S-44.

In order to protect the aquifer from possible contamination from sediment in stormwater as quarrying nears the features, Anderson Columbia Co., Inc. will temporarily seal the naturally occurring sensitive features listed above using flowable fill/concrete. Each of these features that are located within the proposed quarrying footprint will eventually be removed through mining.

The alternative to sealing these features would be to not seal them, which would pose a greater threat to the aquifer, due to the potential for sediment to enter in runoff from adjacent disturbed areas. It is not reasonable or practical to avoid mining near or upgradient of sensitive features due to their spacing on-site. Mining around the sensitive features would create a safety hazard within the quarry because the features would be left atop pinnacles that would be very tall and slender. These pinnacles would be prone to collapse and would create unsafe working conditions within much of the quarry area.

Temporary Stormwater Section Attachment F

Structural Practices

Temporary best management practices proposed for the limestone quarry may include earthen berms, silt fencing, rock berms and natural vegetated buffers. The silt fencing, rock berms and vegetated buffers are used to limit runoff discharge of sediment. The earthen berms are used to store flows and limit runoff discharge of pollutants from exposed areas of the site as well as to divert flows away from exposed (disturbed) soils.

Anderson Columbia Co., Inc.
AC Tejas Quarry

Temporary Stormwater Section Attachment I

Inspection and Maintenance for BMPs

The earthen berms and vegetated buffers should be inspected weekly. Written documentation of these inspections should be kept during the course of construction at the project site (see following example Inspection Form.) Any erosion of berms should be backfilled and compacted as soon as possible. If a berm is no longer able to properly filter the sediment from the stormwater due to contamination from silt, it should be replaced. Trash should be removed and any eroded areas of buffers should be reseeded.

Anderson Columbia Co. will be authorized to discharge stormwater under the TPDES General Permit No. TXR050000 for industrial activities. Requirements of the general permit include maintaining a SWP3 which includes inspections of stormwater best management practices and sampling of stormwater that is discharged from the site.

It is not anticipated that dewatering of the pit will be required. However, if necessary, mine dewatering will be accomplished according to the TCEQ stormwater regulations noted in the TPDES General Permit No. TXR050000 under Sector J for Mineral Mining and Processing Facilities.

		Weekly			
		Vegetated Buffers		Earthen Berms	
Date	Inspector Signature	Trash	Vegetative Cover/Erosion	Erosion of Earthen Berm	Additional Comments

If the answer to any of the above questions is "yes", perform maintenance/repair/replacement as described below or in accordance with TCEQ Technical Guidance on BMPs.

Earthen Berm

* Erosion of earthen berm - fill eroded areas and compact

Natural Vegetated Buffers

* Remove trash if present
* Reseeed eroded areas to reestablish vegetation

Anderson Columbia Co., Inc.
AC Tejas Quarry

Temporary Stormwater Section Attachment J

Schedule of Soil Stabilization Practices

Areas Outside The Pit:

Cleared areas and interim earthen berms may be disturbed for more than 14 days without stabilization because it is not practical to be continually stabilizing small areas prior to their excavation and stabilizing the earthen berms that are frequently relocated. The purpose of soil stabilization is to control erosion and prevent pollutants from entering surface waters, streams, and the aquifer through sensitive recharge features. Areas outside of the pit that are disturbed for quarrying are generally drilled and blasted within 90 days. It is not feasible or appropriate to try to stabilize these areas with vegetation because 1) the topsoil has been removed and vegetation will not readily grow; 2) these areas will soon be excavated and; 3) other structural BMPs will be used to protect stormwater runoff quality from these areas in a manner consistent with customary and acceptable mining practices.

Because the soils and overburden in these cleared areas have been removed and placed in an earthen berm adjacent to the cleared areas, erosion of these areas is mitigated. The earthen berms upgradient of the cleared areas divert upgradient stormwater away from cleared areas and earthen berms downgradient of cleared areas retain stormwater runoff from the cleared area. The proposed BMPs provide adequate protection for the area outside of the pit.

Material stockpiles will be located in the quarry pit and earthen berms or on the Transition Zone.

For the case when the quarry operations have been completed (permanently ceased) all stormwater will be retained in the pit. The Final Earthen Berm outside the pit will be stabilized with native grasses. The undisturbed vegetated buffers shown on the Proposed Conditions Map (Sheet C3) will remain undisturbed so no additional stabilization practices will be needed.

