ENSAFE
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February 5, 2024

Ms. Monica Reyes
Team Leader
Edwards Aquifer Protection Program
Texas Commission on Environmental Quality – Region 13
14250 Judson Road
San Antonio, Texas 78233-4480

Re: Water Pollution Abatement Plan
350 APG Lane
New Braunfels, Texas

Customer No. CN 603403973; Regulated Entity No. RN 100552454.

Ms. Reyes:

Please find attached the Water Pollution Abatement Plan (WPAP) for CEMEX's operations on property leased from Lhoist. The plan is being submitted as discussed in our call with you and Ms. Lori Wilson, Texas Commission on Environmental Quality (TCEQ), on January 22, 2024.

The customer for the WPAP is CEMEX Construction Materials South, LLC, which has quarry and related operations on 340 acres leased from Lhoist, which is the property owner. The leased area was previously leased to Martin Marietta and operated under WPAP (EAPP 13-01051601).

We have the following understandings regarding submittal of the WPAP:

1. A new WPAP is appropriate given the lack of clarity regarding past Martin Marietta operations, the different footprint of the CEMEX operations, and Martin Marietta not operating on the property in at least five years.
2. The presence of an elevated bathroom facility with a steel aboveground holding tank situated on concrete within the building and no connections to other buildings is acceptable.
3. Reclamation of the former portion of the quarry referred to as Level 6 with clay and silt limestone particles transferred from the CEMEX centrifugal separation system located off-site. The reclamation area is not considered to be a pond, and no water will be recycled or reused, therefore this was accepted in our call as appropriate.
4. An owner authorization form is included with the WPAP submittal documenting Lhoist approval of the WPAP.

We look forward to working with the Edwards Aquifer Protection Program on this WPAP application. Feel free to contact us with any questions or comments.

Sincerely,

EnSafe Inc.

By: Richard Record, PG
Sr. Project Director

Attachments: A – Core Data Form
B – Agent Authorization Form
C – Application Fee Form
D – Owner Authorization Form
E - WPAP Application

Attachment A
Core Data Form

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

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 603403973		RN 100552454

SECTION II: Customer Information

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

☐ 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:*

CEMEX Construction Materials South, 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)*

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:	2682 Wald Road						
	City	New Braunfels	State	TX	ZIP	78132	ZIP + 4	4983

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	daniel.escobard@cemex.com

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

(832) 247-9836		( ) -

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.)*

23. Street Address of the Regulated Entity: *(No PO Boxes)*							
City		**State**		**ZIP**		**ZIP + 4**	
24. County							

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:			**28. Longitude (W) In Decimal:**		
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)

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

34. Mailing Address:							
City		**State**		**ZIP**		**ZIP + 4**	
35. E-Mail Address:							

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

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
☐ 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:	Richard Record	41. Title:	Sr Project Director

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(972) 841-1714		( ) -	rrecord@ensafe.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:	CEMEX Construction Materials South, LLC	Job Title:	Director of Aggergates
Name *(In Print)*:	Lance Griffin	Phone:	(830) 708- 8614
Signature:		Date:	1/26/24

Attachment B
Agent Authorization Form

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

I Lance Griffin,
Print Name

Director of Aggregate Operations,
Title - Owner/President/Other

of CEMEX Construction Materials South, LLC,
Corporation/Partnership/Entity Name

have authorized Hadi Elmi, P.E., R.E.M.
Print Name of Agent/Engineer

of ESDM, 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

1/26/24
Date

THE STATE OF TEXAS §

County of COMAL §

BEFORE ME, the undersigned authority, on this day personally appeared LANCE GRIFFIN 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 26 day of JANUARY, 2024.

Tina Reynolds
NOTARY PUBLIC

TINA L REYNOLDS
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 01/28/2027

NOTARY PUBLIC STATE OF TEXAS
TINA L REYNOLDS
MY COMMISSION EXPIRES
01/28/2027
NOTARY ID: 128505232

Attachment C
Application Fee Form

Application Fee Form

Texas Commission on Environmental Quality
Name of Proposed Regulated Entity: New Braunfels Lime Plant
Regulated Entity Location: 350 APG Road New Braunfels, Texas 78132
Name of Customer: CEMEX Construction Materials South, LLC
Contact Person: Daniel Escobar Phone: 832-247-9836
Customer Reference Number (if issued):CN 603403973
Regulated Entity Reference Number (if issued):RN 100552454
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 Paid by TCEQ epay per EAPP Directions
☐ Mailed to: TCEQ - Cashier
Revenues Section
Mail Code 214
P.O. Box 13088
Austin, TX 78711-3088

☐ San Antonio Regional Office
☐ Overnight Delivery to: TCEQ - Cashier
12100 Park 35 Circle
Building A, 3rd Floor
Austin, TX 78753
(512)239-0357

Site Location (Check All That Apply):

☒ Recharge Zone ☐ Contributing Zone ☒ Transition Zone

Type of Plan	*Size*	*Fee Due*
Water Pollution Abatement Plan, Contributing Zone Plan: One Single Family Residential Dwelling	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Multiple Single Family Residential and Parks	Acres	$
Water Pollution Abatement Plan, Contributing Zone Plan: Non-residential	340 Acres	$ 10,000
Sewage Collection System	L.F.	$
Lift Stations without sewer lines	Acres	$
Underground or Aboveground Storage Tank Facility	Tanks	$
Piping System(s)(only)	Each	$
Exception	Each	$
Extension of Time	Each	$

Signature:

Date: 01/19/2024

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

Attachment D
Owner Authorization Form

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, Aaron Jones of Lhoist North America of Texas, LLC (successor in interest to Chemical Lime NB LTD)
Land Owner Signatory Name — Land Owner Name (Legal Entity or Individual)
am the ~~owner~~ Plant Manager of the property located at
350 APG Lane, New Braunfels, TX. 78132
Legal description of the property referenced in the application

and am duly authorized in accordance with §213.4(c)(2) and §213.4(d)(1) or §213.23(c)(2) and §213.23(d) relating to the right to submit an application, signatory authority, and proof of authorized signatory.

I do hereby authorize Cemex Construction Materials South, LLC
Applicant Name (Legal Entity or Individual)

to conduct Water Pollution Abatement Plan (WPAP)
Description of the proposed regulated activities

at North of intersection of Wald Road and APG Lane.
Precise location of the authorized regulated activities

Land Owner Acknowledgement

I understand that Lhoist North America of Texas, LLC (successor in interest to Chemical Lime NB LTD)
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

2-27-2024
Date

THE STATE OF § Texas

County of § Comal

BEFORE ME, the undersigned authority, on this day personally appeared Aaron Jones 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 27 day of February

NOTARY PUBLIC

PAMELA PEREZ
Notary Public, State of Texas
Comm. Expires 05-18-2027
Notary ID 134366149

Pamela Perez
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 5/18/27

Attached: (Mark all that apply)

- [x] Lease Agreement
- [ ] Signed Contract
- [ ] Deed Recorded Easement
- [ ] Other legally binding document

Applicant Acknowledgement

I, Lance Griffin of CEMEX Construction Materials South, LLC
Applicant Signatory Name — Applicant Name (Legal Entity or Individual)

acknowledge that Lhoist North America of Texas, LLC (successor in interest to chemical lime NB LTD)
Land Owner Name (Legal Entity or Individual)

has provided CEMEX Construction Materials South, 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 CEMEX Construction Materials South, 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: 2/26/24

THE STATE OF § TEXAS

County of § COMAL

BEFORE ME, the undersigned authority, on this day personally appeared LANCE GRIFFIN 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 27th day of FEBRUARY 2024

Tina Reynolds
NOTARY PUBLIC

TINA L REYNOLDS
MY COMMISSION EXPIRES
01/28/2027
NOTARY ID: 128505232

TINA L REYNOLDS
Typed or Printed Name of Notary

MY COMMISSION EXPIRES: 01/28/2027

Attachment E
WPAP Application

Water Pollution Abatement Plan

350 APG LANE
NEW BRAUNFELS, TEXAS 78132

EnSafe Project Number
0888835692

Prepared for:

CEMEX
16100 Dillard Drive
Jersey Village, Texas 77040

Report Issue Date: January 29, 2024

Water Pollution Abatement Plan

350 APG LANE
NEW BRAUNFELS, TEXAS 78132

EnSafe Project Number
0888835692

Prepared for:

CEMEX
16100 Dillard Drive
Jersey Village, Texas 77040

Report Issue Date: January 29, 2024

Richard S. Record, PG
Senior Project Director
PG License No. 3358

Signature

STATE OF TEXAS
RICHARD RECORD
Geology
3358
LICENSED
PROFESSIONAL GEOSCIENTIST

Hadi Elmi, P.E. R.E.M.
President, ESDM, Inc
P.E. License No. 48950

Signature

STATE OF TEXAS
HADI ELMI
48950
LICENSED
PROFESSIONAL ENGINEER

ENSAFE

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: New Braunfels Lime Plant						**2. Regulated Entity No.: 100552454**			
3. Customer Name: CEMEX Construction Materials South, LLC						**4. Customer No.: 603403973**			
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):**	340
9. Application Fee:	$10,000		**10. Permanent BMP(s):**					Maintain existing berms around quarry	
11. SCS (Linear Ft.):	NA		**12. AST/UST (No. Tanks):**					N/A	
13. County:	Comal		**14. Watershed:**					Guadalupe	

Application Distribution

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

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

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

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

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

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.**

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

1. Regulated Entity Name: New Braunfels Lime Plant						**2. Regulated Entity No.: 100552454**			
3. Customer Name: CEMEX Construction Materials South, LLC						**4. Customer No.: 603403973**			
5. Project Type: (Please circle/check one)	New		Modification			Extension		Exception	
6. Plan Type: (Please circle/check	WPAP	CZP	SCS	UST	AST	EXP	EXT	Technical Clarification	Optional Enhanced Measures
7. Land Use: (Please circle/check	Residential		Non-residential			**8. Site (acres):**		340	
9. Application Fee:	$10,000		**10. Permanent BMP(s):**			Maintain existing berms around quarry			
11. SCS (Linear Ft.):	NA		**12. AST/UST (No. Tanks):**			N/A			
13. County:	Comal		**14. Watershed:**			Guadalupe			

Application Distribution

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

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

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

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

San Antonio Region					
County:	**Bexar**	**Comal**	**Kinney**	**Medina**	**Uvalde**
Original (1 req.)	___	X	___	___	___
Region (1 req.)	___	X	___	___	___
County(ies)	___	X	___	___	___
Groundwater Conservation District(s)	___ Edwards Aquifer Authority ___Trinity-Glen Rose	X Edwards Aquifer Authority	___Kinney	___EAA ___Medina	___EAA ___Uvalde
City(ies) Jurisdiction	___Castle Hills ___Fair Oaks Ranch ___Helotes ___Hill Country Village ___Hollywood Park ___San Antonio (SAWS) ___Shavano Park	___Bulverde ___Fair Oaks Ranch ___Garden Ridge X New Braunfels ___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.
Lance Griffin Print Name of Customer/Authorized Agent
Signature of Customer/Authorized Agent — Date: 2/2/24

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.

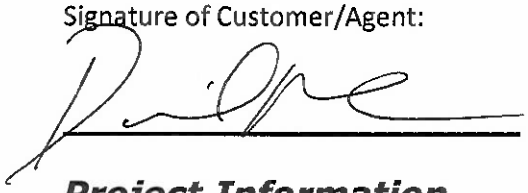
Signature

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: Daniel Escobar, CEMEX

Date: 02-01-24

Signature of Customer/Agent:



Project Information

1. Regulated Entity Name: New Braunfels Lime Plant
2. County: Comal
3. Stream Basin: Guadalupe
4. Groundwater Conservation District (If applicable): Edwards Aquifer Authority
5. Edwards Aquifer Zone:
   - ☒ Recharge Zone
   - ☒ Transition Zone
6. Plan Type:
   - ☒ WPAP
   - ☐ SCS
   - ☐ Modification
   - ☐ AST
   - ☐ UST
   - ☐ Exception Request

7. Customer (Applicant):
   Contact Person: Daniel Escobar
   Entity: CEMEX Construction Materials South, LLC
   Mailing Address: 2682 Wald Road
   City, State: New Braunfels, TX Zip: 78132-4983
   Telephone: 832-247-9836 FAX: _____
   Email Address: daniel.escobard@cemex.com

8. Agent/Representative (If any):
   Contact Person: Lance Griffin
   Entity: CEMEX, Inc.
   Mailing Address: 2682 Wald Road
   City, State: New Braunfels, Texas Zip: 78132-4983
   Telephone: 830-608-3556 FAX: _____
   Email Address: Lancew.Griffin@cemex.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 New Braunfels.
   ☐ The project site is not located within any city's limits or ETJ.

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

    North of intersection of Wald Road and APG Lane

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: All visitors must be escorted by CEMEX personnel who will clarify the boundaries

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) Payment was made on-line per directions.

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.

CEMEX Lhoist Quarry & Aggregate Rail Distribution Yard

Attachment C
Project Description

EnSafe, Inc. (EnSafe) and ESDM, Inc. were retained by Cemex Construction Materials South, LLC (CEMEX) to prepare this Water Pollution Abatement Plan (WPAP) for the portion of the Lhoist North America of Texas, LLC (Lhoist) property being leased by CEMEX. This property is comprised of approximately three hundred and forty (340) acres on the north and northeast side of Lhoist's lime plant operation. This area is under EAPP ID 12-01051601 and formerly was the location of Martin Marietta operations.

The property covered by this WPAP is an existing limestone quarry with ongoing quarry operations across the majority of the WPAP area, with rail spurs for loading of aggregate on the south portion as described below:

Quarry Area
Mining through blasting is completed in areas of less than 10 acres at a time located on the Western portion of the WPAP. Material that is mined is transported by truck back to the CEMEX own property and processed through the CEMEX Primary Crusher. Once primary crushing is completed, the material is conveyed back to the CEMEX-Lhoist WPAP and processed at the Lhoist Secondary Crusher. Once secondary crushing is complete the material is transported via trucks to the Lhoist WPAP. A minimum of 25-feet separation distance is maintained between the pit floor and the water table for the Edwards Aquifer.

On the eastern portion of the WPAP area is a former quarry pit identified as Level 6 that will be reclaimed through placement of clay and silt-sized particles remaining after completion of the rock crushing process, with construction later in this area. These fine-grained materials come from the primary CEMEX crusher to the southwest of the WPAP area after a state-of-the-art centrifugal separation system that removes all but clay and silt-sized limestone particles. The clay and silt-sized material will be transported via surface piping with remaining water to Level 6 for reclamation of the former quarry at that location. The floor of the Level 6 pit is 100 feet above the Edwards Aquifer as documented through a boring completed in July 2023 with no sensitive features present (see Geologic Assessment).

