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The Intensive Cultural Resources Survey For The TCEQ NPDES Permitted Location On The Canyon Ranch Tract Comal County, Texas

James J. Hill

The Intensive Cultural Resources Survey For The TCEQ NPDES Permitted Location On The Canyon Ranch Tract Comal County, Texas

December 4, 2020

BGE PN 7278-00

Mr. Mark Wolfe
State Historic Preservation Officer
Texas Historical Commission
108 W. 196th Street
Austin, TX 78701

Subject: Draft Short Report for the Intensive Cultural Resources Survey for the TCEQ NPDES Permitted Location on the Canyon Ranch Tract
Comal County, Texas

Dear Mr. Wolfe:

Enclosed, please find a copy of the draft short report for the Intensive Cultural Resources Survey for the TCEQ NPDES Permitted Location on the Canyon Ranch Tract. This report details the findings of a cultural resource investigation completed in November of 2020.

BGE appreciates the opportunity to participate in historical preservation and protection of our cultural resources through responsible engineering.

Should you require any additional information or have any questions, please feel free to contact James J. Hill (Josh) at (512) 686-5572 or via email at jhill@bgeinc.com

Very truly yours,

James J. Hill (Josh), R.P.A.
Principal Investigator
BGE Environmental Services,
1701 Directors Boulevard, Suite 1000
Austin, Texas 78744

GRAM VIKAS PARTNERS, INC.

SHORT REPORT FOR THE INTENSIVE CULTURAL RESOURCES SURVEY FOR THE TCEQ NPDES PERMITTED LOCATION ON THE CANYON RANCH TRACT COMAL COUNTY, TEXAS

***Prepared By*:**

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Suite 200
Austin, Texas 78728

SHORT REPORT FOR THE INTENSIVE CULTURAL RESOURCES SURVEY FOR THE TCEQ NPDES PERMITTED LOCATION ON THE CANYON RANCH TRACT COMAL COUNTY, TEXAS

Prepared for:

Gram Vikas Partners, Inc.
1141 N. Loop 1604, STE 105-114
San Antonio, Texas 78232

Prepared by:

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Principal Investigator:
James J. Hill, R.P.A.

Report Author:
James J. Hill

BGE PN:7278-02
January, 13, 2021

Management Summary

Gram Vikas Partners, Inc. (Sponsor) is proposing the development of the approximate 400-acre Canyon Ranch Tract (Project) in northwest Comal County, Texas. The Project would occur approximately eight miles northeast of Spring Branch, Texas along Farm to Market Road (FM) 306. The Project will consist of a mix of both residential and commercial properties, associated roads, utilities and a wastewater treatment facility. As part of the development, an approximate six-acre wastewater treatment facility will be constructed in the west-central portion of the Project area, approximately 0.9-mi northwest of FM 306 and County Road (CR) 401 intersection.

Under the Memorandum of Agreement between the Texas Commission on Environmental Quality (TCEQ) and the United States Environmental Protection Agency (EPA) for the National Pollutant Discharge Elimination System (NPDES), TCEQ has the responsibility to adhere to federal requirements, such as Section 106 of the National Historic Preservation Act (NHPA). Under Section 106, federal agencies must consider the effects of their actions on historic properties, defined as resources that are included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). Federal requirements only apply to undertakings covered by the TCEQ NPDES permit. The TCEQ will be administering the permit on behalf of the EPA.

As the wastewater treatment facility associated with the Project will be federally permitted, and thus subject to a Section 106 Review in TCEQ permitted areas, the Sponsor has retained BGE, Inc. (BGE) to conduct cultural resource investigations to comply with Section 106 of the NHPA of 1966 as amended. The purpose of the investigation was to identify any cultural resources that would be impacted by the proposed project and determine if those resources would be eligible for inclusion in the NRHP or listing as State Antiquities Landmarks (SALs).

BGE conducted a cultural resources desktop review for the area of potential effects (APE) of the proposed Project, which totals approximately six acres, and all areas within a 1-km (0.62-mi) buffer of the APE, forming the study area (Study Area). In November of 2020, BGE conducted an intensive cultural resources survey of the APE. The survey was conducted according to the Council of Texas Archeologists' (CTA) Archeological Survey Standards for Intensive Terrestrial Survey.

Upon conclusion of the survey, BGE produced this short report for review by the State Historic Preservation Officer (SHPO). Reporting conforms to the Secretary of the Interior's Guidelines for Archaeology and Historic Preservation, CTAs Guidelines for Cultural Resources Management Reports (Short Report Format), and the THC's Rules of Practice and Procedure (Texas Administrative Code, Title 13, Chapter 26.

BGE performed the desktop review and field survey for the Project under the direction of James J. Hill (Josh), R.P.A., Principal Investigator. The survey was completed in approximately ten person-hours by Mr. Hill. A total of 12 shovel tests were excavated. No cultural resources were identified within the Study Area during the pre-field desktop review and the APE during field investigation. It is BGE's opinion that no cultural resources eligible for inclusion in the NRHP or listing as SALs would be impacted by the Project and that the Project should proceed without further cultural resource investigation. However, in the unlikely event that any cultural resources

are encountered during construction, BGE recommends immediately ceasing work in the area and notifying the THC.

Contents

I. Introduction

Gram Vikas Partners, Inc. (Sponsor) is proposing the development of the approximate 400-acre Canyon Ranch Tract (Project) in northwest Comal County, Texas (**Appendix A – Figure 1**). The Project would occur approximately eight miles northeast of Spring Branch, Texas along Farm to Market Road (FM) 306. Land use on adjacent properties is predominantly residential, with subdivisions lying due east and south of the Project location. The Project will consist of a mix of both residential and commercial properties, associated roads, utilities and a wastewater treatment facility. As part of the development, an approximate six-acre wastewater treatment facility will be constructed in the west-central portion of the Project area, approximately 0.9-mi northwest of FM 306 and County Road (CR) 401 intersection. (**Appendix A – Figures 2 and 3**).

Under the Memorandum of Agreement between the Texas Commission on Environmental Quality (TCEQ) and the United States Environmental Protection Agency (EPA) for the National Pollutant Discharge Elimination System (NPDES), TCEQ has the responsibility to adhere to federal requirements, such as Section 106 of the National Historic Preservation Act (NHPA). Under Section 106, federal agencies must consider the effects of their actions on historic properties, defined as resources that are included in, or eligible for inclusion in, the National Register of Historic Places (NRHP). Federal requirements only apply to undertakings covered by the TCEQ NPDES permit. The TCEQ will be administering the permit on behalf of the EPA. As the project will be constructed with private funds on private property, compliance with the Antiquities Code of Texas (ACT) is not required.

To comply with Section 106, the Sponsor has retained BGE, Inc. (BGE) to conduct cultural resource investigations for the Project. The purpose of these investigations was to identify any cultural resources that would be potentially impacted by the proposed project and determine if those resources would be eligible for inclusion in the NRHP or listing as State Antiquities Landmarks (SALs). BGE conducted a cultural resources desktop review for a study area including the area of potential effects (APE) of the proposed Project, which totals approximately six acres, and all areas within a 1-km (0.62-mi) buffer of the APE.

In November of 2020, BGE conducted a near surface intensive cultural resources survey of the APE. The survey was conducted according to the Council of Texas Archeologists' (CTA) Archeological Survey Standards for Intensive Terrestrial Survey. This report documents the results of the survey and was produced in accordance with the Secretary of the Interiors Guidelines for Archaeology and Historic Preservation, CTA Guidelines for Cultural Resources Management Reports (Short Report Format), and the THC Rules of Practice and Procedure (Texas Administrative Code, Title 13, Chapter 26. In addition, this report provides recommendations regarding further cultural resource investigations within the APE of the Project.

II. Definition of The APE

The APE for the Project is defined as the limits of all proposed ground-disturbing activities associated with the Project (**Appendix A – Figures 1 – 3**). For the purposes of this investigation, the APE is limited the proposed footprint of the wastewater treatment facility located in the west-central portion of the Project, which totals approximately six acres.

The Project area resides within the Balcones Canyonlands Level IV ecoregion, a subregion of the Edwards Plateau, and is characterized by high relief karstic terrain formed through the solution of springs, streams, and rivers. The soils of the region consist largely of inceptisols on the ridges and benches and mollisols in the alluvial valleys (Griffith et al. 2007). The plant associations of the Balcones Canyonlands are varied and grow along soil and moisture gradients. Along riparian areas, relic swamp vegetation including baldcypress, American sycamore, and black willow can be found. Oak and Cedar savanna covers areas between drainages (Griffith et al. 2007).

Archaeological Setting

The Project is located within the Central Texas archaeological region (Pertulla 2004). Prehistoric sites are found in a variety of topographic settings, including along blufflines, rock shelters, and caves. Most commonly, sites comprise an accumulation of refuse and utilitarian objects; however, evidence of habitation does occur in the form of burned rock middens, graves, pit-houses, and hearths (Pertulla 2004). Due to erosional constraints, well-stratified sites indicating long-term occupation are scarce; however, they do occur in alluvial valleys near large water sources. Historic sites in the area are found in various contexts and typically represent rural homesteads and farmsteads.

III. Methods

The purpose of cultural resource investigations was to a) determine if any cultural resources (archeological sites or historic properties) would be impacted by the proposed project, and b) are those cultural resources eligible for inclusion in the NRHP or listing as SALs.

