Resource Materials, LLC

Water Pollution Abatement Plan (WPAP) Modification

Resource Materials, LLC
CR 234 Quarry
Jarrell, TX
Williamson County

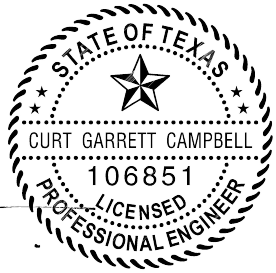
Submitted to: TCEQ Region 11, Austin

Prepared By:

WESTWARD
Environmental. Engineering. Natural Resources.

Boerne, Texas
830-249-8284

Date: December 2024
Project No. 11505-00
-NMS-



Signature: _____
Curt G. Campbell, PE - License No. 106851
TX PE Firm No. 4524
Date: 12/20/2024

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: CR 234 Quarry						**2. Regulated Entity No.:** 110918000			
3. Customer Name: Resource Materials LLC						**4. Customer No.:** 605688225			
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):**			~952
9. Application Fee:	$10,000		**10. Permanent BMP(s):**			Natural Vegetated Buffers, Earthen Berms			
11. SCS (Linear Ft.):	N/A		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Williamson		**14. Watershed:**			Salado Creek			

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.)	___	___	_x_
Region (1 req.)	___	___	_x_
County(ies)	___	___	_x_
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 _X_Georgetown ___Jerrell ___Leander ___Liberty Hill ___Pflugerville ___Round Rock

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	___	___	___	___
Region (1 req.)	___	___	___	___	___
County(ies)	___	___	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	___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 ___New Braunfels ___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. Curt G. Campbell, PE Senior Vice President Engineering & Natural Resources
Print Name of Customer/Authorized Agent
Signature of Customer/Authorized Agent — Date: 12/20/2024

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.

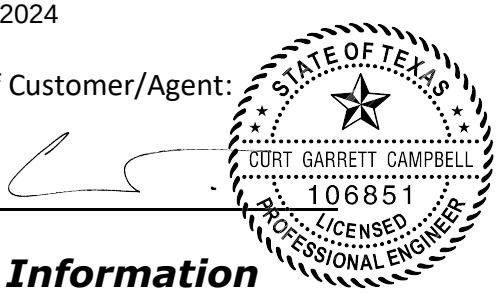
Signature

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: Curt G. Campbell, PE - TX Lic. No. 106851 | TX Firm No. 4524

Date: 12/20/2024

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: CR 234 Quarry
2. County: Williamson
3. Stream Basin: Brazos
4. Groundwater Conservation District (If applicable): N/A
5. Edwards Aquifer Zone:

   ☒ Recharge Zone
   ☐ Transition Zone

6. Plan Type:

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

7. Customer (Applicant):

   Contact Person: Dan McBride
   Entity: Resource Materials, LLC
   Mailing Address: 40206 INDUSTRIAL PARK CIR, Suite #101
   City, State: Georgetown, TX Zip: 78626
   Telephone: 830-693-2228 FAX: _____
   Email Address: dmcbride70@gmail.com

8. Agent/Representative (If any):

   Contact Person: Curt Campbell
   Entity: Westward Environmental, Inc.
   Mailing Address: 4 Shooting Club Rd
   City, State: Boerne, TX Zip: 78006
   Telephone: 830-249-8284 FAX: _____
   Email Address: ccampbell@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 Georgetown.
   ☐ 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.

    Located at the end of a private drive off of CR 234, approximately 0.1-mile S of the intersection of CR 234 and CR 487, approximately 5.2 miles W of Jarrell, TX.

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: Site is already fenced

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: _____

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.

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.

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 SHEATHING, 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" HIGH 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
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.

SHEET INDEX

01 - ROAD / VICINITY MAP
02 - USGS MAP
03 - EXISTING CONDITIONS MAP
04 - INTERIM CONDITIONS MAP
05 - FINAL CONDITIONS MAP

IMAGE: MICROSOFT CORP. 2024	
ISSUE DATE:	10/11/2024
DRAWN BY:	WBE/NMS
CHECKED BY:	CJF
SCALE: 1" =	3000'
JOB NO.:	11505-005

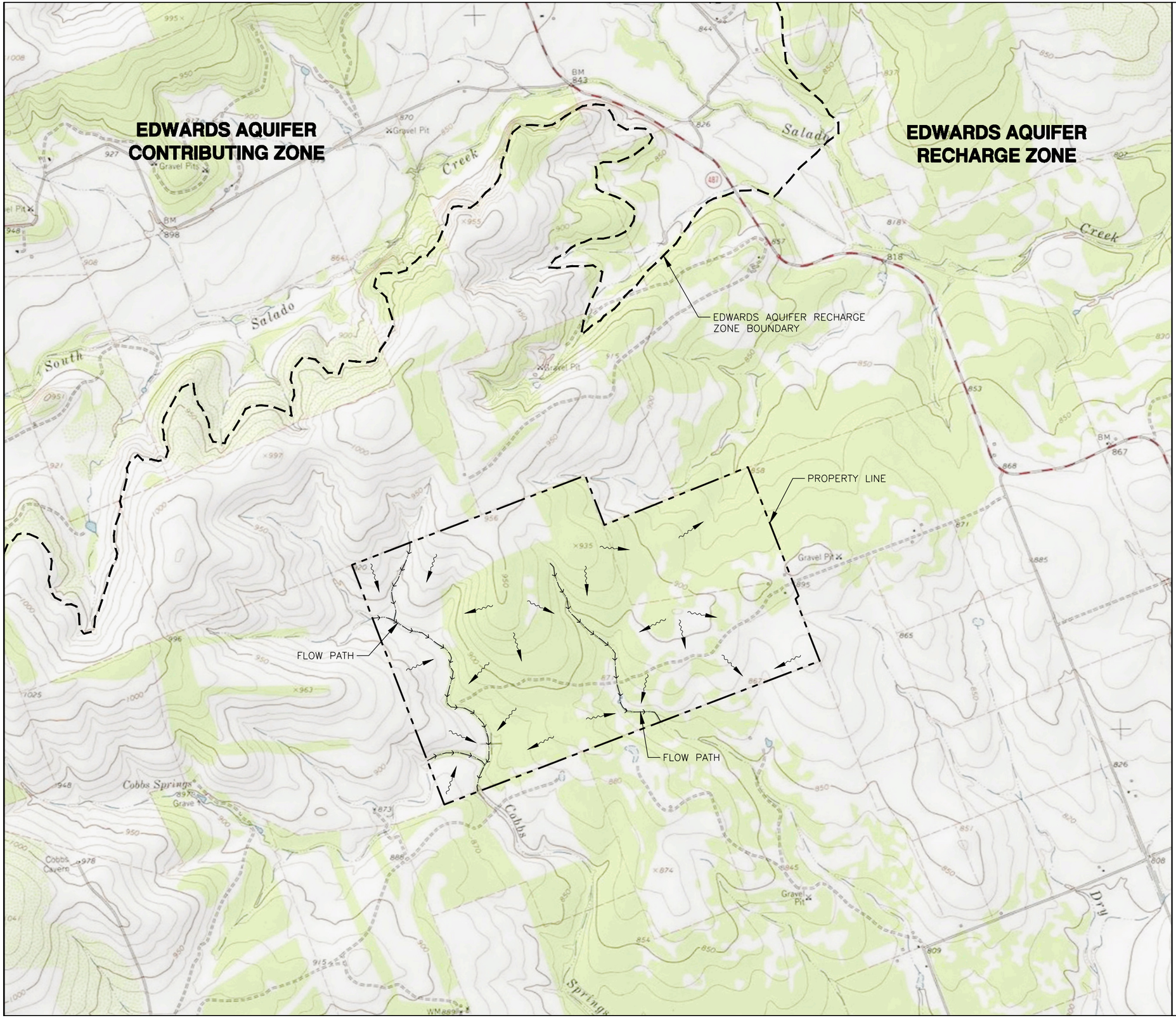
SHEET NO.: **01** OF 05

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
CURT GARRETT CAMPBELL
106851
LICENSED
PROFESSIONAL ENGINEER
1/17/2025
Curt G. Campbell, P.E.
License No. 106851

ROAD / VICINITY MAP
WPAP MOD – 234 QUARRY – JARRELL
RESOURCE MATERIALS
JARRELL, WILLIAMSON COUNTY, TEXAS



N

0 1000 2000 4000

SCALE: 1" = 2000'

LEGEND

- PROPERTY LINE
- EDWARDS AQUIFER RECHARGE ZONE BOUNDARY
- FLOW PATH
- FLOW ARROW

WESTWARD
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TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

STATE OF TEXAS
CURT GARRETT CAMPBELL
106851
LICENSED
PROFESSIONAL ENGINEER
1/17/2025

USGS / EDWARDS RECHARGE ZONE MAP

WPAP MOD - 234 QUARRY - JARRELL
RESOURCE MATERIALS
JARRELL, WILLIAMSON COUNTY, TEXAS

REV.	DESCRIPTION	BY	DATE

IMAGE:	COBBS CAVERN, TX QUADRANGLE
ISSUE DATE:	10/11/2024
DRAWN BY:	WBE/NMS
CHECKED BY:	CJF
SCALE: 1" =	2000'
JOB NO.:	11505-005

SHEET NO.:

02

OF 05

Resource Materials, LLC

CR 234 Quarry

General Information Form Attachment C

Project Description

The subject stie was previously operated by Texas Starmac, LLC, who obtained WPAP approval on April 16, 2020, to expand an existing quarry on a project area of 160 acres. The site is located entirely over the Recharge Zone in Williamson County. At the time that Texas Starmac, LLC took possession of the property, there was already a previously abandoned cut-stone quarry, including existing wet saw foundations, associated ponds, ranch roads, residential structures and associated berms. Most of these structures are still in use today. There were 6.41 acres (4%) of impervious cover approved for this site under the initial WPAP, which included a wash plant, associated extended detention basin, and driveway/haul road(s).

Resource Materials LLC took over operation at this site in August of 2024 and has since obtained additional acreage for further expansion of the approved quarry operation. This modification has been prepared on behalf of Resource Materials, LLC for the purpose of updating impervious cover, updating the final pit floor elevation and an expansion of an additional approximate 792 acres, which takes the overall project site to approximately 952 acres. The tract is currently owned by Stermaster Properties, LLC. and is being leased by Resource Materials LLC.

Resource Materials, LLC plans to continue to operate a limestone quarry, beginning at the southeast portion of their lease boundary, adjacent to an existing quarry also operated by Resource Materials, LLC. Regulated activities at the site will consist of clearing, grading, construction and operation of the rock crusher and wash plant, stockpile area, and mining limestone. An approximately 10-acre area will be cleared to start the quarry excavation with the approximate initial quarry location shown on the Interim Conditions Map. Temporary earthen berms will be built as a result of overburden removal and will retain stormwater runoff from disturbed areas. As the quarry pit expands outward to the mining limits, the earthen berms will expand with it (except in areas adjacent to like land use, as shown on the Interim & Final Conditions plan sheets) and areas will be cleared in increments of less than 10 acres at a time. Once the pit is large enough, the crushing plant and the stockpiles will also be located in the pit. Approximately 850 acres are proposed to be quarried extending toward the final earthen berm and final vegetative buffer.

The site entrance is proposed to be moved to access CR 234 through the existing adjacent quarry also operated by Resource Materials, LLC, as shown on the Interim Conditions plan sheet. An existing portable trailer, which is located in the existing/active quarry pit and will continue to be used as a scale house and office. There is an existing utilities and gas easement that will remain until/unless it is vacated in the future, at which time that are may be mined through.

Permanent BMPs at the site will include the Final Earthen Berm and the Final Vegetative Buffer. Portions of the site may be reclaimed over time with overburden and non-sellable material. As previously approved, material from the wash plant will be placed back into the pit as part of the reclamation process. The wash plant and/or wet saws are still proposed but will be located within the perimeter berm proposed for the active quarry area. All runoff will be contained and therefore

the previously-approved Pond A and associated swale are no longer needed. Lined, self-contained freshwater/recycle ponds may be added/moved in the pit as needed to support dimension stone wet saws. Water from the washing process is removed from the materials and recycled in the wash plant. Residual moisture in the material will be maintained for dust control.

The FEMA 100-year floodplain extends onto the property – FEMA Firm Panel 48491CO125F, effective on 12/20/2019. There are two blue lines on-site - neither are jurisdictional. The two blue lines are Cobbs Springs Branch and an unnamed tributary of Cobbs Springs Branch (see Existing Conditions map). Temporary natural existing vegetation will be maintained in a 25-foot buffer from the stream centerline or the floodplain along each side of Cobbs Spring Branch. This buffer will be maintained except for the on-grade crossing shown on the Final Condition site plan. This crossing will be paved & swept periodically to control TSS. The quarry pits may be backfilled with clean fill materials and non-sellable overburden. Appropriate permits will be obtained from the Williamson County floodplain administrator before any work is performed in the mapped floodplain.

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. Portable toilets will be used on-site and will be serviced by a licensed waste collector.

Routine vehicle maintenance will occur on a covered, compacted base pad in the existing quarry pit (see the Existing Conditions Map). Large, slow-moving equipment will be fueled within the pit on a compacted base pad by a mobile refueler. The refueler will fill up from a fueling pad with AST containment located near the maintenance area (see the Existing Conditions Map). The refueler will only be on-site when fuel is needed to service mobile equipment. A pile of base material will be maintained next to the pad. Excavation equipment on-site may be used to construct berms in response to spills.

It is not expected that any significant amount of groundwater will be encountered in the quarry excavation. Westward has re-evaluated the groundwater elevation in this area. An exploration well 5811801 near the proposed quarry location in Williamson County encounters groundwater in January 2008 at an elevation of 590.74 feet above sea level. On approximately the same date the elevation in the reference well 5827305 is found from the Texas Water Development Board (TWDB) to be 672.11. The difference between the January 2008 elevation of 672.11 and the wet weather level elevation of 690 is 17.89 feet. Consequently, the estimate for the preliminary high-water level at the proposed quarry location would be 17.89 + 590.74, or 608.63 feet. The quarry floor should be located a minimum of 25 feet above that, which means that the application should indicate a minimum pit-floor elevation of 633.63 feet or approximately 634 feet.

A previously approved WPAP/geologic assessment (GA) covering the original 160-acre site was completed July 29-31, 2019, under the supervision of Michelle M. Lee, PG Texas License No. 6071. A second GA covering the additional 793 acres on August 7, 2024, was completed under the supervision of John J. Sackrider, PG Texas License No. 12654. One sensitive feature was discovered during the first GA, which is included with this submittal for reference. Feature S-6 is a solution cavity located near the northwest corner of the previously approved WPAP site

boundary, approximately 100 feet south of the northern fence line. This feature was previously approved to be permanently sealed at such time as quarry operations approach its buffer area. Five sensitive features were discovered during the most recent GA, which is included with this submittal. As clearing progresses toward the features, naturally vegetated buffer areas will be maintained at least 50 feet in all directions and extending 200 feet upgradient of the feature. These BMPs will slow the flow of water, allowing for sedimentation. Flow may be maintained to the feature until such time as quarrying progresses near the feature, at which time it may be temporarily sealed, then removed through mining. A request to temporarily seal four of the six sensitive features is included with this WPAP application. There are 3 on-site wells – one in compliance and two are not (therefore considered sensitive). The two non-compliant wells will be properly abandoned in accordance with 16 TAC 76.

GEOLOGIC ASSESSMENT
CR 234 Quarry
Project No.: 10553-081

5861 County Road 234
Jarrell, Williamson County, Texas

Submitted to:
Texas Commission on Environmental Quality
Region 11, Austin Office
12100 Park 35 Circle
Austin, Texas 78753
512-339-2929

Prepared for:
Texas StarMac, LLC
40206 Industrial Park Circle, #101
Georgetown, Texas 78626

October 2019

WESTWARD
Environmental. Engineering. Natural Resources.
4 Shooting Club Road
Boerne, Texas 78006
830.249.8284

TEXAS REGISTERED ENGINEERING FIRM NO. 4524
TEXAS REGISTERED GEOSCIENCE FIRM NO. 50112

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: October 18, 2019 Fax: 830-249-0221

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

Signature of Geologist:

Michelle M. Lee

STATE OF TEXAS
MICHELLE M. LEE
GEOLOGY
No. 6071
LICENSED
PROFESSIONAL GEOSCIENTIST
10.18.19

Regulated Entity Name: CR 234 Quarry

Project Information

1. Date(s) Geologic Assessment was performed: July 29-31, 2019
2. Type of Project:

   ☒ WPAP ☐ AST
   ☐ SCS ☐ 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)
EaD	D	< 2
EeB	D	< 2
ErE	D	< 2
GsB	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" = 160'
   Site Geologic Map Scale: 1" = 160'
   Site Soils Map Scale (if more than 1 soil type): 1" = 160'

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.

Attachment A

Geologic Assessment Table (Form TCEQ-0585)

TABLE 2

GEOLOGIC ASSESSMENT TABLE — **PROJECT NAME: CR 234 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)	MOD	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	30.80311	-97.69303	Z-MB	30	Kgt	2600	1300	30	75°	0			N, F, V	5	35	X			X	HILLSIDE
S-2	30.80202	-97.69138	MB	30	Kgt	0.5	0.5	unknown	N/A	0			O	5	35	X		X		HILLSIDE
S-3	30.80470	-97.69397	Z-MB-CD	30	Ked	1200	200	≤ 4	85°	0			N, O, V	7	37	X			X	HILLSIDE
S-4	30.80665	-97.69279	SF	20	Ked	2.5	0.33	0.5	60°	0			V	8	28	X		X		HILLSIDE
S-5	30.80436	-97.69502	MB	30	Ked	150	120	< 5	200°	0			N, F, V	5	35	X			X	HILLSIDE
S-6	30.80412	-97.70028	SC	20	Ked	0.67	3	≤ 3	190°	0			O, F	35	55		X	X		HILLSIDE
S-7	30.80355	-97.69970	SH	20	Ked	8	6	4	120°	0			O, V	8	28	X		X		HILLSIDE
S-8	30.80389	-97.69840	Z-MB	30	Ked	1200	300	≤ 4	210°	0			O, V	5	35	X			X	HILLSIDE
S-9	30.80044	-97.69870	CD	5	Ked	8	20	1.5	106°	0			O, V	8	13	X			X	HILLSIDE
															0					
															0					
															0					
															0					
															0					
															0					
															0					

* 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.