There are no impervious areas or buildings on site with the exception of limited areas of concrete under the conveyor and secondary rock crushing system and small associated buildings. There is no fuel storage or maintenance in the WPAP area. Fueling of equipment is completed utilizing a mobile fuel truck. There is a restroom facility on an elevated portion of an operations building at the secondary rock crusher that has a surface level tank underneath it to receive the sanitary waste (see photograph in the Geologic Assessment). The metal tank is inside the building and situated on a concrete pad. The tank is periodically emptied by a

licensed contractor for off-site disposal. There are no subsurface lines or tanks associated with the restroom.

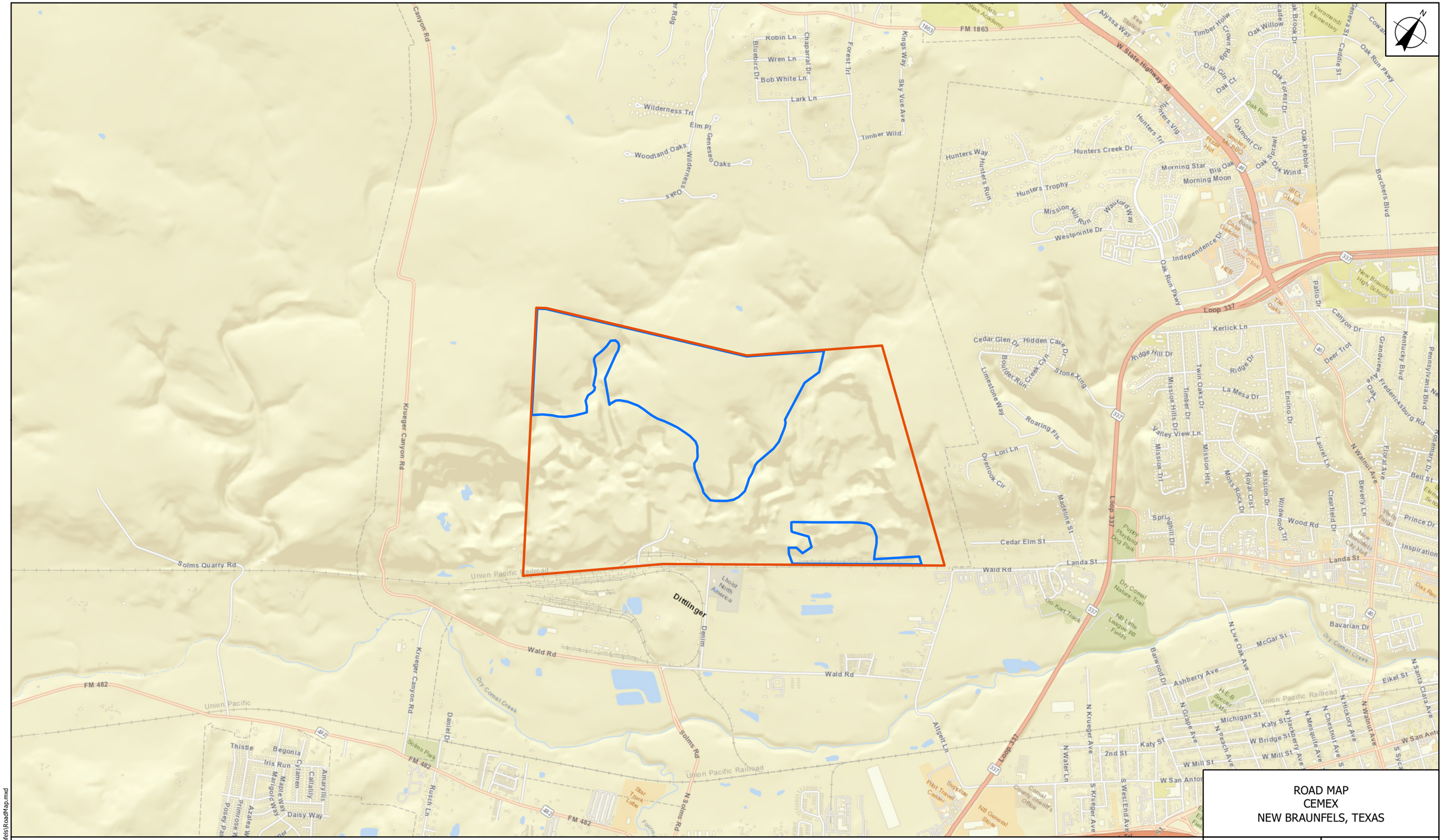
Stormwater does not exit the WPAP area due to lower elevations in the quarry than the surrounding area. Similarly, stormwater does not flow from the WPAP area to the Lhoist area to the south or the CEMEX-owned property to the north and west due to a combination of lower elevations after mining and berms placed within and along the boundaries of the quarry to prevent stormwater flow onto or from the quarry. High wall boundaries on the east side have safety berms to prevent access to the quarry which also prevent stormwater flow into the quarry. These berms will be maintained and moved as needed during the life of the quarry as Temporary Stormwater Best Management Practices (TBMPs).

Rail Spur Area

The southeast portion of the WPAP area consists of rail spurs where aggregate material from the quarry is loaded for transport. This area is separated from BraunTex operations immediately to the north by a berm to prevent stormwater flow onto the CEMEX leased rail spur area and a berm is also present south of the rail spurs to prevent stormwater flow off the property to the south. Stormwater in the rail spur area flows to an oversized stormwater retention pond on the east end of the leased area that prevents most storm events from creating stormwater outflow off-site (SW Permit #TXR05EC91).

Geologic Assessment

A geologic assessment was completed November 30, 2023, and is attached to the WPAP application. There are no areas of the quarry that have not been mined previously or, in the case of the rail lines on the south, have not been previously developed. The quarry and rail area are covered in fine-grained materials that obscure the rock surface and provide protection against infiltration of water into the underlying Edwards limestone. Limited areas of exposed limestone show some cracks present but no evidence of solution channels or dissolution that would allow rapid infiltration of water. Man-made depressions created by mining were evaluated during a rain event during the assessment with all of the depressions also being covered with fines and no indications features being present that would allow infiltration of water.



X:\Cemex\New_Braunfels\RoadMap.mxd

LEGEND

- NEW CEMEX WPAP BOUNDARY
- LHOIST PROPERTY BOUNDARY

NAD 1983 STATE PLANE
TEXAS SOUTH CENTRAL FEET

0 1,000 2,000

SCALE IN FEET

ROAD MAP
CEMEX
NEW BRAUNFELS, TEXAS

REQUESTED BY:	RR
DRAWN BY:	RC
DATE:	1/18/2024
PROJECT:	0888835692

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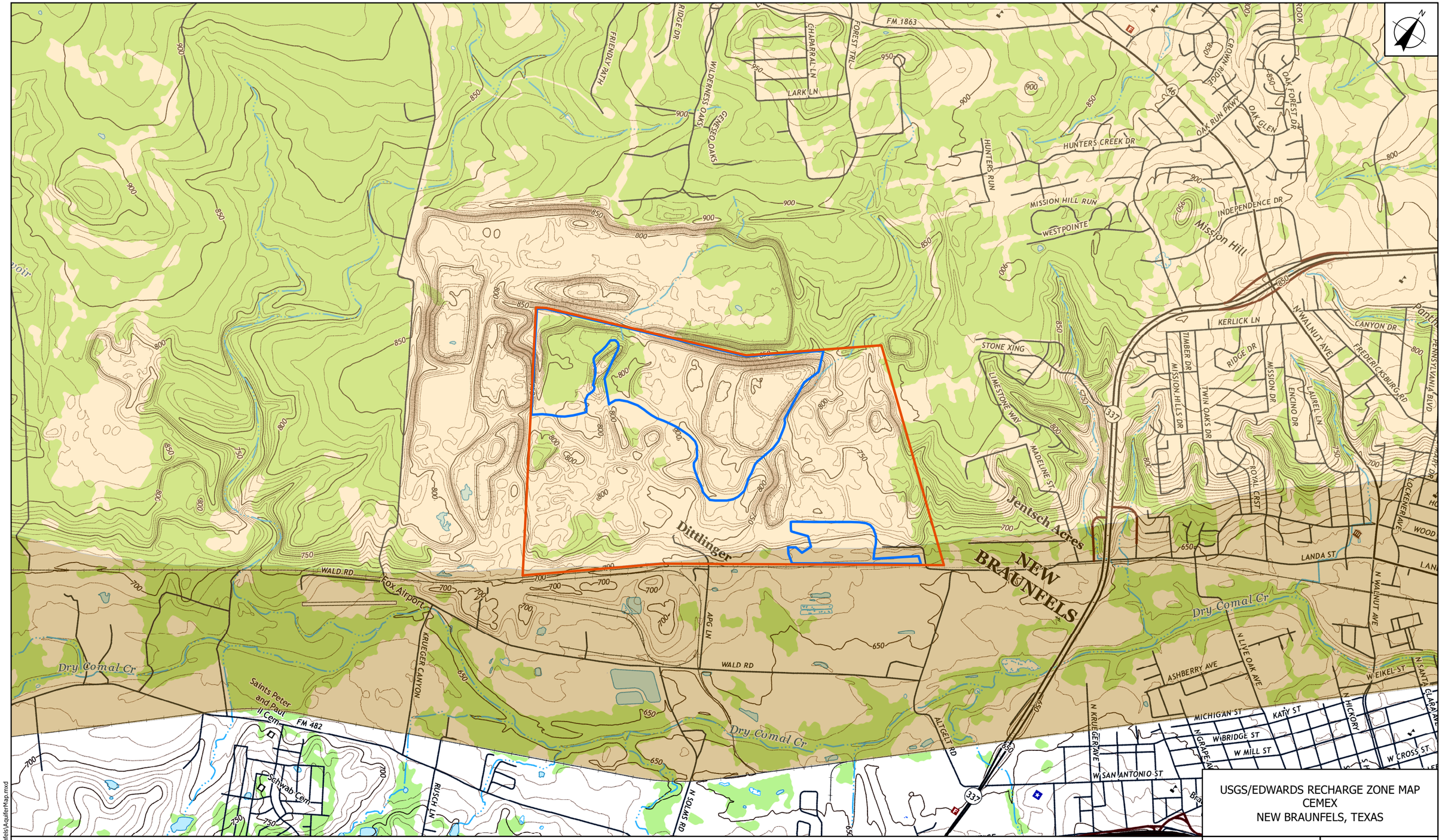

X:\Cemex\New_Braunfels\AquiferMap.mxd

LEGEND

- EDWARDS AQUIFER RECHARGE ZONE
- EDWARDS TRANSITION ZONE
- NEW CEMEX WPAP BOUNDARY
- LHOIST PROPERTY BOUNDARY

NAD 1983 STATE PLANE
TEXAS SOUTH CENTRAL FEET

0 1,000 2,000

SCALE IN FEET

USGS/EDWARDS RECHARGE ZONE MAP
CEMEX
NEW BRAUNFELS, TEXAS

REQUESTED BY:	RR
DRAWN BY:	RC
DATE:	1/18/2024
PROJECT:	0888835692

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Source: U.S. Geological Survey. New Braunfels Quadrangle, Texas [Map]. Photorevised 2022. 1:24,000. 7.5 Minute Series; Aquifer - https://gisweb.tceq.texas.gov/arcgis/rest/services

LEGEND

- NEW CEMEX WPAP BOUNDARY
- LHOIST PROPERTY BOUNDARY

NAD 1983 STATE PLANE
TEXAS SOUTH CENTRAL FEET

0 500 1,000

SCALE IN FEET

SITE MAP
CEMEX
NEW BRAUNFELS, TEXAS

REQUESTED BY:	RR
DRAWN BY:	RC
DATE:	1/22/2024
PROJECT:	0888835692

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Source: Drone imagery provided from previous consultant; https://cceo.co.comal.tx.us/arcgissrv/rest/services

X:\Cemex\New_Braunfels\FieldMap_rc.mxd

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: Chris Whittington
License No. 15390

Telephone: (972) 791-3222

Fax: _____

Date: 1/29/24

Representing: EnSafe, Inc. (License No. 50388) (Name of Company and TBPG or TBPE registration number)

Signature of Geologist:

Regulated Entity Name: CEMEX Lhoist Quarry & Aggregate Rail Distribution Yard

Project Information

1. Date(s) Geologic Assessment was performed: 11/30/2023
2. Type of Project:
   - ☒ WPAP
   - ☐ SCS
   - ☐ AST
   - ☐ UST
3. Location of Project:
   - ☒ Recharge Zone
   - ☒ Transition Zone
   - ☐ Contributing Zone within the Transition Zone

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

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

Table 1 - Soil Units, Infiltration Characteristics and Thickness

Soil Name	Group*	Thickness(feet)
Rumple-Comfort	D	2
Pits	D	Variable
Comfort Rock	D	1
Eckrant Rock	D	1
Branyon Clay	D	6.5

** Soil Group Definitions (Abbreviated)*

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

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

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

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

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

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

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

   Applicant's Site Plan Scale: 1" = 1,000'
   Site Geologic Map Scale: 1" = 1,000'
   Site Soils Map Scale (if more than 1 soil type): 1" = 1,000'

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

GEOLOGIC ASSESSMENT TABLE

PROJECT NAME:

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						<40	>40	<1.6	>1.6	
CEM-1	29.689593	-98.181988	MB	30	Ked	7,623	4,570	180					N,C,F,V	5	35	X		X		Flat/Cliff/Hillside
CEM-2	29.686658	-98.195172	MB	30	Ked	1.15	1.15	380					X	5	35	X		X		Flat
CEM-3	29.691844	-98.185933	O	5	Ked	3	3	2.5					N	5	10	X		X		Cliff
CEM-4	29.687847	-98.172869	MB	30	Ked	1.06	1.06	305					X	5	35	X		X		Flat

* DATUM:_____

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

STATE OF TEXAS
1-29-24
CHRIS WHITTINGTON
GEOLOGY
15390
LICENSED PROFESSIONAL GEOSCIENTIST

Sheet 1 of 1

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

Soil Map—Comal and Hays Counties, Texas

Map Scale: 1:12,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 150 300 600 900

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 20, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 17, 2020—Jan 15, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Pt	Pits	64.3	21.6%
RUD	Rumple-Comfort, rubbly association, 1 to 8 percent slopes	233.9	78.4%
Totals for Area of Interest		**298.2**	**100.0%**

Map Scale: 1:4,950 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 20, Sep 5, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 17, 2020—Jan 15, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
ByA	Branyon clay, 0 to 1 percent slopes	0.5	1.2%
ByB	Branyon clay, 1 to 3 percent slopes	5.4	13.1%
CrD	Comfort-Rock outcrop complex, 1 to 8 percent slopes	0.3	0.7%
Pt	Pits	35.2	85.0%
Totals for Area of Interest		**41.4**	**100.0%**

Map Unit Description

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A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named, soils that are similar to the named components, and some minor components that differ in use and management from the major soils.