A cultural resources desktop review was conducted to identify any known cultural resources within a 1-km (0.62-mi) buffer of the APE, forming the Study Area and determine if they would be impacted by the proposed project (**Appendix A – Figure 4)**. Sources reviewed include the THC's online Historic and Archeological Sites Atlases (THC 2020a, 2020b), Texas Archaeological Research Laboratory (TARL) records in Austin, the NRHP online database (National Parks Service (NPS) 2020), USGS Historical Topographic Maps (**Appendix A – Figures 5a-5e**; USGS 2020a) and USGS Historic Photographs (**Appendix B**; USGS 2020b).

The APE was assessed to determine the likelihood of cultural resource occurrence, and to identify the appropriate level of investigation to identify previously unknown cultural resources. Sources reviewed include United States Department of Agriculture (USDA) Soil Survey maps (**Appendix A – Figure 6**; Soil Survey Staff 2020), previously recorded cultural resource site forms (THC 2020), reports of previous archeological investigations (THC 2020b), USGS Historical Topographic Maps (USGS 2020a) and USGS Historic Photographs (USGS 2020b). Factors considered in this assessment included the proximity to dependable water sources, the geoarchaeological potential of soils, slope gradient, previous disturbance, and the likelihood of seasonal inundation. The APE was determined to have moderate potential for cultural resource occurrence. The APE was surveyed according to the THC's Rules of Practice and Procedure, Chapter 26, and the CTA Intensive Terrestrial Survey Guidelines.

Intensive survey included both surface inspection and subsurface investigations within the proposed wastewater treatment facility location. The total area surveyed was approximately six

acres. Shovel tests were placed in accordance with CTA standards that dictate at least two shovel tests should be excavated per acre on projects totaling less than 25 acres. In areas with the potential for buried cultural deposits, shovel tests, 30 centimeters in diameter, were excavated by natural strata where possible, or in 10-centimeter arbitrary levels. Excavated matrix was screened through ¼-inch hardware cloth. Shovel tests were excavated to depths up to 80 centimeters or until the excavator reached the bottom of Holocene deposits overlaying limestone bedrock.

Shovel test and surface inspection locational data was recorded using a Samsung Note Tablet paired with a Trimble R1 GPS receiver. Shovel test and surface investigation notes were recorded on a standardized investigation point log and were temporarily housed at the BGE Austin, Texas office. Photographs of the project area were taken using the Samsung Note's digital camera function. As no cultural materials were identified, none were recorded or collected. Upon approval of this short report, field records will be transferred to TARL for curation.

IV. Results

Desktop Review

A desktop review of available online resources was conducted to identify previously recorded cultural resources within a 1-km (0.62-mi) Study Area circumscribing the APE (**Appendix A – Figure 4**). Sources reviewed include: The Texas Historical Sites Atlas (THC 2020a), Texas Archeological Sites Atlas (THC 2020b), the National Register Geospatial Data Set (NPS 2020), and the TxDOT Historic Districts and Properties of Texas Map (TxDOT 2020).

The desktop review identified no previously recorded National Register of Historic Places (NRHP) listed or eligible sites, State Antiquities Landmarks (SALs), Recorded Texas Historical Landmarks (RTHLs) or other Texas Historical Markers, cemeteries or otherwise previously recorded sites within the Study Area.

Two previous cultural resource surveys were identified within the Study Area. The earliest of the two surveys was conducted by Harry J. Shafer and Lee Roy Johnson in 1963. This survey was performed in congruence with the Texas Archaeological Salvage Project undertaken by the NPS as part of the establishment of Canyon Reservoir (THC 2020b). This reconnaissance survey falls within the southern extent of the 1-km buffer due south of FM 306. A second, much smaller and more recent survey was conducted near the southeast extent of the Study Area. There is limited information pertaining to the nature or results of the survey available on the Atlas other than the survey was conducted on behalf of the Texas Department of Highways and Public Transportation (TDHPT) in 1991.

Historic Land Use

Historic topographic maps and aerial photographs were reviewed to assess land use and development within the Study Area. The 1920 United States Geological Survey (USGS) Smithsons Valley 1:62,500 Topographic Quadrangle notes that several private roads pass through the Study Area and it is primarily covered with cedar, suggesting that this area had not been developed for cultivation, but utilized instead as pasture associated with ranching practices (**Attachment A - Figure 5a**). The 1927 USGS Smithsons Valley 1:62,500 Topographic Quadrangle (**Attachment**

A - Figure 5b) shows a network of small roads, that were likely noted in the 1920 topographic quadrangle, that intersect the Study Area. These roads likely lead to ranches or farmsteads in the immediate region. The Study Area shows little development until 1985 (**Attachment A- Figure 5c through 5e)** with the construction of FM 306 that ties into State Highway (SH) 281 to the west and a small subdivision located at the intersection at the southeastern corner of the Study Area. Currently, this subdivision is accompanied by an adjoining neighborhood of residential homes to the north of FM 306 that lie due east of the Study Area. The remaining area remains largely undeveloped and likely serve as agricultural pasture.

Historic aerial photography confirmed the findings from the historic topographic maps (**Attachment B**). A 1938 aerial photograph shows only small, unimproved farm roads bisecting the Study Area with most of the area remaining largely forested. No major development is observed in the Study Area until 1969, when a subdivision to the southeast was constructed. Sometime between 1969 and 1983, the construction of FM 306 occurs along the southern margin of the Study Area.

Previous Disturbance

Much of the Study Area appears to have been used primarily as agricultural pasture associated with previous ranching practices and is mostly undisturbed by human activity and development. A small portion of the Study Area bordering FM 306 has likely been subjected to disturbances associated with the construction of the roadway and the associated utilities. Variability in topographic relief, erosion and natural depositional processes have likely contributed to moderate surface and subsurface disturbances.

Intensive Survey

The entirety of the APE was subject to intensive pedestrian survey augmented with shovel testing. A total of 12 shovel tests were excavated within the APE (**Appendix A – Figure 7**). Shovel test and surface inspection data is provided in **Appendix D** and summarized here. Soils throughout the APE were primarily, silty loam with high percentages of limestone gravel and cobbles. Shovel tests were generally shallow, between 5-15 centimeters, and were typically terminated due to stone and bedrock impasse. No cultural material was identified during the pedestrian survey or shovel testing or surface inspections during the investigation and no archeological sites or historic properties were identified within the APE.

V. Summary and Recommendations

BGE archaeological personnel conducted an intensive cultural resources survey of the six-acre APE for the proposed Project in Comal County, Texas. The cultural resources investigation did not result in the identification of any new cultural resources. The results of the survey were negative, and it is unlikely that any archeological sites or historic properties eligible for inclusion in the NRHP or listing as SALs are located within the APE. BGE recommends a finding of *no historic properties affected* and that the Project should be allowed to proceed without further consultation and construction activities for the proposed project be approved to proceed without further consultation. In the unlikely event that cultural resources are encountered during

construction of the proposed project, construction should cease at that location until the THC is notified and a qualified professional archeologist can assess their significance.

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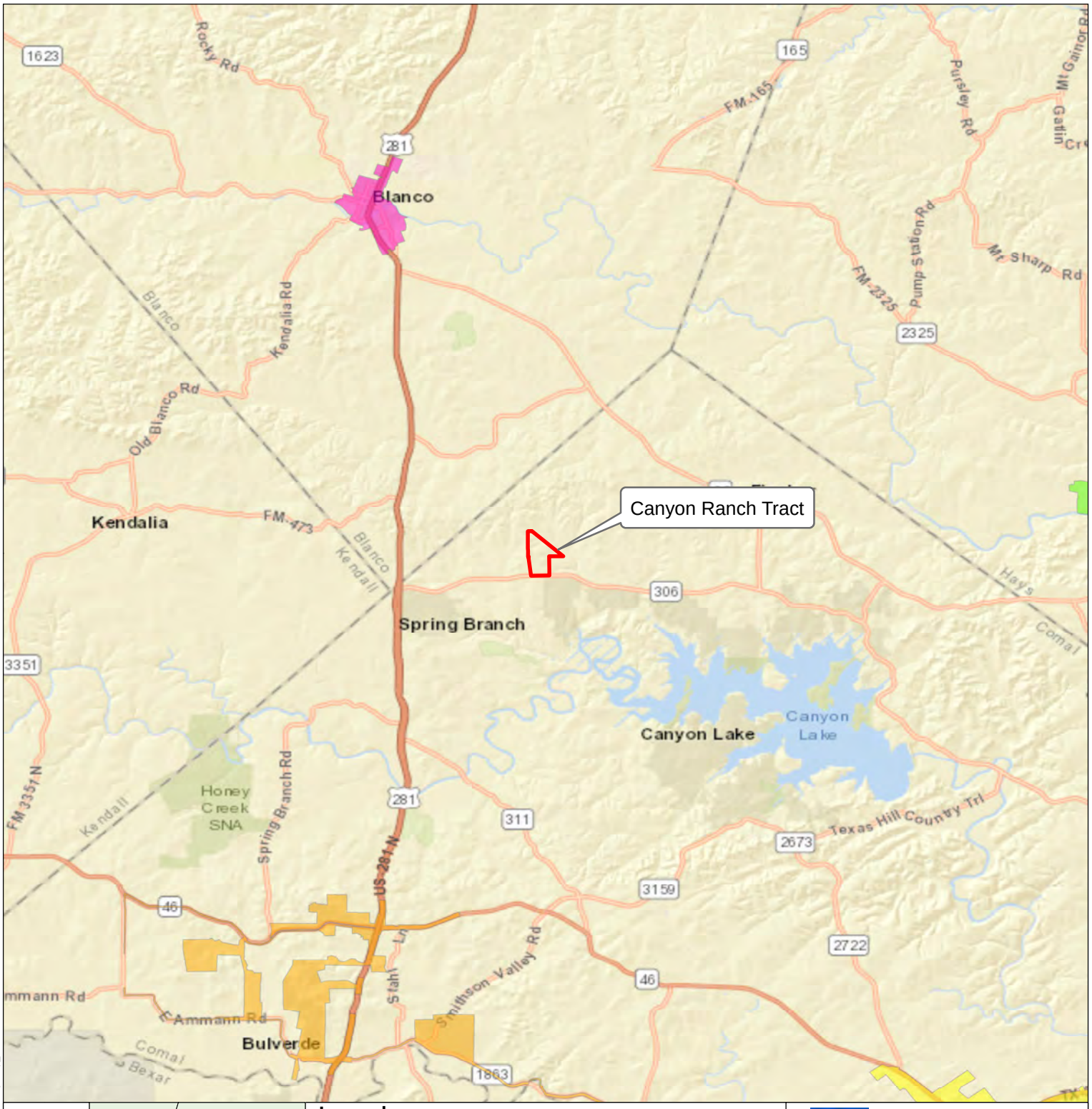
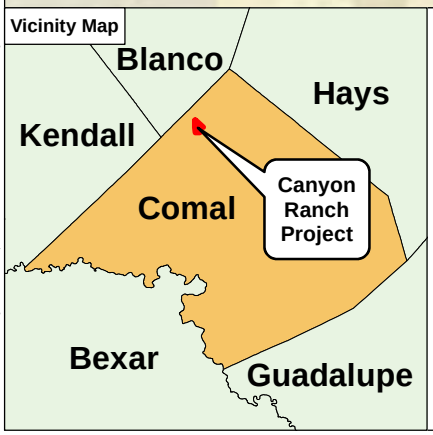
2020b USGS Earth Explorer. United States Geological Survey. https://earthexplorer.usgs.gov/. Accessed November 2020.