Areas Inside The Pit:

Areas inside the pit do not need to be stabilized; the requirement for soil stabilization exists in order to control erosion and prevent pollutants from entering surface waters, streams and the aquifer through sensitive recharge features. The disturbed soils in or upgradient of the quarry pit will be retained in the pit thereby eliminating the need for soil stabilization in the pit to prevent pollutants from entering surface waters or streams. The BMP discussed in the WPAP Temporary Stormwater Section Attachment D (7.d.) will mitigate infiltration of stormwater into the quarry floor. In addition it is not practical to stabilize areas of the pit with vegetation because often times areas of the pit will not be active for some period of time, then be reactivated. Therefore, since the disturbed areas will be located in the pit no soil stabilization is expected to be necessary at the completion of the project.

Permanent Stormwater Section

Texas Commission on Environmental Quality

for Regulated Activities on the Edwards Aquifer Recharge Zone and Relating to 30 TAC §213.5(b)(4)(C), (D)(Ii), (E), and (5), Effective June 1, 1999

To ensure that the application is administratively complete, confirm that all fields in the form are complete, verify that all requested information is provided, consistently reference the same site and contact person in all forms in the application, and ensure forms are signed by the appropriate party.

Note: Including all the information requested in the form and attachments contributes to more streamlined technical reviews.

Signature

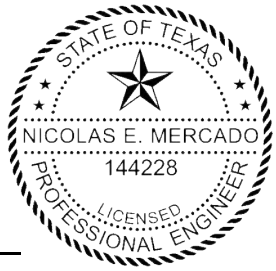
To the best of my knowledge, the responses to this form accurately reflect all information requested concerning the proposed regulated activities and methods to protect the Edwards Aquifer. This **Permanent Stormwater Section** is hereby submitted for TCEQ review and executive director approval. The application was prepared by:

Print Name of Customer/Agent: Nicolas E. Mercado, P.E.

TX License No. 144228 | TX Firm No. 4525

Date: 8/21/2023

Signature of Customer/Agent



Regulated Entity Name: AC Tejas Quarry

Permanent Best Management Practices (BMPs)

Permanent best management practices and measures that will be used during and after construction is completed.

1. ☒ Permanent BMPs and measures must be implemented to control the discharge of pollution from regulated activities after the completion of construction.

   ☐ N/A

2. ☒ These practices and measures have been designed, and will be constructed, operated, and maintained to insure that 80% of the incremental increase in the annual mass loading of total suspended solids (TSS) from the site caused by the regulated activity is removed. These quantities have been calculated in accordance with technical guidance prepared or accepted by the executive director.

☒ The TCEQ Technical Guidance Manual (TGM) was used to design permanent BMPs and measures for this site.

☐ A technical guidance other than the TCEQ TGM was used to design permanent BMPs and measures for this site. The complete citation for the technical guidance that was used is: _____

☐ N/A

3. ☒ Owners must insure that permanent BMPs and measures are constructed and function as designed. A Texas Licensed Professional Engineer must certify in writing that the permanent BMPs or measures were constructed as designed. The certification letter must be submitted to the appropriate regional office within 30 days of site completion.

   ☐ N/A

4. Where a site is used for low density single-family residential development and has 20 % or less impervious cover, other permanent BMPs are not required. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ The site will be used for low density single-family residential development and has 20% or less impervious cover.

   ☐ The site will be used for low density single-family residential development but has more than 20% impervious cover.

   ☒ The site will not be used for low density single-family residential development.

5. The executive director may waive the requirement for other permanent BMPs for multi-family residential developments, schools, or small business sites where 20% or less impervious cover is used at the site. This exemption from permanent BMPs must be recorded in the county deed records, with a notice that if the percent impervious cover increases above 20% or land use changes, the exemption for the whole site as described in the property boundaries required by 30 TAC §213.4(g) (relating to Application Processing and Approval), may no longer apply and the property owner must notify the appropriate regional office of these changes.

   ☐ **Attachment A - 20% or Less Impervious Cover Waiver**. The site will be used for multi-family residential developments, schools, or small business sites and has 20% or less impervious cover. A request to waive the requirements for other permanent BMPs and measures is attached.