Most of the soils similar to the major components have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Some minor components, however, have properties and behavior characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

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Comal and Hays Counties, Texas

RUD—Rumple-Comfort, rubbly association, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2ylvc
Elevation: 800 to 1,650 feet
Mean annual precipitation: 33 to 37 inches
Mean annual air temperature: 65 to 70 degrees F

Frost-free period: 220 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Rumple and similar soils: 60 percent
Comfort and similar soils: 20 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rumple

Setting

Landform: Ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Colluvium and/or residuum weathered from limestone

Typical profile

A - 0 to 10 inches: very gravelly clay loam
Bt1 - 10 to 14 inches: very gravelly clay
Bt2 - 14 to 28 inches: extremely cobbly clay
R - 28 to 59 inches: bedrock

Properties and qualities

Slope: 1 to 8 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: R081CY359TX - Gravelly Redland 29-35 PZ
Hydric soil rating: No

Description of Comfort

Setting

Landform: Ridges

Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

A - 0 to 6 inches: extremely stony clay
Bt - 6 to 12 inches: extremely stony clay
R - 12 to 40 inches: bedrock

Properties and qualities

Slope: 1 to 8 percent
Surface area covered with cobbles, stones or boulders: 30.0 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 0.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ
Hydric soil rating: No

Minor Components

Tarpley

Percent of map unit: 15 percent
Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R081CY361TX - Redland 29-35 PZ
Hydric soil rating: No

Rock outcrop

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex

Across-slope shape: Convex
Hydric soil rating: No

Data Source Information

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 20, Sep 5, 2023

Map Unit Description

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The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

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Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

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Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

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Comal and Hays Counties, Texas

Pt—Pits

Map Unit Setting

National map unit symbol: f6fw
Elevation: 20 to 8,750 feet
Mean annual precipitation: 9 to 56 inches
Mean annual air temperature: 54 to 73 degrees F
Frost-free period: 180 to 350 days

Farmland classification: Not prime farmland

Map Unit Composition

Pits: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pits

Typical profile

H1 - 0 to 80 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Data Source Information

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 20, Sep 5, 2023

Map Unit Description

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The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. All the soils of a series have major horizons that are similar in composition, thickness, and arrangement. Soils of a given series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

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A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

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Comal and Hays Counties, Texas

CrD—Comfort-Rock outcrop complex, 1 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2yly4
Elevation: 1,000 to 2,300 feet
Mean annual precipitation: 33 to 37 inches
Mean annual air temperature: 66 to 68 degrees F
Frost-free period: 220 to 260 days

Farmland classification: Not prime farmland

Map Unit Composition

Comfort and similar soils: 70 percent
Rock outcrop: 15 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Comfort

Setting

Landform: Ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

A - 0 to 6 inches: very stony clay
Bt - 6 to 13 inches: extremely stony clay
R - 13 to 40 inches: bedrock

Properties and qualities

Slope: 1 to 8 percent
Surface area covered with cobbles, stones or boulders: 0.5 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 0.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ
Hydric soil rating: No

Description of Rock Outcrop

Setting

Landform: Ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve

Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Limestone

Typical profile

R - 0 to 80 inches: bedrock

Properties and qualities

Slope: 1 to 8 percent
Depth to restrictive feature: 0 to 2 inches to lithic bedrock
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 1.98 in/hr)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Eckrant

Percent of map unit: 6 percent
Landform: Ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R081CY360TX - Low Stony Hill 29-35 PZ
Hydric soil rating: No

Purves

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R081CY574TX - Shallow 29-35 PZ
Hydric soil rating: No

Real

Percent of map unit: 3 percent
Landform: Ridges
Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R081CY355TX - Adobe 29-35 PZ
Hydric soil rating: No

Rumple

Percent of map unit: 3 percent
Landform: Ridges

Landform position (two-dimensional): Summit, shoulder
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Ecological site: R081CY359TX - Gravelly Redland 29-35 PZ
Hydric soil rating: No

Data Source Information

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 20, Sep 5, 2023

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Comal and Hays Counties, Texas

ByB—Branyon clay, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2shgw
Elevation: 290 to 1,040 feet
Mean annual precipitation: 33 to 39 inches
Mean annual air temperature: 66 to 70 degrees F
Frost-free period: 243 to 288 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Branyon and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Branyon

Setting

Landform: Stream terraces
Landform position (three-dimensional): Tread
Microfeatures of landform position: Circular gilgai
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Calcareous clayey alluvium derived from mudstone of pleistocene age

Typical profile

Ap - 0 to 12 inches: clay
Bkss - 12 to 72 inches: clay
BCkss - 72 to 80 inches: clay

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 35 percent
Gypsum, maximum content: 5 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 7.0
Available water supply, 0 to 60 inches: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: D
Ecological site: R086AY011TX - Southern Blackland
Hydric soil rating: No

Minor Components

Houston black

Percent of map unit: 5 percent
Landform: Ridges
Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope
Microfeatures of landform position: Circular gilgai
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R086AY011TX - Southern Blackland
Hydric soil rating: No

Lewisville

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R086AY007TX - Southern Clay Loam
Hydric soil rating: No

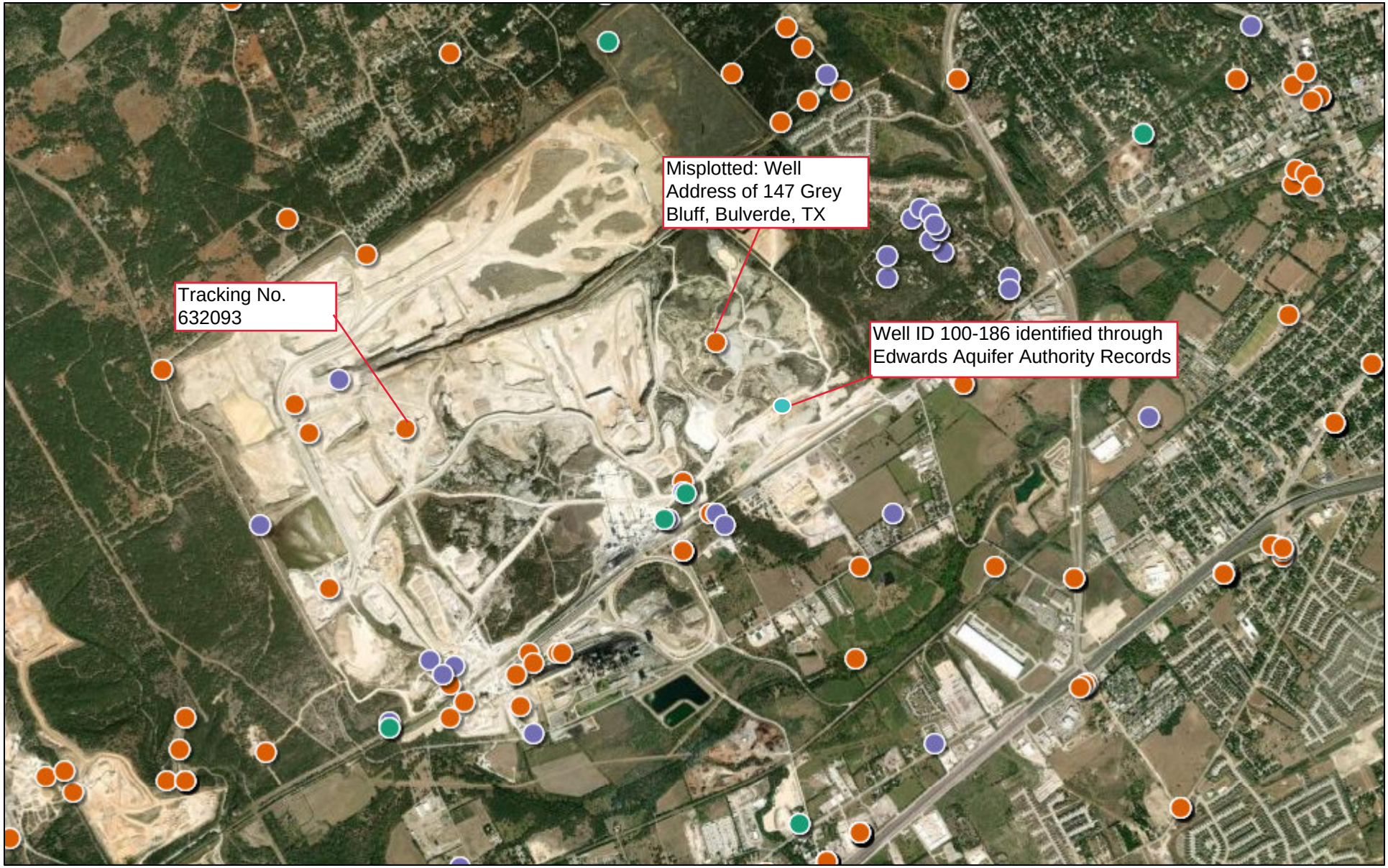
Burleson

Percent of map unit: 5 percent
Landform: Stream terraces, stream terraces
Landform position (three-dimensional): Tread
Microfeatures of landform position: Circular gilgai, circular gilgai
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R086AY011TX - Southern Blackland
Hydric soil rating: No

Data Source Information

Soil Survey Area: Comal and Hays Counties, Texas
Survey Area Data: Version 20, Sep 5, 2023

TWDB Well Map



Texas Water Development Board

December 7, 2023

BRACS Database

TWDB Groundwater

Well Reports

0 0.3 0.6 1.2 mi

0 0.5 1 2 km

1:36,112

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

STATE OF TEXAS WELL REPORT for Tracking #632093

Owner:	**CEMEX CONSTRUCTION MATERIALS PACIFIC, LLC**	Owner Well #:	**1**
Address:	**2628 WALD ROAD NEW BRAUNFELS, TX 78132**	Grid #:	**68-23-5**
Well Location:	**2628 WALD ROAD NEW BRAUNFELS, TX 78132**	Latitude:	**29° 41' 11.88" N**
	LHOIST NEW CRUSHER #1	Longitude:	**098° 11' 42.58" W**
Well County:	**Comal**	Elevation:	**No Data**

Type of Work: **New Well** Proposed Use: **Industrial**

Drilling Start Date: **5/30/2022** Drilling End Date: **6/30/2022**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
13.75	**0**	**174**
8.75	**174**	**380**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**174**	**Cement 62 Bags/Sacks**

Seal Method: **Tremie**

Sealed By: **Driller**

Distance to Property Line (ft.): **No Data**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Slab Installed** **Surface Completion by Driller**

Water Level: **No Data**

Packers: **Rubber at 174 ft.**

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **C&C Groundwater Services LLC**

29143 Old Fredericksburg Rd
Boerne, TX 78015

Driller Name: **Kyle Courtney** License Number: **2546**

Comments: **No Data**

Report Amended on 4/24/2023 by Request #39397

Report Amended on 4/26/2023 by Request #39427

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**20**	**HARD WHITE LIME**
20	**60**	**HARD GRAY WHITE LIME**
60	**70**	**MEDIUM HARD**
70	**75**	**RED CLAY SMALL CAVE**
75	**80**	**WHITE LIME**
80	**148**	**WHITE AND GREY LIME CAVE**
148	**150**	**RED CLAY**
150	**156**	**WHITE LIME**
156	**160**	**RED LIME AND CAVE**
160	**175**	**VERY HARD CHIRT**
175	**200**	**MEDIUM HARD WHITE**
200	**240**	**GREY AND TAN LIME**
240	**275**	**GREY WITH RED LIME**
275	**300**	**WATER**
300	**380**	**MEDIUM WHITE LIMESTONE**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
8.75	**Blank**	**New Steel**		**0**	**174**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

From: Joe Gonzales <jgonzales@edwardsaquifer.org>
Sent: Thursday, January 11, 2024 12:35 PM
To: Chris Whittington <cwhittington@ensafe.com>
Cc: Jeffrey Robinson <jrobinson@edwardsaquifer.org>; Roger Andrade <randrade@edwardsaquifer.org>; Mariah Bonham <mbonham@edwardsaquifer.org>; Richard Gonzalez <rgonzalez@edwardsaquifer.org>; Jose Barela <jbarela@edwardsaquifer.org>
Subject: RE: Well Report Request - Well #100186

Chris,

350 AGP Lane New Braunfels TX 78132 plots over Lhoist North America. The EAA identifies water well W100-186 at the following GPS location N. 29 41' 16.25 W. -98 10' 22.33. Reported depth of well 305 feet, year drilled 2002, Water level 50 feet on 4/01/2002, Ground surface elevation 721 feet, Casing info. 12.75" OD. Sch. 40 Steel from 0 feet to 100 feet. The attached picture of the well shows that the water meter as one point was disconnected. That's about what we have on this water well. Anything going on with this well ?