Michelle M. Lee
Signature

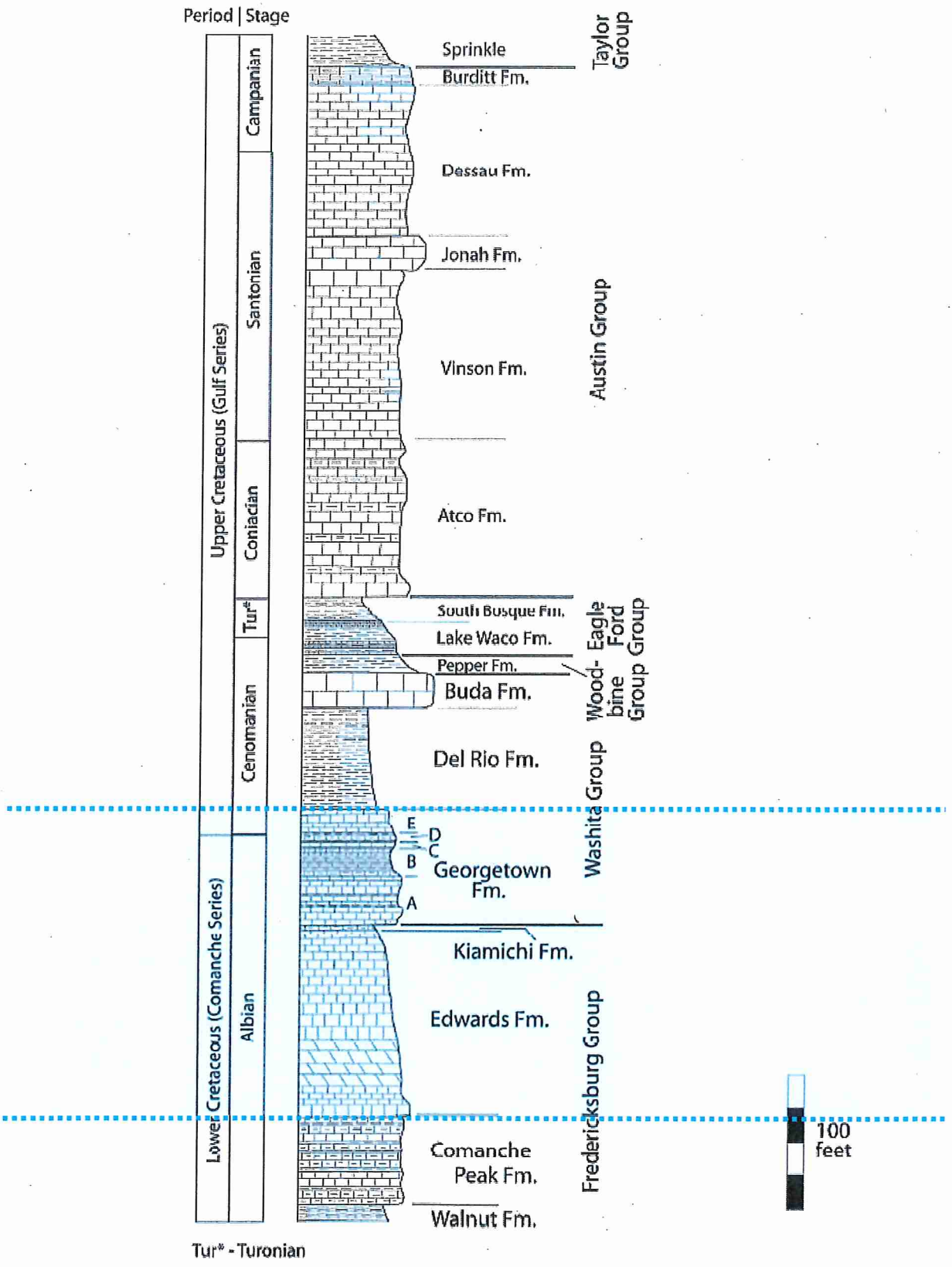
STATE OF TEXAS
MICHELLE M. LEE
GEOLOGY
No. 6071
LICENSED
PROFESSIONAL GEOSCIENTIST

October 18, 2019
Date

Attachment B

Stratigraphic Column

Generalized Stratigraphic Column Williamson County, Texas



Reference: Todd B Housh, PhD, PG; Bedrock Geology of Round Rock and Surrounding Areas, Williamson & Travis Counties, Texas

..... *Indicates the formations observed at the surface of the Site.*

Attachment C

Site Geology (Geologic Narrative)

Geologic Assessment for the CR 234 Quarry in Williamson County, Texas.

1.0 PURPOSE

Westward Environmental, Inc. (WESTWARD) has been retained by Texas StarMac, LLC (Client) to prepare a Geologic Assessment (GA) at their CR 234 Quarry in Williamson County, Texas (Site). This GA was prepared as a required attachment to a Water Pollution Abatement Plan (WPAP) 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 project area is approximately 160 acres and is located ~ one (1) mile west of CR 234 on an unnamed road 0.1 miles west-southwest of the intersection of CR 234 and FM 487 in Williamson County, Texas. The Site is located over the Edwards Aquifer Recharge Zone (EARZ).

4.0 METHODOLOGY

As part of the GA, WESTWARD geologists performed both a desktop review of selected published information and field investigation in accordance with *Instructions for Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones (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 Atlas of Texas (GAT) Austin 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, 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 Michelle M. Lee, PG #6071, Jessica Garate, GIT #311 and Frederick Cook from July 29-31, 2019. Field transects of the Site were walked utilizing a 50-foot maximum spacing. All field investigation work was conducted under the supervision of Michelle M. Lee, PG #6071.

5.0 DESKTOP REVIEW

The desktop review was utilized for the 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

The GAT Austin Sheet and the digital GAT database available through TNRIS show the Georgetown Limestone (Kgt) and the Edwards Limestone (Ked) mapped at the surface of the Site.

5.2 Published Structure

Two (2) faults were identified during the desktop review. One fault is located on the west-central and the second in the eastern portions of the Site. According to USGS, the trend of these faults ranges from 10° to 22°. However, evidence of the faults was not observed during field reconnaissance.

5.3 Karst Features

Karst features were not identified during the desktop review.

5.4 Non-karst & Manmade Features

The desktop review did not reveal any water wells at the Site.

5.5 Soils

Four (4) soil units were identified onsite 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). Their distribution across the Site is shown in the Site Soils Map included in Attachment D.

Published Soil Unit Descriptions

Soil Name	*Group*	*Thickness (Ft.)*	*Description*
Eckrant cobbly clay (EaD), 1 to 8 percent slopes	D	< 2	4-20 inches to bedrock, well drained, moderately low to moderately high (0.06 to 0.57 in/hr) Ksat capacity
Eckrant extremely stony clay (EeB), 0 to 3 percent slopes	D	< 2	10-20 inches to bedrock, well drained, moderately low to moderately high (0.06 to 0.57 in/hr) Ksat capacity
Eckrant-Rock outcrop association (ErE), 1 to 10 percent slopes	D	< 2	4-20 inches to bedrock, well drained, moderately low to moderately high (0.06 to 0.57 in/hr) Ksat capacity
Georgetown stony clay loam (GsB), 1 to 3 percent slopes	D	< 4	20-40 inches to bedrock, well drained, very low to moderately low (0.00 to 0.06 in/hr) Ksat capacity

6.0 FIELD INVESTIGATION

The field investigation was performed by WESTWARD on July 29-31, 2019 to verify the presence or absence of features identified in the desktop review and identify other features not found during the desktop review. Field reconnaissance was performed in accordance with the *"Instructions for Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones" (TNRCC-0585-Instructions (Rev. 10-1-04).*

6.1 Surface Geology

The natural bedrock surface over most of the Site was obscured by grass and various types of vegetation at the time of field reconnaissance. There was a main dimension stone pit that was observed to have fine-grained sediment and some vegetation growing on the floor that indicates it had held water in the past. There were also numerous other dimension stone pits across the Site that had boulders in them and were covered with vegetation. Of the ~160 acre-Site, approximately 55 acres were observed to have been previously quarried to some degree.

The Site is located on the Cretaceous-aged Georgetown Limestone (Kgt) and the Edwards Limestone (Ked). The Georgetown Limestone consists of fine-grained, argillaceous light gray limestone and marl. It also contains marine megafossils. The Edwards Limestone consists of aphanitic to fine-grained limestone, dolomite, and chert. Both of these surface geologic formations were observed at this Site during the field investigation.

6.2 Structure

Structural features were not observed during the field investigations. However, USGS shows two (2) faults across the Site.

6.3 Karst Features

Two (2) karst features, a solution-enlarged fracture, S-4, and a solution cavity, S-6, were observed during the field investigations. Feature S-6 is a sensitive feature as defined by the TCEQ.

6.4 Non-karst & Manmade Features

Two (2) non-karst closed depressions, one (1) water well, and various dimension stone pits and test pits were observed and recorded during the field investigation. None of these features were determined to be sensitive.

6.5 Feature Descriptions

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

Feature S-1 consists of a main dimension stone pit that comprises ~46.5 acres. It measures approximately 2600' x 1300' x 30', using aerial imagery and measurement tools from GoogleEarth. The trend is approximately 75°. The base of the main pit appeared to be comprised of compact clayey soils and some areas of the pit were retaining water at the time of the field investigation. The probability of rapid infiltration is low.

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

Feature S-2 is a water well with a 6" diameter casing. It is located ~ 110 feet from the road entering the quarry on the southeast corner. This well was not found in the Texas Water Development Board (TWDB) web site or on any other public database for registered wells, therefore the depth is unknown. The well is in use and appears to comply with 16 TAC Chapter 76. The probability of rapid infiltration is low.

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

Feature S-3 is a zone that includes a cluster of several old dimension stone pits and a non-karst, closed depression located in the northeastern quadrant of the Site. The zone measures approximately 1200' x 200' with a depth estimated to be up to 4' and oriented at about 85°. Bedrock and angular limestone boulders and cobbles were observed in and around the test pits. The feature was primarily covered with soil and vegetation. The probability of rapid infiltration is low.

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

Feature S-4 is a solution-enlarged fracture located approximately 45 feet from the northern fence line on the northeast side of the property. It measures approximately 2.5' x 0.33' x 0.5' and is oriented at about 60°. It was filled with growing vegetation, sticks, and dried leaves at the time of field reconnaissance. The probability of rapid infiltration is low.

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

Feature S-5 is a former dimension stone pit located on the central part of the property to the north of the main quarry area. It is far enough away to be isolated from the main pit and the other zones of test pits on the property. It measures approximately 120' x 150' and the depth is approximately 4' to 5'. Natural bedrock was observed on the floor and along the sides. Vegetation was observed growing in the floor with angular limestone boulders and cobbles also present. The probability of rapid infiltration is low.

S-6 (SC) **Sensitive**

Feature S-6 is a solution cavity located on the northwest corner of the Site, about a hundred feet south of the northern fence line. The opening measures approximately 0.67' x 3' and the depth was estimated to be ~3' by inserting a measuring implement in various directions. There appears to be fine-grained sediment and loose organics inside and a very large number of Daddy Long Legs around the opening. It is oriented at 190°. The probability of rapid infiltration is high.

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

Feature S-7 is a sinkhole that is located on the northwestern part of the property. It measures approximately 8' x 6' x 4' and is oriented at 120°. It is mostly surrounded by bedrock and the bottom was observed to be covered with soil, grass, dried leaves, and limestone cobbles and boulders during the field investigation. The probability of rapid infiltration is low.

S-8 (Z-MB) **Not Sensitive**

Feature S-8 is a zone of several test pits that extends from the central northwest part of the Site to the center of the western property boundary. The zone measures approximately 1200' x 300' with an unknown depth estimated to be up to 4'. It has an orientation of about

210°. Natural bedrock was observed in place and there were limestone boulders in and around the pits. This area was observed to be covered in soil and vegetation. The probability of rapid infiltration is low.

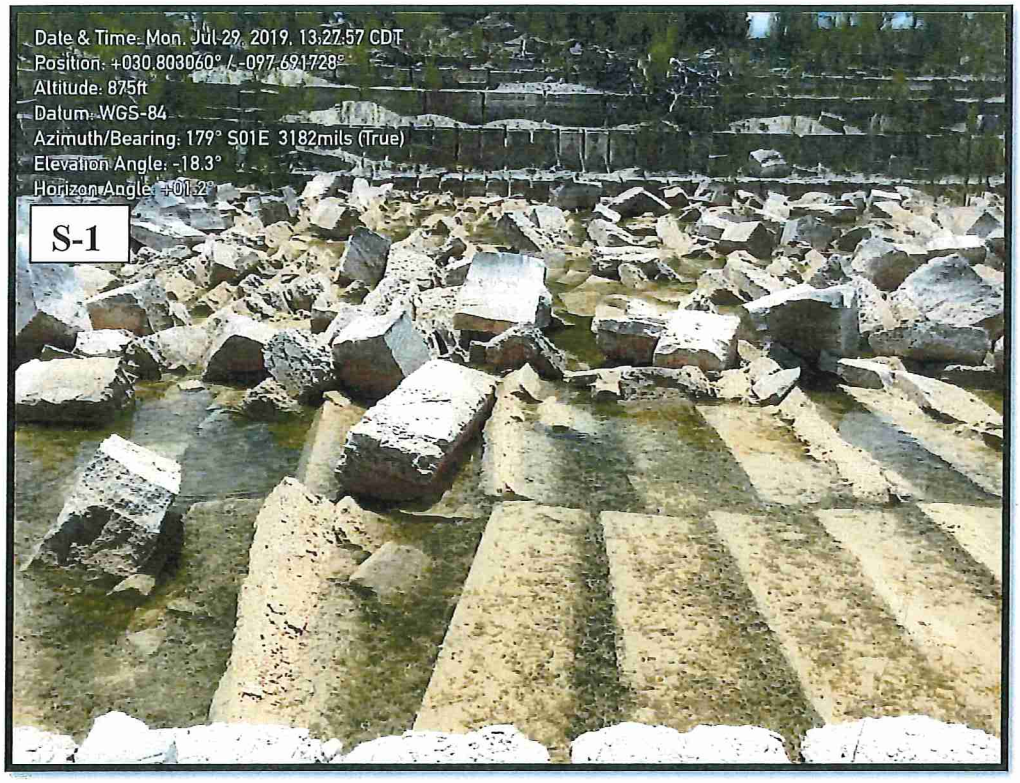
S-9 (CD) **Not Sensitive**

Feature S-9 is a non-karst, closed depression located on the southwestern corner of the Site boundary. It measures approximately 8' x 20' x 1.5' and is oriented at 106°. It is covered with vegetation indicating it holds water although it was not retaining water at the time of field investigation during field reconnaissance. The probability of rapid infiltration is low.

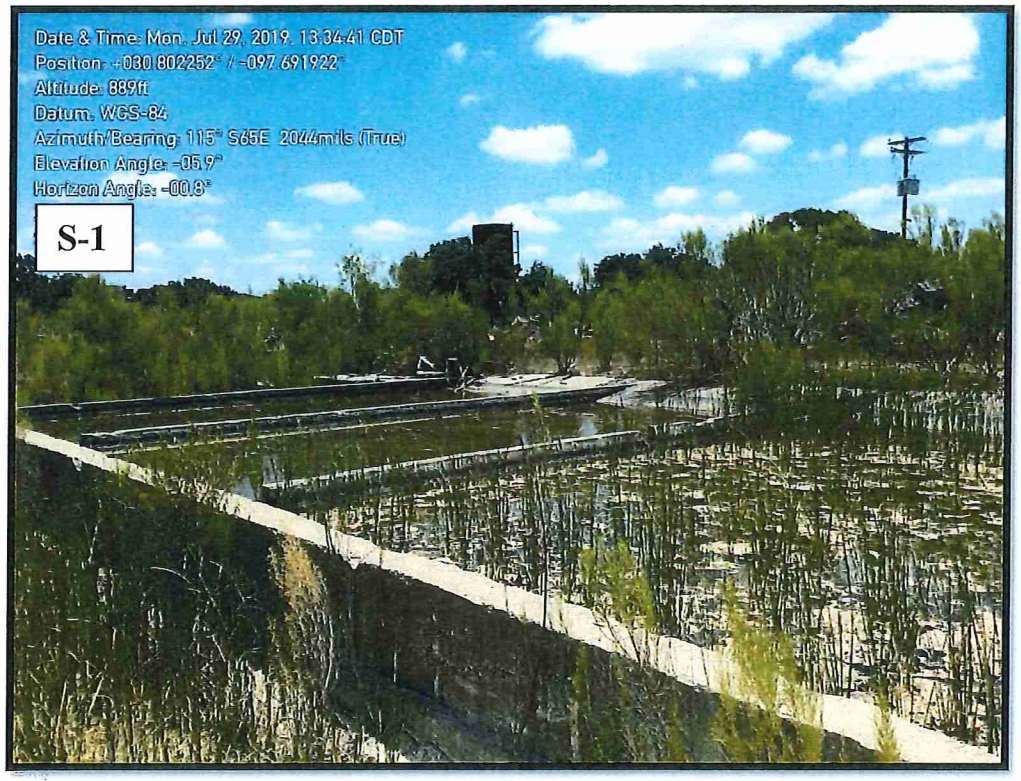
SELECT PHOTOGRAPHS

S-1 Floor of main pit area, view to the south.

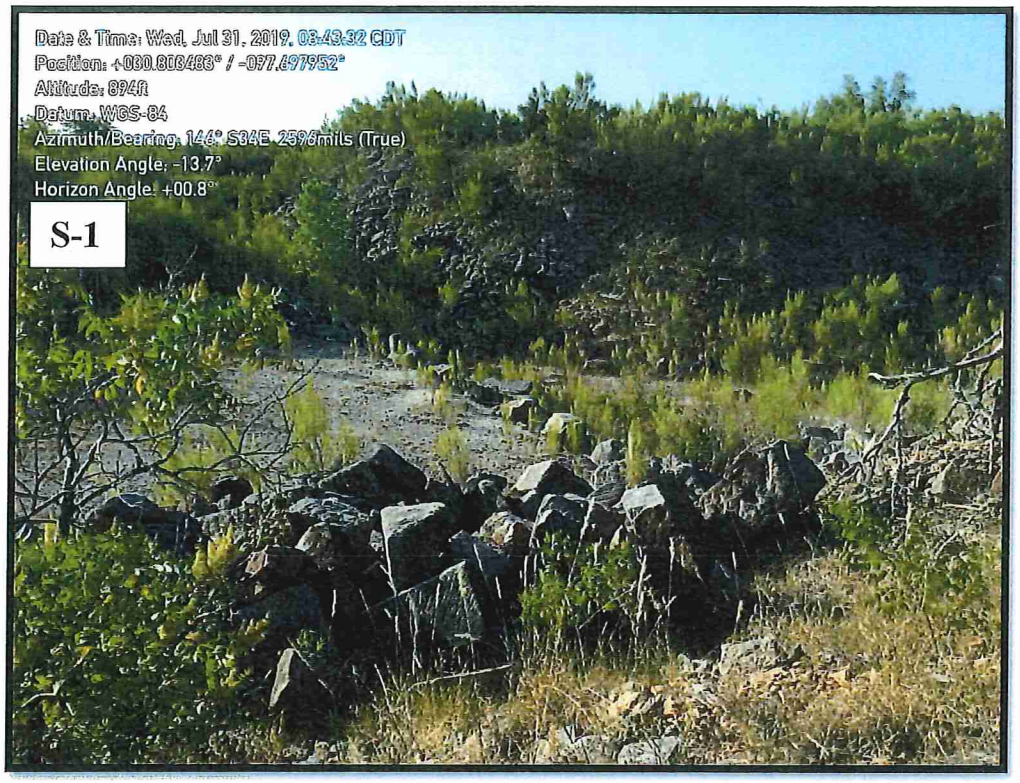
S-1 Standing water in northern area of main pit, view to the east.



S-1 Eastern side of main pit, view to the south.