   ☐ The site will be used for multi-family residential developments, schools, or small business sites but has more than 20% impervious cover.

   ☒ The site will not be used for multi-family residential developments, schools, or small business sites.

6. ☒ **Attachment B - BMPs for Upgradient Stormwater**.

☒ A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site is attached.

☐ No surface water, groundwater or stormwater originates upgradient from the site and flows across the site, and an explanation is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water, groundwater, or stormwater that originates upgradient from the site and flows across the site, and an explanation is attached.

7. ☒ **Attachment C - BMPs for On-site Stormwater**.

☒ A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site is attached.

☐ Permanent BMPs or measures are not required to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff, and an explanation is attached.

8. ☒ **Attachment D - BMPs for Surface Streams**. A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features, or the aquifer is attached. Each feature identified in the Geologic Assessment as sensitive has been addressed.

☐ N/A

9. ☒ The applicant understands that to the extent practicable, BMPs and measures must maintain flow to naturally occurring sensitive features identified in either the geologic assessment, executive director review, or during excavation, blasting, or construction.

☐ The permanent sealing of or diversion of flow from a naturally-occurring sensitive feature that accepts recharge to the Edwards Aquifer as a permanent pollution abatement measure has not been proposed.

☒ **Attachment E - Request to Seal Features**. A request to seal a naturally-occurring sensitive feature, that includes, for each feature, a justification as to why no reasonable and practicable alternative exists, is attached.

10. ☒ **Attachment F - Construction Plans**. All construction plans and design calculations for the proposed permanent BMP(s) and measures have been prepared by or under the direct supervision of a Texas Licensed Professional Engineer, and are signed, sealed, and dated. The plans are attached and, if applicable include:

☒ Design calculations (TSS removal calculations)

☒ TCEQ construction notes

☒ All geologic features

☒ All proposed structural BMP(s) plans and specifications

☐ N/A

11. ☒ **Attachment G - Inspection, Maintenance, Repair and Retrofit Plan**. A plan for the inspection, maintenance, repairs, and, if necessary, retrofit of the permanent BMPs and measures is attached. The plan includes all of the following:

    ☒ Prepared and certified by the engineer designing the permanent BMPs and measures
    ☒ Signed by the owner or responsible party
    ☒ Procedures for documenting inspections, maintenance, repairs, and, if necessary retrofit
    ☒ A discussion of record keeping procedures

    ☐ N/A

12. ☐ **Attachment H - Pilot-Scale Field Testing Plan**. Pilot studies for BMPs that are not recognized by the Executive Director require prior approval from the TCEQ. A plan for pilot-scale field testing is attached.

    ☒ N/A

13. ☒ **Attachment I -Measures for Minimizing Surface Stream Contamination**. A description of the measures that will be used to avoid or minimize surface stream contamination and changes in the way in which water enters a stream as a result of the construction and development is attached. The measures address increased stream flashing, the creation of stronger flows and in-stream velocities, and other in-stream effects caused by the regulated activity, which increase erosion that results in water quality degradation.

    ☐ N/A

Responsibility for Maintenance of Permanent BMP(s)

Responsibility for maintenance of best management practices and measures after construction is complete.

14. ☒ The applicant is responsible for maintaining the permanent BMPs after construction until such time as the maintenance obligation is either assumed in writing by another entity having ownership or control of the property (such as without limitation, an owner's association, a new property owner or lessee, a district, or municipality) or the ownership of the property is transferred to the entity. Such entity shall then be responsible for maintenance until another entity assumes such obligations in writing or ownership is transferred.

    ☐ N/A

15. ☒ A copy of the transfer of responsibility must be filed with the executive director at the appropriate regional office within 30 days of the transfer if the site is for use as a multiple single-family residential development, a multi-family residential development, or a non-residential development such as commercial, industrial, institutional, schools, and other sites where regulated activities occur.

    ☐ N/A

Anderson Columbia Co., Inc.
AC Tejas Quarry

Permanent Stormwater Section Attachment B

BMPs for Upgradient Stormwater

A description of the BMPs and measures that will be used to prevent pollution of surface water, groundwater or stormwater that originates upgradient from the site and flows across the site:

The temporary earthen berms that are constructed as clearing occurs will expand as the size of the quarry expands. The earthen berms will expand throughout the life of the project to the Final Earthen Berm shown on the Proposed Conditions Map. The Final Earthen Berm will be vegetated with native grasses to stabilize soils.