Regards,

Joe Gonzales
Field Inspection Technician III
www.edwardsaquifer.org
210.222.2204 ext. 387
900 E Quincy
San Antonio, TX 78215

From: Chris Whittington <cwhittington@ensafe.com>
Sent: Thursday, January 11, 2024 11:59 AM
To: Joe Gonzales <jgonzales@edwardsaquifer.org>
Subject: RE: Well Report Request - Well #100186

External Email

Joe,

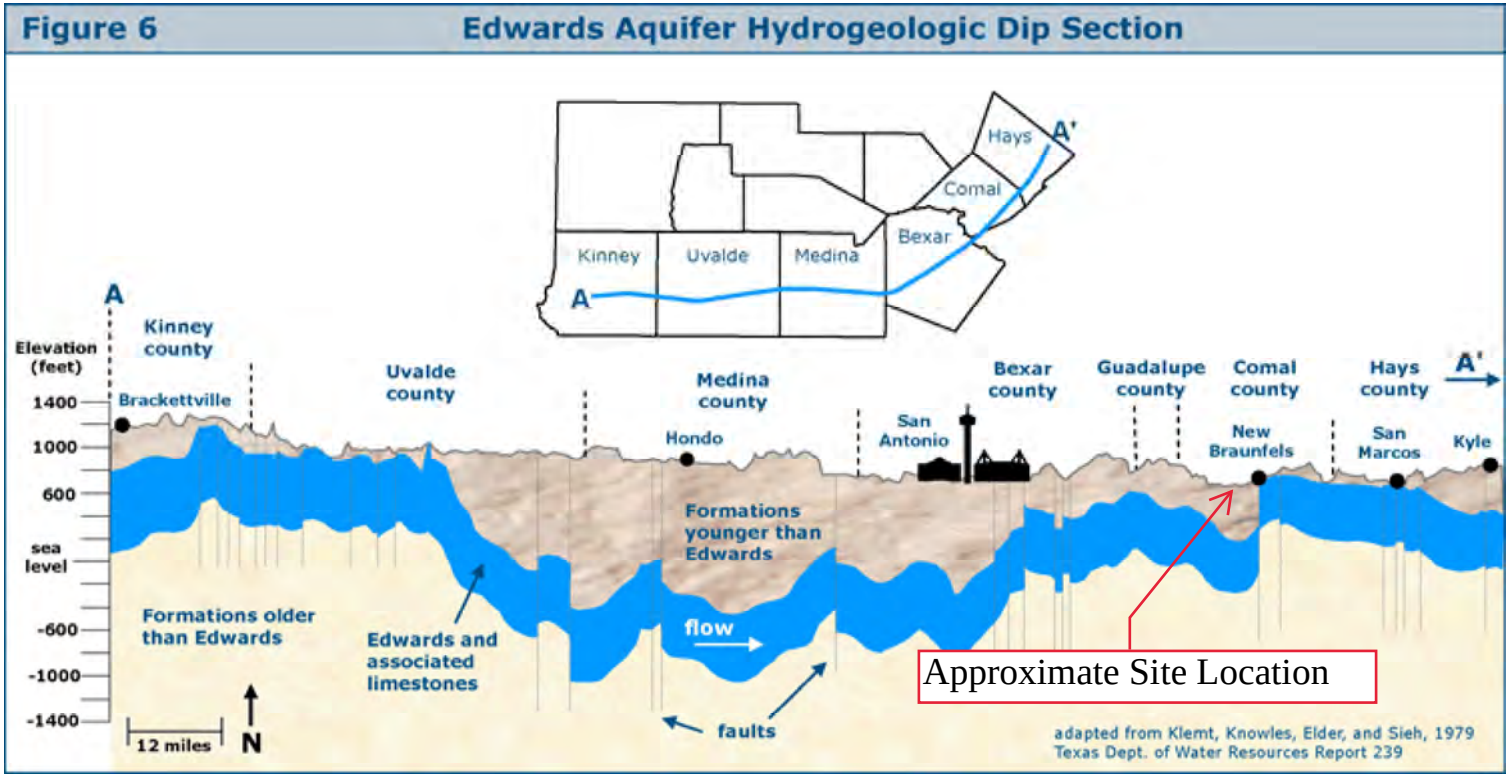
The Site address is 350 APG Lane in Comal County (just outside of New Braunfels).

Thanks,

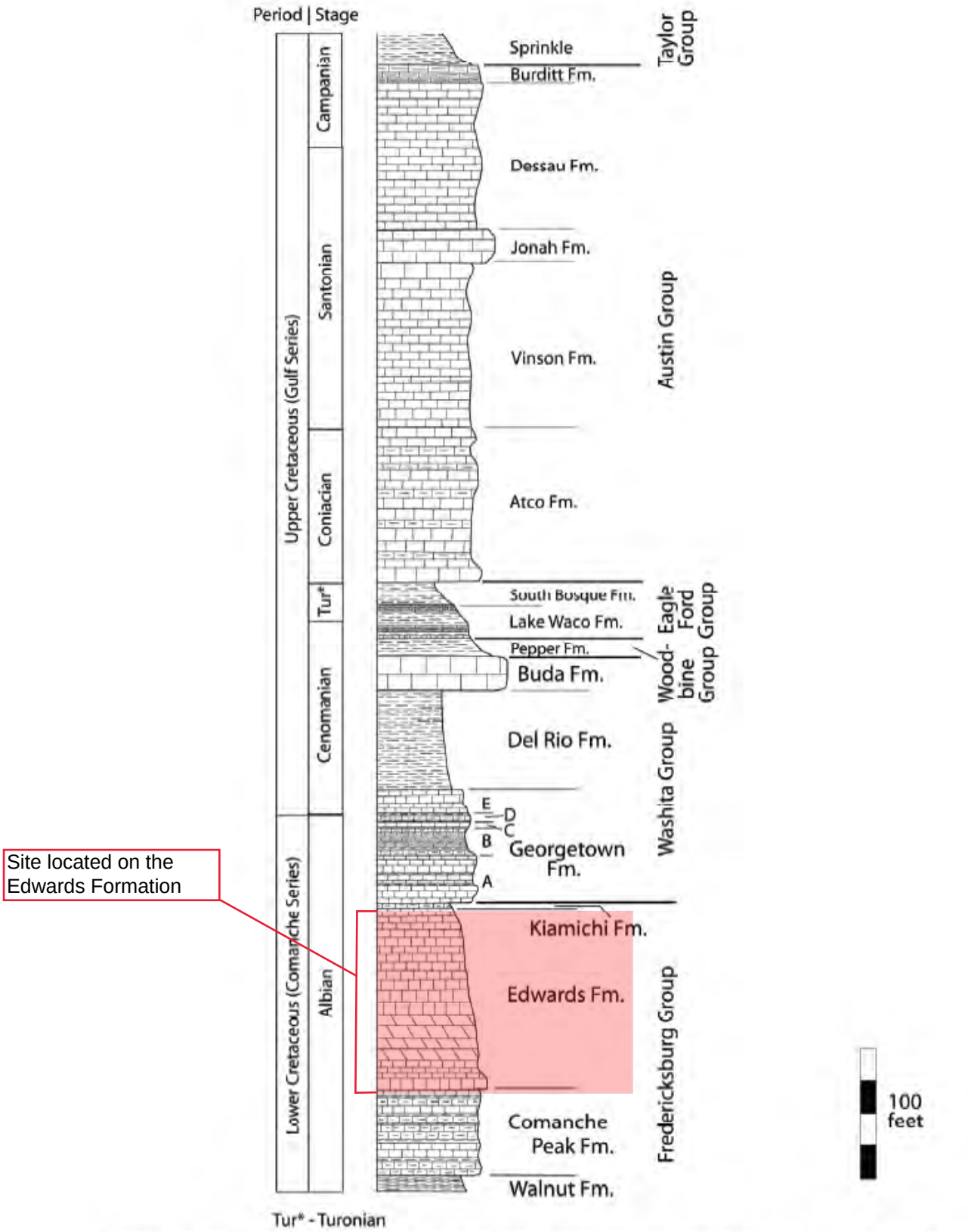
Chris Whittington
Geologist
(972) 839 9906 *cell*
(972) 791 3222 *main*
(972) 865 4872 *direct*
1603 LBJ Freeway, Suite 700
Farmers Branch, TX 75234

Attachment B
Stratigraphic Column

Figure 6 Edwards Aquifer Hydrogeologic Dip Section



Generalized Stratigraphic Column Comal County, Texas



Site located on the Edwards Formation

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

Attachment C
Site Geology

Overview

The WPAP area is an approximate 320-acre property located at 350 APG Lane in the Extra Territorial Jurisdiction (ETJ) area for New Braunfels, Texas in Comal County. The Site is currently a limestone quarry with the main part having all been quarried in the past and currently, and the southern portion serving as an active rail spur for loading of aggregate onto rail cares. The quarry lies over the Edwards Aquifer Recharge Zone and the rail spur/loading area is on the Edwards Aquifer Transition Zone. Please refer to the Site description in the WPAP application for a detailed discussion of the Site and Site activities.

Desktop Review

EnSafe conducted a review of available aerial photography, the US Geological Survey (USGS) topographic quadrangle, the Texas Water Development Board's Water Data Interactive (WDI) viewer, the Bureau of Economic Geology's (BEG) Geologic Atlas of Texas San Antonio sheet, the BEGs Texas Geology Web Map Viewer, the Texas Commission on Environmental Quality's (TCEQ) Edwards Aquifer Map Viewer, and the US Department of Agriculture (USDA) soil surveys.

Geology –

The desktop review documented the Cretaceous Edwards Limestone (Ked) and Quaternary Leona Formation (Qle) mapped at the surface of the WPAP. The quarry portion of the WPAP has Ked at the surface with the Qle present in the rail spur area. The Edwards Limestone Formation is an early Cretaceous aged formation consisting of massive to thin bedded limestone and dolostones. The thickness of the Edwards Limestone Formation ranges from approximately 300 feet to 500 feet. The exposed surface outcrop of the Edwards Limestone in Comal County is considered a recharge zone for the groundwater in the Edwards Aquifer.

No evidence of additional water wells, other than the industrial water well discussed below, were identified at the Site through visual inspection and review of the Texas Water Development Board on-line records.

The Leona Formation is a Pleistocene aged formation consisting of fluviatile terrace deposits of gravel, sand, silt, and clay. The maximum thickness of the Leona Formation is approximately 50 feet.

A map depicting the Site and surrounding area from the TWDB is included in Attachment A. The Site was also not identified within the 100-year flood plain. A FEMA national flood hazard map depicting the Site is included in Attachment D.

Faults –

The desktop review documented one mapped fault along the southeastern property boundary identified as the Comal Springs Fault. The fault trends E-NE and is consistent with fault trends in the area.

Man-made Features –

One water well was identified in the TWDB's WDI viewer on the western portion of the quarry WPAP area. A photograph of the well is included in the photographic log for this Geologic Assessment.

Soils –

Five different soil classifications were identified in the soil survey, with the Branyon Clay underlying the rail spur area. Other soils identified including the Comfort-Rock outcrop, Eckrant-Rock outcrop and Rumple-Comfort, rubbly association have largely been removed during quarrying operations and remain as limited remnants along high walls along the edges of the quarry or interior quarry pits.

Field Work

This Geologic Assessment was completed by two licensed geoscientists (Chris Whittington – License No. 15390 and Richard Record – License No. 3358) on November 30, 2023. The assessment was completed in accordance with *Instructions for Geologists for Geologic Assessments on the Edwards Aquifer Recharge/Transition Zones (TCEQ-0585-Instructions (Rev. 10-01-04))*. Two man-made features and one natural bedrock feature were identified in this Geologic Assessment, with none considered sensitive features.

The area of the quarry consists of deposits of the Edwards Limestone (Ked). The Edwards Limestone is covered almost entirely on the floor of the quarry by vegetation, fine grained particles, and rock piles. In limited areas of exposure, no sensitive features were identified. Man-made depressions were evident from quarrying operations and no sensitive features or water infiltration was observed in these depressions from rainfall occurring on the day of the Geologic Assessment.

No karst features, solution channels or faults were identified during the assessment. One water well is present on the western side of the quarry WPAP area.

Feature Descriptions

CEM-1: Quarry (MB-Not Sensitive)

Feature CEM-1 includes active and closed pits with man-made depressions, piles of rock to be crushed, and a covering of fine-grained materials over almost all of the bottom of the quarry creating a barrier to rapid infiltration. The majority of the Site is a manmade quarry with the exception of the southern portion of the Site where select aggregate are loaded onto rail cars. Mining is completed in areas of less than 10 acres at a time. During the Geologic Assessment, the western portion of the Site was observed as being actively mined. The northern, eastern, and southern portions of the Site are bounded by stair stepped cliffs from quarrying of limestone from the Edwards Formation. Stair stepped cliffs are also present to the west beyond the Site boundaries. The quarry floor primarily consisted of limestone bedrock of the Edwards Formation, with native limestone mostly obscured by surficial coverage of fine silty clays, various pile sizes of aggregates, and natural vegetation. Site Photos No. 1 through Photo No. 4 included in the photolog in Attachment C show general pictures of the quarry conditions.

On the eastern extent is an area where soil, fine grained materials and miscellaneous rock were and are placed after past mining activity had ceased and is referred to as the spoils area. The middle portion is a previously mined area identified as Level 6.

During the Site visit, the weather was overcast with light rains and the Site had received rainfall the day before. Areas of low-lying depression throughout the quarry had retained rainwater, with some of the depressions having dense vegetation. No visual evidence of rapid infiltration at these low-lying

depressions was observed. The depressed areas range from small features of less than 25 square feet to temporary ponding of water in catchments up to 0.5 acre. Inspections of these shallow depressions during a rain event documented a layer of fine-grained material across the bottom with limited vegetation and no indications of solution features or drainage from the depressions, so no rapid infiltration is present. See Photo No. 11 and 12 for typical conditions observed in the man-made depressions of ponded water.

CEM-2: Water Well (MB-Not Sensitive)

An industrial water well is currently in use and located on the western portion of the Site. According to the Texas Water Development Board, the well is owned by CEMEX and was completed on June 30, 2022. The casing is an 8.75-inch steel casing completed down to 380 feet below ground surface. A rubber packer was installed at 174 feet below ground surface and the annulus was completed cement from 174 feet below ground surface to the ground surface. Static groundwater was not reported, however, groundwater strike was indicated in the log at 275 feet below ground surface. The location of the water well is depicted on the Site Geologic Map included in Attachment A. In addition, the well report was included in Attachment A. Photos No. 7 and 8 document the industrial water well.

CEM-3: Fracture Aperture (O-Not Sensitive)

A small fracture aperture was identified in the limestone facies approximately 10 feet above the pit floor at Level 6 near the north central portion of the Site. This feature did not have evidence of a solution cavity and terminated approximately two to three feet from the cliff wall surface. See Photo No. 9 and 10 for documentation.

CEM-4: Water Well (MB-Not Sensitive)

An industrial water well is currently in use and located on the western portion of the Site. According to the Edwards Aquifer Authority, the well is identified as water well W100-186. The well was installed in 2002, with a total depth of 305 feet, 12.75 outer diameter steel casing down to 100 feet with presumed steel screening from 100 feet to 305 feet. Depth to groundwater was listed as 50 feet below surface on April 1, 2002. The location of the water well is depicted on the Site Geologic Map included in Attachment A. In addition, the well information received from the Edwards Aquifer Authority was included in Attachment A. Photos No. 17 and 18 document the industrial water well.

Other Features Noted

- A small stormwater retention pond is present near the southeastern portion of the Site and includes permitted Outfall 001 (See Photo 15).
- The southern portion of the Site included rail spurs with rail cars for loading and transporting select aggregate (See Photo 14).
- The platform for a conveyor belt was observed adjacent to the water well located on the western portion of the Site.
- A two-story building containing restrooms (adjacent to the conveyor belt) was observed on the western portion of the Site.
    - An above ground concrete vault contains the sanitary waste discharge and is serviced on an as needed basis.