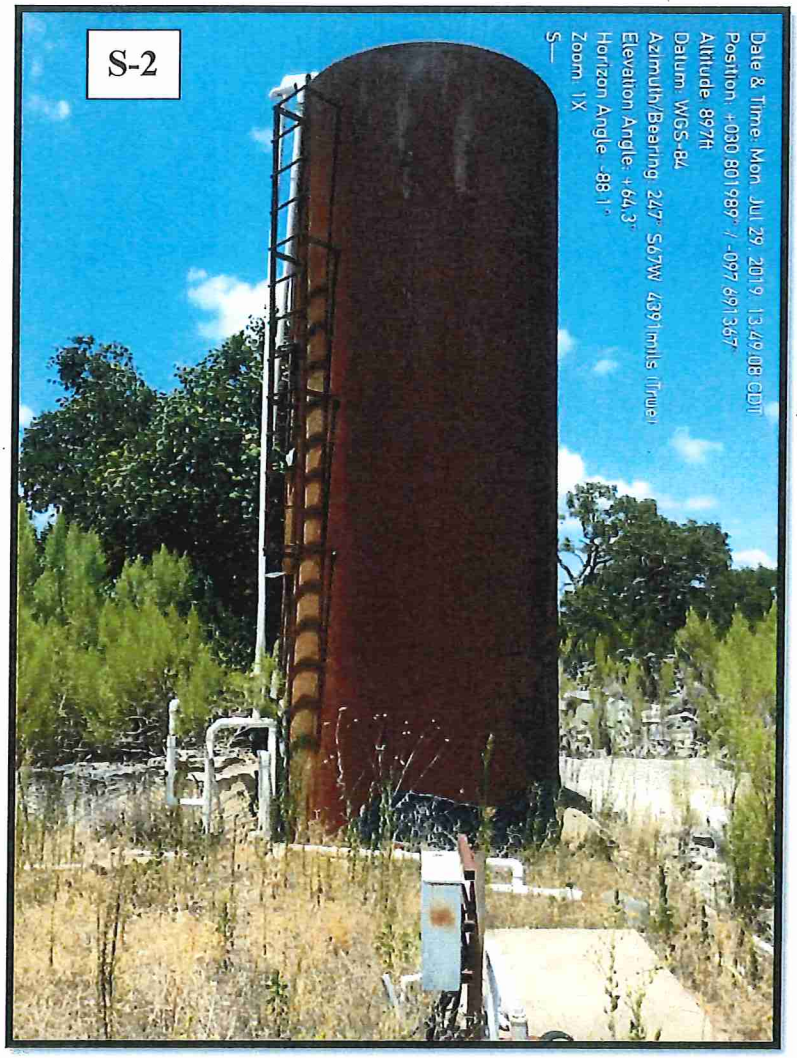


S-1 Tanks holding water within the southeast corner of the main pit, view to the southeast.



S-1 Outer periphery of northwestern side of main pit, view to the southeast.

S-2 Water well located near the road on the southeastern part of the Site.



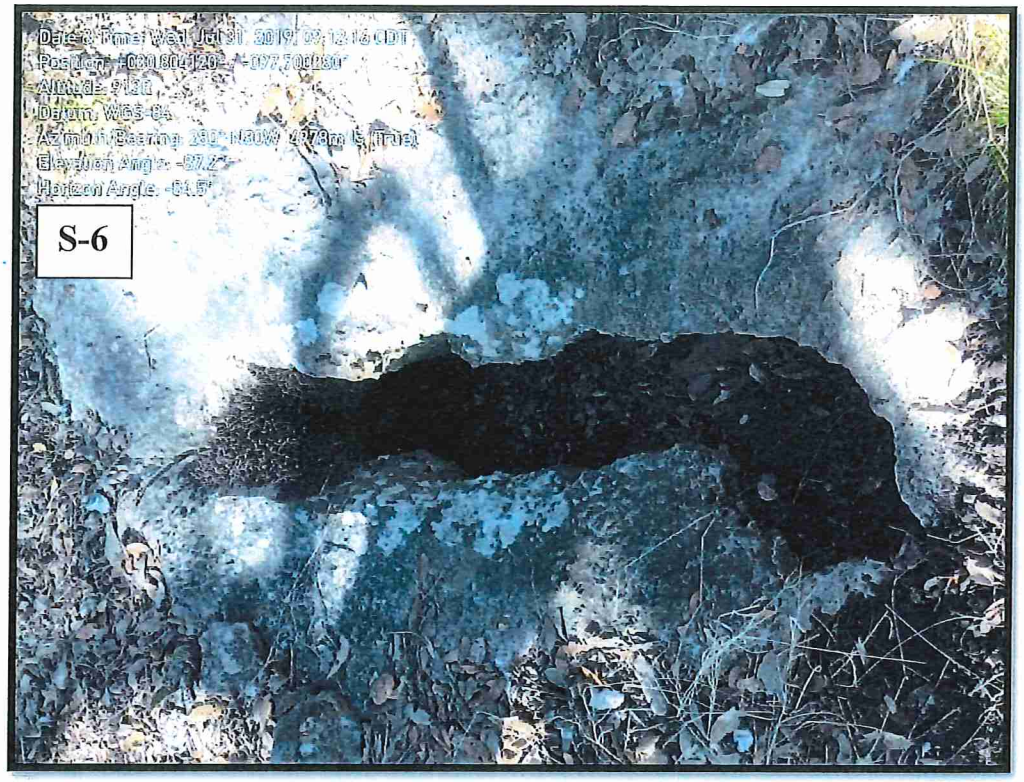
S-2 Water well storage tank, view to the west.

S-3 Old test pit within a zone on the northeast quadrant of property.

S-3 Portion of a test pit zone in the northeast part of the Site, near the eastern fence line.

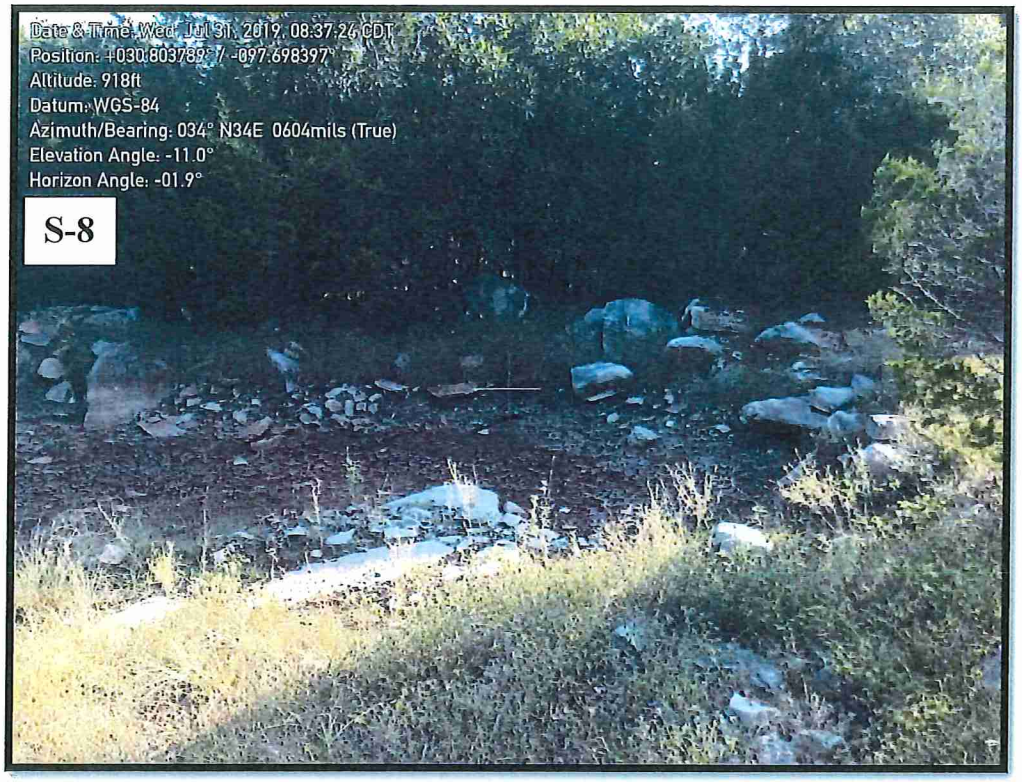
S-4 Solution-enlarged fracture just inside the northern fence line.

S-5 Another pit on the center of the Site, isolated from and north of main pit. Northwest view.



S-6 Sensitive solution cavity on the northwest corner of the Site.

S-7 View of sinkhole to the east.



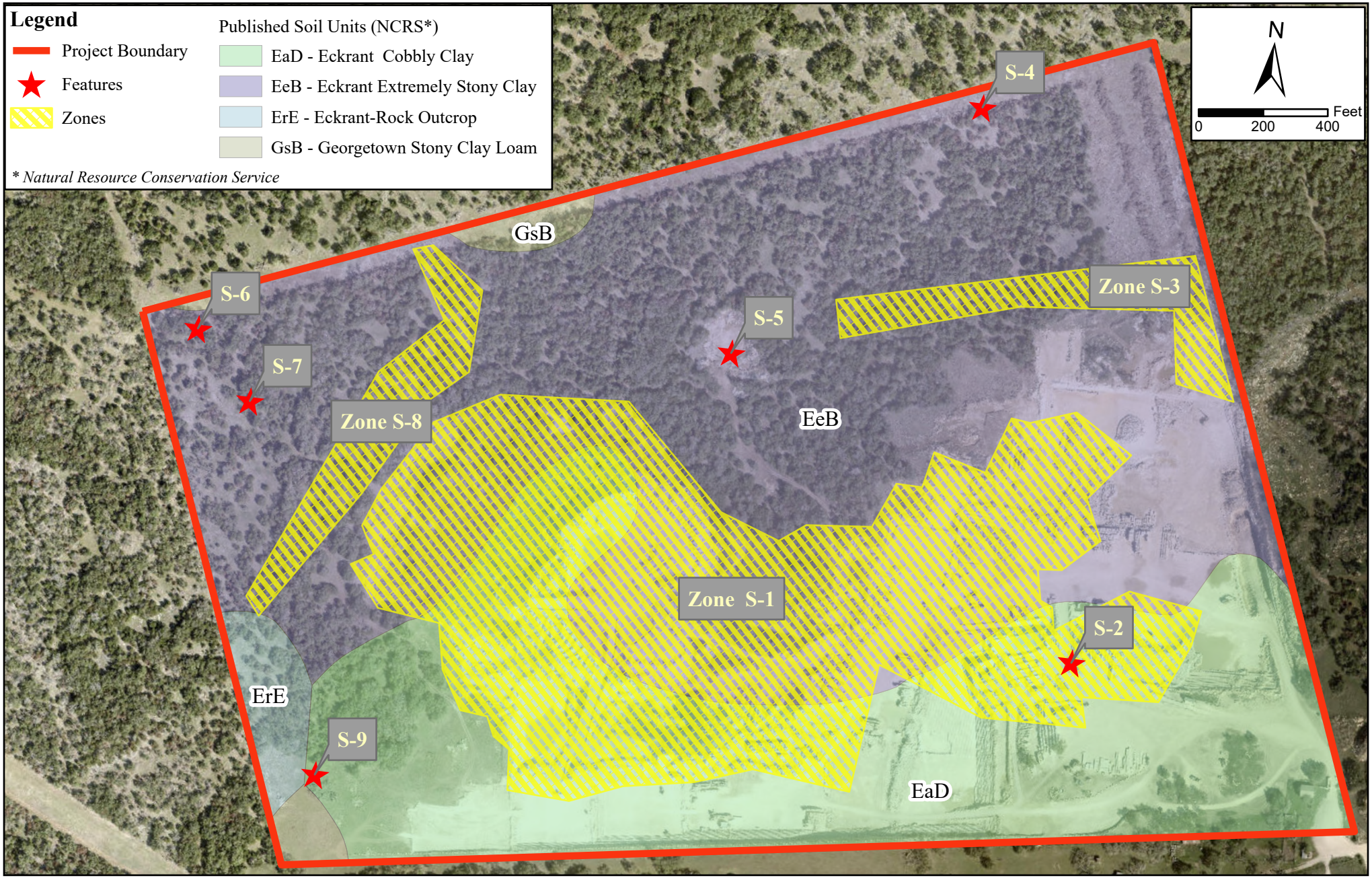
S-8 A test pit within the second zone, view to the northeast.

S-9 Closed depression on southwestern corner of property.

Attachment D

Site Geologic Map

Site Soils Map



SITE SOILS MAP

CR 234 QUARRY
TEXAS STARMAC, LLC
JARRELL, WILLIAMSON COUNTY, TEXAS

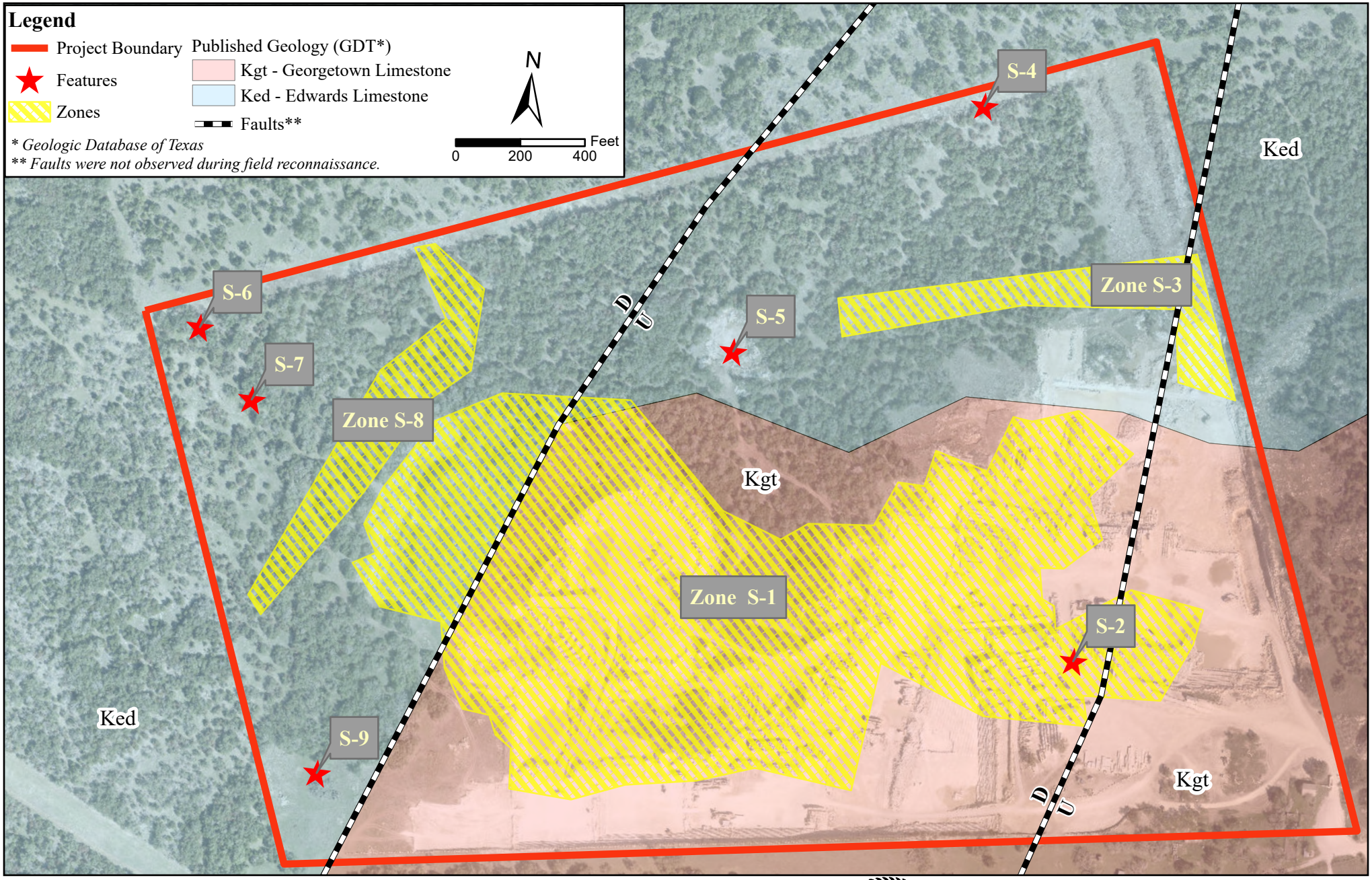
REV.	DESCRIPTION	BY	DATE

IMAGE: ESRI WORLD IMAGERY	
ISSUE DATE:	12/20/2024
DRAWN BY:	JG
CHECKED BY:	JJS
SCALE: 1" =	400'
JOB NO.:	10553-081

SHEET NO.: 01 OF 01

STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED
PROFESSIONAL GEOSCIENTIST
12/20/2024

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 01

IMAGE: ESRI WORLD IMAGERY	
ISSUE DATE:	12/20/2024
DRAWN BY:	JG
CHECKED BY:	JJS
SCALE: 1" =	400'
JOB NO.:	10553-081

SITE GEOLOGIC MAP

CR 234 QUARRY
TEXAS STARMAC, LLC
JARRELL, WILLIAMSON COUNTY, TEXAS

REV.	DESCRIPTION	BY	DATE

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

12/20/2024

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

RESOURCE MATERIALS, LLC

GEOLOGIC ASSESSMENT

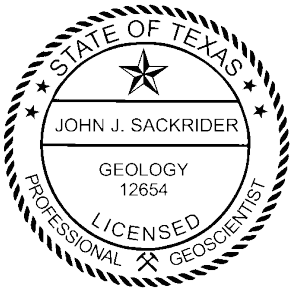
CR 234 QUARRY
5861 CR 234
JARRELL, TEXAS 76527
WILLIAMSON COUNTY

Submitted to: TCEQ Region 11, Austin

Prepared By:

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

Date: August 2024
Project No. 11505-005
-JG-



Signature: _____
John J. Sackrider, P.G. - License No. 12654
TX PG Firm No. 50112
Date: 8/7/2024

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.