Permanent stormwater controls are those that are to remain in place after construction has been completed. The vegetated Final Earth Berm and the 50 foot vegetated buffer that surround most of the site will be located along the property boundary.

Permanent Stormwater Section Attachment C

BMPs for On-site Stormwater

A description of the BMPs and measures that will be used to prevent pollution of surface water or groundwater that originates on-site or flows off the site, including pollution caused by contaminated stormwater runoff from the site:

Pollution of surface water, groundwater or stormwater that originates on-site or flows off-site during the life of the quarry will be mitigated by the use of temporary earthen berms vegetated areas, and the pit which will be constructed as shown on the Proposed Conditions Map.

Permanent stormwater controls are those that are to remain in place after construction has been completed. At the time construction is completed at the subject site, the vegetated Final Earth Berm and the 50 foot vegetated buffer that surround most of the site will be located along the property boundary.

Anderson Columbia Co., Inc.
AC Tejas Quarry

Permanent Stormwater Section Attachment D

BMPs for Surface Streams

A description of the BMPs and measures that prevent pollutants from entering surface streams, sensitive features or the aquifer:

During the life of the quarry, temporary earthen berms will be constructed to prevent pollutants from entering surface streams and the aquifer (all sensitive features on the recharge zone will be temporarily sealed and ultimately removed). The earthen berms that surround future disturbed areas will expand to protect the Dry Comal Creek and Dry Comal Creek Tributary 23 as mining activities approach them (both streams are proposed to be mined).

Permanent stormwater controls are those that are to remain in place after construction has been completed. At the time construction is completed at the subject site, the vegetated Final Earthen Berm and the 50-foot vegetated buffer that surround most of the site will be located along the property boundary.

Any possibly sensitive geologic feature discovered by mining staff will be evaluated by a Professional Geoscientist and if determined to be sensitive, will be reported to TCEQ. An appropriate method for addressing the feature will be formulated by a Professional Geoscientist or a Professional Engineer and upon approval by TCEQ, the method to protect the feature will be implemented. Work will not resume in the area of the feature until the TCEQ approved method for addressing the feature has been carried out.

Permanent Stormwater Section Attachment E

Request to Seal Features

Per the previous approved plan, the following sensitive features are proposed to be temporarily sealed and removed through mining: S-5 and S-12. Feature S-14 was left undisturbed. With this modification, Anderson Columbia Co., Inc. requests to temporarily seal the following features before they are ultimately removed through mining: S-15, S-24, S-26, S-27, S-36, S-41, S-43, and S-44.

In addition, features S-29 and S-37 are proposed to be permanently sealed, as they are located in close proximity to the proposed Final Earthen Berm.

In order to protect the aquifer from possible contamination from sediment in stormwater as quarrying nears the features, Anderson Columbia Co., Inc. will permanently seal the naturally occurring sensitive features listed above using flowable fill/concrete.

The alternative to sealing these features would be to not seal them, which would pose a greater threat to the aquifer, due to the potential for sediment to enter in runoff from adjacent disturbed areas. It is not reasonable or practical to avoid mining near or upgradient of sensitive features due to their spacing on-site. Mining around the sensitive features would create a safety hazard within the quarry because the features would be left atop pinnacles that would be very tall and slender.

These pinnacles would be prone to collapse and would create unsafe working conditions within much of the quarry area.

Permanent Stormwater Section Attachment F

Construction Plans

Please see attached Proposed Conditions Map (Sheet C4) for the final pit layout of the site.

Permanent Stormwater Section Attachment G

Inspection, Maintenance, Repair and Retrofit Plan

Final earthen berms should be inspected quarterly until stabilized with vegetation. Written documentation of these inspections should be kept during the course of construction at the project site. Any erosion of berms should be backfilled and compacted as soon as possible.

Vegetated buffers should be inspected at least twice annually, until the Final Earthen Berm has been vegetated, for erosion or damage to vegetation. Written documentation of these inspections should be kept during the course of construction at the project site. Bare spots and areas of erosion identified during inspections must be replanted. Trash and debris items should be removed.

Anderson Columbia Co., Inc.