Appendix A – Figures

(NOT FOR PUBLIC DISCLOSURE)





Legend

- Canyon Ranch Tract
- Blanco
- Bulverde
- New Braunfels
- Wimberley

0 1 2
Miles

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Canyon Ranch Project

Figure 1:
Project Vicinity Map
Comal County, TX

Date: November 2020 | Proj. No: 7278-00

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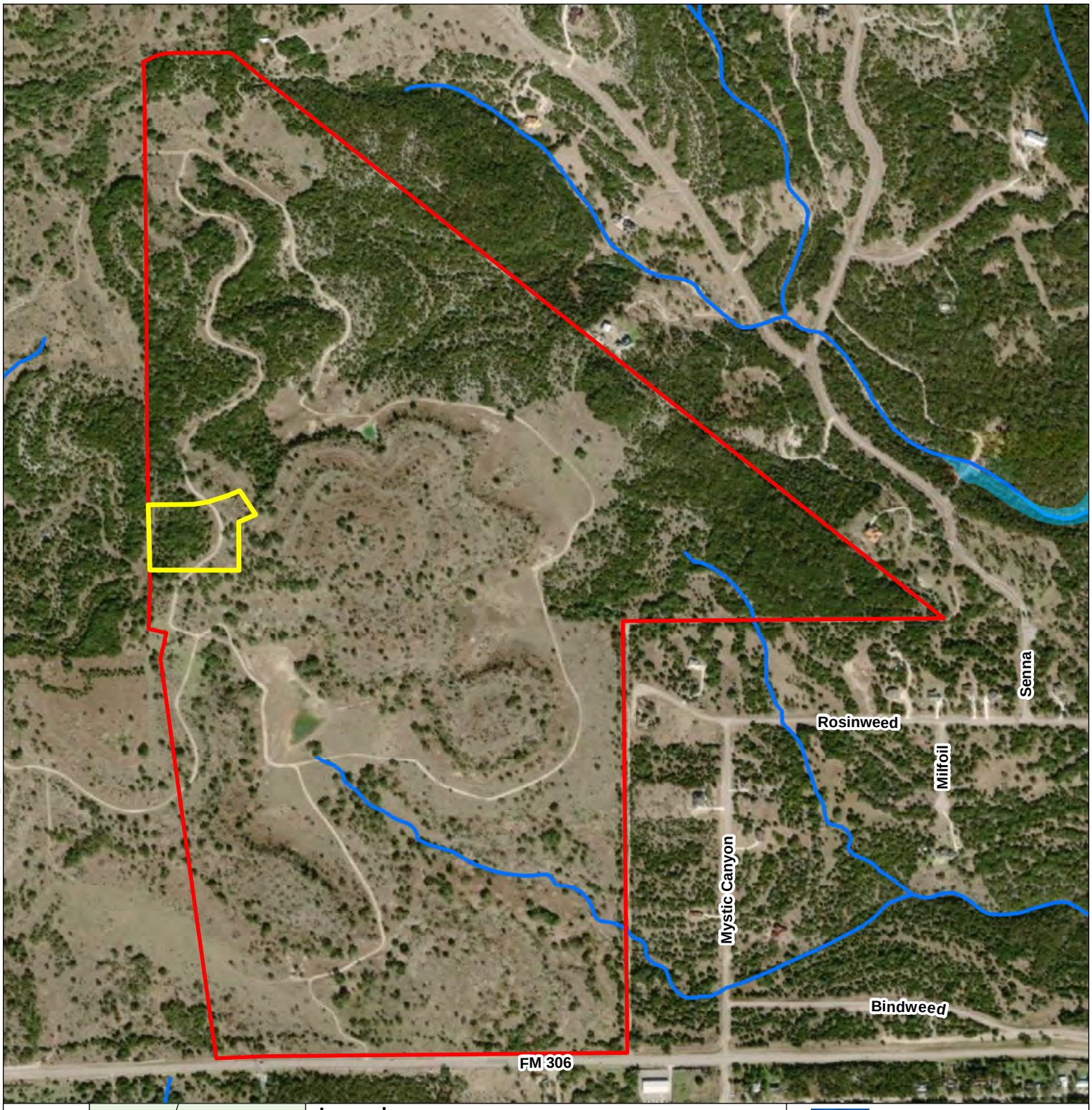
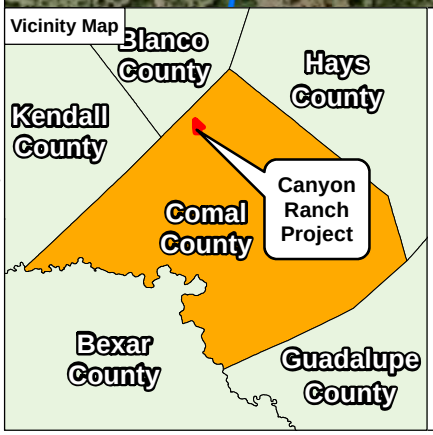
GIS Analyst: jhill

Data Source: ESRI 2020, TxDOT 2020





Legend

- TCEQ Permit Area
- Canyon Ranch Tract
- 100-year Floodplain (FEMA)
- Stream (NHD)