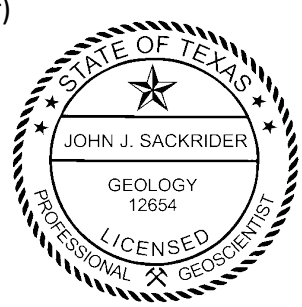
Print Name of Geologist: Telephone: 830-249-8284

John J. Sackrider, P.G. #12654 Fax: 830-249-0221

Date: 8/7/2024

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

Signature of Geologist:



Regulated Entity Name: CR 234 Quarry

Section 1.02 Project Information

1. Date(s) Geologic Assessment was performed: April 22-25 & May 6-9, 2024
2. Type of Project:

   ☒ WPAP ☐ AST
   ☐ SCS ☐ 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)
DnB	D	< 5
DoC	D	< 2
EaD	D	< 2
EeB	D	< 2
ErE	D	< 2
GsB	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" = 400'
   Site Geologic Map Scale: 1" = 400'
   Site Soils Map Scale (if more than 1 soil type): 1" = 400'

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 well is 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: CR 234 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)	DIP	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	30.804788	-97.709277	SC	20	Ked	1	1	0.5	10				C	5	25	X		X		Hillside
S-2	30.804625	-97.707292	CD	5	Ked	6	5	0.5	N/A				V	5	10	X		X		Hillside
S-3	30.804585	-97.706280	CD	5	Ked	10	6	0.5	N/A				V	5	10	X		X		Hillside
S-4	30.804330	-97.705935	CD	5	Ked	100	80	2	N/A				X	5	10	X			X	Hillside
S-5	30.805132	-97.705333	CD	5	Ked	18	15	1	N/A				F,V	5	10	X		X		Hillside
S-6	30.805801	-97.701844	Z-SC	30	Ked	10	5	3	140				O	5	35	X		X		Hillside
S-7	30.791551	-97.702451	MB	30	Kgt	0.34	0.34	885	None				X	35	65		X	X		Hillside
S-8	30.802999	-97.703367	SC	20	Ked	1	0.83	1	110				O	5	25	X		X		Hillside
S-9	30.803262	-97.702919	SC	20	Ked	1	0.83	1	110				O	5	25	X		X		Hillside
S-10	30.802889	-97.702019	SC	20	Ked	0.5	0.5	2	10				O	5	25	X		X		Hillside
S-11	30.802862	-97.702467	SC	20	Ked	0.23	0.23	1	None				O	5	25	X		X		Hillside
S-12	30.802469	-97.702064	SC	20	Ked	1	1	1	10				O	5	25	X		X		Hillside
S-13	30.802539	-97.702796	SC	20	Ked	0.92	0.58	2	0				O	5	25	X		X		Hillside
S-14	30.800982	-97.700110	CD	5	Ked	50	45	1	N/A				V	5	10	X		X		Hillside
S-15	30.802337	97.709493	CD	5	Ked	7	6	1	N/A				V	5	10	X		X		Hillside
S-16	30.802467	-97.709575	CD	5	Ked	7	4	1	N/A				V	5	10	X		X		Hillside
S-17	30.803865	-97.711067	CD	5	Ked	16	15	1	N/A				V	5	10	X		X		Hillside
S-18	30.802999	-97.711395	CD	5	Ked	33	12	2	N/A				V,C	5	10	X			X	Hillside
S-19	30.800944	-97.714882	SF	20	Ked	0.5	0.25	1	55				O	5	25	X		X		Hillside
S-20	30.800910	-97.714824	SC	20	Ked	2	1	4	60				O	15	35	X			X	Drainage
S-21	30.797784	-97.712923	CD	5	Ked	8	4	0.5	N/A				O	5	10	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
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 8/7/2024

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

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: CR 234 QUARRY

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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-22	30.798288	-97.714555	CD	5	Ked	9	9	0.5	N/A				O	5	10	X		X		Hillside
S-23	30.800301	-97.715856	SH	20	Ked	18	18	3	None				V	5	25	X		X		Hillside
S-24	30.794305	-97.700025	O	5	Ked	3	5	1	10				O	15	20	X			X	Floodplain
S-25	30.794289	-97.700017	CD	5	Kgt	400	170	7	N/A				X,V	5	10	X			X	Drainage
S-26	30.792671	-97.700942	CD	5	Kgt	15	12	1	N/A				V	5	10	X		X		Hillside
S-27	30.799383	-97.710420	SC	20	Ked	2	1	2	120				O	5	25	X		X		Hillside
S-28	30.801002	-97.710160	O	5	Ked	2.5	2	0.5	20	10			O	5	20	X			X	Drainage
S-29	30.796919	-97.702338	SC	20	Ked	1	1	1	140				O,C	5	25	X		X		Hillside
S-30	30.797357	-97.702152	SF	20	Ked	3	0.25	2	75				O	5	25	X		X		Hillside
S-31	30.799134	-97.703215	SC	20	Ked	1.5	2	5	0				O	5	25	X			X	Drainage
S-32	30.799154	-97.703150	SC	20	Ked	1	0.5	3	30	10			O,C	5	35	X		X		Drainage/Cliff
S-33	30.799733	-97.703786	SC	20	Ked	1	1.5	1.5	45	10			N	20	50		X	X		Hillside
S-34	30.799126	-97.705326	Z-SC,SH	30	Ked	33	33	3	135				N,C	30	60		X	X		Hillside
S-35	30.798612	-97.705924	C	30	Ked	5.5	3	10+	105				N,C	35	65		X	X		Hillside
S-36	30.795135	-97.708763	CD	5	Ked	40	50	1	N/A				V,X	5	10	X		X		Hillside
S-37	30.795472	-97.705928	CD	5	Ked	25	8	0.5	N/A				V,X	5	10	X		X		Hillside
S-38	30.794140	-97.711259	CD	5	Ked	160	85	10	N/A				V,X	5	10	X			X	Floodplain
S-39	30.796677	-97.711132	CD	5	Ked	60	9	0.5	N/A				O,N?	5	10	X			X	Floodplain
S-40	30.795261	-97.713949	CD	5	Ked	7.5	7.5	1	N/A				V,C	5	10	X		X		Hillside
S-41	30.795810	-97.710947	C	30	Ked	6.5	1.5	10	90				C,O	5	35	X		X		Floodplain
S-42	30.795907	-97.710954	SC	20	Ked	2	1	0.25	100				O	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
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
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STATE OF TEXAS
JOHN J. SACKRIDER
GEOLOGY
12654
LICENSED
PROFESSIONAL GEOSCIENTIST

Date 8/7/2024

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME: CR 234 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-43	30.795976	-97.710416	CD	5	Ked	10	8	1.5	N/A				V	5	10	X		X		Hillside
S-44	30.796025	-97.710343	CD	5	Ked	6	4	0.5	N/A				O	5	10	X		X		Hillside
S-45	30.796360	-97.710235	CD	5	Ked	7	4	0.5	N/A				V	5	10	X		X		Hillside
S-46	30.795281	-97.711139	CD	5	Ked	100	25	1	N/A				O	5	10	X			X	Floodplain
S-47	30.794742	-97.712956	CD	5	Ked	20	20	0.5	N/A				V	5	10	X		X		Hillside
S-48	30.793392	-97.713212	CD	5	Ked	10	10	1	N/A				V	5	10	X		X		Hillside
S-49	30.792805	-97.712955	CD	5	Ked	15	15	0.5	N/A				V	5	10	X		X		Hillside
S-50	30.793675	-97.710540	CD	5	Ked	55	25	0.5	N/A				V,C	5	10	X		X		Floodplain
S-51	30.791174	-97.709616	SC	20	Ked	1	0.25	1	120				O,C	5	25	X		X		Floodplain
S-52	30.790779	-97.708820	SC	20	Ked	1.5	0.5	10	90				O	5	25	X		X		Hillside
S-53	30.789662	-97.708625	CD	5	Ked	100	50	0.5	N/A				O	5	10	X		X		Hillside
S-54	30.795075	-97.709359	CD	5	Ked	10	8	0.75	N/A				O	5	10	X		X		Hillside
S-55	30.793104	-97.707877	SC	20	Ked	1	1.5	15	90				N	35	55		X	X		Hillside
S-56	30.792875	-97.707013	SC	20	Ked	2	0.5	0.5	50				O	5	25	X		X		Hillside
S-57	30.794796	-97.707446	CD	5	Ked	10	6	0.5	N/A				O	5	10	X		X		Hillside
S-58	30.794159	-97.706570	SC	20	Ked	1.5	1	1.5	0				O	5	25	X		X		Hillside
S-59	30.793242	-97.705873	CD	5	Ked	85	76	5	N/A				X	5	10	X			X	Hillside
S-60	30.792979	-97.705948	CD	5	Ked	6	4	0.5	N/A				V	5	10	X		X		Hillside
S-61	30.792362	-97.704397	CD	5	Ked	9	7	1	N/A				V	5	10	X		X		Hillside
S-62	30.792418	-97.704677	CD	5	Ked	8	6	1	N/A				V,C	5	10	X		X		Hillside
S-63	30.792867	-97.704334	CD	5	Ked	21	15	2	N/A				V,O	5	10	X		X		Hillside

* DATUM: NAD 83

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SF	Solution-enlarged fracture(s)	20
F	Fault	20
O	Other natural bedrock features	5
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SW	Swallow hole	30
SH	Sinkhole	20
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						X	Y	Z		10					10	<40	>40	<1.6	>1.6	
S-64	30.793022	-97.704542	CD	5	Ked	9	6	0.5	N/A				V,C	5	10	X		X		Hillside
S-65	30.794888	-97.705977	CD	5	Ked	35	9	1	N/A				O,V	5	10	X		X		Hillside
S-66	30.791341	-97.703030	CD	5	Kgt	40	5	1.5	N/A				V	5	10	X		X		Hillside
S-67	30.795832	-97.700039	CD	5	Kgt	18	9	1	N/A				V	5	10	X			X	Drainage
S-68	30.797596	-97.701086	CD	5	Ked	15	3	0.5	N/A				V,C	5	10	X		X		Hillside
S-69	30.797717	-97.701478	CD	5	Ked	70	8	1	N/A				F,X	5	10	X		X		Hillside
S-70	30.798463	-97.699719	CD	5	Ked	16	9	1	N/A				F,X	5	10	X		X		Hillside
S-71	30.800036	-97.702230	CD	5	Ked	18	18	2	N/A				O	5	10	X		X		Hillside
S-72	30.800025	-97.690604	MB	30	Kgt	0.67	0.67	Unknown	None				X	5	35	X		X		Hillside
S-73	30.799382	-97.689459	CD	5	Kgt	35	18	2	N/A				V	5	10	X		X		Hillside
S-74	30.800273	-97.689047	MB	30	Kgt	10	10	18	None				X	5	35	X		X		Hillside
S-75	30.798600	-97.687822	CD	5	Kgt	230	100	2	N/A				V	5	10	X			X	Hillside
S-76	30.795522	-97.689236	CD	5	Kgt	230	160	8	N/A				X	5	10	X			X	Hillside
S-77	30.797673	-97.689513	CD	5	Kgt	150	100	2	N/A				V	5	10	X			X	Hillside
S-78	30.796980	-97.691559	CD	5	Kgt	100	40	3	N/A				V,X	5	10	X			X	Hillside
S-79	30.796365	-97.692534	CD	5	Kgt	20	20	0.5	N/A				V	5	10	X		X		Hillside
S-80	30.799376	-97.711761	F	20	Ked	5,335		Unknown	42	10			V	5	35	X			X	Hillside
S-81	30.794517	-97.702798	F	20	Ked/Kgt	5,375		Unknown	44	10			V	5	35	X			X	Hillside
S-82	30.795149	-97.692847	F	20	Kgt	2,408		Unknown	14				V	5	25	X			X	Hillside
															0					
															0					

* DATUM: NAD 83

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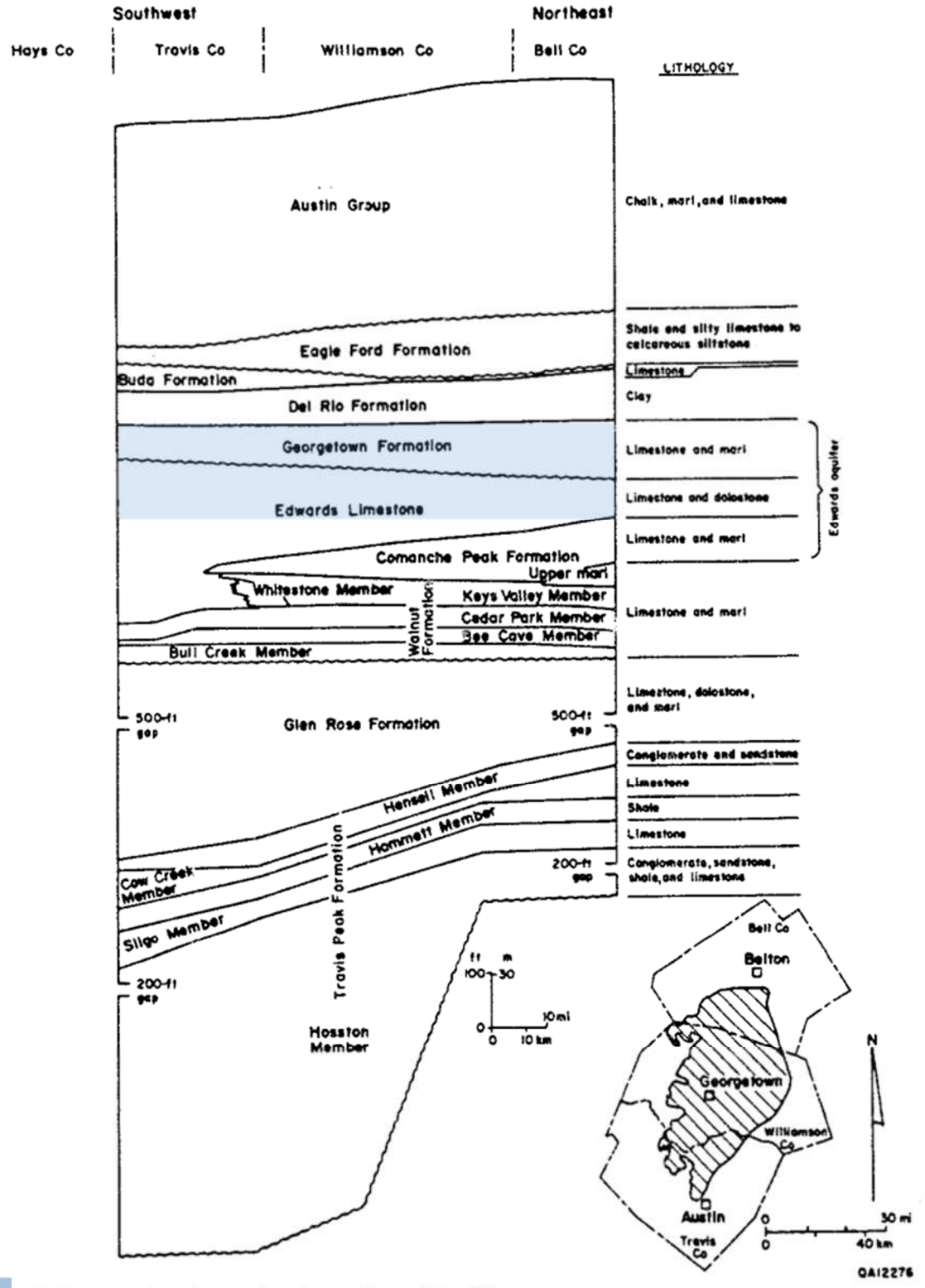
Attachment B

Stratigraphic Column

Generalized Stratigraphic Column



Indicates units observed at the surface of the Site.

Adapted from *Hydrology of the Northern Segment of the Edwards Aquifer, Austin region* (Senger, 1990).

Attachment C

Site Geology (Geologic Narrative)

Geologic Narrative

1.0 PURPOSE

Westward Environmental, Inc. (WESTWARD) was retained by Resource Materials, LLC (Client) to prepare a Geologic Assessment (GA) on a ~800-acre tract (Site). This GA was prepared as a required attachment to a Water Pollution Abatement Plan (WPAP) 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))* to be reviewed pursuant to Title 30, Chapter 213 of the Texas Administrative Code.

3.0 PROJECT LOCATION

The Site is located between the cities of Florence and Georgetown, approximately 4 miles northwest of the intersection of Co Rd 234 and Ronald Reagan Highway in Williamson County, Texas. 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. 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) Austin 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 Water Data Interactive Groundwater Data Viewer (TWDB 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 April 22 - 25, & May 6 - 9, 2024. 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 revealed two (2) geologic units mapped at the Site. They include the Georgetown Formation (Kgt) and the Edwards Limestone (Ked).

5.2 Published Structure

The Site is located within the Balcones Fault Zone (BFZ). The desktop review revealed that there are three (3) faults transecting the Site from the southwest to northeast direction. The average of these three 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 18° and 48°. All faults discussed here are shown on the Site Geologic Map (Attachment D).

5.3 Karst Features

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

5.4 Non-karst & Manmade Features

The desktop review of aerial imagery revealed a couple of large ponds at the Site and an oil & gas pipeline easement which traverses the Site from the northwest to southeast direction. A review of the TWDB Viewer did not reveal any onsite groundwater wells 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*
Denton silty clay (DnB), 1 to 3 percent slopes	D	< 5	22 to 60 inches to lithic bedrock, well drained, moderately low to moderately high (0.06 to 0.20 in/hr) Ksat capacity
Doss silty clay (DoC), moist, 1 to 5 percent slopes	D	< 2	11 to 20 inches to paralithic bedrock, well drained, moderately low to moderately high (0.06 to 0.57 in/hr) Ksat capacity
Eckrant cobbly clay (EaD), 1 to 8 percent slopes	D	< 2	4 to 20 inches to lithic bedrock, well drained, moderately low to moderately high (0.06 to 0.57 in/hr) Ksat capacity
Eckrant stony clay (EeB), 0 to 3 percent slopes	D	< 2	4 to 20 inches to lithic bedrock, well drained, moderately low to moderately high (0.06 to 0.57 in/hr) Ksat capacity
Eckrant-Rock outcrop association (ErE), 1 to 10 percent slopes	D	< 2	4 to 20 inches to lithic bedrock, well drained, moderately low to moderately high (0.06 to 0.57 in/hr) Ksat capacity
Georgetown stony clay loam (GsB), 1 to 3 percent slopes	D	< 4	24 to 40 inches to lithic bedrock, well drained, very low to moderately low (0.00 to 0.06 in/hr) Ksat capacity

6.0 FIELD INVESTIGATION

The field investigation was performed on April 22-25, & May 6-9, 2024 by WESTWARD staff under the direction of John J. Sackrider, P.G. to verify the presence or absence of recharge features identified in the desktop review and to identify other potential recharge features onsite. The pipeline observed during the desktop study was under construction during field reconnaissance, including drilling and blasting operations for excavation. Any resulting features from this effort were not recorded. Field reconnaissance was performed in accordance with the *TCEQ-0585-Instructions (Rev. 10-1-04)*.

6.1 Surface Geology

The mapped geologic units, Ked and Kgt, were both observed at the Site in places where bedrock was exposed and by the presence of scattered rock at the surface. The published surface geology is included on the Site Geologic Map (Attachment D).

6.2 Structure

Drastic topographic relief forming a small drainage and fault breccia in the pipeline right-of-way were observed on feature S-81. Direct evidence of the other two (2) mapped faults identified in the Desktop Review was not observed during the field investigation. 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 were observed throughout the Site.

6.3 Karst Features

Nineteen (19) solution cavities, two (2) solution-enlarged fractures, one (1) sinkhole, two (2) caves, two (2) other natural features in bedrock, and two (2) karst feature zones were identified and recorded during the field investigation. Of the thirty (30) karst features recorded, four (S-33, S-34, S-35, and S-55) of these features are rated sensitive.

6.4 Non-karst & Manmade Features

Forty-eight (48) non-karst closed depressions and three (3) manmade features in bedrock were identified and recorded during the field investigation. Of the fifty-one (51) non-karst and manmade features recorded, one (S-7) of these features are rated sensitive.

6.5 Feature Descriptions

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

Feature S-1 is a solution cavity located along the northwestern Site boundary. The feature measures approximately 1 ft. x 1 ft. x 0.5 ft. with an approximate trend of 10°. Vegetation and limestone cobbles surrounded the feature and it appeared to be plugged with cobbles and loose soil at the time of the field investigation. 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 (CD) **Not Sensitive**

Feature S-2 is a non-karst closed depression located on the northern part of the Site. The feature measures approximately 6 ft. x 5 ft. x 0.5 ft. and has a floor that consists of vegetated soil. 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-3 (CD) **Not Sensitive**

Feature S-3 is a non-karst closed depression near the northern Site boundary. The feature measures approximately 10 ft. x 6 ft. x 0.5 ft. and the floor consists of vegetated soil. 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-4 (CD) **Not Sensitive**

Feature S-4 is a non-karst closed depression located near a published fault on the northern part of the Site. The feature measures approximately 100 ft. x 80 ft. x 2 ft. and the floor consist of vegetated soil. The catchment area is greater than 1.6 acres, but due to the vegetated fine-grained soil floor, 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 on the northern part of the Site. The feature measures approximately 18 ft. x 15 ft. x 1 ft. and is floored with red soil and short

growth 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-6 (Z-SC) **Not Sensitive**

Feature S-6 consists of a zone with two (2) solution cavities located on the northern part of the Site. The zone measures approximately 10 ft. x 5 ft. The larger of the two solution cavities measures approximately 1 ft. x 0.5 ft. x 3 ft. and is plugged with dark soil. 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 (MB) **Sensitive**

Feature S-7 is a well that is classified as a manmade feature in bedrock. It is located on the southern part of the Site. The well has a steel casing with a radius of approximately 0.34 ft. The casing was open and exposed to the elements at the time of the field investigation. Writing on the slab indicates it may have been completed in 1986 and may be 885 ft. deep, although this information is unverified. The slab was observed to be in good condition although there appeared to be evidence of a recent fire as black soot marks were observed on the feature and slab at the time of the field investigation. The catchment area is less than 1.6 acres but due to the absence of a well cap, the interpreted probability of rapid infiltration is high. This feature is rated sensitive.