Inspection, Maintenance, Repair and Retrofit Plan

I, Brian P. Schreiber, have read and understand the Inspection, Maintenance, Repair and Retrofit (IMRR) Plan contained in this Water Pollution Abatement Plan (WPAP) Modification plan.

I understand the specific Permanent Best Management Practices (PBMPs) and associated inspection and maintenance schedule which are outlined in this IMRR Plan. Anderson Columbia Co., Inc. will implement these inspections and perform maintenance as required to meet the intent of the IMRR Plan.

Name and signature of responsible party for maintenance of permanent BMPs

Print Name: Brian P. Schreiber
Anderson Columbia, Inc.

Signature _____ Date: 7/31/23

Name and signature of Engineer

Print Name: Nicolas E. Mercado
Westward Environmental, Inc.

STATE OF TEXAS
NICOLAS E. MERCADO
144228
LICENSED
PROFESSIONAL ENGINEER

Signature _____ Date: 8/21/2023

Anderson Columbia Co., Inc.
AC Tejas Quarry

Permanent Stormwater Section Attachment I

Measures for Minimizing Surface Stream Contamination

To avoid surface stream contamination, natural existing vegetation will be maintained in a temporary 25-foot buffer along the 100-year floodplain of Dry Comal Creek and around Dry Comal Creek Tributary 23 (except where the entrance road passes through, as shown on the attached WPAP Site Plan). Temporary 25-foot vegetated buffers will be left in place to filter sediment in stormwater runoff until quarrying of these areas begins. This natural vegetated buffer will serve as a final buffer for stormwater runoff leaving the active portion of the site. Parts of this buffer is part of the SAWS waterline easement and may be disturbed for SAWS purposes. Any disturbance will be reestablished to its vegetated state within 14 days of completed construction.

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I Brian P. Schreiber,
Print Name

Secretary,
Title - Owner/President/Other

of Anderson Columbia Co., Inc.,
Corporation/Partnership/Entity Name

have authorized Curt G. Campbell, P.E., Doug Millsaps, P.E., Gary D. Nicholls, P.E., Andrea Kidd, P.E., Vance Houy, P.E.,and Nicolas E. Mercado, P.E.
Print Name of Agent/Engineer

of Westward Environmental, Inc.
Print Name of Firm

to represent and act on the behalf of the above named Corporation, Partnership, or Entity for the purpose of preparing and submitting this plan application to the Texas Commission on Environmental Quality (TCEQ) for the review and approval consideration of regulated activities.

I also understand that:

1. The applicant is responsible for compliance with 30 Texas Administrative Code Chapter 213 and any condition of the TCEQ's approval letter. The TCEQ is authorized to assess administrative penalties of up to $10,000 per day per violation.

2. For those submitting an application who are not the property owner, but who have the right to control and possess the property, additional authorization is required from the owner.

3. Application fees are due and payable at the time the application is submitted. The application fee must be sent to the TCEQ cashier or to the appropriate regional office. The application will not be considered until the correct fee is received by the commission.

4. A notarized copy of the Agent Authorization Form must be provided for the person preparing the application, and this form must accompany the completed application.

5. No person shall commence any regulated activity on the Edwards Aquifer Recharge Zone, Contributing Zone or Transition Zone until the appropriate application for the activity has been filed with and approved by the Executive Director.

SIGNATURE PAGE:

Applicant's Signature

7/31/23 Date

THE STATE OF Florida §

County of Columbia §

BEFORE ME, the undersigned authority, on this day personally appeared Brian P. Schrab known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 31 day of July, ____.

NOTARY PUBLIC

Ashley Williams

Typed or Printed Name of Notary

NOTARY PUBLIC STATE OF FLORIDA

ASHLEY N. WILLIAMS
Commission # HH 247338
Expires March 31, 2026

MY COMMISSION EXPIRES: _____

Owner Authorization Form

Texas Commission on Environmental Quality
for Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

Land Owner Authorization

I, Brian P. Schreiber (Land Owner Signatory Name) Junction City Mining Co., LLC (Land Owner Name (Legal Entity or Individual))

am the owner of the property located at
A-72 SUR-100 V BENNETT, ACRES 155.7,
A-484 SUR-99 F RODRIGUEZ, ACRES 291.5,

Legal description of the property referenced in the application

and am duly authorized in accordance with §213.4(c)(2) and §213.4(d)(1) or §213.23(c)(2) and §213.23(d) relating to the right to submit an application, signatory authority, and proof of authorized signatory.