N

0 250 500
Feet

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Canyon Ranch Project

Figure 2: Project Location Aerial Map

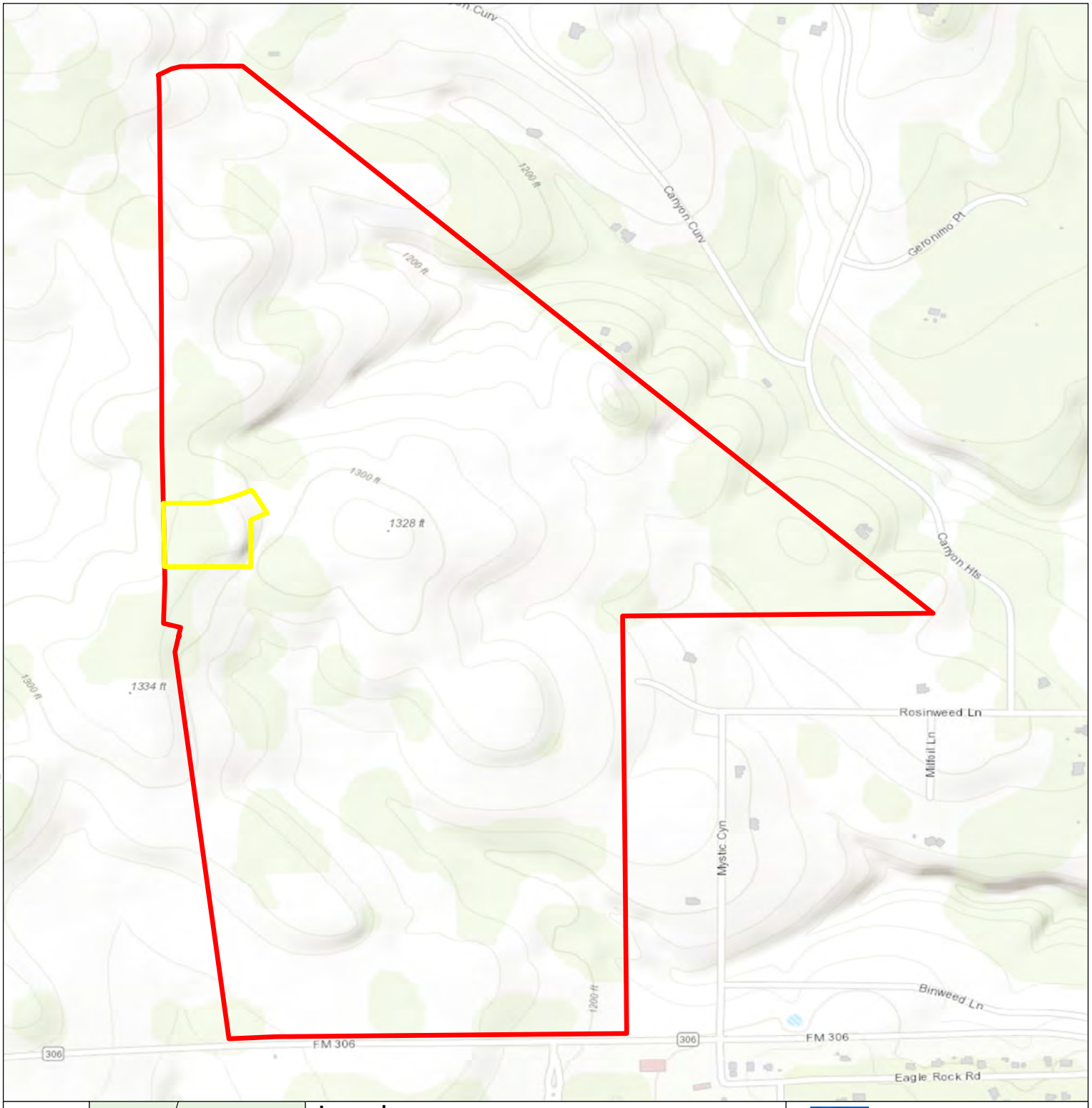
Comal County, TX

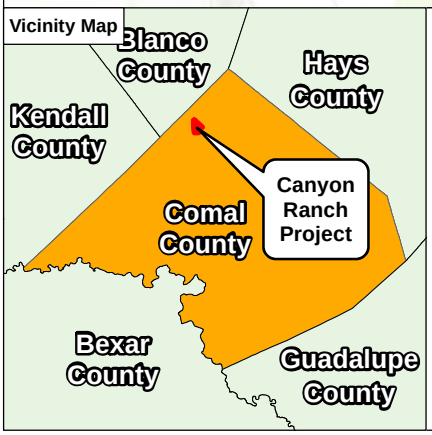
Date: November 2020 | Proj. No: 7278-00

File Path: G:\TXC\Office\AUS\ENV\02-Projects\Client\Gram Vikas Partners\Loma Ranch Tract\08 - GIS\Cultural Resources Project Location Map_TaskC.mxd

GIS Analyst: jhill

Data Source: NHD 2019, TxDOT 2015, FEMA 2020





Legend

- TCEQ Permit Area
- Canyon Ranch Tract

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Miles

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Canyon Ranch Project

Figure 3:
USGS Topographic Map

Comal County, TX

Date: November 2020 | Proj. No: 7278-00

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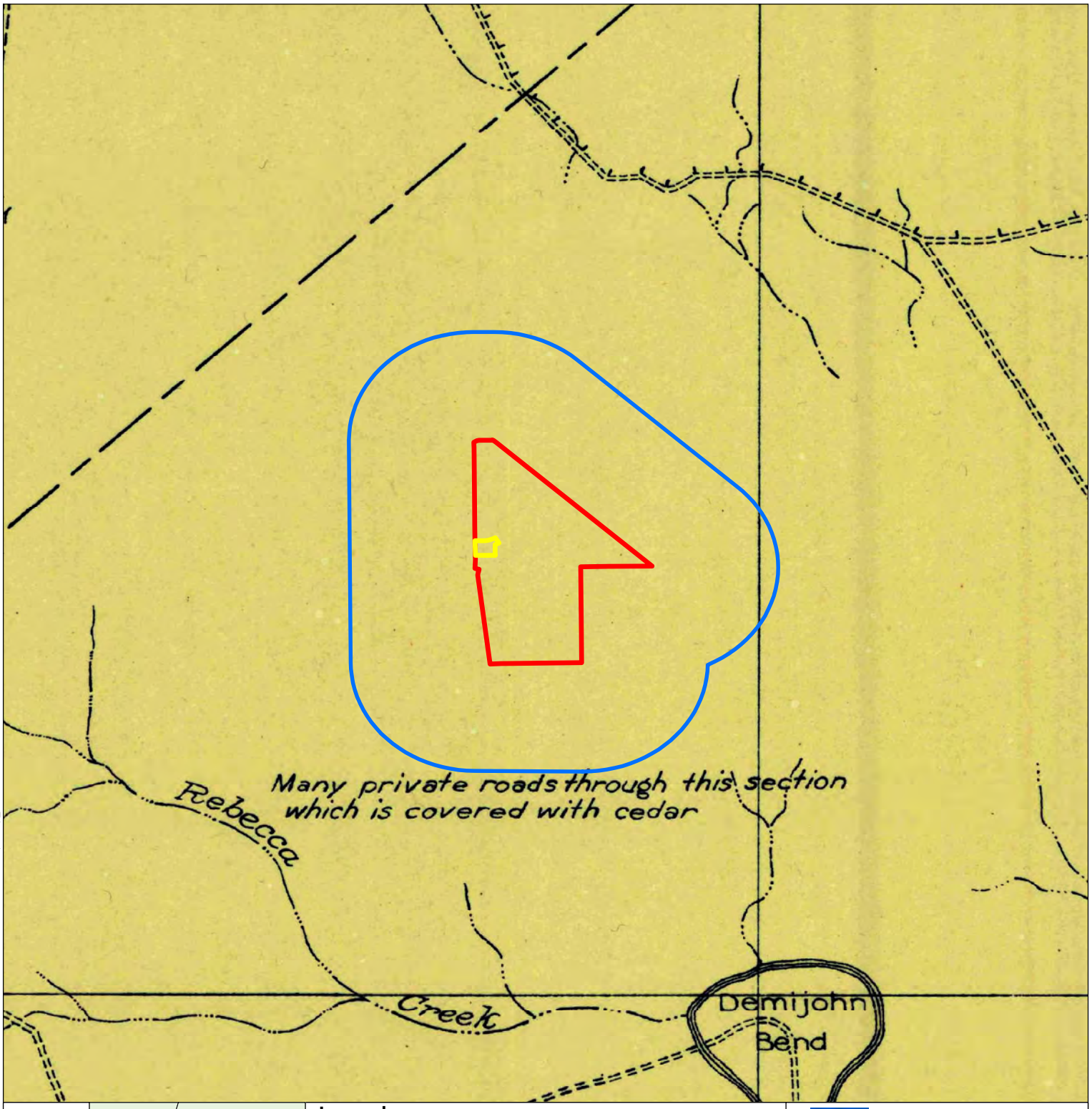
GIS Analyst: jhill

Data Source: ESRI 2020, TxDOT 2020



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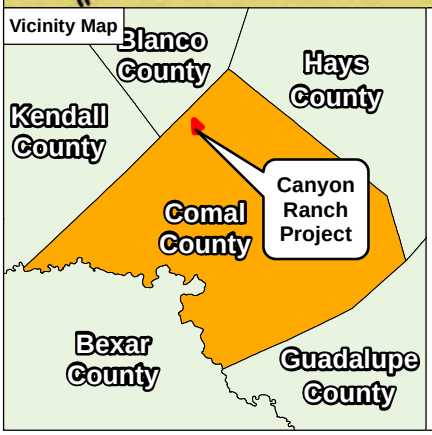