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

Feature S-8 is a solution cavity located on the northcentral part of the Site. The feature measures approximately 1 ft. x 0.83 ft. x 1 ft. with an approximate trend of 110° and is plugged with soil and tree litter. 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 (SC) **Not Sensitive**

Feature S-9 is a solution cavity located on the northcentral part of the Site. The feature measures approximately 1 ft. x 0.83 ft. x 1 ft. with an approximate trend of 110° and is plugged with soil and tree litter. 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 (SC) **Not Sensitive**

Feature S-10 is a solution cavity located on the northcentral part of the Site. The feature measures approximately 0.5 ft. x 0.5 ft. x 2 ft. with an approximate trend of 10° and is plugged with dark soil. 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-11 (SC) **Not Sensitive**

Feature S-11 is a small, round solution cavity located on the northcentral part of the Site. The feature measures approximately 0.23 ft. x 0.23 ft. x 1 ft. and is plugged with dark soil. 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-12 (SC) **Not Sensitive**
Feature S-12 is a solution cavity located on the northcentral part of the Site. The feature measures approximately 1 ft. x 1 ft. x 1 ft. with an approximate trend of 10° and is plugged with dark soil and tree litter. 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-13 (SC) **Not Sensitive**
Feature S-13 is a solution cavity located on the northcentral part of the Site. It measures approximately 0.92 ft. x 0.58 ft. x 2 ft. with an approximate trend of 0°. The feature appeared to be plugged with dark soil at the time of the field investigation. 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-14 (CD) **Not Sensitive**
Feature S-14 is a non-karst closed depression located on the northcentral part of the Site. The feature measures approximately 50 ft. x 45 ft. x 1 ft. and is floored with soil, cobbles, and short growth vegetation. The feature appears to be manmade as rock is piled up along the south rim. 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-15 (CD) **Not Sensitive**
Feature S-15 is a non-karst closed depression located on the northwestern part of the Site. The feature measures approximately 7 ft. x 6 ft. x 1 ft. and is floored with soil, short growth vegetation, and scattered large cobbles. 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-16 (CD) **Not Sensitive**
Feature S-16 is a non-karst closed depression located on the northwestern part of the Site. The feature measures approximately 7 ft. x 4 ft. x 1 ft. and is floored 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-17 (CD) **Not Sensitive**
Feature S-17 is a non-karst closed depression located on the northwestern part of the Site near the northern Site boundary. The feature measures approximately 16 ft. x 15 ft. x 1 ft. and is floored with vegetation and some large cobbles. 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-18 (CD) **Not Sensitive**
Feature S-18 is a non-karst closed depression located on the northwestern part of the Site. The feature measures approximately 33 ft. x 12 ft. x 2 ft. and is floored with vegetation and weathered, broken down limestone cobbles and gravel. This feature appears to be man-made. 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-19 (SF) **Not Sensitive**

Feature S-19 is a solution-enlarged fracture located on the northwestern part of the Site. It measures approximately 0.5 ft. x 0.25 ft. x 1 ft. with an approximate trend of 55°. The feature is plugged with dark soil. 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-20 (SC) **Not Sensitive**

Feature S-20 is a solution cavity formed from an overhang in a drainage and located on the northwestern part of the Site. It measures approximately 2 ft. x 1 ft. x 4 ft. with an approximate trend of 60°. The feature appeared to be plugged with dark soil at the time of the field investigation. The catchment area is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low to intermediate. This feature is rated not sensitive.

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

Feature S-21 is likely a hog wallow that is classified as a non-karst closed depression and located within the floodplain on the northwestern part of the Site. The feature measures approximately 8 ft. x 4 ft. x 0.5 ft. and is floored with dark soil that was moist and exhibited mud cracks at the time of the field investigation. 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-22 (CD) **Not Sensitive**

Feature S-22 is likely a hog wallow that is classified as a non-karst closed depression and located on the northwestern part of the Site. The zone measures approximately 9 ft. x 9 ft. x 0.5 ft. and is floored with dark soil. 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 (SH) **Not Sensitive**

Feature S-23 is a sinkhole located in the terraced area on the northwestern part of the Site. The feature is circular in shape and measures approximately 18 ft. x 18 ft. x 3 ft. It has a partial rock rim and is floored with vegetation and scattered cobbles. This feature appears to be plugged. 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-24 (O) **Not Sensitive**

Feature S-24 is an other natural bedrock feature consisting of heavily solutioned and weathered vuggy rock located within the floodplain on the northwestern part of the Site. The feature measures approximately 3 ft. x 5 ft. x 1 ft. with an approximate trend of 10°. It had approximately 2 inches of soil at the bottom of the feature and appeared to have no indication that the feature holds water. The catchment area is greater than 1.6 acres, and the interpreted probability of rapid infiltration is low to intermediate. This feature is rated not sensitive.

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

Feature S-25 is a large stock pond classified as a non-karst closed depression and located on the southcentral part of the Site. The feature measures approximately 400 ft. x 170 ft. x 7 ft. and is holding water with vegetated banks. The catchment area is greater than 1.6

acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-26 (CD) **Not Sensitive**
Feature S-26 is a non-karst closed depression located on the southcentral part of the Site. It measures approximately 15 ft. x 12 ft. x 1 ft. and is floored 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-27 (SC) **Not Sensitive**
Feature S-27 is a solution cavity located in the western part of the Site. It measures approximately 2 ft. x 1 ft. x 2 ft. with an approximate trend of 120°. The feature was plugged with loose soil, sticks, and leaves at the time of the field investigation. 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-28 (O) **Not Sensitive**
Feature S-28 is a solution cavity located on the northwestern part of the Site. It measures approximately 2.5 ft. x 2 ft. x 0.5 ft. with an approximate trend of 20° which is within the dominant fault trend range. The feature was plugged with loose soil and leaf litter. The catchment area is greater than 1.6 acres, but due to the feature being plugged, the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-29 (SC) **Not Sensitive**
Feature S-29 is a solution cavity located on the central part of the Site. It measures approximately 1 ft. x 1 ft. x 1 ft. with an approximate trend of 140°. The feature was plugged with loose soil, sticks, and leaves at the time of the field investigation. 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-30 (SF) **Not Sensitive**
Feature S-30 is a solution-enlarged fracture located on the central part of the Site. It measures approximately 3 ft. x 0.25 ft. x 2 ft. and extends under a rock slab with an approximate trend of 75°. This feature may be an animal burrow. The feature was infilled with dark soil at the time of the field investigation as were other nearby fractures. 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-31 (SC) **Not Sensitive**
Feature S-31 is a solution cavity located within a drainage on the central part of the Site. It measures approximately 1.5 ft. x 2 ft. x 5 ft. and extends upward into the bank with an approximate trend of 0°. The catchment area is greater than 1.6 acres, but as water is expected to flow out of the feature given the upward trend rather than into it, the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

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

Feature S-32 is a solution cavity located in the bank of a drainage on the central part of the Site. It measures approximately 1 ft. x 0.5 ft. x 3 ft. with an approximate trend of 30° which is within the dominant fault trend range. The feature was plugged with soil, rocks, and tree litter at the time of the field investigation. Because it is located above the ordinary high-water mark, 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-33 (SC) **Sensitive**

Feature S-33 is a triangular-shaped solution cavity located on the central part of the Site. It measures approximately 1 ft. x 1.5 ft. x 1.5 ft. with an approximate trend of 45° which is within the dominant fault trend range. The feature appeared to be open at the time of the field investigation, with no apparent soil or organic fill. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is intermediate. This feature is rated sensitive.

S-34 (Z-SC,SH) **Sensitive**

Feature S-34 is a zone that is comprised of a solution cavity within a sinkhole. It is located on the central part of the Site. The zone measures approximately 33 ft. x 33 ft. x 3 ft. The solution cavity measures 2.5 ft. x 3.5 ft. x 6 ft. with an approximate trend of 135°. There was no infill in the solution cavity at the time of the field investigation. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is intermediate to high. This feature is rated sensitive.

S-35 (C) **Sensitive**

Feature S-35 is a cave located on the central part of the Site. It measures approximately 5.5 ft. x 3 ft. x 10+ ft. and extended mostly horizontally with an approximate trend of 105°. Large cobbles were removed by hand to better evaluate the feature. A small amount of cool airflow was felt coming out of the opening at the time of the field investigation. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is high. This feature is rated sensitive.

S-36 (CD) **Not Sensitive**

Feature S-36 is a stock tank classified as a non-karst closed depression and located on the western part of the Site. It measures approximately 40 ft. x 50 ft. x 1 ft. and was holding water at the time of the field investigation. 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-37 (CD) **Not Sensitive**

Feature S-37 is a non-karst closed depression located on the central part of the Site. It measures approximately 25 ft. x 8 ft. x 0.5 ft. and was holding water with vegetated banks at the time of the field investigation. 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-38 (CD) **Not Sensitive**

Feature S-38 is a non-karst closed depression within the floodplain on the western part of the Site. It was created by damming the drainage to create a stock pond. It measures

approximately 160 ft. x 85 ft. x 10 ft. and was holding water with vegetated banks at the time of the field investigation. 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-39 (CD) **Not Sensitive**
Feature S-39 is a non-karst closed depression located within the floodplain on the western part of the Site. It measures approximately 60 ft. x 9 ft. x 0.5 ft. The feature was holding water at the time of the field investigation. The catchment area is greater than 1.6 acres, but since there was no evidence of subsurface infiltration, the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-40 (CD) **Not Sensitive**
Feature S-40 is a non-karst closed depression located near the western Site boundary. It measures approximately 7.5 ft. x 7.5 ft. x 1 ft. with an approximate trend of 135° and is floored with vegetation and coarse cobbles. 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-41 (C) **Not Sensitive**
Feature S-41 is a cave located within the floodplain on the western part of the Site. It measures approximately 6.5 ft. x 1.5 ft. x 10 ft. with an approximate trend of 90° and appears to have been formed by an overhang in the creek bluff. The feature is floored with dark soil and bedrock. The catchment area is less than 1.6 acres, and because it is above the interpreted ordinary high-water mark and does not appear to be connected to a flow path, the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-42 (SC) **Not Sensitive**
Feature S-42 is a solution cavity located within the floodplain on the western part of the Site. It measures approximately 2 ft. x 1 ft. x 0.25 ft. And extends horizontally with an approximate trend of 100°. The feature is plugged with dark 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-43 (CD) **Not Sensitive**
Feature S-43 is a non-karst closed depression located on the western part of the Site. It measures approximately 10 ft. x 8 ft. x 1.5 ft. with a vegetated floor. There was a mound of soil near the feature at the time of the field investigation, indicating it may have been excavated. 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-44 (CD) **Not Sensitive**
Feature S-44 is a non-karst closed depression located on the western part of the Site. It measures approximately 6 ft. x 4 ft. x 0.5 ft. and is floored with soil and tree litter/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-45 (CD) **Not Sensitive**
Feature S-45 is a non-karst closed depression located on the western part of the Site. It measures approximately 7 ft. x 4 ft. x 0.5 ft. and is floored 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-46 (CD) **Not Sensitive**
Feature S-46 is a non-karst closed depression located within the floodplain on the western part of the Site. It measures approximately 100 ft. x 25 ft. x 1 ft. and is floored with soil and tree litter/vegetation. The catchment area is greater than 1.6 acres, but due to the lack of subsurface infiltration, the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-47 (CD) **Not Sensitive**
Feature S-47 is a non-karst closed depression located on the western part of the Site. It measures approximately 20 ft. x 20 ft. x 0.5 ft. and is floored 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-48 (CD) **Not Sensitive**
Feature S-48 is a non-karst closed depression that appears to have been formed by uprooting a tree. It is located on the southwestern part of the Site and measures approximately 10 ft. x 10 ft. x 1 ft. It has a vegetated floor and a catchment area that is less than 1.6 acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-49 (CD) **Not Sensitive**
Feature S-49 is a non-karst closed depression that appears to have been formed by uprooting a tree. It is located on the southwestern part of the Site and measures approximately 15 ft. x 15 ft. x 0.5 ft. It has a vegetated floor and a catchment area that is less than 1.6 acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-50 (CD) **Not Sensitive**
Feature S-50 is a non-karst closed depression located within the floodplain on the western part of the Site. It measures approximately 55 ft. x 25 ft. x 0.5 ft. and is floored with soil, vegetation, and vuggy rock. The feature was infilled with vegetation and broken-down rock and there was evidence of pooling at the time of the field investigation. 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-51 (SC) **Not Sensitive**
Feature S-51 is a solution cavity located within the floodplain on the southwestern part of the Site. It measures approximately 1 ft. x 0.25 ft. x 1 ft. with an approximate trend of 120°. The feature was plugged with soil, rocks, and tree litter at the time of the field investigation. 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-52 (SC) **Not Sensitive**

Feature S-52 is a solution cavity located on the southwestern part of the Site. It measures approximately 1.5 ft. x 0.5 ft. x 10 ft. and extends horizontally with an approximate trend of 90°. The feature was plugged with soil and tree litter at the time of the field investigation. It is more than likely that this feature is in surficial float rock and would therefore not meet the definition of a feature. 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-53 (Z-CD) **Not Sensitive**

Feature S-53 is a zone of several non-karst closed depressions located along the southwestern Site boundary. The zone measures approximately 100 ft. x 50 ft. x 0.5 ft. and each closed depression has a thick soil profile. 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-54 (CD) **Not Sensitive**

Feature S-54 is a non-karst closed depression located on the western part of the Site. It measures approximately 10 ft. x 8 ft. x 0.75 ft. and is floored with soil and organics/ 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-55 (SC) **Sensitive**

Feature S-55 is a solution cavity located on the southwestern part of the Site. It measures approximately 1 ft. x 1.5 ft. x 15 ft. with an approximate trend of 90°. There was minimal tree litter infill and the feature appeared to have evidence of flow at the time of the field investigation. The catchment area is less than 1.6 acres, and the interpreted probability of rapid infiltration is high. This feature is rated sensitive.

S-56 (SC) **Not Sensitive**

Feature S-56 is a solution cavity located on the southwestern part of the Site. It measures approximately 2 ft. x 0.5 ft. x 0.5 ft. with an approximate trend of 50°. The feature appeared to be soil plugged at the time of the field investigation. 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-57 (CD) **Not Sensitive**

Feature S-57 is a non-karst closed depression located on the southwestern part of the Site. It measures approximately 10 ft. x 6 ft. x 0.5 ft. and is floored with soil and organics. 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-58 (SC) **Not Sensitive**

Feature S-58 is a solution cavity located on the southwestern part of the Site. It measures approximately 1.5 ft. x 1 ft. x 1.5 ft. with an approximate trend of 0°. The feature was infilled with soil and organics at the time of the field investigation. 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-59 (CD) **Not Sensitive**
Feature S-59 is a stock pond that is classified as a non-karst closed depression and located on the southwestern part of the Site. It measures approximately 85 ft. x 76 ft. x 5 ft. and was holding water at the time of the field investigation. The catchment area is greater than 1.6 acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-60 (CD) **Not Sensitive**
Feature S-60 is a non-karst closed depression located on the southwestern part of the Site. It measures approximately 6 ft. x 4 ft. x 0.5 ft. and is floored 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-61 (CD) **Not Sensitive**
Feature S-61 is a non-karst closed depression located on the southwestern part of the Site. It measures approximately 9 ft. x 7 ft. x 1 ft. and is floored 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-62 (CD) **Not Sensitive**
Feature S-62 is a non-karst closed depression located on the southwestern part of the Site. It measures approximately 8 ft. x 6 ft. x 1 ft. and is floored with vegetation and limestone cobbles. 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-63 (CD) **Not Sensitive**
Feature S-63 is a non-karst closed depression located on the southwestern part of the Site. It measures approximately 21 ft. x 15 ft. x 2 ft. and is floored with soil 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-64 (CD) **Not Sensitive**
Feature S-64 is a non-karst closed depression located on the southwestern part of the Site. It measures approximately 9 ft. x 6 ft. x 0.5 ft. and is floored with vegetation and limestone cobbles. 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-65 (CD) **Not Sensitive**
Feature S-65 is a non-karst closed depression located on the southwestern part of the Site. It measures approximately 35 ft. x 9 ft. x 1 ft. and appears to be manmade. The feature is floored with soil and vegetation and was holding water at the time of the field investigation. 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-66 (CD) **Not Sensitive**
Feature S-66 is a non-karst closed depression located on the western part of the Site. It measures approximately 40 ft. x 5 ft. x 1.5 ft. and appears to be manmade. The feature is

floored 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-67 (CD) **Not Sensitive**
Feature S-67 is a non-karst closed depression located within a drainage on the central part of the Site. It measures approximately 18 ft. x 9 ft. x 1 ft. and is floored with vegetation. The catchment area is greater than 1.6 acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-68 (CD) **Not Sensitive**
Feature S-68 is a non-karst closed depression located on the central part of the Site. It measures approximately 15 ft. x 3 ft. x 0.5 ft. and is floored with vegetation and limestone cobbles. 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-69 (CD) **Not Sensitive**
Feature S-69 is a non-karst closed depression located in an internal ranch road on the central part of the Site. It measures approximately 70 ft. x 8 ft. x 1 ft. and is floored with soil. The feature was holding water at the time of the field investigation. 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-70 (CD) **Not Sensitive**
Feature S-70 is a non-karst closed depression located on the central part of the Site. It measures approximately 16 ft. x 9 ft. x 1 ft. and is floored with dark soil and short growth 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-71 (CD) **Not Sensitive**
Feature S-71 is a non-karst closed depression located on the central part of the Site. It measures approximately 18 ft. x 18 ft. x 2 ft. and is floored with soil and organics. The feature was covered in downed cedar at the time of the field investigation. 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-72 (MB) **Not Sensitive**
Feature S-72 is a well that is classified as a manmade feature in bedrock. It is located near the main entrance on the eastern part of the Site. The well has a steel plate cover and casing with a radius of approximately 0.67 ft. The depth is unknown as no public information available pertaining to this well was encountered during the desktop review. The well is operational, and the slab was in good condition at the time of the field investigation. 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-73 (CD) **Not Sensitive**
Feature S-73 is a non-karst closed depression located on the eastern part of the Site. It measures approximately 35 ft. x 18 ft. x 2 ft. and appears to have been formed from piled

material. The feature is floored 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-74 (MB) **Not Sensitive**

Feature S-74 is a mortared cistern located next to the house on the eastern part of the Site. To be conservative, this feature is assumed to be a manmade feature in bedrock. It measures approximately 10 ft. x 10 ft. x 18 ft. and the opening is elevated several feet off the ground. The opening was covered, and the feature was holding water at the time of the field investigation. The depth to the top of the water from the opening of the feature was approximately 6 ft. The catchment area is less than 1.6 acres, likely rainwater harvested from the roof of the house. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-75 (CD) **Not Sensitive**

Feature S-75 is a non-karst closed depression located along the eastern Site boundary. It measures approximately 230 ft. x 100 ft. x 2 ft. and appears to have been formed from earthwork conducted on the neighboring landowner's property. The feature is floored with vegetation and was holding water at the time of the field investigation. The catchment area is greater than 1.6 acres. The interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-76 (CD) **Not Sensitive**

Feature S-76 is a stock pond that is classified as a non-karst closed depression. It is located on the southeastern part of the Site. It measures approximately 230 ft. x 160 ft. x 8 ft. and was holding water at the time of the field investigation. 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-77 (CD) **Not Sensitive**

Feature S-77 is a non-karst closed depression located within the field terraces on the eastern part of the Site. It measures approximately 150 ft. x 100 ft. x 2 ft. and is floored with vegetation. 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-78 (CD) **Not Sensitive**

Feature S-78 is a non-karst closed depression located within the field terraces on the eastern part of the Site. It measures approximately 100 ft. x 40 ft. x 3 ft. The feature is floored with vegetation and was holding water at the time of the field investigation. 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-79 (CD) **Not Sensitive**

Feature S-79 is a non-karst closed depression located along the published fault on the eastern part of the Site. It measures approximately 20 ft. x 20 ft. x 0.5 ft. and is floored 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-80 (F) **Not Sensitive**

Feature S-80 is a published fault that is mapped across the Site and runs southwest to northeast with an average approximate trend of 42°. Direct evidence of this fault was not observed onsite during the field investigation. To be conservative, it is included in this report because it is part of the published geologic literature, and its absence could not be confirmed. The extent of the mapped fault within the Site boundaries measures approximately 5,335 ft. The catchment area is greater than 1.6 acres but due to the lack of surface expression the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-81 (F) **Not Sensitive**

Feature S-81 is a published fault that is mapped across the Site and runs southwest to northeast with an average approximate trend of 44°. Evidence of this fault was observed along the pipeline easement during the field investigation. A significant topographic depression was observed with fault breccia on the northern side. The extent of the mapped fault within the Site boundaries measures approximately 5,375 ft. The catchment area is greater than 1.6 acres but due to the lack of surface expression the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

S-82 (F) **Not Sensitive**

Feature S-82 is a published fault that is mapped across the Site and runs almost south to north with an average approximate trend of 14°. Direct evidence of this fault was not observed onsite during the field investigation. To be conservative, it is included in this report because it is part of the published geologic literature, and its absence could not be confirmed. The extent of the mapped fault within the Site boundaries measures approximately 2,408 ft. The catchment area is greater than 1.6 acres but due to the lack of surface expression the interpreted probability of rapid infiltration is low. This feature is rated not sensitive.