I do hereby authorize Anderson Columbia Co., Inc. (Applicant Name (Legal Entity or Individual)) to conduct construction, excavation and BMPs associated with quarrying & hydrocarbon storage (Description of the proposed regulated activities)

at AC Tejas Quarry at 22845 Old Nacogdoches Rd, New Braunfels, Texas 78132. (Precise location of the authorized regulated activities)

Land Owner Acknowledgement

I understand that Junction City Mining Co., LLC (Land Owner Name (Legal Entity or Individual))

Is ultimately responsible for compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation even if the responsibility for compliance and the right to possess and control the property referenced in the application has been contractually assumed by another legal entity. I further understand that any failure to comply with any condition of the executive director's approval is a violation is subject to administrative rule or orders and penalties as provided under §213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Land Owner Signature

Land Owner Signature

7/31/23
Date

THE STATE OF § Florida

County of § Columbia

BEFORE ME, the undersigned authority, on this day personally appeared Brian P. Schreiber known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 31 day of July

NOTARY PUBLIC

Ashley Williams
Typed or Printed Name of Notary

MY COMMISSION EXPIRES:

ASHLEY N. WILLIAMS
Commission # HH 247338
Expires March 31, 2026

Attached: (Mark all that apply)

- ☐ Lease Agreement
- ☐ Signed Contract
- ☐ Deed Recorded Easement
- ☐ Other legally binding document

Applicant Acknowledgement

I, Brian P. Schreiber of Anderson Columbia Co., Inc.

Applicant Signatory Name Applicant Name (Legal Entity or Individual)

acknowledge that Junction City Mining Co., LLC

Land Owner Name (Legal Entity or Individual)

has provided Anderson Columbia Co., Inc.

Applicant Name (Legal Entity or Individual)

with the right to possess and control the property referenced in the Edwards Aquifer protection plan. I understand that Anderson Columbia Co., Inc.

Applicant Name (Legal Entity or Individual)

is contractually responsible for compliance with the approved or conditionally approved Edwards Aquifer protection plan and any special conditions of the approved plan through all phases of plan implementation. I further understand that failure to comply with any condition of the executive director's approval is a violation is subject to administrative rule or orders and penalties as provided under §213.10 (relating to Enforcement). Such violation may also be subject to civil penalties and injunction.

Applicant Signature

Applicant Signature

7/31/23
Date

THE STATE OF § Florida

County of § Columbia

BEFORE ME, the undersigned authority, on this day personally appeared Brian P. Schreiber known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that (s)he executed same for the purpose and consideration therein expressed.

GIVEN under my hand and seal of office on this 31 day of July

NOTARY PUBLIC

Ashley Williams
Typed or Printed Name of Notary

MY COMMISSION EXPIRES:

NOTARY PUBLIC STATE OF FLORIDA
ASHLEY N. WILLIAMS
Commission # HH 247338
Expires March 31, 2026

Application Fee Form

Texas Commission on Environmental Quality

Name of Proposed Regulated Entity: AC Tejas Quarry

Regulated Entity Location: East side of Coyote Run, approx. 0.4 miles north of Old Nachogdoches Rd

Name of Customer: Anderson Columbia Co., Inc.

Contact Person: Scott Cleveland Phone: 386-752-7585

Customer Reference Number (if issued):CN 603641549

Regulated Entity Reference Number (if issued):RN 108909615

Austin Regional Office (3373)

☐ Hays ☐ Travis ☐ Williamson

San Antonio Regional Office (3362)

☐ Bexar ☐ Medina ☐ Uvalde

☒ Comal ☐ Kinney

Application fees must be paid by check, certified check, or money order, payable to the **Texas Commission on Environmental Quality**. Your canceled check will serve as your receipt. **This form must be submitted with your fee payment.** This payment is being submitted to:

☐ Austin Regional Office

☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☒ San Antonio Regional Office

☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☒ Transition Zone

Type of Plan	*Size*	*Fee Due*
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	550 Acres	$ 10,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature: _____ Date: 7/31/23