Edwards Aquifer Viewer Custom Print

12/7/2023, 5:04:43 PM

1:36,112

0 0.4 0.8 1.6 mi

0 0.5 1 2 km

Edwards Aquifer Label

Edwards Aquifer Boundary

Edwards Aquifer Boundary central line

City/Place

Groundwater Conservation Districts

Comal Trinity GCD

Edwards Aquifer Authority

TX Counties

7.5 Minute Quad Grid

TCEQ_EDWARDS_OFFICIAL_MAPS

City of New Braunfels, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, TCEQ, Maxar

Web AppBuilder for ArcGIS

TCEQ | Maxar | Esri Community Maps Contributors, City of New Braunfels, Texas Parks & Wildlife, CONANP, Esri, HERE, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA |


CEMEX Lhoist Quarry & Rail Distribution Yard
Photo 2
Photo 12
Photo 1
CEM-3 (Bedrock Feature)
Photo 11
Photo 3
Photo 13
CEM-1 (Quarry Central)
Photo 15
CEM-4 (Water Well)
Photo 14
CEM-2 (Water Well)
Photo 4
Photo 5
Photo 6
Google Earth
N
4000 ft

PHOTO NO. 1 **DESCRIPTION:**	Feature ID CEM-1: View of quarry man-made feature; looking southeast across the site from near the north-central portion (Level 6) of the site.

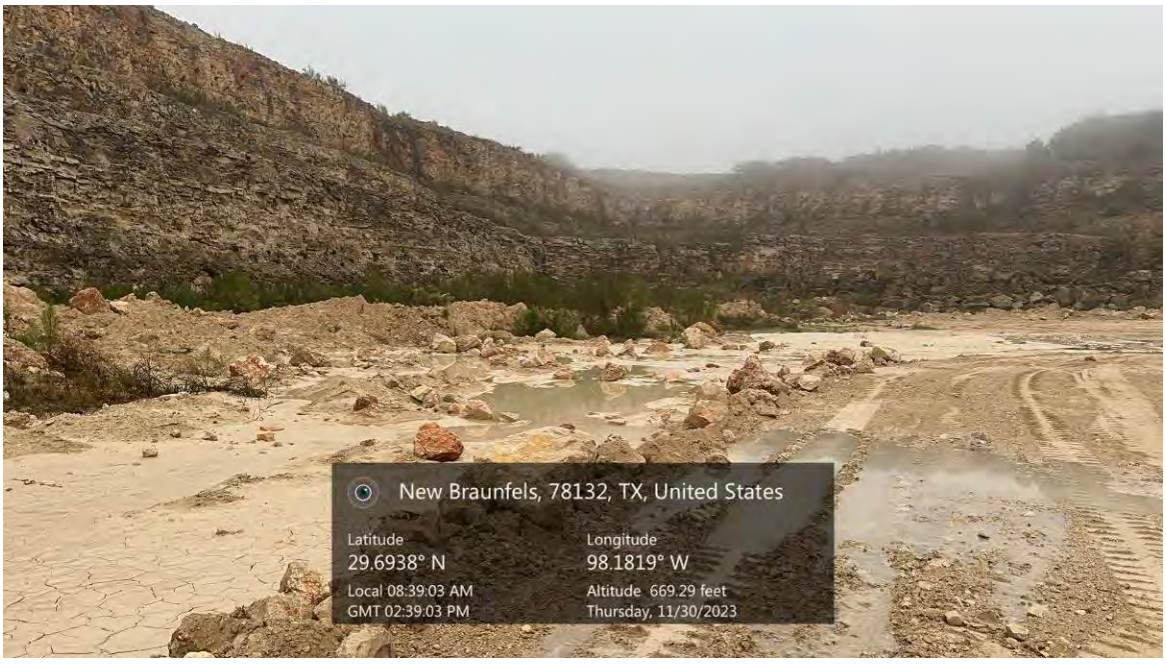


PHOTO NO. 2 **DESCRIPTION:**	Feature ID CEM-1: View of quarry man-made feature; looking northeast from near the northeast corner of the site at Level 6.

PHOTO NO. 3 DESCRIPTION:	Feature ID CEM-1: View of quarry looking south across the site from near the northwest portion of the site.

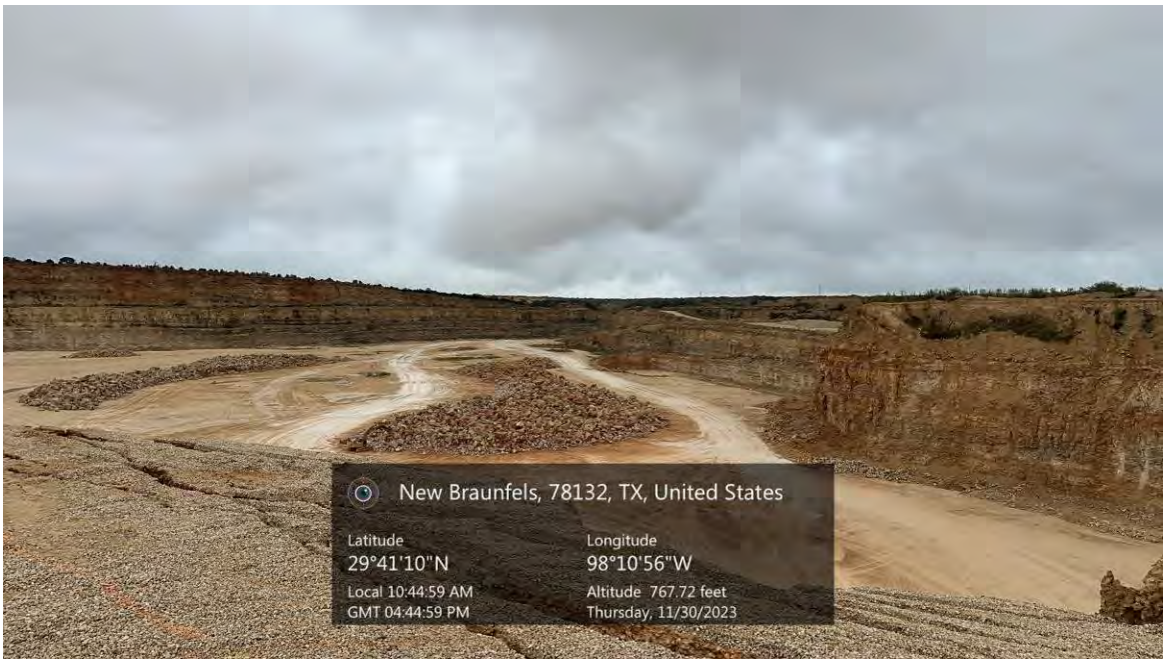


PHOTO NO. 4 DESCRIPTION:	Feature ID CEM-1: View of quarry; looking north across the site from near the south-central portion of the site. Cracks in foreground are from blasting during quarrying.

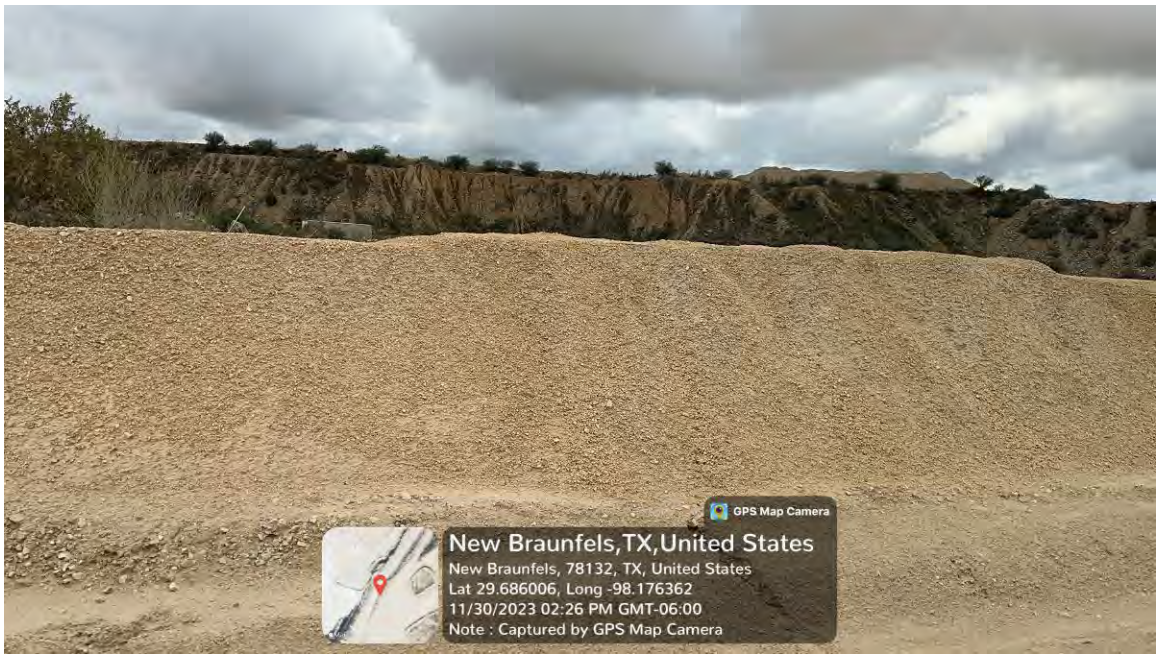


PHOTO NO. 5 DESCRIPTION:	Typical internal berm within quarry WPAP area.

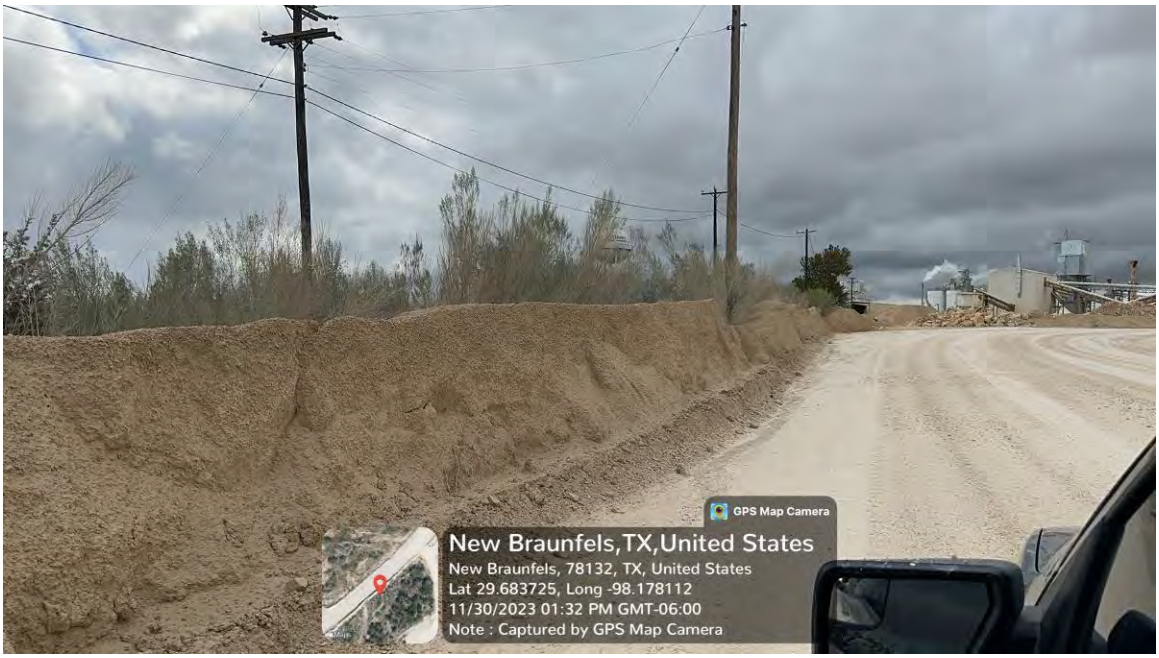


PHOTO NO. 6 DESCRIPTION:	Typical internal berm within quarry WPAP area.

PHOTO NO. 7 **DESCRIPTION:**	Feature ID CEM-2: View of water well man-made feature; looking southwest across the site from near the central portion of the site.

PHOTO NO. 8 **DESCRIPTION:**	Feature ID CEM-2: View of water well man-made feature; looking southwest across the site from near the central portion of the site.

PHOTO NO. 9 DESCRIPTION:	Feature ID CEM-3: View of fracture aperture; located approximately ten feet up on side wall near north central portion of site and extending two to three feet back into wall.

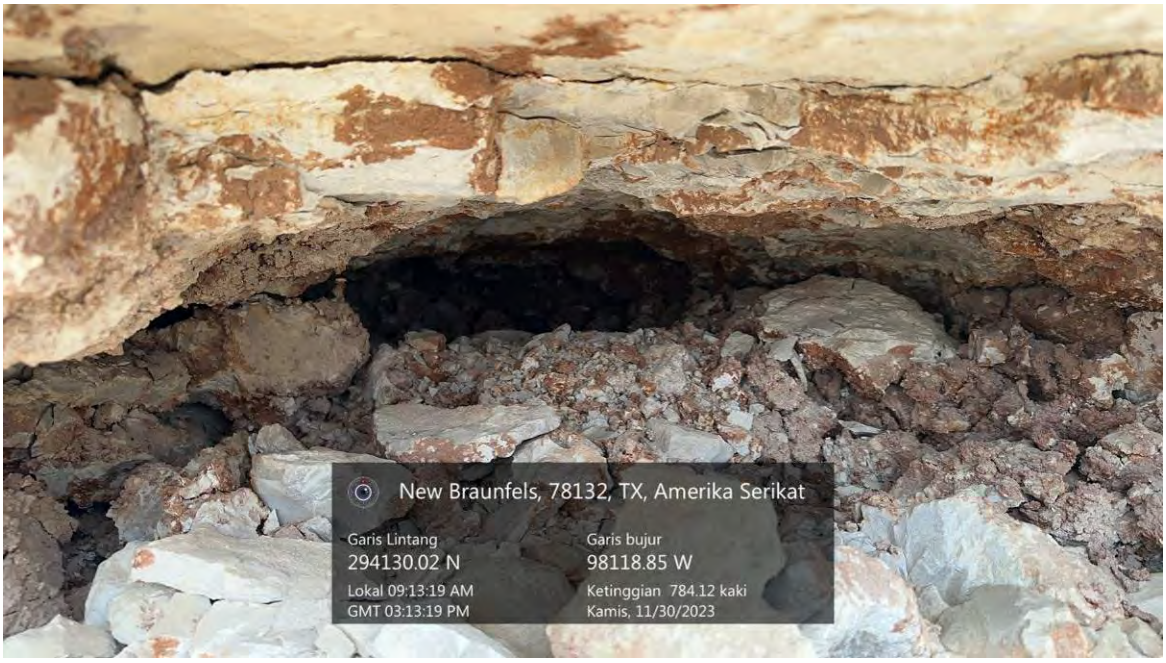


PHOTO NO. 10 DESCRIPTION:	Feature ID CEM-3: View of fracture aperture; close up view.