SELECT PHOTOGRAPHS

S-3: Non-karst closed depression located on the northern part of the Site.

S-7: Open well with possible indication of total depth and year completed.

S-11: Small solution cavity located on the northcentral part of the Site.

S-13: Solution cavity located on the central part of the Site.

S-19: Solution-enlarged fracture located on the northwestern part of the Site.

S-24: Other natural bedrock feature.

S-25: Non-karst closed depression located on the southern part of the Site.

S-30: Solution-enlarged fracture located on the central part of the Site.

S-33: Solution cavity located on the central part of the Site.

S-34: Solution cavity located within a sinkhole.

S-35: Cave located on the central part of the Site.

S-38: Non-karst closed depression created by dam on the western part of the Site.

S-41: Cave located on the western part of the Site.

S-41: Closer view of cave opening.

S-50: Non-karst closed depression on the western part of the Site.

S-55: Solution cavity located on the southwestern part of the Site.

S-58: Solution cavity located on the southwestern part of the Site.

S-59: Non-karst closed depression on the southwestern part of the Site.

S-65: Non-karst closed depression on the southwestern part of the Site.

S-70: Non-karst closed depression located on the western part of the Site.

S-72: Well located near the entrance on the eastern part of the Site.

S-74: Cistern located by the house on the eastern part of the Site.

S-74: View down the cistern.

S-76: Non-karst closed depression on the southeast part of the Site.

Attachment D

Site Geologic Map
Site Soils Map

The entire mapped area shown here lies within the Edwards Aquifer Recharge Zone (EARZ).

Legend

- GA Boundary
- GA Features
- FEMA Floodplain
- Pipeline Easement

Published Geology (GDT*)

- Kgt - Georgetown Formation
- Ked - Edwards Limestone
- Fault (U - Upthrown Side / D - Downthrown Side)

*Geologic Database of Texas

N

0 200 400 800 Feet

Ked

Kgt

U D

S-1 S-2 S-3 S-4 S-5 S-6 S-7 S-8 S-9 S-10 S-11 S-12 S-13 S-14 S-15 S-16 S-17 S-18 S-19 S-20 S-21 S-22 S-23 S-24 S-25 S-26 S-27 S-28 S-29 S-30 S-31 S-32 S-33 S-34 S-35 S-36 S-37 S-38 S-39 S-40 S-41 S-42 S-43 S-44 S-45 S-46 S-47 S-48 S-49 S-50 S-51 S-52 S-53 S-54 S-55 S-56 S-57 S-58 S-59 S-60 S-61 S-62 S-63 S-64 S-65 S-66 S-67 S-68 S-69 S-70 S-71 S-72 S-73 S-74 S-75 S-76 S-77 S-78 S-79 S-80 S-81 S-82

Cobbs Spring Branch

Williamson County TX, Maxar, Microsoft

IMAGE:	ESRI WORLD IMAGERY
ISSUE DATE:	06/26/2024
DRAWN BY:	JG
CHECKED BY:	JJS
SCALE: 1" =	400'
JOB NO.:	11505-005

SHEET NO.: 01 OF 02

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
JOHN J. SACKRIDER
GEOLOGY
12604
LICENSED
PROFESSIONAL GEOLOGIST

8/7/2024

SITE GEOLOGIC MAP

CR 234 QUARRY GEOLOGIC ASSESSMENT
RESOURCE MATERIALS
JARRELL, WILLIAMSON COUNTY, TEXAS

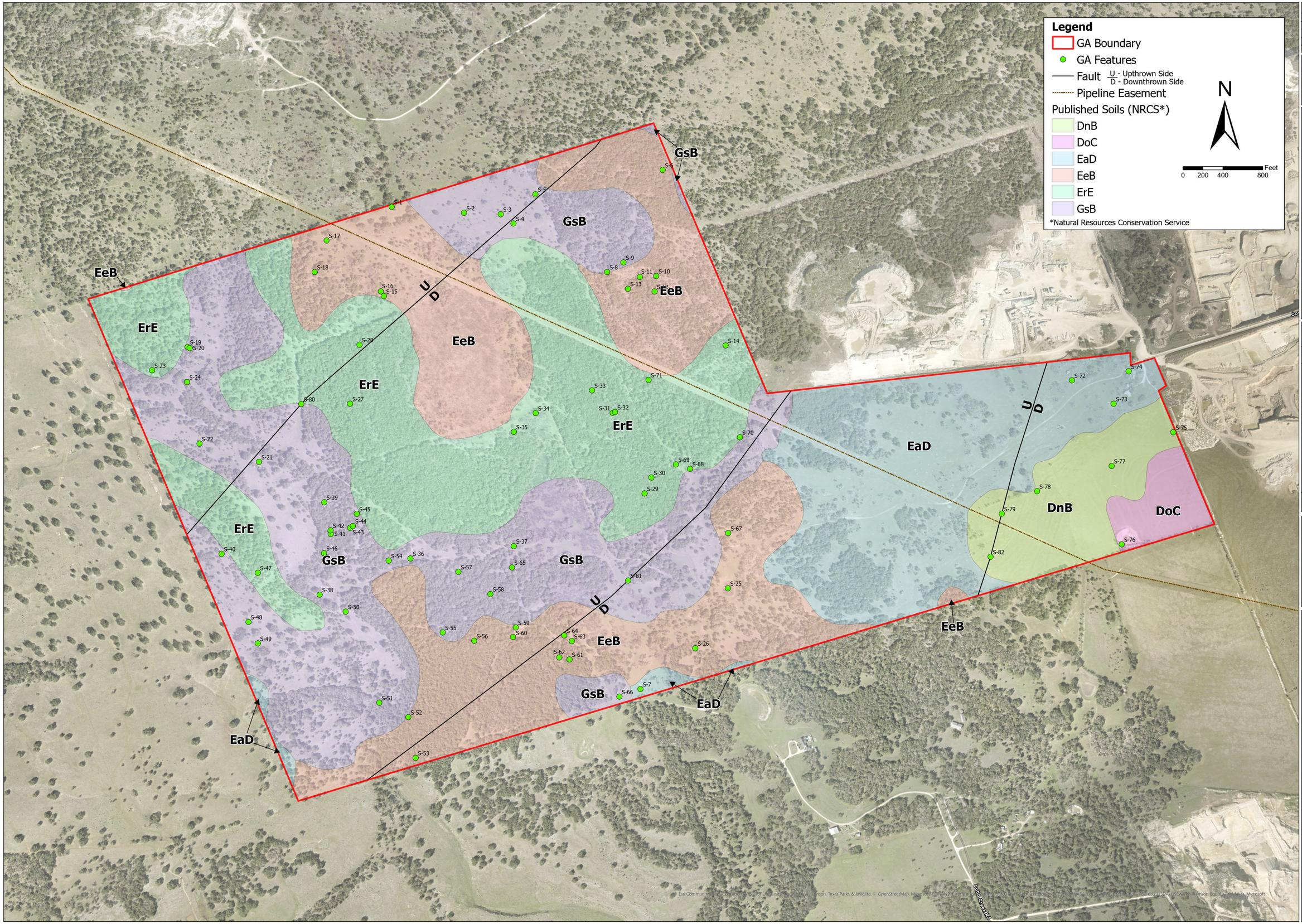


IMAGE:	ESRI WORLD IMAGERY
ISSUE DATE:	06/26/2024
DRAWN BY:	JG
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OF 02

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(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

REV	DESCRIPTION	BY	DATE

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

8/7/2024

SITE SOILS MAP

CR 234 QUARRY GEOLOGIC ASSESSMENT
RESOURCE MATERIALS
JARRELL, WILLIAMSON COUNTY, TEXAS

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.

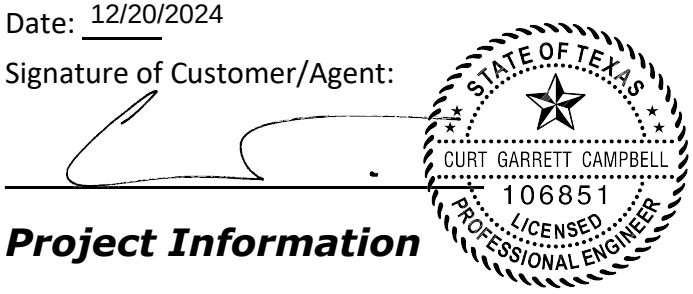
Signature

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: Curt G. Campbell, PE - TX Lic. No. 106851 | TX Firm No. 4524

Date: 12/20/2024

Signature of Customer/Agent:



Project Information

1. Current Regulated Entity Name: CR 234 Quarry
   Original Regulated Entity Name: CR 234 Quarry
   Regulated Entity Number(s) (RN): 110918000
   Edwards Aquifer Protection Program ID Number(s): 11001854
   ☐ The applicant has not changed and the Customer Number (CN) is: _____
   ☒ 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***	***Proposed Modification***
Acres	160	952.50
Type of Development	Industrial	Industrial
Number of Residential Lots	0	0
Impervious Cover (acres)	6.41	2.09
Impervious Cover (%	4%	0.22%
Permanent BMPs	Ext. Det. Basin, Grassy Swale, Earthen Berms, Vegetated Buffers	Earthen Berms and Vegetated Buffers
Other		

SCS Modification Summary	***Approved Project***	***Proposed Modification***
Linear Feet		
Pipe Diameter		
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.

Resource Materials, LLC

CR 234 Quarry

Modification to Previous Plan Attachment A

Original Approval Letter and Approved Modification Letters

Please see attached Approval Letter dated April 16, 2020 (EAPP ID 11001854).

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

April 16, 2020

Mr. Dan McBride
Texas Starmac, LLC
40206 Industrial Park Cir., Ste 101
Georgetown, Texas 78626

Re: Edwards Aquifer, Williamson County

NAME OF PROJECT: CR 234 Quarry; located 1 mile west of CR 234 and FM 487, Jarrell, Texas

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

Edwards Aquifer Protection Program ID No. 11001854; Regulated Entity No. RN110918000

Dear Mr. McBride:

The Texas Commission on Environmental Quality (TCEQ) has completed its review of the WPAP Application for the above-referenced project submitted to the Austin Regional Office by Westward Environmental, Inc. on behalf of Texas Starmac, LLC on December 17, 2019. Final review of the WPAP was completed after additional material was received on March 27, 2020 and April 10, 2020. 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 non-residential project will have an area of approximately 160 acres. It will include a limestone quarry with rock crushing facilities, a wash plant, and associated appurtenances. The impervious cover will be 6.41 acres (4 percent). Project wastewater will be disposed of via portable toilets. There will be an earthen berm constructed around the portable toilets.

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, an extended detention basin, grassy swale, and natural vegetative filter strip, designed using the TCEQ technical guidance document, Complying with the Edwards Aquifer Rules: Technical Guidance on Best Management Practices (2005), will be constructed to treat stormwater runoff. The required total suspended solids (TSS) treatment for this project is 5,582 pounds of TSS generated from the 6.41 acres of impervious cover. The approved measures meet the required 80 percent removal of the increased load in TSS caused by the project.

GEOLOGY

According to the Geologic Assessment included with the application, the site is characterized surficially by Edwards Limestone and Georgetown Formation. One sensitive feature (S-6) was identified on site. The sensitive feature will be sealed to prevent contamination by quarrying operations until it is ultimately removed by mining activities. The TCEQ Office site assessment conducted on February 27, 2020 revealed the site to be generally as described.

SPECIAL CONDITIONS

I. All permanent pollution abatement measures shall be operational prior to occupancy of the facility or use of the proposed improvements (e.g., the wash plant).

II. All sediment and/or media removed from the water quality basin during maintenance activities shall be properly disposed of according to 30 TAC 330 or 30 TAC 335, as applicable.

III. In addition to the requirements for discovered features, the on-site quarry manager will receive annual training from a licensed Professional Geoscientist on feature identification and protection. Each occurrence of this training must be documented, and documentation must be presented when requested by TCEQ representatives.

IV. The on-site Quarry Manager experienced in feature identification will conduct visual surveys of the pit to ensure adequate identification and reporting of encountered sensitive features. Visual surveys will be conducted monthly. Results of each visual survey conducted by the on-site Quarry Manager must be documented and the documentation must be presented when requested by TCEQ representatives.

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

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 Austin 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 Austin 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 Austin 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. 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 Austin 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 Austin 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 Austin 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 James "Bo" Slone, P.G. of the Edwards Aquifer Protection Program of the Austin Region office at (512) 339-2929.

Sincerely,

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

RCS/jcs

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

Change in Responsibility for Maintenance on Permanent Best Management Practices and Measures

The applicant is no longer responsible for maintaining the permanent best management practice (BMP) and other measures. The project information and the new entity responsible for maintenance is listed below.

Customer: _____

Regulated Entity Name: _____

Site Address: _____

City, Texas, Zip: _____

County: _____

Approval Letter Date: _____

BMPs for the project: _____

New Responsible Party: _____

Name of contact: _____

Mailing Address: _____

City, State: _____ Zip: _____

Telephone: _____ FAX: _____

_____ _____

Signature of New Responsible Party Date

I acknowledge and understand that I am assuming full responsibility for maintaining all permanent best management practices and measures approved by the TCEQ for the site, until another entity assumes such obligations in writing or ownership is transferred.

If you have questions on how to fill out this form or about the Edwards Aquifer protection program, please contact us at 210/490-3096 for projects located in the San Antonio Region or 512/339-2929 for projects located in the Austin Region.

Individuals are entitled to request and review their personal information that the agency gathers on its forms. They may also have any errors in their information corrected. To review such information, contact us at 512/239-3282.

Deed Recordation Affidavit
Edwards Aquifer Protection Plan

THE STATE OF TEXAS §

County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ who, being duly sworn by me, deposes and says:

(1) That my name is _____and that I own the real property described below.

(2) That said real property is subject to an EDWARDS AQUIFER PROTECTION PLAN which was required under the 30 Texas Administrative Code (TAC) Chapter 213.

(3) That the EDWARDS AQUIFER PROTECTION PLAN for said real property was approved by the Texas Commission on Environmental Quality (TCEQ) on _____.

A copy of the letter of approval from the TCEQ is attached to this affidavit as Exhibit A and is incorporated herein by reference.

(4) The said real property is located in _____ County, Texas, and the legal description of the property is as follows:

_____
LANDOWNER-AFFIANT

SWORN AND SUBSCRIBED TO before me, on this __ day of _____, ____.

_____
NOTARY PUBLIC

THE STATE OF _____ §

County of _____ §

BEFORE ME, the undersigned authority, on this day personally appeared _____ 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 __ day of _____, ____.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: _____

Resource Materials, LLC

CR 234 Quarry

Modification to Previous Plan Attachment B

Narrative of Proposed Modification

Resource Materials LLC took over operation at this site in August of 2024 and has since obtained additional acreage for further expansion of the approved quarry operation. This modification has been prepared on behalf of Resource Materials, LLC for the purpose of updating impervious cover, adding additional stormwater measures, updating the final pit floor elevation and an expansion of an additional approximate 792 acres which takes the overall project site to approximately 952 acres. The tract is currently owned by Stermaster Properties, LLC. and is being leased by Resource Materials LLC.

Resource Materials, LLC plans to continue to operate a limestone quarry, beginning at the southeast portion of their lease boundary, adjacent to an existing quarry also operated by Resource Materials, LLC. Regulated activities at the site will consist of clearing, grading, construction and operation of the rock crusher and wash plant, stockpile area, and mining limestone. An approximately 10-acre area will be cleared to start the quarry excavation with the approximate initial quarry location shown on the Interim Conditions Map. Temporary earthen berms will be built as a result of overburden removal and will retain stormwater runoff from disturbed areas. As the quarry pit expands outward to the mining limits, the earthen berms will expand with it (except in areas adjacent to like land use, as shown on the Interim & Final Conditions plan sheets) and areas will be cleared in increments of less than 10 acres at a time. Once the pit is large enough, the crushing plant and the stockpiles will also be located in the pit. Approximately 850 acres are proposed to be quarried extending toward the final earthen berm and final vegetative buffer.

The site entrance is proposed to be moved to access CR 234 through the existing adjacent quarry also operated by Resource Materials, LLC, as shown on the Interim Conditions plan sheet. An existing portable trailer, which is located in the existing/active quarry pit and will continue to be used as a scale house and office. Historically, the haul roads outside of the plant area have been considered impervious. With this modification, this area is considered part of the active pit and not considered impervious. Only the haul road outside of the pit boundary is considered impervious (see Interim Conditions map).

Permanent BMPs at the site will include the Final Earthen Berm and the Final Vegetative Buffer. Portions of the site may be reclaimed over time with overburden and non-sellable material. As previously approved, material from the wash plant will be placed back into the pit as part of the reclamation process. Water from the washing process is removed from the materials and recycled in the wash plant. Residual moisture in the material will be maintained for dust control.

A 25-foot naturally vegetated buffer will be maintained on either side of the centerline of the Cobbs Springs Branch and/or the FEMA 100-year floodplain areas until/unless appropriate permits can be obtained from FEMA to allow mining in these areas. The proposed on-grade crossing through the Cobbs Springs Branch is shown on the Final Conditions map. The proposed on-grade crossing will be installed with culverts sized to pass the 2-year, 24-hour storm.

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. Portable toilets will be used on-site and will be serviced by a licensed waste collector.

Routine vehicle maintenance will occur on a covered, compacted base pad in the existing quarry pit (see the Existing Conditions Map). Large, slow moving equipment will be fueled within the pit on a compacted base pad by a mobile refueler. The refueler will fill up from a fueling pad with AST containment located near the maintenance area (see the Existing Conditions Map). The refueler will only be on-site when fuel is needed to service mobile equipment. A pile of base material will be maintained next to the pad. Excavation equipment on-site may be used to construct berms in response to spills.

It is not expected that any significant amount of groundwater will be encountered in the quarry excavation. Westward has re-evaluated the groundwater elevation in this area. An exploration well 5811801 near the proposed quarry location in Williamson County encounters groundwater in January 2008 at an elevation of 590.74 feet above sea level. On approximately the same date the elevation in the reference well 5827305 is found from the Texas Water Development Board (TWDB) to be 672.11. The difference between the January 2008 elevation of 672.11 and the wet weather level elevation of 690 is 17.89 feet. Consequently, the estimate for the preliminary high-water level at the proposed quarry location would be 17.89 + 590.74, or 608.63 feet. The quarry floor should be located a minimum of 25 feet above that, which means that the application should indicate a minimum pit-floor elevation of 633.63 feet or approximately 634 feet.