Legend

- TCEQ Permit Area
- Canyon Ranch Tract
- Study Area

N

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Feet

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Canyon Ranch Project

Figure 5a: 1920 USGS Topographic Map

Comal County, TX

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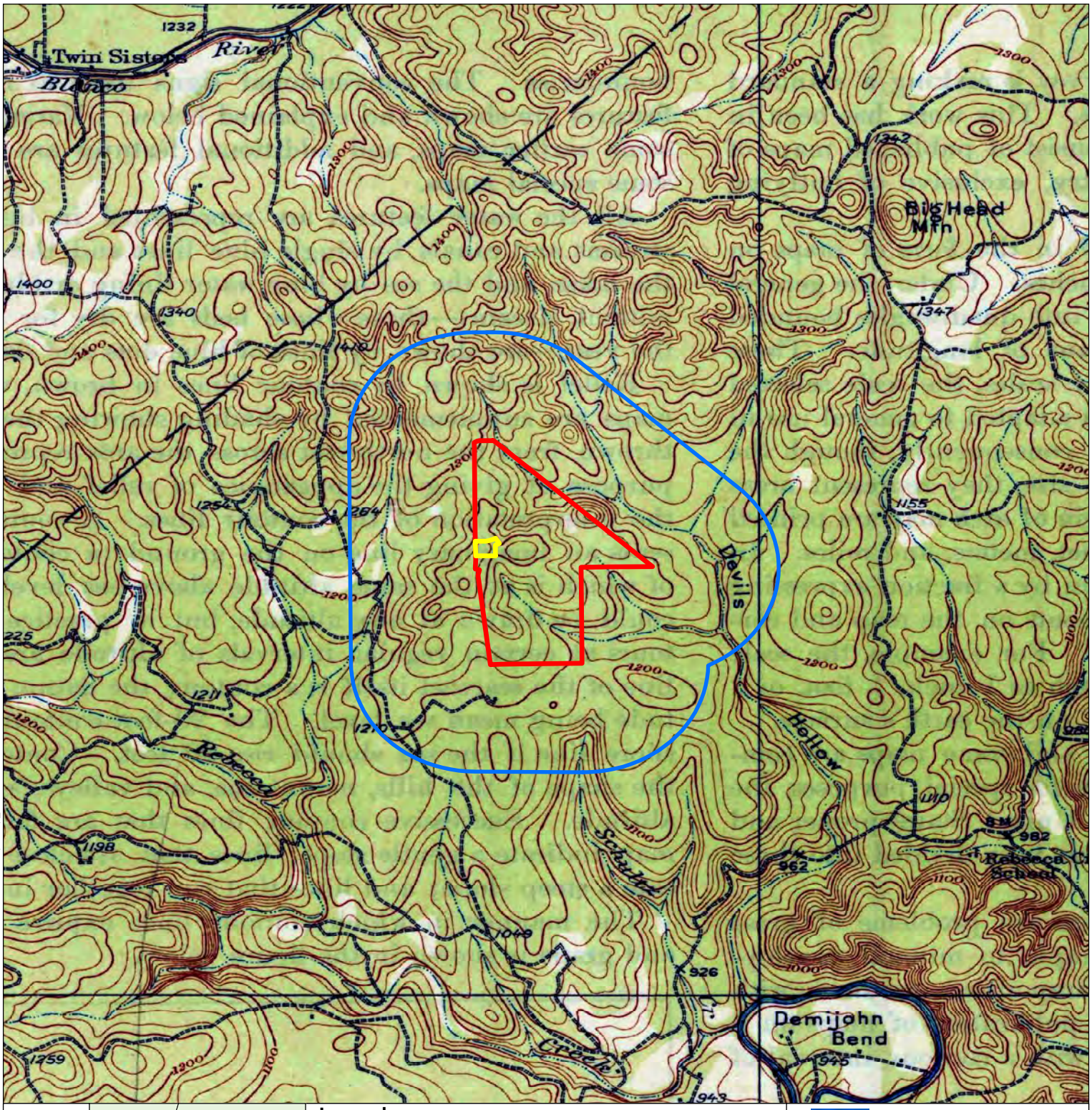
GIS Analyst: jhill

Data Source: USGS 1920



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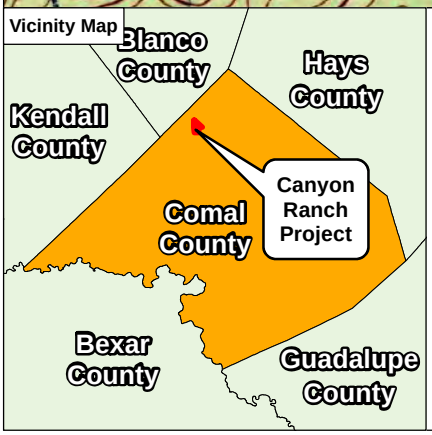

Legend

- TCEQ Permit Area
- Canyon Ranch Tract
- Study Area

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Canyon Ranch Project

Figure 5b: 1927 USGS Topographic Map

Comal County, TX

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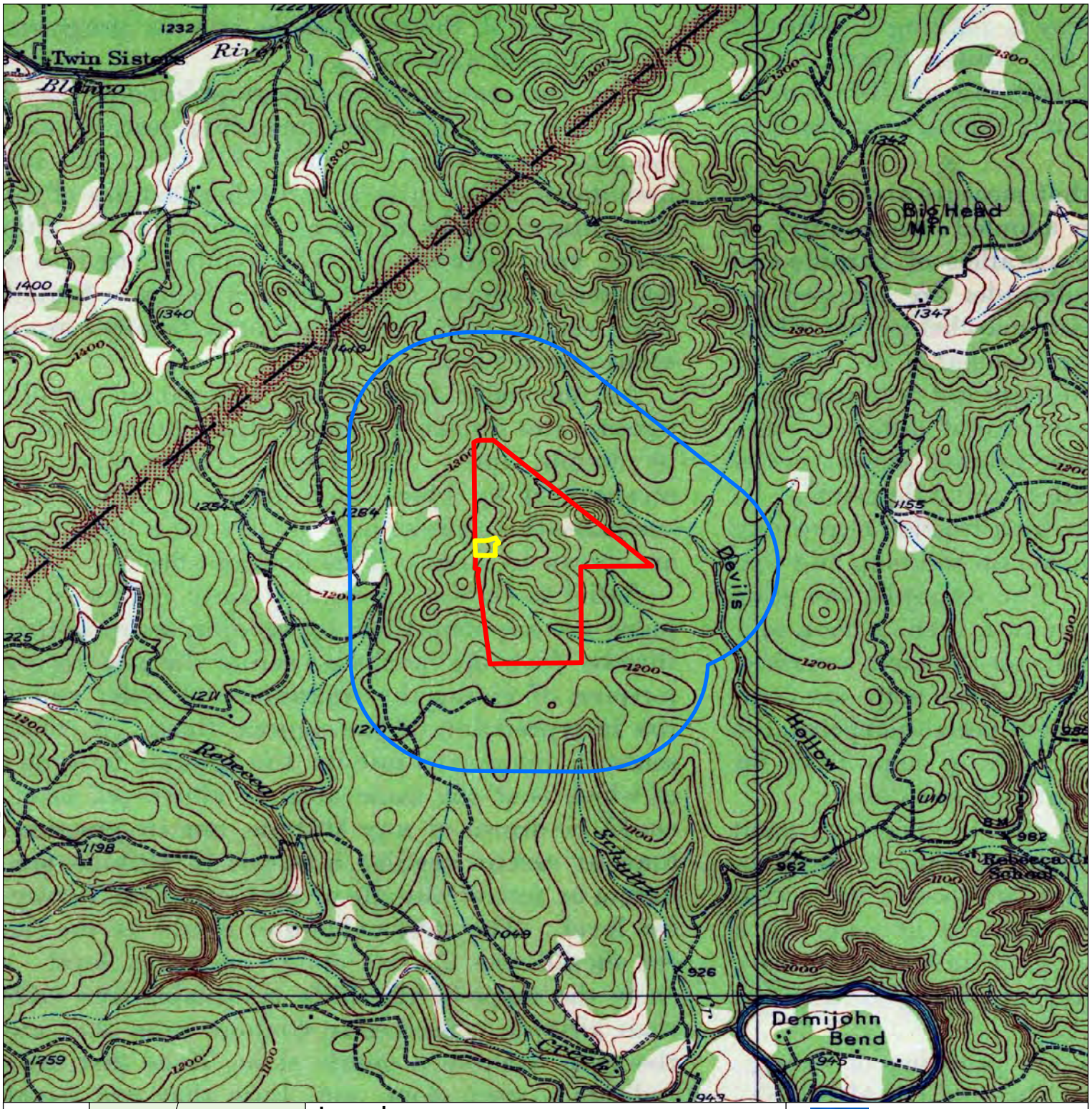
GIS Analyst: jhill

Data Source: USGS 1920



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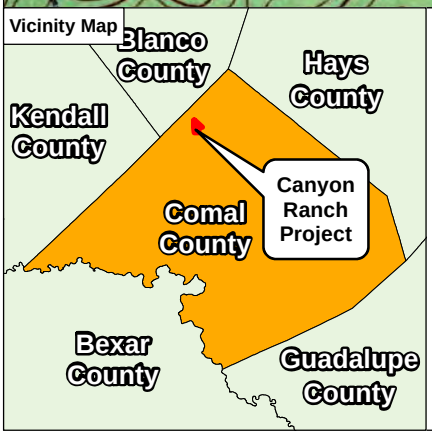

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- TCEQ Permit Area
- Canyon Ranch Tract
- Study Area