PHOTO NO. 11 DESCRIPTION:	Typical view of larger man-made depression with ponded water and vegetation within the quarry site.

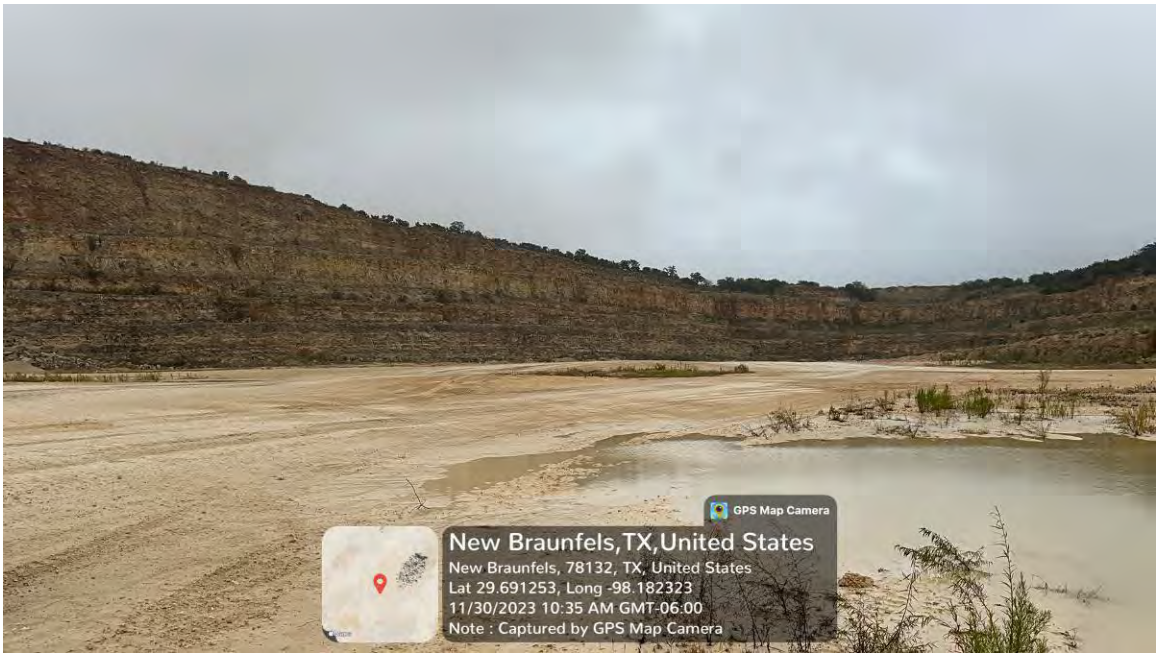


PHOTO NO. 12 DESCRIPTION:	Typical view of low-lying depression man-made feature with ponded water resulting in layer of fines on the surface.

PHOTO NO. 13 DESCRIPTION:	Additional view of limited exposed bedrock on the quarry floor located near the central portion of the site.

PHOTO NO. 14 DESCRIPTION:	View of rail spurs and aggregate rail car loading area near the southeast corner of the site showing south berm preventing stormwater flow off-site to the Union Pacific Railroad rail line.

PHOTO NO. 15 DESCRIPTION:	View of Outfall 001 located near the southeast corner of the site.

PHOTO NO. 16 DESCRIPTION:	Feature ID CEM-4: View of water well man-made feature; looking north from near the southern portion of the site.

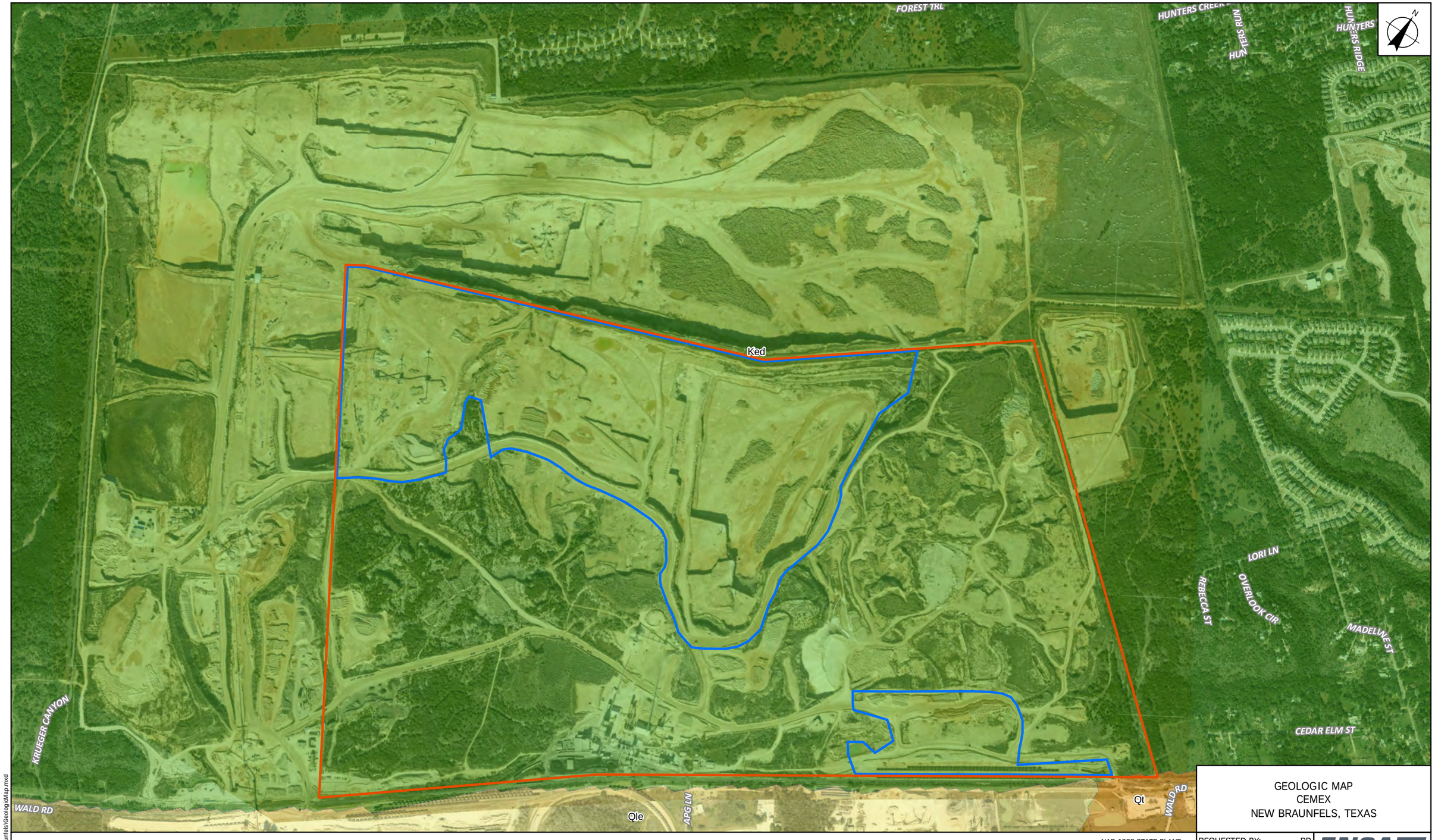
PHOTO NO. 17 **DESCRIPTION:**	Feature ID CEM-4: View of water well man-made feature; close-up view

PHOTO NO. 18 **DESCRIPTION:**	Feature ID CEM-4: View of water well man-made feature; close-up view

PHOTO NO. 19 **DESCRIPTION:**	View of building containing restrooms. Sanitary waste discharges to above ground concrete vault.

PHOTO NO. 20 **DESCRIPTION:**	View of concrete vault containing sanitary waste discharge.

Attachment D
Site Geology Map



GEOLOGIC MAP
CEMEX
NEW BRAUNFELS, TEXAS

LEGEND

- Ked EDWARDS LIMESTONE
- Qle LEONA FORMATION
- Qt FLUVIATILE TERRACE DEPOSITS
- NEW CEMEX WPAP BOUNDARY
- LHOIST PROPERTY BOUNDARY

NAD 1983 STATE PLANE
TEXAS SOUTH CENTRAL FEET

0 500 1,000

SCALE IN FEET

REQUESTED BY:	RR
DRAWN BY:	MS
DATE:	12/15/2023
PROJECT:	0888835692

ENSAFE
creative thinking. custom solutions.
800.588.7962 | www.ensafe.com

Source: Drone imagery provided from previous consultant; https://cceo.co.comal.tx.us/arcgissrv/rest/services; Geology - Geologic Database of Texas

X:\Cemex\New_Braunfels\Geologic\Map.mxd

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations [illegible]

Boundaries of the **floodways** [illegible]

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. [illegible]

The **projection** used in the preparation of this map was Texas State Plane south central zone (FIPSZONE 4204). The **horizontal datum** was NAD83, GRS1980 spheroid. [illegible]

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. [illegible]

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by Bexar Metro 911. This information was photogrammetrically compiled at a scale of at least 1:24,000 from aerial photography dated September 2004.

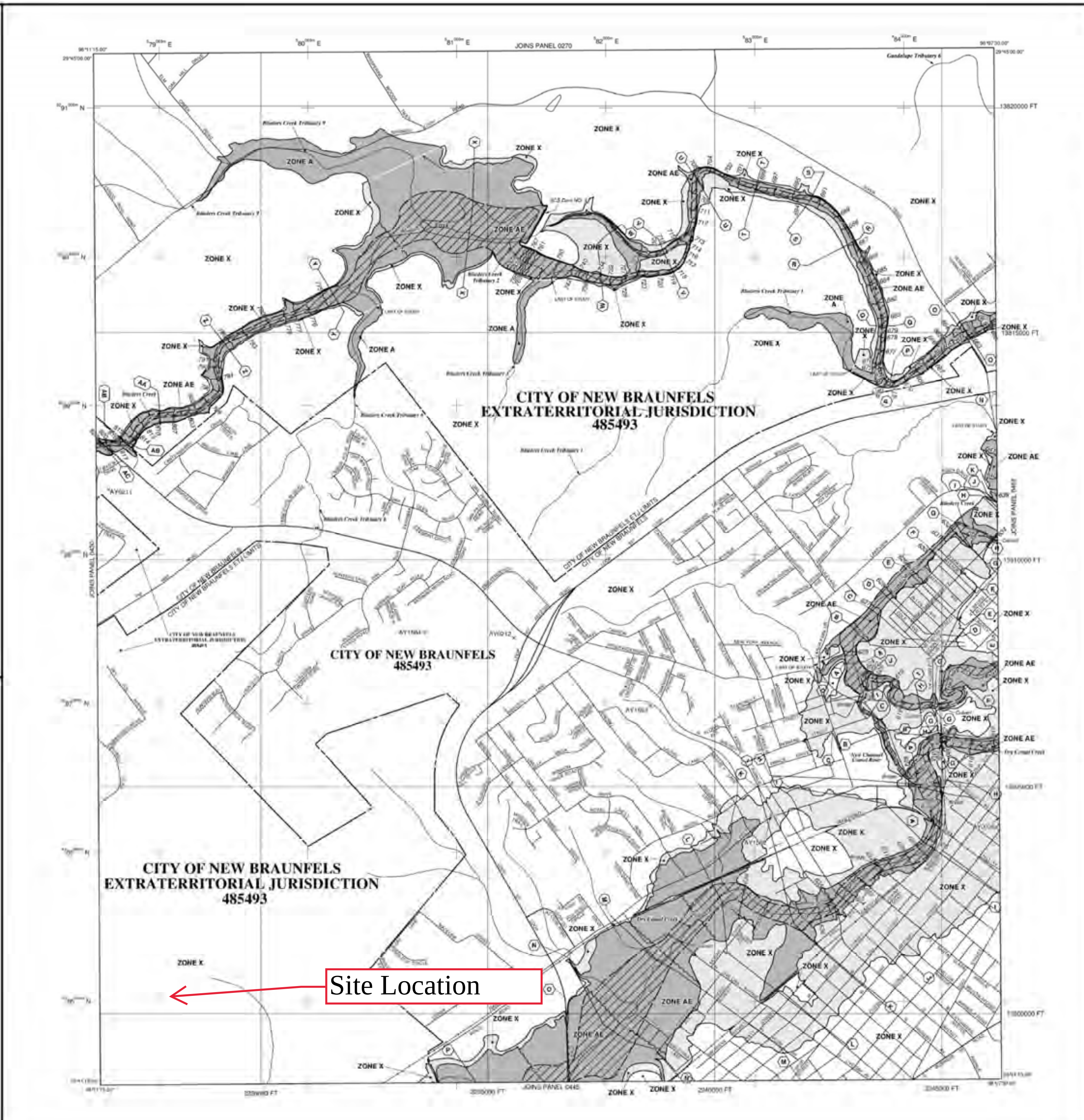
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. [illegible]

Corporate limits shown on this map are based on the best data available at the time of publication. [illegible]

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. [illegible] http://www.msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

OTHER AREAS

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

MAP SCALE 1" = 1000'

NFIP

PANEL 0435F

FIRM
FLOOD INSURANCE RATE MAP

COMAL COUNTY, TEXAS AND INCORPORATED AREAS

PANEL 435 OF 505

NATIONAL FLOOD INSURANCE PROGRAM

MAP NUMBER 48091C0435F

EFFECTIVE DATE SEPTEMBER 2, 2009

Federal Emergency Management Agency

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: Daniel Escobar, CEMEX

Date: 2/1/24

Signature of Customer/Agent:

Regulated Entity Name: New Braunfels Lime Plant

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):340

3. Estimated projected population:15

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	1,350	÷ 43,560 =	0.031
Parking	0	÷ 43,560 =	0
Other paved surfaces	8,076	÷ 43,560 =	0.185
Total Impervious Cover	9,426	÷ 43,560 =	0.2166

Total Impervious Cover 0.216 **÷ Total Acreage** 340 **X 100 =** 0.00064**% 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:

0 % Domestic	0 Gallons/day
0 % Industrial	0 Gallons/day
0 % Commingled	0 Gallons/day
TOTAL gallons/day 0	

Per discussions with TCEQ's EAPP, limited sanitary waste from elevated toilets is contained in an aboveground metal tank inside the building on a concrete slab with the tank emptied for off-site disposal by a licensed disposal firm.

15. Wastewater will be disposed of by:

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

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

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

☐ Sewage Collection System (Sewer Lines):

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

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

☐ The SCS was previously submitted on_____.

☐ The SCS was submitted with this application.

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

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

☐ Existing.
☐ Proposed.