A previously approved WPAP/geologic assessment (GA) covering 160-acre site was completed July 29-31, 2019, under the supervision of Michelle M. Lee, PG Texas License No. 6071. A second GA covering the additional 793 acres on August 7, 2024, was completed under the supervision of John J. Sackrider, PG Texas License No. 12654. One sensitive feature was discovered during the first GA, which is included with this submittal for reference. Feature S-6 is a solution cavity located near the northwest corner of the previously approved WPAP site boundary, approximately 100 feet south of the northern fence line. This feature was previously approved to be permanently sealed at such time as quarry operations approach its buffer area. Five sensitive features were discovered during the most recent GA, which is included with this submittal. As clearing progresses toward the features, naturally vegetated buffer areas will be maintained at least 50 feet in all directions and extending 200 feet upgradient of the feature. These BMPs will slow the flow of water, allowing for sedimentation. Flow may be maintained to the feature until such time as quarrying progresses near the feature, at which time it will be temporarily sealed, then removed through mining. A request to temporarily seal four of the six sensitive features is included with this WPAP application. There are 3 on-site wells – one in compliance and two are not (therefore considered sensitive). The two non-compliant wells will be properly abandoned in accordance with 16 TAC 76.

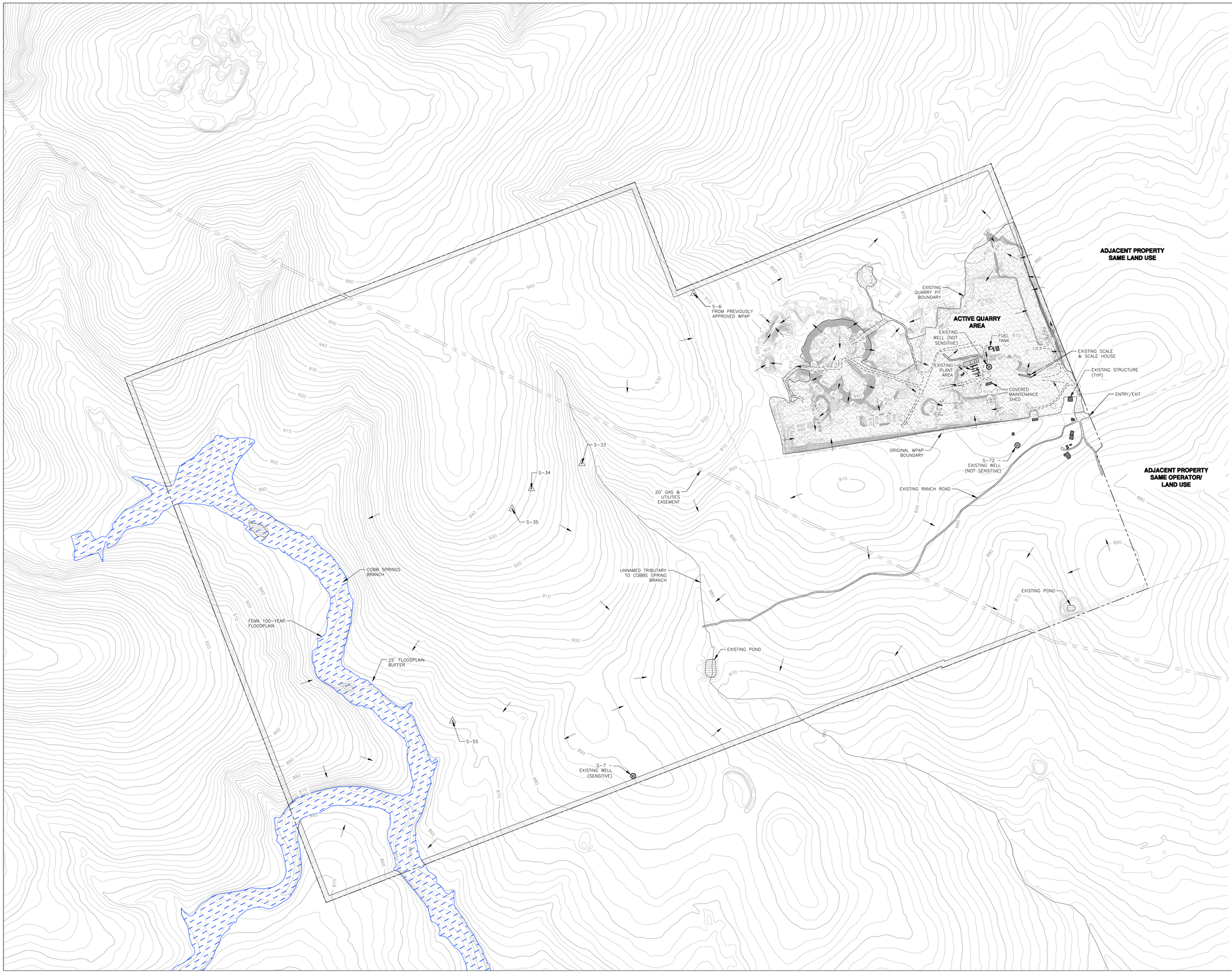
Resource Materials, LLC

CR 234 Quarry

Modification to Previous Plan Attachment C

Current Site Plan of the Approved Project

Please see attached Existing Conditions Map



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SCALE: 1" = 400'

LEGEND

- PROPERTY LINE
- 900 EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- FLOW ARROW
- SENSITIVE FEATURES (S-6, 7, 33, 34, 35, 55)
- BASE AREA
- WATER BODY AREA

IMAGE:	N/A
ISSUE DATE:	12/10/2024
DRAWN BY:	WBE/NMS
CHECKED BY:	CGC
SCALE: 1" =	400'
JOB NO.:	11505-005

SHEET NO.:

03

OF 05

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

NO.	DESCRIPTION	BY	DATE

STATE OF TEXAS
CURT GARRETT CAMPBELL
106851
LICENSED
PROFESSIONAL ENGINEER

Curt G. Campbell, P.E.
License No. 106851

12/20/2024

EXISTING CONDITIONS MAP

WPAP MOD – CR 234 QUARRY – JARRELL
RESOURCE MATERIALS, LLC
JARRELL, WILLIAMSON COUNTY, TEXAS

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.

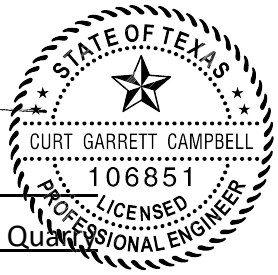
Signature

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: Curt G. Campbell, PE - TX Lic. No. 106851 | TX Firm No. 4524

Date: 12/20/2024

Signature of Customer/Agent:



Regulated Entity Name: CR 234 Quarry

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):953

3. Estimated projected population:20

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

Table 1 - Impervious Cover Table

Impervious Cover of Proposed Project	Sq. Ft.	Sq. Ft./Acre	Acres
Structures/Rooftops	16,117.20	÷ 43,560 =	0.37
Parking	0	÷ 43,560 =	0
Other paved surfaces	74,923.20	÷ 43,560 =	1.72
Total Impervious Cover	91,040.40	÷ 43,560 =	2.09

Total Impervious Cover 2.09 **÷ Total Acreage** 952.50 **X 100 =** 0.22**% 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.

For Road Projects Only

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.

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.

Wastewater to be generated by the Proposed Project

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

100% Domestic	90 Gallons/day
_____% Industrial	_____Gallons/day
_____% Commingled	_____Gallons/day
TOTAL gallons/day 90	

15. Wastewater will be disposed of by:

☐ On-Site Sewage Facility (OSSF/Septic Tank): **N/A - Facility will utilize portable toilets.**

- ☐ **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.

Site Plan Requirements

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" = 400'.

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 48491C0125F, effective on 12/20/2019

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 3 (#) 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.

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.

Resource Materials, LLC

CR 234 Quarry

WPAP Attachment A

Factors Affecting Water Quality

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

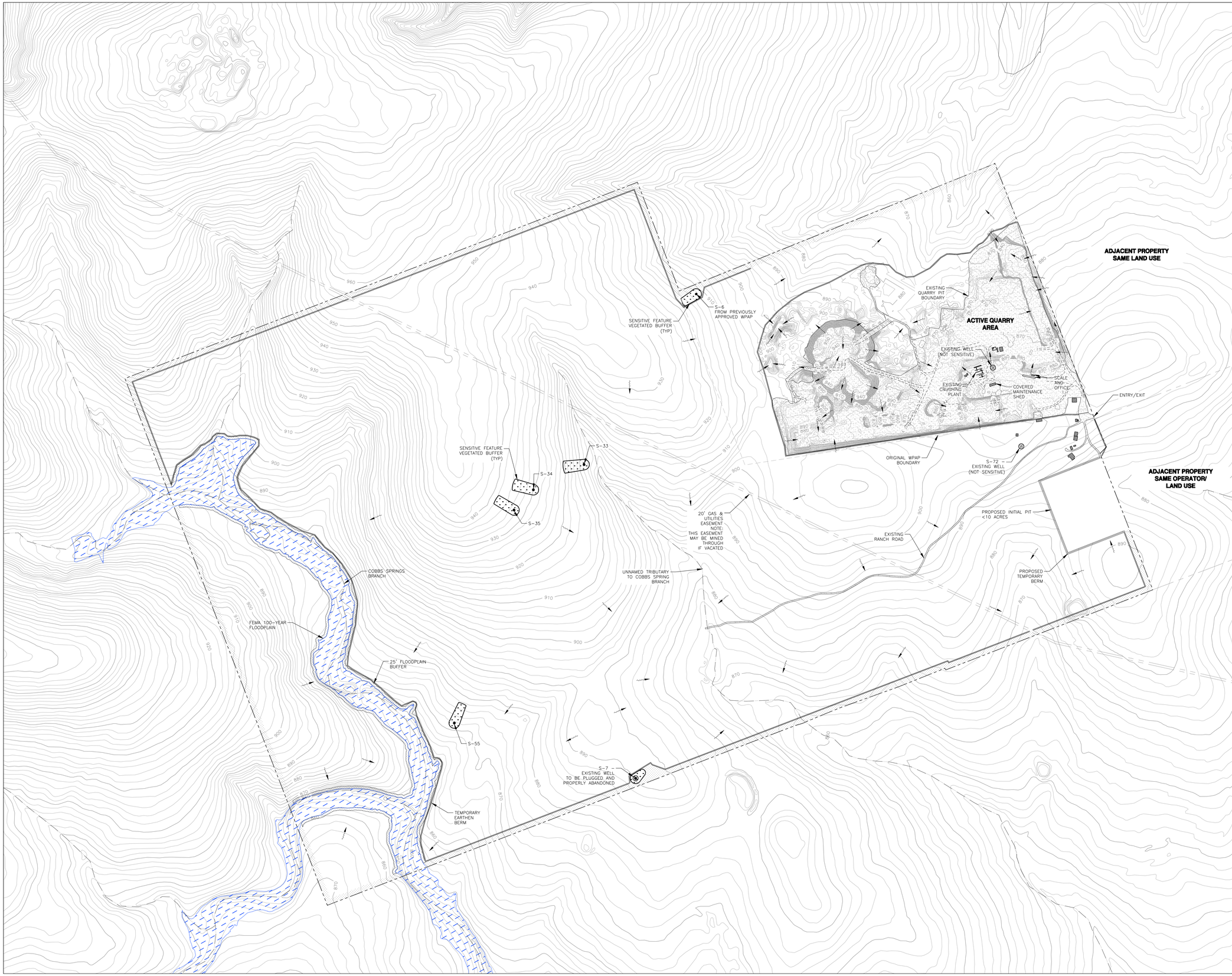
Earthen berms and vegetative buffers located downgradient of the disturbed area(s) are proposed to capture sediment and control the flow of stormwater. Upgradient berms prevent run-on to disturbed areas of the site. Any spills or leaks will be cleaned up immediately and will be disposed of properly. A trash receptacle will be placed on-site for use by employees and visitors.

WPAP Attachment B

Volume and Character of Stormwater

The area of the proposed final quarry pits, as shown on the Interim and Final Conditions Maps, is approximately 850 acres. The stormwater from this disturbed area is anticipated to carry an increased level of total suspended solids (TSS) however, stormwater from this area will be retained in the pit.

Temporary BMPs (earthen berms, silt fence, vegetative buffers, etc.) will be used to control stormwater. 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 stormwater runoff. The runoff coefficient for the impervious areas is 0.9 and the runoff coefficient for predevelopment is 0.03 per TCEQ guidance.



N

0 200 400 800

SCALE: 1" = 400'

LEGEND

- PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- LINEAR WATER BODIES
- BERM (TOP & TOE OF SLOPE)
- FLOW ARROW
- SENSITIVE FEATURES (S-6, 7, 33, 34, 35, 55)
- SENSITIVE FEATURE BUFFER
- BASE AREA
- WATER BODY AREA
- GRASS/VEGETATED BUFFER AREA

PREVIOUSLY APPROVED TO BE PERMANENTLY SEALED AND LATER REMOVED THROUGH MINING:
S-6

SENSITIVE FEATURES TO BE TEMPORARILY SEALED AND EVENTUALLY REMOVED THROUGH MINING:

S-33
S-34
S-35
S-55

SENSITIVE FEATURES TO BE PLUGGED AND PROPERLY ABANDONED:
S-7

IMAGE:	N/A
ISSUE DATE:	12/10/2024
DRAWN BY:	WBE/NMS
CHECKED BY:	CJF
SCALE: 1" =	400'
JOB NO.:	11505-005

SHEET NO.:
04
OF 05

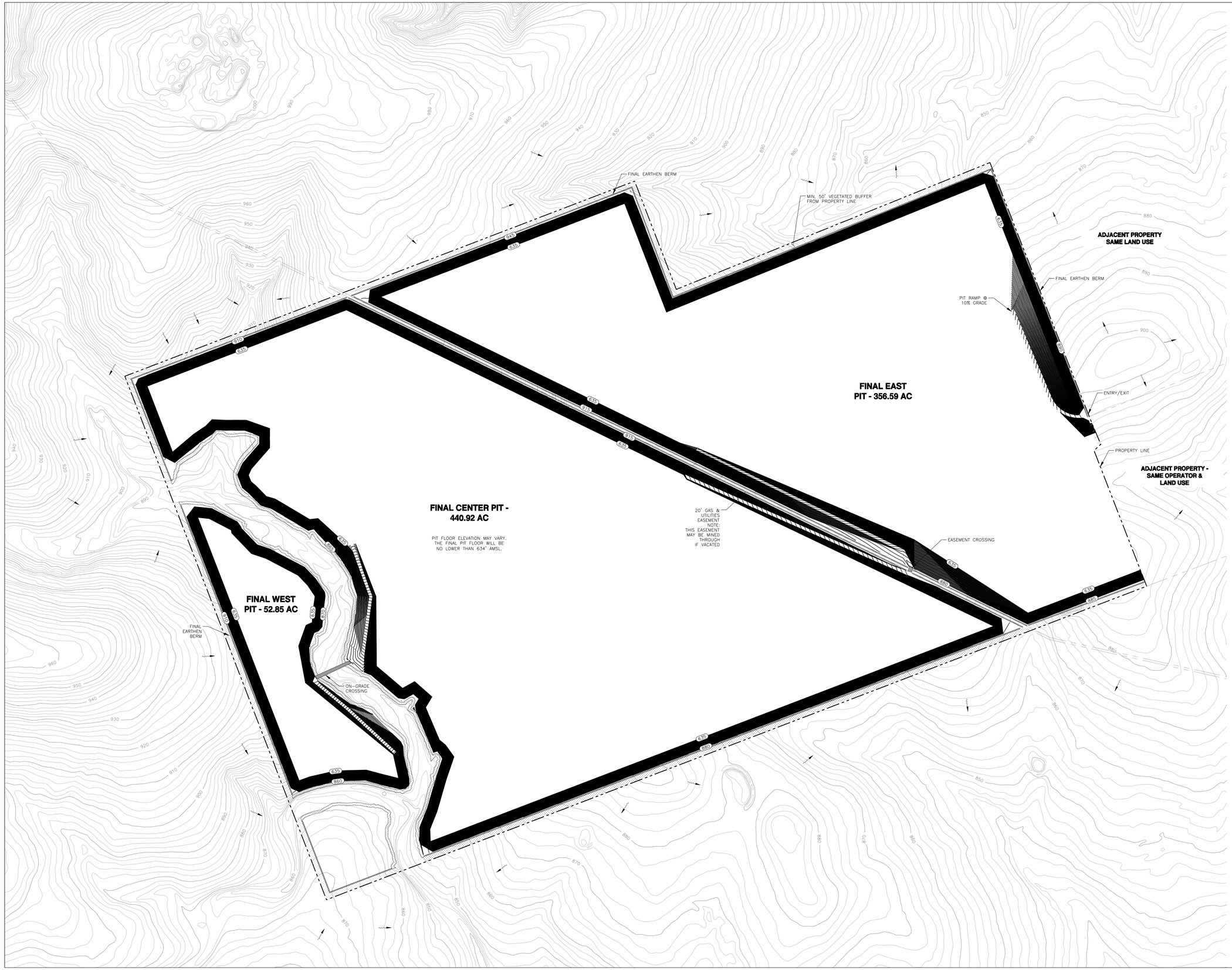
WESTWARD
Environmental, Engineering, Natural Resources.
P.O. Box 2205 Boerne, Texas 78006
(830) 249-8284 Fax: (830) 249-0221
TBPE REG. NO.: F-4524
TBPG REG. NO.: 50112

REV	DESCRIPTION	BY	DATE

STATE OF TEXAS
CURT GARRETT CAMPBELL
106851
LICENSED PROFESSIONAL ENGINEER
12/20/2024
Curt G. Campbell, P.E.
License No. 106851

INTERIM CONDITIONS MAP

WPAP MOD – CR 234 QUARRY – JARRELL
RESOURCE MATERIALS, LLC
JARRELL, WILLIAMSON COUNTY, TEXAS



N

0 200 400 800

SCALE: 1" = 400'

LEGEND

- PROPERTY LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- BERM
- FLOW ARROW
- BASE AREA
- GRASS/VEGETATED BUFFER AREA

IMAGE:	N/A
ISSUE DATE:	12/10/2024
DRAWN BY:	WBE/NMS
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REV	DESCRIPTION	BY	DATE

STATE OF TEXAS
CURT GARRETT CAMPBELL
106851
LICENSED PROFESSIONAL ENGINEER

Curt G. Campbell, P.E.
License No. 106851

12/20/2024

FINAL CONDITIONS MAP

WPAP MOD – CR 234 QUARRY – JARRELL
RESOURCE MATERIALS, LLC
JARRELL, WILLIAMSON COUNTY, TEXAS

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.

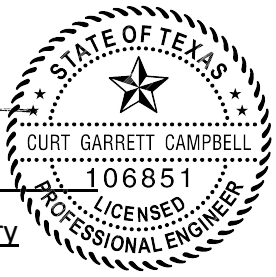
Signature

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: Curt G. Campbell, PE - TX Lic. No. 106851 | TX Firm No. 4524

Date: 12/20/2024

Signature of Customer/Agent:



Regulated Entity Name: CR 234 Quarry

Project Information

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

   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.

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: Cobbs Springs Branch & Unnamed Tributaries

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).

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.

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.

Resource Materials, LLC

CR 234 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 earthen 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, and substances listed under 40 CFR parts 110,117, and 302, and sanitary and septic wastes should be contained and cleaned up immediately.

(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 spills with soil or other materials. Do not 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 Safety Data Sheets (SDS), 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 immediately.

(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 immediately:

(1) Contain spread of the spill.

(2) Notify the project foreman immediately.

(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 110,117, 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 immediately. 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.