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Feet

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Canyon Ranch Project

Figure 5c: 1940 USGS Topographic Map

Comal County, TX

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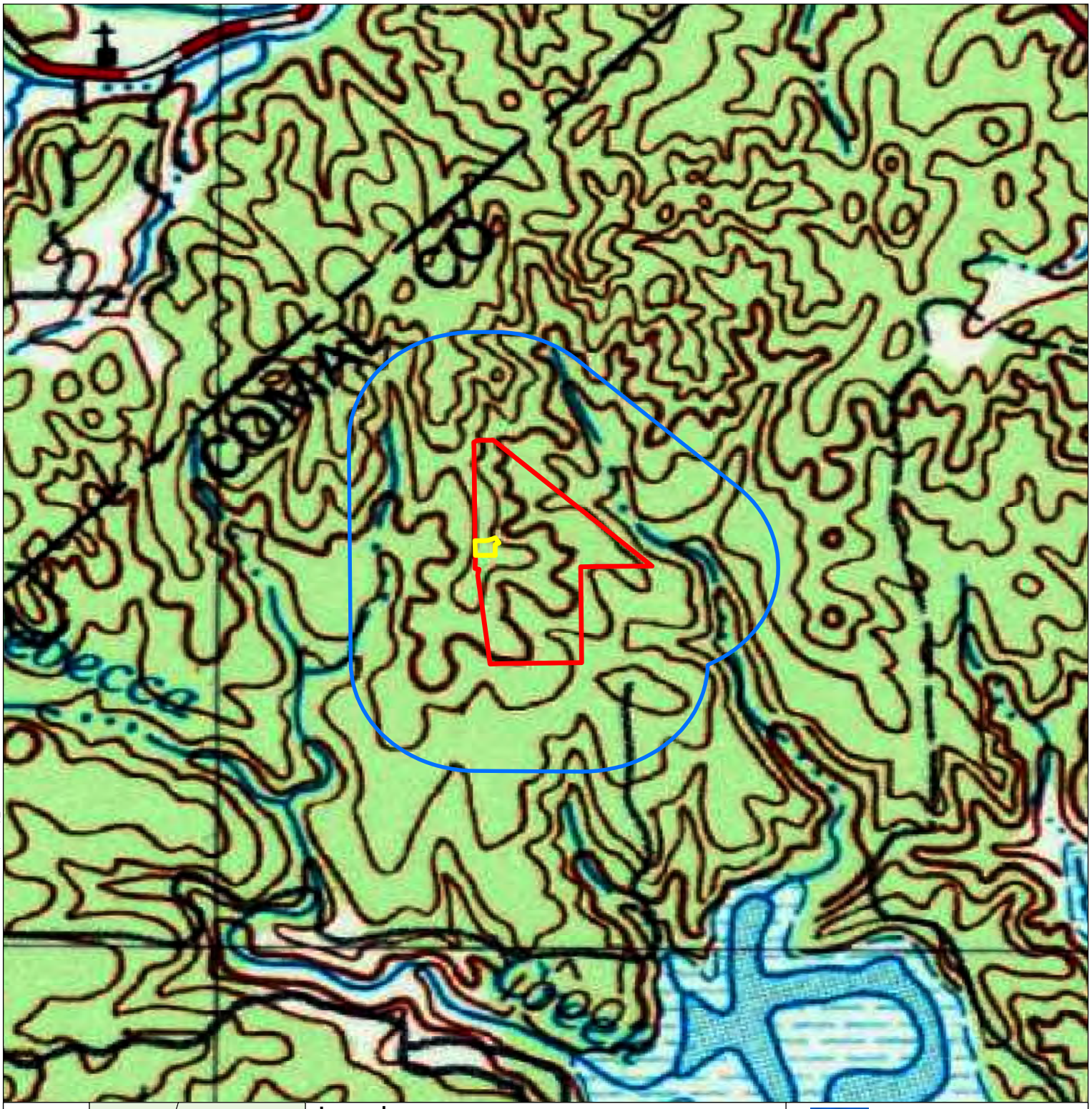
GIS Analyst: jhill

Data Source: USGS 1920



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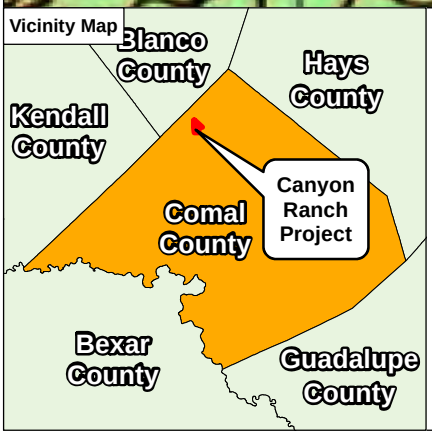

Legend

- TCEQ Permit Area
- Canyon Ranch Tract
- Study Area

0 900 1,800
Feet

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Canyon Ranch Project

Figure 5d: 1954 USGS Topographic Map

Comal County, TX

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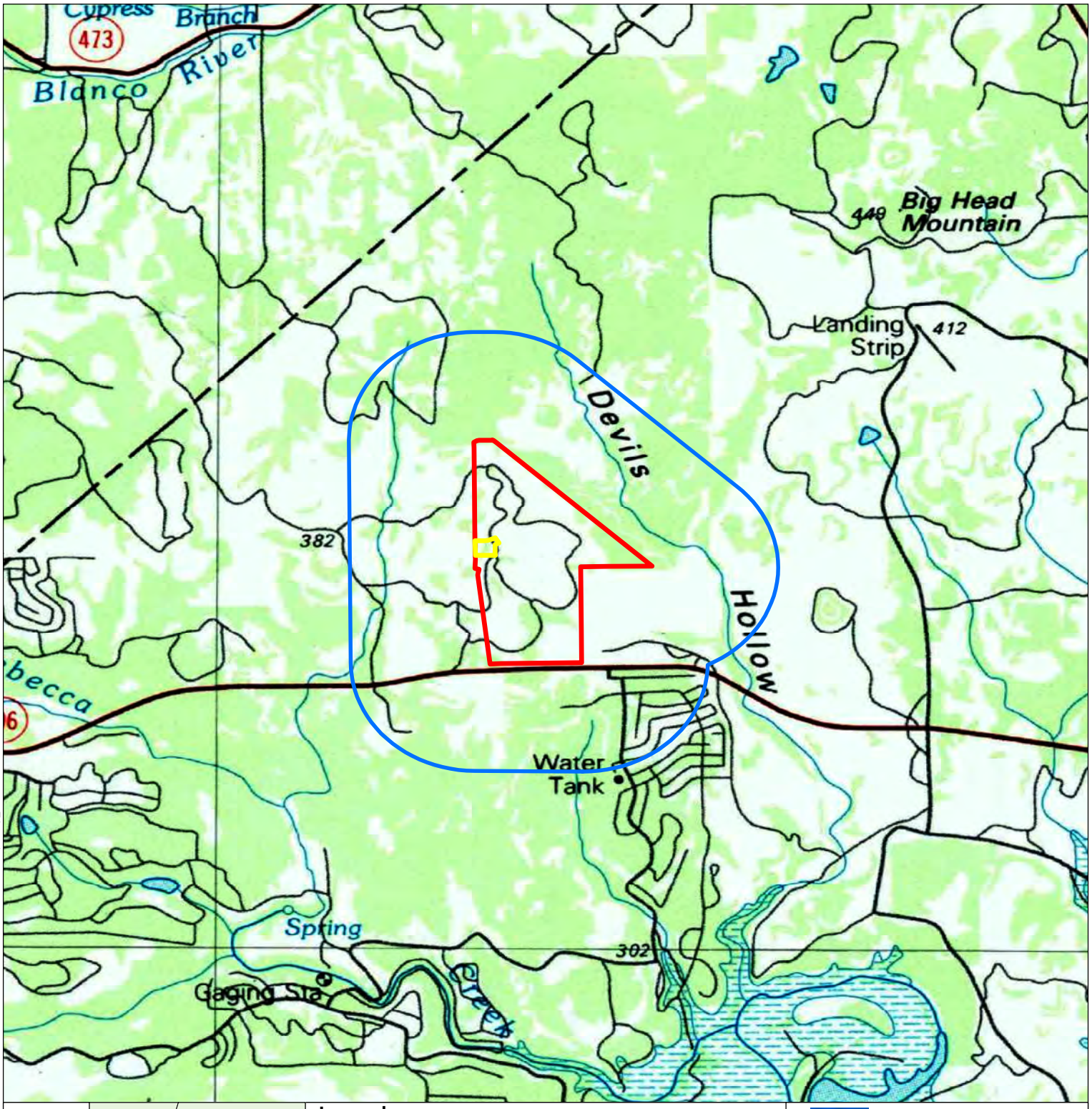
GIS Analyst: jhill

Data Source: USGS 1920



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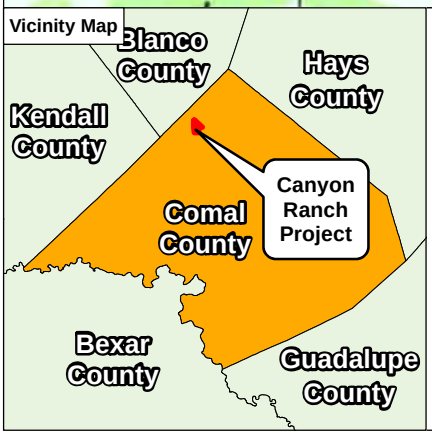