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

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" = 1,000'.

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): New Braunfels Flood Zone GIS Viewer - Current

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

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

CEMEX Lhoist Quarry & Aggregate Rail Distribution Yard

Attachment A
Factors Affecting Water Quality

Quarry Area

Stormwater does not exit the WPAP area due to lower elevations in the quarry than the surrounding area. Similarly, stormwater does not flow from the WPAP area to the Lhoist area to the south or the CEMEX-owned property to the north and west due to a combination of lower elevations after mining and berms placed within and along the boundaries of the quarry to prevent stormwater flow onto or from the quarry. High wall boundaries on the east side have safety berms to prevent access to the quarry which also prevent stormwater flow into the quarry. These berms will be maintained and moved as needed during the life of the quarry as Temporary Stormwater Best Management Practices (TBMPs). Permanent Best Management Practices (PBMPs) will include maintenance of external berms, where needed, for safety/ stormwater barriers from pits inside and along the high wall on the east side. The berms are maintained to at least 5 feet, which is the axle height of the largest mobile equipment on site in accordance with Mine Safety Health Administration (MSHA) requirements. There are no impervious areas or buildings within the WPAP area with the exception of concrete foundations for the Lhoist secondary rock crushing system on the western portion of the WPAP area. Any runoff from the concrete is contained within the WPAP area.

Rail Spur Area

This area is separated from BraunTex operations immediately to the north by a berm to prevent stormwater flow onto the CEMEX leased rail spur area and a berm is also present south of the rail spurs to prevent stormwater flow off the property to the south. Stormwater in the rail spur area flows to an oversized stormwater retention pond on the east end of the leased area that prevents most storm events from creating stormwater outflow off-site. Any stormwater discharge is covered under an approved permit (SW Permit #TXR05EC91) issued under the TPDES General Permit No. TXR050000. There are no impervious areas or buildings within the WPAP area.

Attachment B
Volume and Character of Stormwater

There are no impervious areas or buildings within the WPAP area with the exception of concrete foundations for the conveyor and secondary rock crushing system on the western portion of the WPAP area. Any runoff from the concrete is contained within the WPAP area. There will be no stormwater discharges from the quarry portion of the WPAP. There are no expected stormwater discharges from the rail spur area due to an oversized stormwater retention pond. Any discharges will be covered under the existing stormwater permit.

Attachment C

Suitability Letter from Authorized Agent (if OSSF is proposed) – N/A
There is no OSSF present or planned for the WPAP area.

Attachment D

Exception to the Required Geologic Assessment (if requested) – N/A
No exception is requested.

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.

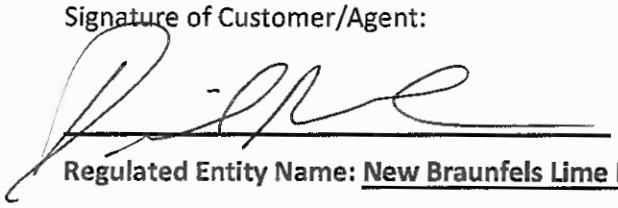
Signature

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: Daniel Escobar, CEMEX

Date: 2/1/24

Signature of Customer/Agent:



Regulated Entity Name: New Braunfels Lime Plant

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: _____

   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: N/A

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. Note -Blasting is in areas less than 10 acres at a time.

☐ 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.

CEMEX Lhoist Quarry & Aggregate Rail Distribution Yard

Temporary Stormwater Section
Attachment A

Spill Response Actions

All employees are knowledgeable of CEMEX's spill response procedures included as part of Attachment A through regular training. The CEMEX operations within the WPAP area do not include any fuel storage, On Site Sewage Facilities (OSSF) or storage of hazardous materials, so the main exposures for a spill are from a fuel tank on equipment either failing or from spills during fueling or from oil leaks from hydraulic hoses or the mining equipment. The attached procedures document who to contact at CEMEX, who will then make the appropriate internal and regulatory notifications. Simple steps that can be taken safely to limit the extent of spill such as building a temporary dike should be completed immediately. CEMEX environmental staff with then direct appropriate cleanup measures and proper disposal of impacted materials.

ENVIRONMENTAL STANDARD WORK

Updated: 09/04/2018

OIL SPILL RESPONSE PROCEDURES

ACTION - SWIMS	STANDARD PROCEDURE
Stop the Release	• Shut off the valve, shut off motors & ignition sources; shut off ventilation, etc.
Warn Others	• Notify your supervisor or plant management • Warn others about spill to avoid the area until cleaned **OPERATIONS TEAM** **Report Oil Spills Over 15 Gallons to Environmental Department** ✓ The Environmental Dept. shall determine the reporting requirements ✓ Some oil and fuel spills may require specific time sensitive reporting ✓ Oil spill reporting procedures are posted in the ENV Center ✓ The ENV Dept. will notify the applicable regulatory agency, if required
Isolate Spill 	• Isolate and contain the spill ✓ Prevent discharge to drainage paths and storm drains ✓ Place absorbents, socks or earthen berms around spill ✓ Absorb sheens on water using oil booms or absorbent pads
Minimize & Clean Up 	• Minimize personal exposure with PPE, safety practices & security measures • Take corrective action to resolve spill source • Property discard spill clean-up materials into drums • Label containers as used oil with date for proper disposal • Clean and/or replace spill response equipment • Large spills are to be handled by Environmental Spill Response Contractor ✓ Get instructions from Plant Management Team or Environmental Dept.
Standby to Assist	• Standby to assist until spill is resolved and cleaned up • Confirm spill incident is resolved

MAINTAIN THE FOLLOWING SPILL RESPONSE EQUIPMENT AT PLANT SITE AT MINIMUM Located Near Fuel & Oil Storage Areas		
Rubber Gloves	Absorbent Socks	Empty Drums or Containers
Shovels & Brooms	Absorbent Materials i.e. sand	Fire Extinguishers
Absorbent Pads	Oil & Water Booms	Loader or Bobcat (maintained onsite)

ENVIRONMENTAL STANDARD WORK

Updated: 06/01/2018

OIL SPILL REPORTING STANDARD PROCEDURES

EVENT TYPE	ACTION	NOTIFICATION REQUIREMENTS
15 Gallons or More Outside a Contained Area OR 20 Gallons or More Inside a Contained Area	**REPORT IMMEDIATELY**	• Report spill event immediately to the Environmental Department - ✓ To determine regulatory reporting requirements & any additional Spill Response actions • For all regulatory notifications – ✓ **The Environmental Dept. shall notify the appropriate regulatory authority, if required**
STATE & FEDERAL OIL SPILL REPORTING REQUIREMENTS		
25 Gallons or More onto land OR Less than 25 Gallons onto land if spill cannot be contained OR Discharges into State Inland Waters that create a sheen	**REPORT ASAP WITHIN 24 HOURS**	**TCEQ Region 13** San Antonio, Texas 8:00 a.m. – 5:00 p.m. 210-490-3096 **OR** **Texas Emergency Spill Reporting** 24-Hour Hotline 1-800-832-8224 • Refer to SPCC Plan to provide verbal report and follow-up written report
Discharges into Coastal Waters or Adjoining Shorelines that create a sheen	**REPORT IMMEDIATELY WITHIN 1 HOUR**	**National Response Center** U.S. Coast Guard 1-800-424-8802 **AND** **Texas General Land Office** 1-800-832-8824 • Refer to SPCC Pan to provide verbal report and follow-up written report
A Single Discharge of more than 1,000 gallons into surface waters or adjoining shorelines OR A Second Discharge of 42 gallons or greater in any 12-month period into surface waters or adjoining shorelines	**REPORT ASAP WITHIN 60 DAYS**	**EPA, Region 6** Emergency Response Center Dallas, TX 1-866-372-7745 (1-866-EPASpill) • Refer to SPCC Pan to provide a written report

ENVIRONMENTAL STANDARD WORK

Updated: 05/13/2021

ENVIRONMENTAL INCIDENT REPORTING PROCEDURES

ACTION	STANDARD PROCEDURE
REPORT SPILLS & DUST EMISSION INCIDENTS IMMEDIATELY	• Report spills and dust emission incidents to the Environmental Department - ✓ **Oil spills over 15 gallons outside contained area** ✓ **Oil spills over 20 gallons inside contained area** ✓ Excessive material spills and/or dust emission events • The Environmental Dept. shall determine the reporting and/or record requirements ✓ Some incidents may require specific time sensitive reporting and documentation, such as oil spills, dusting, water discharge exceedances
REPORT COMPLAINTS	• Obtain the **Name & Telephone Number** of person reporting complaint • **Report all Environmental Complaints to the Environmental Department** • The Environmental Dept. shall follow-up to ensure the complaint is resolved • The Environmental Dept. shall determine the reporting and/or record requirements
STOP & ASSESS	• Promptly take correction action to stop the environmental incident • For Oil Spills, refer to the Oil Spill Response Procedures • Assess the environmental incident and take corrective action
RESOLVE	• Implement corrective actions and follow-up until the incident is resolved • For complaints, follow up with the person that complained to advise when the issue is resolved
DOCUMENT	• The Environmental Dept. shall record the applicable Environmental Incidents or Complaints in the Incident & Complaint Log on line Environmental Center, and include: ✓ Name & Phone No. of person reporting incident or complaint ✓ Description of incident and/or complaint ✓ Document actions taken and closure • The Environmental Dept. shall determine whether the incident meets the criteria for reporting the incident in the Global Incident Reporting Tool

ENVIRONMENTAL INCIDENT COORDINATORS

ENVIRONMENTAL DEPARTMENT	**Daniel Escobar**	**Senior Environmental Manager**	**(832) 247-9836**
	Kade McGinty	**Environmental Specialist**	**(713) 304-1861**
OPERATION MANAGERS – BALCONES QUARRY	**Lance Griffin**	**Director Aggregates, TX Region**	**(830) 708-8614**
	Adam Slusser	**Quarry Manager**	**(830) 402-8721**
	Trace Venske	**Plant Superintendent Night Shift**	**(210) 589-6501**

Attachment B

Potential Sources of Contamination

The CEMEX operations within the quarry portion of the WPAP area do not include any fuel storage, On Site Sewage Facilities (OSSF) or storage of hazardous materials. The main potential for spills is from drips or leaks of oil or fuel from mining equipment, haul trucks and pickup trucks or from leaking hydraulic hoses on mining equipment.

The rail spur area also has no fuel storage or other features of potential concern for a spill. The main potential for a spill is from oil or fuel from locomotives or aggregate loading equipment.

Attachment C

Sequence of Major Activities

Quarry operations will continue laterally to near the property lines and to depths not to encroach within 25 feet of the Edwards Aquifer. Blasting for quarrying will be conducted in areas less than 10 acres at a time. Earthen berms for safety and control of stormwater, if needed, will be maintained throughout the quarry and shifted as required by the mining activity. Mined materials will be transported to the adjacent CEMEX-owned quarry for crushing, with associated clay and silt fines remaining after crushing transported to the Level 6 area to reclaim the pit.

Attachment D

Temporary Best Management Practices

Quarry Area
Stormwater does not exit the quarry portion of the WPAP area due to lower elevations in the quarry than the surrounding area as documented in the ESDM, Inc. evaluation dated January 4, 2024 (attached). Similarly, stormwater does not flow from the WPAP area to the Lhoist area to the south or the CEMEX-owned property to the north and west due to a combination of lower elevations after mining and berms placed within and along the boundaries of the quarry to prevent stormwater flow onto or from the quarry. High wall boundaries on the east side have safety berms to prevent access to the quarry and which also prevents stormwater flow into the quarry. These berms will be maintained and moved as needed during the life of the quarry as Temporary Stormwater Best Management Practices (TBMPs). Stormwater does not exit the quarry portion of the WPAP due to the elevations after past quarrying operations being lower than the surrounding properties in most cases, or from berms that are regularly maintained. The berms are maintained to at least 5 feet, which is the axle height of the largest mobile equipment on site in concurrence with MSHA requirements.

Rail Spur Area
Stormwater in the rail spur area flows to an oversized stormwater retention pond on the east end of the leased area that prevents most storm events from creating stormwater outflow off-site (SW Permit #TXR05EC91). Stormwater flow onto the rail spur from the north-adjoining BraunTex property is prevented by a berm, as is flow to the south off-site to a Union Pacific east-west trending rail line. The berms are continuously maintained by CEMEX.

There are no sensitive features within the quarry or in the rail spur area, so there are no TBMPs necessary for sensitive features. If a sensitive feature is identified during quarrying, a berm will be placed around the feature to prevent stormwater flow into the feature. As quarrying approaches this feature it will be temporarily sealed with flowable fill and then quarried out.

ESDM, INC.

Est. 1990

January 4, 2024

Mr. Daniel Escobar, Env. Manager
Cemex USA
16100 Dillard Dr.
Jersey Village, TX 77040

RE: Storm water Discharge Assessment for Lhoist Balcones Quarry
New Braunfels, TX 78130

Dear Mr. Escobar:

ESDM, Inc. was requested to perform an on-site inspection of the drainage patterns and discharge of surface water at the Lhoist Balonces Quarry site which is being leased and used by CEMEX. The quarry site is located at 350 APG Ln., New Braunfels, TX 78130. ESDM's objective for this assessment was to visually confirm that all process water and/or storm water from the Lhoist Balcones Quarry site is contained within the quarry limits.

ESDM conducted a site visit on January 3, 2024 to visually observe the conditions of the subject quarry. The walkthrough inspection of the perimeter of the property was employed to assist in the observation of the overall drainage boundaries of the subject quarry.

Based on ESDM's visual observations, ESDM confirms the following:

1. All process and/or storm water from the Lhoist Balcones Quarry site is contained within the quarry limits (See **Figure 1**).

2. All storm water drainage from certain areas north, south, east and west do not flow into the Lhoist Balcones Quarry, nor does the Lhoist Balcones Quarry discharge into those areas.

Should you have any additional questions, concerns and/or instructions regarding this matter, please contact us at your convenience.