Application Fee Schedule

Texas Commission on Environmental Quality

Edwards Aquifer Protection Program 30 TAC Chapter 213 (effective 05/01/2008)

Water Pollution Abatement Plans and Modifications

Contributing Zone Plans and Modifications

Project	*Project Area in Acres*	*Fee*
One Single Family Residential Dwelling	< 5	$650
Multiple Single Family Residential and Parks	< 5 5 < 10 10 < 40 40 < 100 100 < 500 ≥ 500	$1,500 $3,000 $4,000 $6,500 $8,000 $10,000
Non-residential (Commercial, industrial, institutional, multi-family residential, schools, and other sites where regulated activities will occur)	< 1 1 < 5 5 < 10 10 < 40 40 < 100 ≥ 100	$3,000 $4,000 $5,000 $6,500 $8,000 $10,000

Organized Sewage Collection Systems and Modifications

Project	*Cost per Linear Foot*	*Minimum Fee-Maximum Fee*
Sewage Collection Systems	$0.50	$650 - $6,500

Underground and Aboveground Storage Tank System Facility Plans and Modifications

Project	*Cost per Tank or Piping System*	*Minimum Fee-Maximum Fee*
Underground and Aboveground Storage Tank Facility	$650	$650 - $6,500

Exception Requests

Project	*Fee*
Exception Request	$500

Extension of Time Requests

Project	*Fee*
Extension of Time Request	$150

TCEQ Core Data Form

TCEQ Use Only

For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal (*Core Data Form should be submitted with the renewal form*) ☒ Other **Modification**

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 603641549		RN 108909615

SECTION II: Customer Information

4. General Customer Information	5. Effective Date for Customer Information Updates (mm/dd/yyyy)	7/24/2023

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership

☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)*	*If new Customer, enter previous Customer below:*
Anderson Columbia Co., Inc.	

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
0010624006	15928719358		

11. Type of Customer:	☒ Corporation	☐ Individual	Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☐ Federal ☐ State ☐ Other		☐ Sole Proprietorship	☐ Other:

12. Number of Employees	13. Independently Owned and Operated?
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☒ 501 and higher	☒ Yes ☐ No

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator

☐ Occupational Licensee ☐ Responsible Party ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:	P.O. Box 1829							
	City	Lake City	State	FL	ZIP	32056	ZIP + 4	1829

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	scottc@andersoncolumbia.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(386) 752-7585	243	(386) 755-9132

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (*If 'New Regulated Entity" is selected below this form should be accompanied by a permit application*)

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated in order to meet TCEQ Agency Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name (*Enter name of the site where the regulated action is taking place.*)

AC Tejas Quarry

23. Street Address of the Regulated Entity: *(No PO Boxes)*	22845 Old Nacogdoches Rd.							
	City	New Braunfels	State	TX	ZIP	78132	ZIP + 4	4851
24. County	Comal							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	East side of Coyote Run approx. 0.4 miles north of Old Nacogdoches Rd.				
26. Nearest City			State	Nearest ZIP Code	
Schertz			TX	78132	
27. Latitude (N) In Decimal:	29.648499		28. Longitude (W) In Decimal:	98.239357	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
29	38	54.5964	98	14	21.6846

29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)	31. Primary NAICS Code (5 or 6 digits)	32. Secondary NAICS Code (5 or 6 digits)
1422		212312	

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Construction Material Manufacturing

34. Mailing Address:	P.O. Box 1829							
	City	Lake City	State	FL	ZIP	32056	ZIP + 4	1829
35. E-Mail Address:	scottc@andersoncolumbia.com							

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(386) 752-7585	243	(386) 755-9132

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☒ Edwards Aquifer	☐ Emissions Inventory Air	☐ Industrial Hazardous Waste
		EAPP 13001636		
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

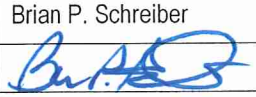
SECTION IV: Preparer Information

40. Name:	Nicolas E. Mercado, P.E.	41. Title:	Project Engineer

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(830) 249-8284		(830) 249-0221	nmercado@westwardenv.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Anderson Columbia Co., Inc.	Job Title:	Secretary
Name *(In Print)*:	Brian P. Schreiber	Phone:	386-752-7585
Signature:		Date:	7/31/23