Legend

- TCEQ Permit Area
- Canyon Ranch Tract
- Study Area

N

0 900 1,800
Feet

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Canyon Ranch Project

Figure 5e: 1985 USGS Topographic Map

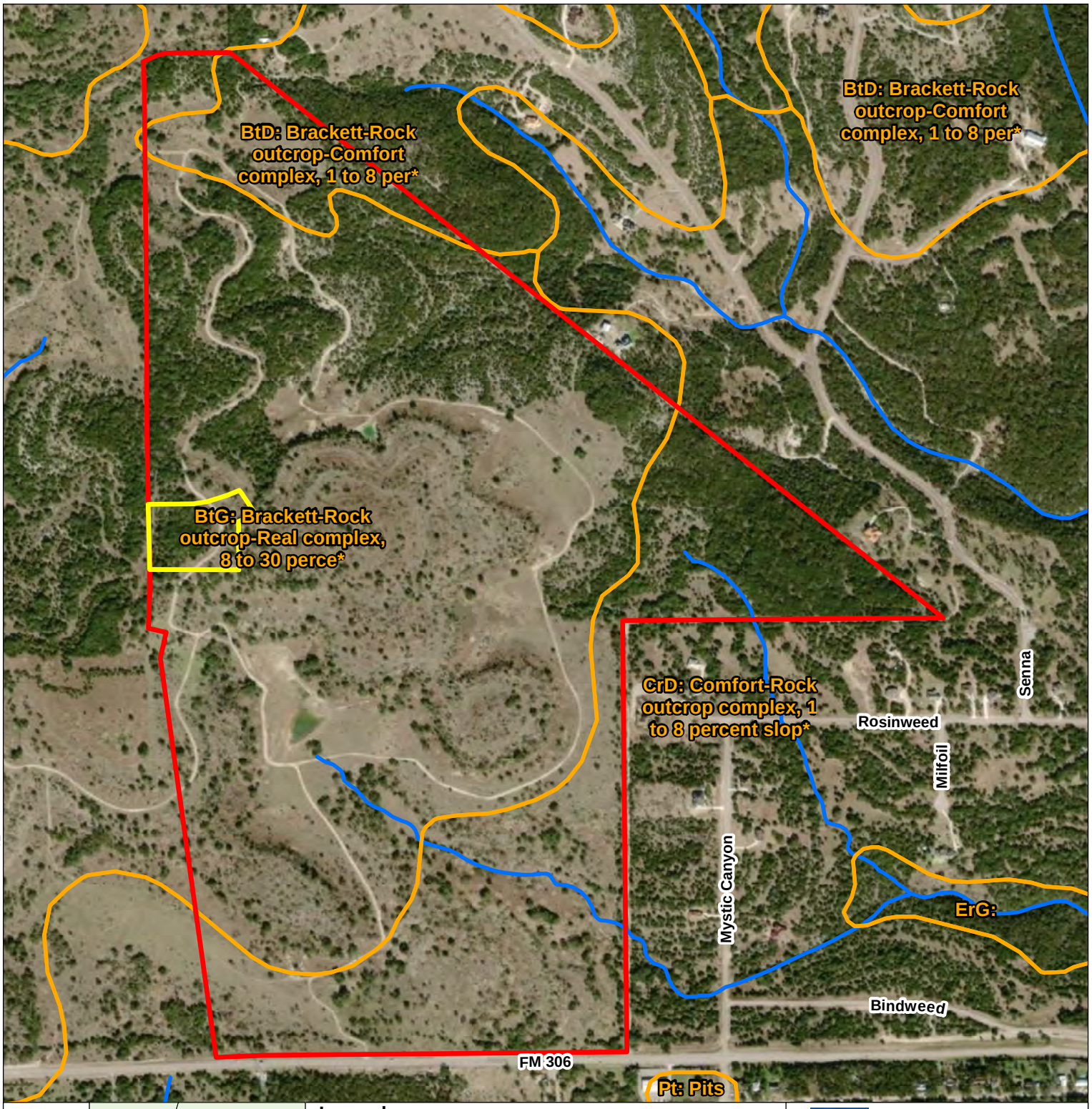
Comal County, TX

Date: November 2020 | Proj. No: 7278-00

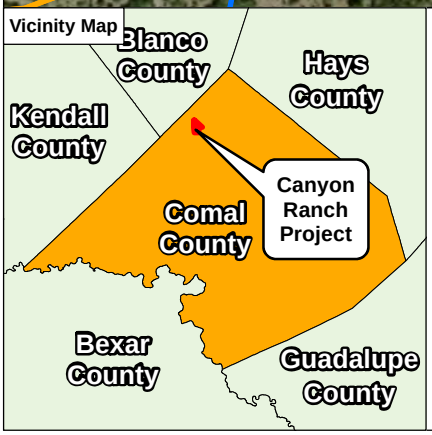
File Path: G:\TX\Cl\Office\AUS\ENV\02-Projects\Client\Gram Vikas Partners\Loma Ranch Tract\08 - GIS\Cultural Resources 1985 Topo Map_TaskC.mxd

GIS Analyst: jhill

Data Source: USGS 1920



Vicinity Map



Legend

- TCEQ Permit Area
- Canyon Ranch Tract
- Soil Units (NRCS)
- Stream (NHD)

0 250 500
Feet

BGE, Inc.
101 West Louis Henna Blvd, Suite 400
Austin, TX 78728
Tel: 512-879-0400 Fax: 512-879-0499
www.bgeinc.com

Canyon Ranch Project

Figure 6: Soils Map

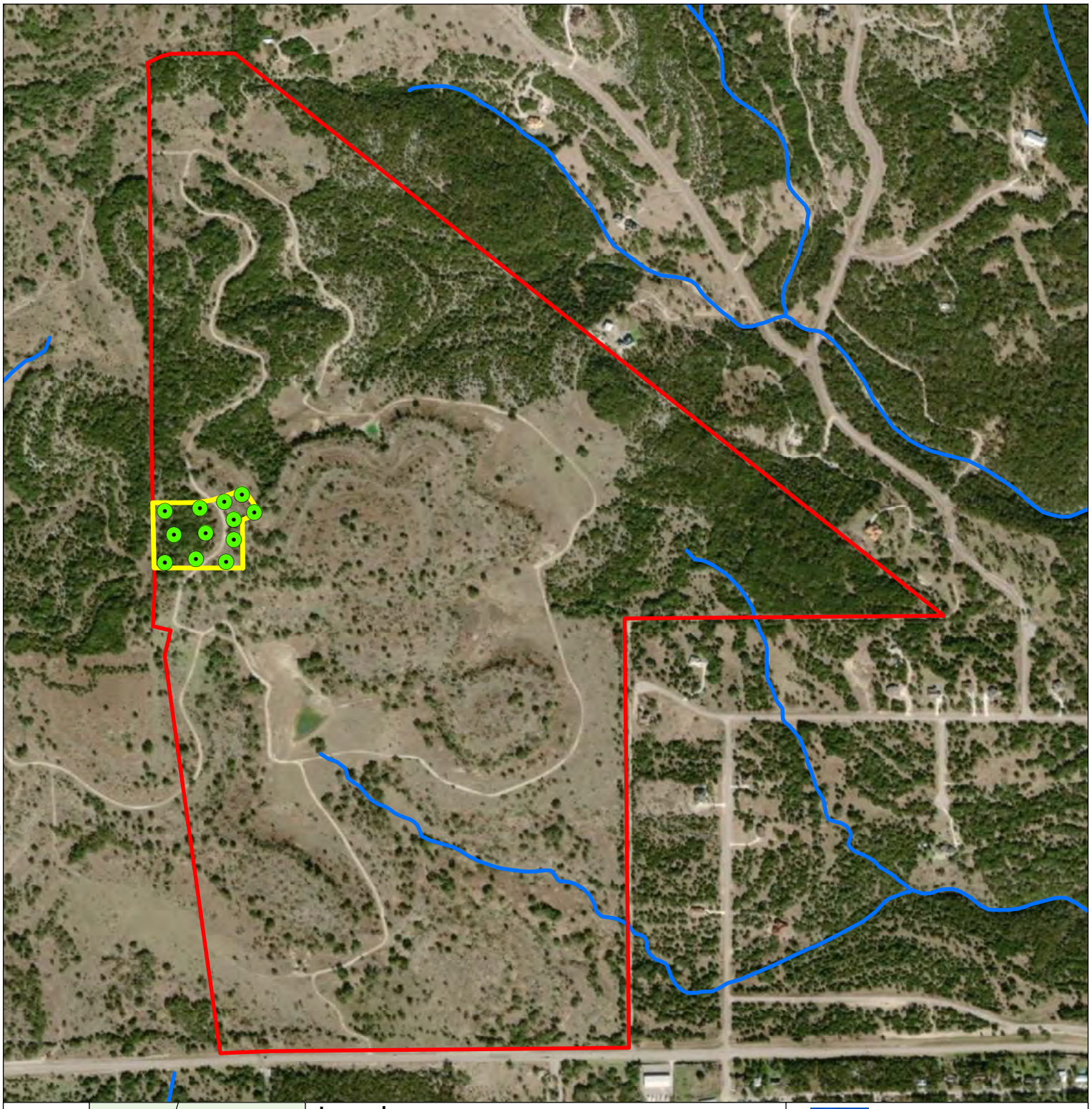
Comal County, TX

Date: November 2020 | Proj. No: 7278-00

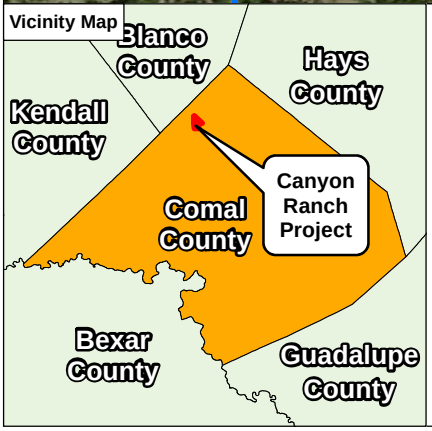
File Path: G:\TX\Cl\Office\AUS\ENV\02-Projects\Client\Gram Vikas Partners\Loma Ranch Tract\08 - GIS\Cultural Resources Soils Map_Task C.mxd

GIS Analyst: jhill

Data Source: FEMA 2020, NHD 2019, NRCS 2020, TxDOT 2015



Vicinity Map



Legend

- Negative Shovel Test
- TCEQ Permit Area
- Project Area
- Stream (NHD)

0 255 510
Feet

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Figure 7a:
Results Map
Comal County, TX