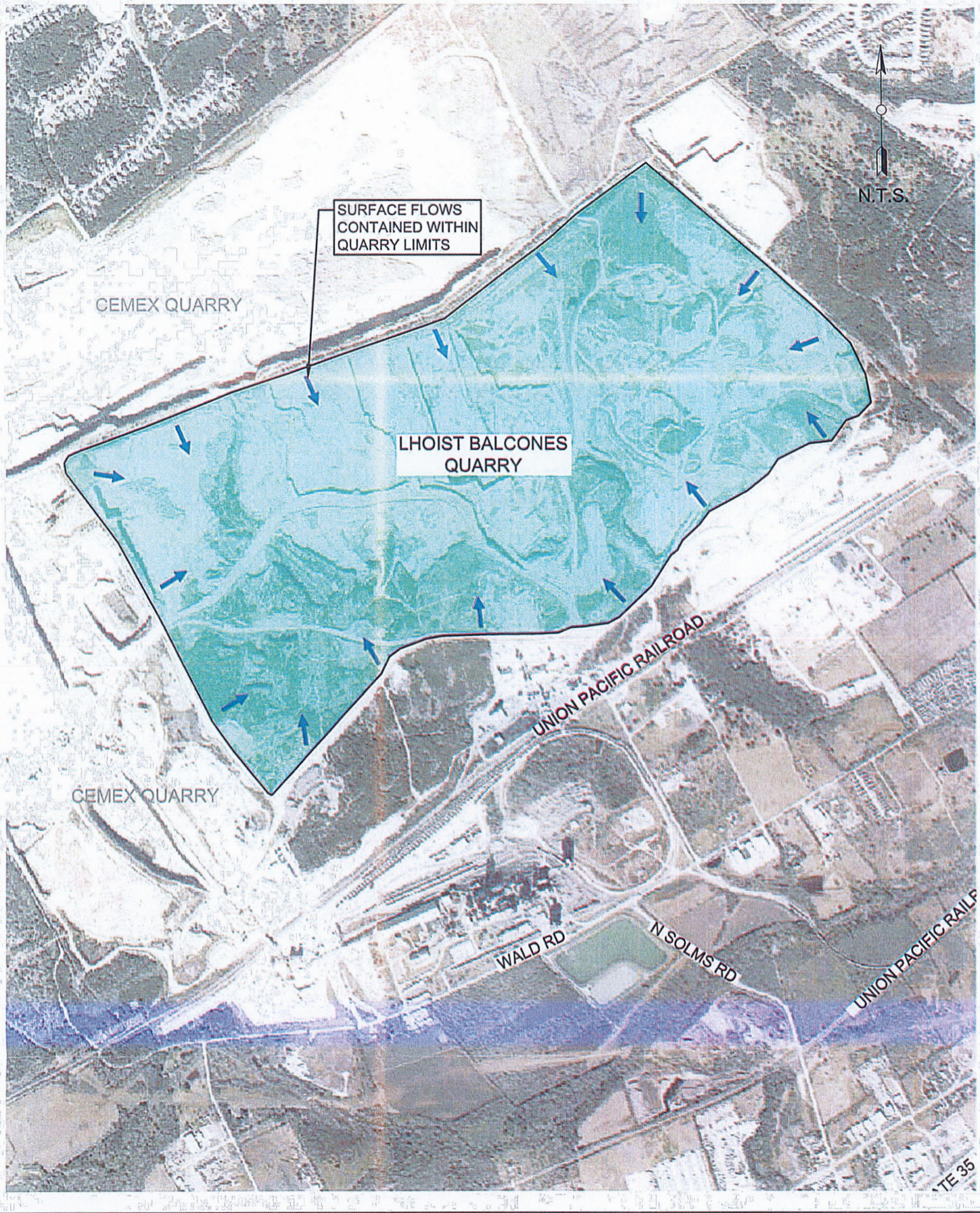
Sincerely Yours,

Hadi Elmi, P.E., R.E.M.
President

STATE OF TEXAS
HADI ELMI
48950
LICENSED
PROFESSIONAL ENGINEER

Environmental Systems Design and Management, Inc.

12715 Cutten Rd., Houston, Texas 77066
P.O. Box 9599, The Woodlands, Texas 77387
Tel: 281-444-3300 Fax: 281-444-3305 E-Mail: esdm@esdminc.com www.esdminc.com



ESDM, INC.
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FIGURE 1

Attachment E

Request to Temporarily Seal a Feature

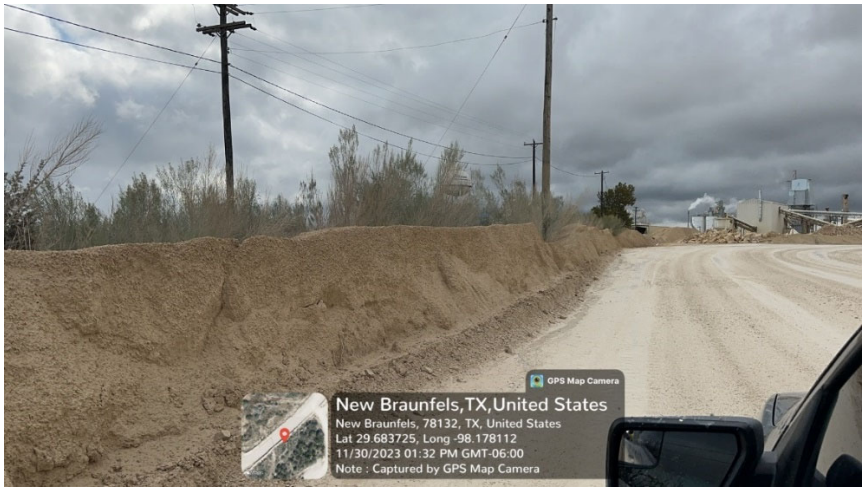
There are no sensitive features so no request to seal a feature is needed.

Attachment F

Structural Practices

TBMPs for the quarry include berms by pits for safety and to divert stormwater from flowing onto or from the adjoining CEMEX Balcones quarry and also the Lhoist lime plant. Stormwater does not exit the quarry portion of the WPAP due to the elevations after past quarrying operations being lower than the surrounding properties in most cases, or from berms that are regularly maintained as depicted in the photographs below.

Berms are located on the north and south sides of the rail spur area to prevent stormwater flow onto or off of the rail spur. Stormwater flow within the rail spur flows to an oversized stormwater retention pond which contains a permitted stormwater outfall.



Berm between Lhoist and WPAP Area

Berm on south portion of west side of WPAP area by Lhoist property to the south

Berm on south side of rail spur area

View of rail spur area depicting berms on north and south side

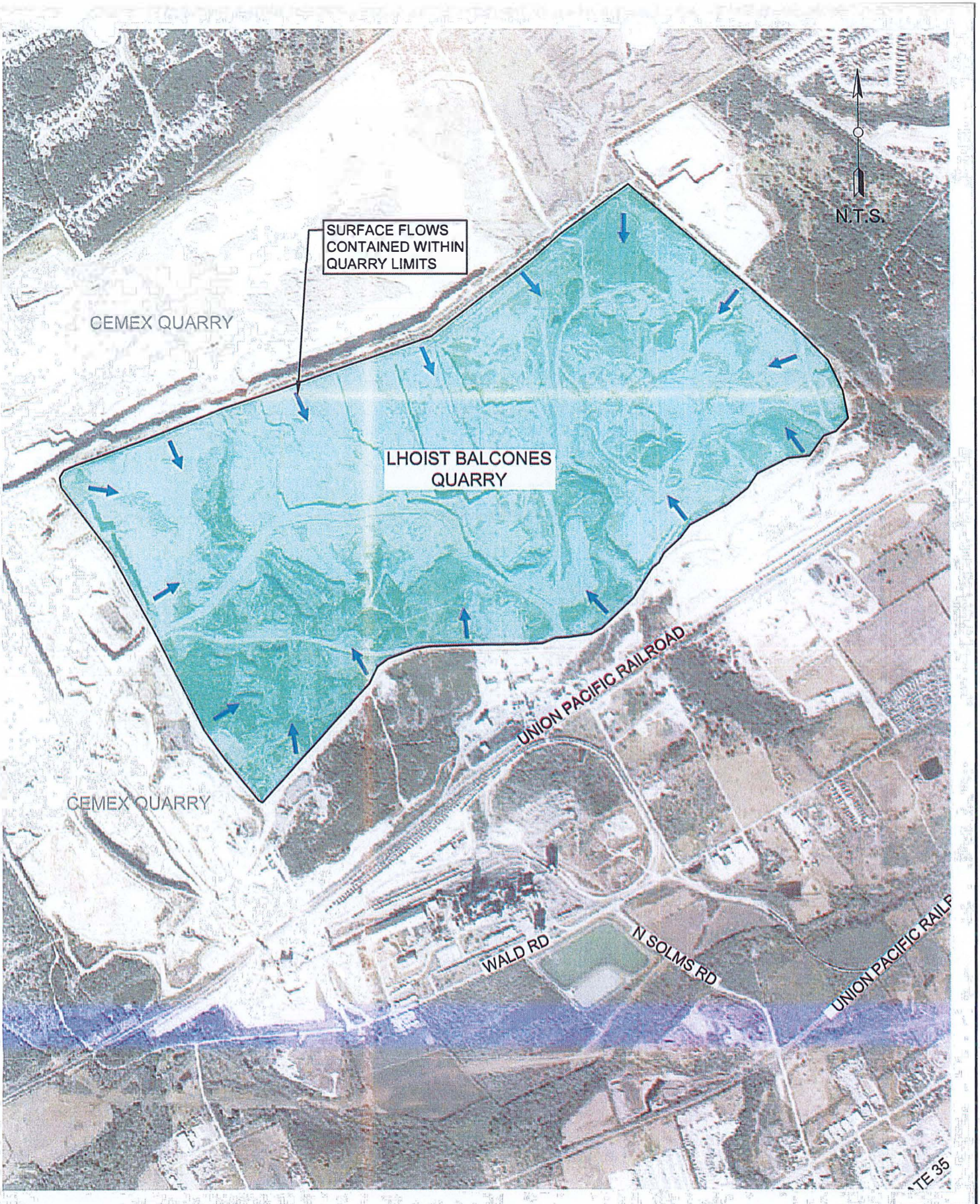


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FIGURE 1

Attachment I

Inspection and Maintenance for BMPs

Earthen berms will be inspected regularly and no less than quarterly and repaired, as needed, to ensure stormwater does not enter or leave the quarry WPAP area. Earthen berms on the north and south sides of the rail spur area of the WPAP will also be inspected at least quarterly and repaired as needed to ensure there is not stormwater flow onto or off of the rail spur area.

Potential stormwater outflow from the rail spur area is covered under TPDES General Permit No. TXR050000 (SW Permit #TXR05EC91) with stormwater flowing to an oversized stormwater retention pond on the east end of the leased area that prevents most, if not all, stormwater flow off of the rail spur area.

Mine de-watering has historically not been needed and is not expected to be in the future. If de-watering is necessary, it will be completed under the requirements of TPDES General Permit TXR050000, Section J.

Upper portion of stormwater retention pond in the rail spur area on the Transition Zone with adjacent berms

Lower portion of stormwater retention pond in rail spur area on the Transition Zone

Attachment J

Schedule of Soil Stabilization Practices

Roads and stockpiles within the quarry do not require stabilization as there is no stormwater flow from the quarry as documented in the ESDM, Inc. letter dated January 4, 2024 (Attachment D). The rail spur area is in continuous use for rail car loading with no construction or excavation planned, so no soil stabilization measures are needed.

There are no grading activities for construction as construction is complete, so there are no grading records required.

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.

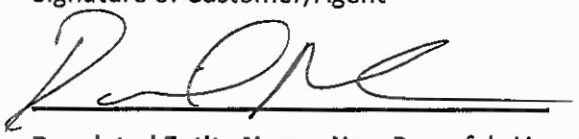
Signature

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: Daniel Escobar, CEMEX

Date: 2/1/24

Signature of Customer/Agent



Regulated Entity Name: New Braunfels Lime Plant

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 The only permanent BMPs are berms maintained by CEMEX on a regular basis in accordance with the Mine Safety and Health Administration (MSHA) requirements.

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

CEMEX Lhoist Quarry & Aggregate Rail Distribution Yard

Permanent Stormwater Section
Attachment A

20% or Less Impervious Cover Waiver – N/A

Attachment B

BMPs for Upgradient Stormwater

As documented in the ESDM evaluation dated January 4, 2024 (Attachment D – Temporary Stormwater BMPs) there is no current stormwater flow onto or out of the quarry.
High wall boundaries on the east side have safety berms to prevent access to the quarry and stormwater in that area flows south parallel to the quarry boundary. Any incidental stormwater flow into the quarry will be captured within the quarry by the mined areas being at a lower elevation than the surrounding area or permanent berms, so there is no pollutant load from stormwater out of the quarry.

Rail Spur Area

Stormwater in the rail spur area flows to an oversized stormwater retention pond on the east end of the leased area that prevents most storm events from creating stormwater outflow off-site (SW Permit #TXR05EC91). Stormwater flow onto the rail spur from the north-adjoining BraunTex operations is prevented by a berm, as is flow to the south off-site to a Union Pacific east-west trending rail line. The berms will be continuously maintained by CEMEX in accordance with MSHA requirements, with the berms maintained to at least 5 feet, which is the axle height of the largest mobile equipment on site in concurrence with MSHA requirements.

Attachment C

BMPs for On-Site Stormwater

Quarry
Stormwater on the quarry portion of the WPAP will be managed by the stormwater being contained within the quarry will be captured within the quarry by lower elevations of the mined areas or, where necessary, earthen berms. Earthen berms are maintained to at least 5 feet, which is the axle height of the largest mobile equipment on site. Stormwater will allowed to evaporate with no off-site discharge.

Rail Spur
An earthen berm continuously maintained by CEMEX along with south boundary of the rail spur area immediately north of a UPRR rail line prevents stormwater in the rail spur area from flowing off-site to the south. Any potential discharge from an over-sized stormwater retention pond on the east end of the WPAP area is under a stormwater permit (SW Permit #TXR05EC91).

Attachment D

BMPs for Surface Streams - NA

There are no surface streams on the quarry or rail spur WPAP areas.

Attachment E

Request to Seal Features – N/A

There is no request to seal a naturally occurring sensitive feature.

Attachment F

Construction Plans – N/A

No construction is planned for the quarry and rail spur WPAP areas.

Attachment G

Inspection, Maintenance, Repair and Retrofit Plan

BMPs for the quarry include berms by the pits for safety and to divert stormwater, if needed, from flowing onto or from the adjoining CEMEX Balcones quarry and also the Lhoist lime plant. Stormwater does not exit the quarry portion of the WPAP due to the elevations after past quarrying operations being lower than the surrounding properties in most cases, or from berms that are regularly maintained. The berms are maintained to at least 5 feet, which is the axle height of the largest mobile equipment on site in concurrence with MSHA requirements.

The berms are inspected in accordance with MSHA requirements and are repaired immediately to ensure all stormwater remains in the quarry or within the berms in the rail spur area.

Attachment H

Pilot-Scale Field Testing Plan – N/A

No pilot testing is planned as part of this WPAP.

Attachment I

Measures for Minimizing Surface Stream Contamination – N/A

There are no surface streams in the quarry or rail spur WPAP areas.