Resource Materials, LLC

CR 234 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 immediately. Follow company policy when responding to an emergency.

State Emergency Response Commission	(512)-424-2208
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 11	(512) 339-2929

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 immediately.

(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) Crushing plant and rock saw equipment fueling will take place on a compacted base pad. The compacted base pad will be 1 ft. thick with a 1 ft. berm on all sides. The base pad will relocate as the quarry expands. Any base material that becomes contaminated with hydrocarbons will be removed from the site and disposed of properly. Fuel will be brought to the equipment by a fueling truck filling up on an aboveground storage tank concrete containment located in the southeastern portion of the property, near the maintenance area.

All aboveground storage tanks will be covered by an Aboveground Storage Tank Edwards Plan.

Resource Materials, LLC

CR 234 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 will be used at the CR 234 Quarry and will be handled in accordance with the following guidelines:

- A licensed waste collector should service all the toilets. **The following tasks will be performed by the portable toilet supplier:**
  - Empty portable toilets before transporting them.
  - Securely fasten the toilets 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.
- Locate portable toilets at least 20 feet from the nearest storm-drain inlet or sensitive-feature buffer area
- 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 TSS from distributed areas, fuels and lubricants from vehicles and equipment, portable toilets, and trash/debris items.

Temporary Stormwater Section Attachment C

Sequence of Major Activities

The sequence of major construction activities will generally occur in the following order:

- Installation of temporary BMPs;
- Preliminary clearing of vegetation;
- Major grading and preparation of pad(s);
- Installation of impervious cover and structures; and
- Quarrying activities.
- Installation of permanent BMPs;

Operations roads will be graded and compacted. Overburden from portions of the initial 10-acre quarry area that is not located within the pre-existing quarry pit will be used for earthen berms. Temporary earthen berms will be built as a result of overburden removal and will retain stormwater runoff from disturbed areas. A wash plant and pond will be constructed in the northeastern portion of the site, inside the existing pit. As the quarry expands to the Final Earthen Berms, the temporary earthen berms will expand with it. A 50-foot Final Vegetative Buffer located outside of the Final Earthen Berms, will remain undisturbed except in areas adjacent to like land use, as shown on the plan sheets. At the end of the project, stormwater will be retained in the quarry pit.

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. A large portion of the site has been previously disturbed by operators of the pre-existing quarry pit. Earthen berms will be constructed to contain stormwater from this area of the site. These berms will direct upgradient 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 Final Earthen Berm and Final Vegetative Buffer. A vegetative buffer with a minimum width of 50 feet will be maintained outside of the Final Earthen Berm. This vegetative buffer will serve as a final treatment for stormwater runoff leaving the active portion of the site. No groundwater is expected to be encountered on-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. In addition, a vegetated buffer with a minimum width of 50 feet will be maintained outside of the Final Earthen Berm. This will serve as a Final Vegetative Buffer for stormwater runoff leaving the active portion of the site.

The entrance/exit road shall be graded so that on-site stormwater will not leave the site.

It is not expected that any significant amount of groundwater will be encountered in the quarry excavation. A 25-foot separation distance between the pit floor and the groundwater level will be maintained. Pollution of surface water, groundwater, or runoff that originates from, or flows from, the project area will be mitigated by the use of temporary earthen and rock berms and vegetative buffers.

7c) TBMPs and measures will prevent pollution of surface streams, sensitive features stormwater and the aquifer.

Earthen berms and vegetated areas will be maintained (as shown on the attached WPAP Site Map) to prevent pollutants from entering surface streams and the aquifer.

As the size of the quarry expands, the earthen berms will expand throughout the life of the project, up to the Final Earthen Berm and Final Vegetative Buffer. A vegetated buffer with a minimum width of 50 feet will be maintained outside of the Final Earthen Berm. This vegetated buffer will serve as a final treatment for stormwater runoff leaving the active portion of the site. Vegetated buffers will also be maintained for all sensitive features identified in the GAs, until such time as a feature may be either temporarily or permanently sealed. These buffers will help to maintain treated flow to sensitive features for as long as possible.

Any possible sensitive geologic features discovered during construction 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 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. To the maximum extent possible, TBMPs and measures will maintain flow to any naturally occurring sensitive features identified during construction in the manner determined by the Professional Geoscientist as described above.

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.

There are 6 total sensitive features located at this site, one feature that was included in the previously approved plan and 5 additional sensitive features. As clearing progresses toward the features, naturally vegetated buffer areas will be maintained at least 50 feet in all directions and extending 200 feet upgradient of the features. Flow will be maintained to the features until such time as quarrying progresses near the features. Feature S-6 was previously approved to be permanently sealed as mining operation approaches its location. Features S-33, S-34, S-35 and S-55 are proposed to be temporarily sealed and then removed through mining. Feature S-7 will be plugged and properly abandoned.

Resource Materials, LLC will provide feature recognition training to mining staff within 90 days of starting operations at this facility. 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 Professional Geoscientist.

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 new 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 Geoscientist 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.

Resource Materials, LLC

CR 234 Quarry

Temporary Stormwater Section Attachment E

Request to Temporarily Seal a Feature

Six naturally occurring sensitive features were identified in the GAs (S-6 (from the previously approved GA), S-7, S-33, S-34, S-35 and S-55).

A request is being made to temporarily seal S-33, S-34, S-35 and S-55. S-7 is to be plugged and properly abandoned. S-6 has been previously approved for permanent sealing.

Temporary Stormwater Section Attachment F

Structural Practices

Temporary best management practices proposed for the quarry area will include earthen berms and natural vegetative buffers. The vegetated buffers are used to limit runoff discharge of sediment. The earthen berms are used to contain and limit runoff discharge of pollutants from exposed areas of the site as well as to divert flows away from exposed (disturbed) soils.

Temporary Stormwater Section Attachment G

Drainage Area Map

N/A

Resource Materials, LLC

CR 234 Quarry

Temporary Stormwater Section Attachment I

Inspection and Maintenance for BMPs

Vegetative buffer and earthen berms the should be inspected monthly and after each rainfall event that exceeds 0.5 inches. 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. Trash should be removed, and any eroded areas of vegetated buffer should be reseeded.

Resource Materials, LLC 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.

Resource Materials, LLC

CR 234 Quarry

Temporary Stormwater Section Attachment J

Schedule of Soil Stabilization Practices

Areas Outside The Pit:

Cleared areas and interim 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 or stabilizing the berms that are frequently relocated. Minimum 50-foot wide vegetative buffers and mulch will serve to treat runoff from the earthen berms. 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 earthen berms 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.

Soil stabilization practices around the proposed ponds will begin immediately after construction is completed in those areas. Examples of soil stabilization practices include establishment of temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, and protection of trees and mature vegetation.

For the case when the quarry operations have been completed (permanently ceased) all stormwater will be retained in the pit. The Final Earthen Berms outside the pit will be stabilized with native grasses. The undisturbed vegetative buffer adjacent to the Final Earthen Berm as shown on the Final Condition Map 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 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.b.) 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.

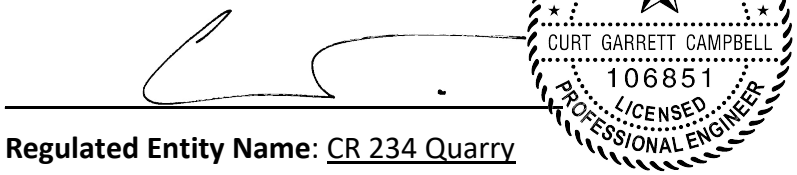
Signature

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: Curt G. Campbell, PE - TX Lic. No. 106851 | TX Firm No. 4524

Date: 1/17/2025

Signature of Customer/Agent



Regulated Entity Name: CR 234 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

Resource Materials, LLC

CR 234 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 temporary earthen berms will expand throughout the life of the project to the Final Earthen Berm shown on the WPAP Site Map.

Permanent stormwater controls are those that are to remain in place after construction has been completed. Pond A will remain in place until such a time as it is mined out, at which point stormwater will be retained onsite within the quarry pit. The vegetated Final Earthen Berm and Final Vegetative Buffer surrounds most of the site (as shown in the Final Conditions Map) will serve as the final Permanent BMPs.

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 earthen berms with vegetated buffers and the pit, which will be constructed as shown on the Final Conditions Map.

At the time construction is completed at the subject site, on-site stormwater will be retained inside the quarry pit.

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 as shown on the Final Conditions Map to prevent pollutants from entering surface streams and the aquifer. The earthen berms that surround future disturbed areas will expand to the proposed mining limits.

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, on-site stormwater will be retained inside the pit. The vegetated Final Earthen Berm and Final Vegetative Buffer will be located along the property boundary (as shown on the Final Conditions Map).

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 Permanently Seal a Feature

N/A

Permanent Stormwater Section Attachment F

Construction Plans

See Final Conditions Map.

Resource Materials, LLC

CR 234 Quarry

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. Significant 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.

Routine Maintenance

- *Inspections.* Basins and grassy swales should be inspected at least twice a year (once during or immediately following wet weather) to evaluate facility operation. Additional inspection of the grassy swale may be necessary after periods of heavy runoff. When possible, inspections should be conducted during wet weather to determine if the pond is meeting the target detention times. In particular, the extended detention control device should be regularly inspected for evidence of clogging, or conversely, for too rapid a release. If the design drawdown times are exceeded by more than 24 hours, then repairs should be scheduled immediately. The upper stage pilot channel, if any, and its flow path to the lower stage should be checked for erosion problems. During each inspection, erosion areas inside and downstream of the BMP should be identified and repaired or revegetated immediately.

- *Mowing.* The grassy swale and the upper stage, side slopes, embankment, and emergency spillway of an extended detention basin must be mowed regularly to discourage woody growth and control weeds. Grass areas in and around basins should be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscaped areas. When mowing of grass is performed, a mulching mower should be used, or grass clippings should be caught and removed. Regular mowing should also include weed control practices; however, herbicide use should be kept to a minimum (Urbonas et al., 1992). Healthy grass can be maintained without using fertilizers because runoff usually contains sufficient nutrients.

- *Debris and Litter Removal.* Debris and litter will accumulate near the extended detention control device and within the grassy swale and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can eventually clog the control device or riser. The need for this practice is determined through periodic inspection but should be performed no less than two times per year (Urbonas et al., 1992).

- *Erosion Control.* The pond side slopes, emergency spillway, and embankment all may periodically suffer from slumping and erosion, although this should not occur often if the soils are properly compacted during construction. Regrading and revegetation may be required to correct

the problems. Similarly, the channel connecting an upper stage with a lower stage may periodically need to be replaced or repaired.

- *Nuisance Control.* Standing water (not desired in an extended detention basin) or soggy conditions within the lower stage of the basin can create nuisance conditions for nearby residents. Odors, mosquitoes, weeds, and litter are all occasionally perceived to be problems. Most of these problems are generally a sign that regular inspections and maintenance are not being performed (e.g., mowing, debris removal, clearing the outlet control device).

Non-routine maintenance

- *Grass Reseeding and Mulching*. A healthy dense grass should be maintained in the channel and side slopes. Grass damaged during the sediment removal process should be promptly replaced using the same seed mix used during swale establishment. If possible, flow should be diverted from the damaged areas until the grass is firmly established.

- *Structural Repairs and Replacement.* With each inspection, any damage to the structural elements of the system (pipes, concrete drainage structures, retaining walls, etc.) should be identified and repaired immediately. These repairs should include patching of cracked concrete, sealing of voids, and removal of vegetation from cracks and joints. The various inlet/outlet and riser works in a basin will eventually deteriorate and must be replaced. Public works experts have estimated that corrugated metal pipe (CMP) has a useful life of about 25 yr, whereas reinforced concrete barrels and risers may last from 50 to 75 yr.

- *Sediment Removal.* When properly designed, dry extended detention basins will accumulate quantities of sediment over time. Sediment accumulation is a serious maintenance concern in extended detention dry ponds for several reasons. First, the sediment gradually reduces available stormwater management storage capacity within the basin. Second, unlike wet extended detention basins (which have a permanent pool to conceal deposited sediments), sediment accumulation can make dry extended detention basins very unsightly. Third, and perhaps most importantly, sediment tends to accumulate around the control device. Sediment deposition increases the risk that the orifice will become clogged, and gradually reduces storage capacity reserved for pollutant removal. Sediment can also be resuspended if allowed to accumulate over time and escape through the hydraulic control to downstream channels and streams. For these reasons, accumulated sediment needs to be removed from the lower stage when sediment buildup fills 20% of the volume of the basin or at least every 10 years.

Resource Materials, LLC

CR 234 Quarry

Inspection, Maintenance, Repair and Retrofit Plan

I, Dan McBride, have read and understand the Inspection, Maintenance, Repair and Retrofit (IMRR) Plan contained in this Water Pollution Abatement Plan (WPAP).

I understand the specific Permanent Best Management Practices (PBMPs) and associated inspection and maintenance schedule which are outlined in this IMRR Plan. Resource Materials, LLC 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: Dan McBride
Resource Materials, LLC

Signature _____ Date: 12/23/24

Name and signature of Engineer

Print Name: Curt Garrett Campbell, PE
Westward Environmental, Inc.

Signature _____ Date: 12/20/2024

STATE OF TEXAS
CURT GARRETT CAMPBELL
106851
LICENSED
PROFESSIONAL ENGINEER

Resource Materials, LLC

CR 234 Quarry

Permanent Stormwater Section Attachment I

Measures for Minimizing Surface Stream Contamination

To avoid surface stream contamination from the wash plant, parking and maintenance areas, flows will be directed into the quarry pit. Permanent berms will be used to divert upgradient flows around the project area and to direct runoff from the project drainage area to the pit. Because little runoff is expected from the project area, stream flashing, stronger flows, and in-stream velocities are not expected to occur as a result of this project.

In addition, a vegetated buffer with a minimum width of 50 feet will be maintained outside of the Final Earthen Berm, and downgradient of the operations road as shown on the map. This vegetated buffer will serve as a final treatment for stormwater runoff leaving the active portion of the site.

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I Dan McBride,
Print Name

Vice-President,
Title - Owner/President/Other

of Resource Materials, LLC,
Corporation/Partnership/Entity Name

have authorized Curt G. Campbell, PE, Gary D. Nicholls, PE, Vance Houy, PE, Andrea Kidd, PE & Chelsy L. Houy, PE
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

10/30/24
Date

THE STATE OF Texas §

County of Williamson §

BEFORE ME, the undersigned authority, on this day personally appeared Dan McBride 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 30th day of October, 2024

NOTARY PUBLIC

Thomas Brouillette
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: Dec. 15, 2027

THOMAS BROUILLETTE
Notary ID #134683109
My Commission Expires
December 15, 2027

Agent Authorization Form
For Required Signature
Edwards Aquifer Protection Program
Relating to 30 TAC Chapter 213
Effective June 1, 1999

I Kevin Collier,
Print Name

VP/Co-Owner,
Title - Owner/President/Other

of Resource Materials, LLC,
Corporation/Partnership/Entity Name

have authorized Curt G. Campbell, PE, Gary D. Nicholls, PE, Vance Houy, PE, Andrea Kidd, PE & Chelsy L. Houy, PE
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.

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SIGNATURE PAGE:

Applicant's Signature

10/30/24
Date

THE STATE OF Texas §
County of Burnet §

BEFORE ME, the undersigned authority, on this day personally appeared Kevin Collier 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 30 day of Oct 2024.

NOTARY PUBLIC

KATHY STEFFEK
Notary Public, State of Texas
Comm. Expires 03-08-2027
Notary ID 1219224-5

Kathy Steffek
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 3-8-27

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, Dan McBride of Stermaster Properties, LLC

Land Owner Signatory Name — Land Owner Name (Legal Entity or Individual)

am the owner of the properties located at:
AW0397 LEE, T.S. SUR., ACRES 232.87; AW0293 AW0293 - Hopkins, L. Sur., ACRES 154.596; AW0397 LEE, T.S. SUR., ACRES 80.0; AW0397 LEE, T.S. SUR., ACRES 289.26; AW0397 LEE, T.S. SUR., ACRES 35.47; AW0293 AW0293 - Hopkins, L. Sur., ACRES 150; & AW0293 AW0293 - Hopkins, L. Sur., ACRES 2.574; AW0293 HOPKINS, L. SUR., ACRES 10.00, (QUARRY)

Legal description of the properties 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 Resource Materials, LLC
Applicant Name (Legal Entity or Individual)

to conduct Mining, Aggregate Processing Activities, and Hydrocarbon Storage
Description of the proposed regulated activities

at 30.802216°, -97.692154°
Precise location of the authorized regulated activities

Land Owner Acknowledgement

I understand that Stermater Properties, 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

10/30/24
Date

THE STATE OF § Texas

County of § Williamson

BEFORE ME, the undersigned authority, on this day personally appeared Dan McBride 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 30th day of October 2024

Thomas Brouillette
NOTARY PUBLIC

Thomas Brouillette
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 12/15/27

THOMAS BROUILLETTE
Notary ID #134683109
My Commission Expires
December 15, 2027

Attached: (Mark all that apply)

- ☐ Lease Agreement
- ☐ Signed Contract
- ☐ Deed Recorded Easement
- ☐ Other legally binding document

Applicant Acknowledgement

I, Dan McBride of Resource Materials, LLC

Applicant Signatory Name — Applicant Name (Legal Entity or Individual)

acknowledge that Stermaster Properties, LLC
Land Owner Name (Legal Entity or Individual)

has provided Resource Materials, LLC
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 Resource Materials, LLC
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 — Date: 10/30/24

THE STATE OF § Texas

County of § Williamson

BEFORE ME, the undersigned authority, on this day personally appeared Dan McBride 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 30th day of October 2024

Thomas Brouillette
NOTARY PUBLIC

Thomas Brouillette
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 12/15/27

THOMAS BROUILLETTE
Notary ID #134683109
My Commission Expires
December 15, 2027

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: CR 234 Quarry
Regulated Entity Location: 5875 COUNTY ROAD 234, JARRELL TX 76537
Name of Customer: Resource Materials, LLC
Contact Person: Dan McBride Phone: 512-688-5604
Customer Reference Number (if issued):CN 605688225
Regulated Entity Reference Number (if issued):RN 110918000
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	~945 Acres	$ 10,000
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	Acres	$
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: 10/30/24

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 Use Only

TCEQ Core Data Form

For detailed instructions on completing 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 **WPAP Mod**

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 605688225		RN 110918000

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy): 5/1/2024

☐ 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:

Resource Materials, LLC	Texas Starmac, LLC

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
0803323306	32070789634	84-1857805	

11. Type of Customer: ☒ Corporation ☐ Individual Partnership: ☐ General ☐ Limited

Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees

☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?

☐ 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 ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address:	40206 INDUSTRIAL PARK CIR							
	#101							
	City	Georgetown	State	TX	ZIP	78626	ZIP + 4	4761

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	dmcbride70@gmail.com

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*

(512) 688-5604		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ 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 Core 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.)*

CR 234 Quarry

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	5875 CR 234							
	City	Jarrell	**State**	TX	**ZIP**	76537	**ZIP + 4**	1424
24. County	Williamson							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	30.800747°		**28. Longitude (W) In Decimal:**	-97.688758°	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

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 materials

34. Mailing Address:	**40206 INDUSTRIAL PARK CIR**							
	#101							
	City	**Georgetown**	**State**	**TX**	**ZIP**	**78626**	**ZIP + 4**	
35. E-Mail Address:	**dmcbride70@gmail.com**							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(512) 688-5604		( ) -

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
		11001854		
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☐ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Natalie Sales	41. Title:	Staff Engineer

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(830) 249-8284		( ) -	nsales@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:	Resource Materials, LLC	Job Title:	Managing Member
Name *(In Print)*:	Dan McBride	Phone:	(512) 784- 8426
Signature:		Date:	10/30/24