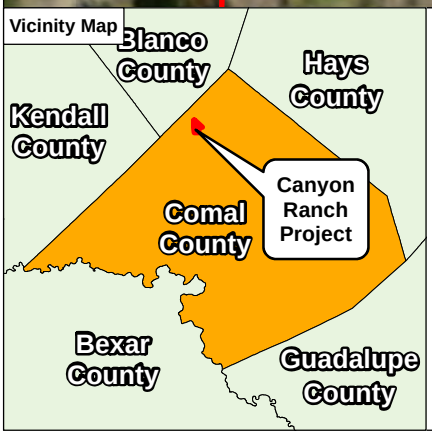
Date: November 2020 | Proj. No: 7278-00

File Path: G:\TX\Office\AUS\ENV\02-Projects\Client\Gram Vikas Partners\Loma Ranch Tract\08 - GIS\Cultural Resources Results Map_TaskC.mxd

GIS Analyst: jhill

Data Source: NHD 2019, TxDOT 2015, FEMA 2020

Vicinity Map



Legend

- Negative Shovel Test
- TCEQ Permit Area
- Project Area
- Stream (NHD)

N

0 30 60
Feet

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Canyon Ranch Project

Figure 7b:
Results Map
(Detail)
Comal County, TX

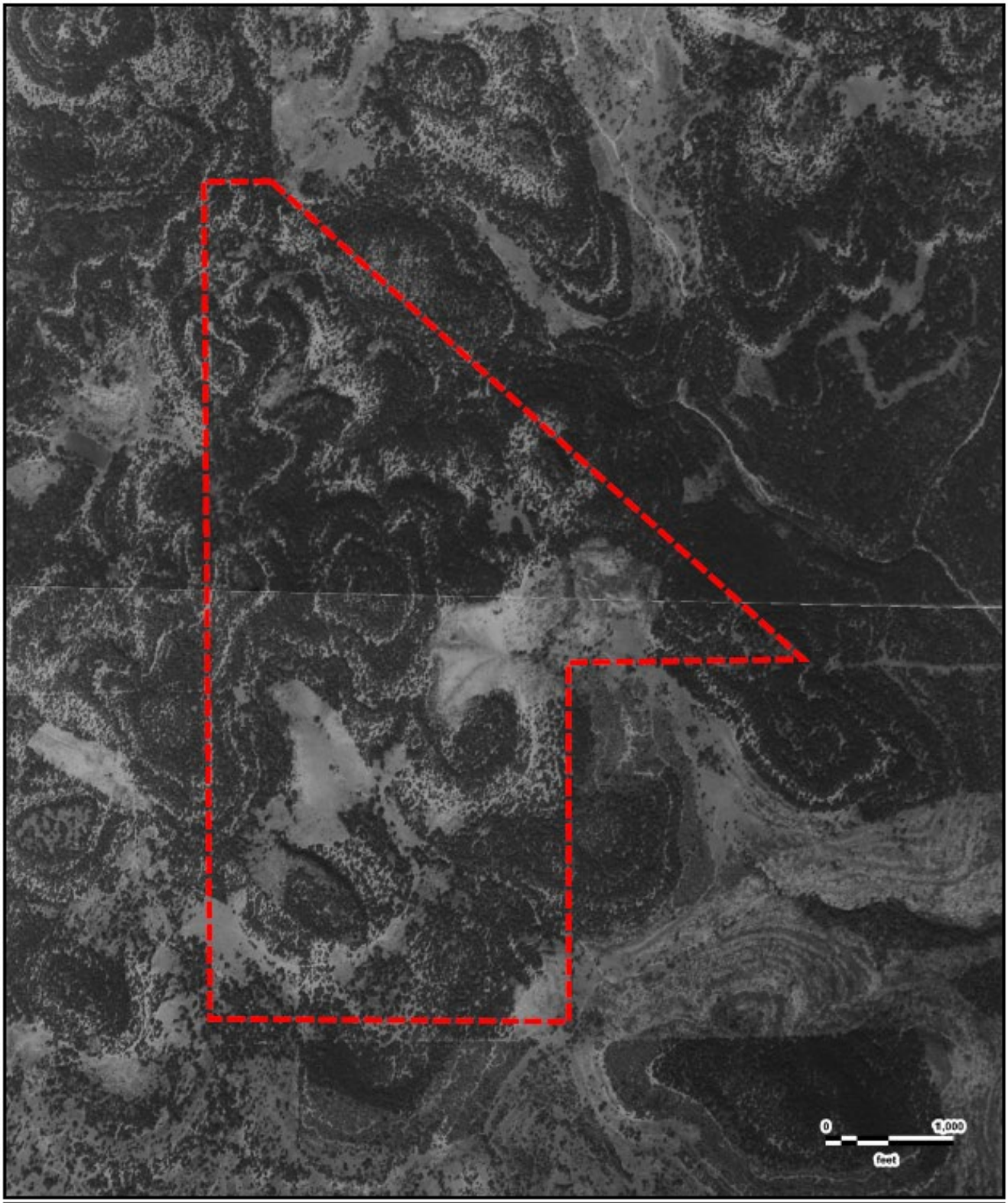
Date: November 2020 | Proj. No: 7278-00

File Path: G:\TX\Cl\Office\AUS\ENV\02-Projects\Client\Gram Vikas Partners\Loma Ranch Tract\08 - GIS\Cultural Resources Results Map_TaskC.mxd

GIS Analyst: jhill

Data Source: NHD 2019, TxDOT 2015, FEMA 2020

Appendix B – Historic Aerial Photography

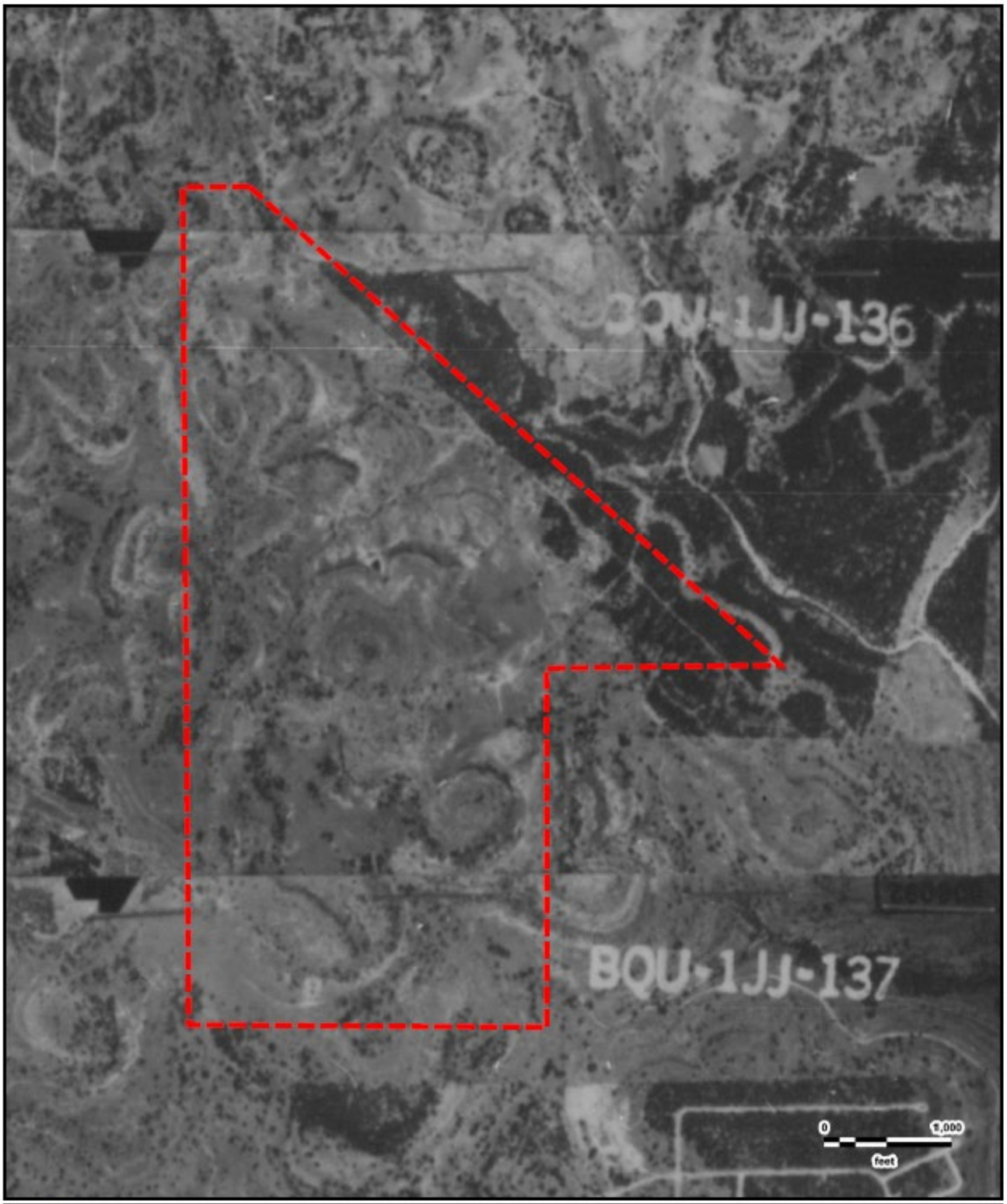


N
W E
S

Loma Ranch Tract
ASCS
11/20/1938

GeoSearch

JOB #: 321688 - 10/31/2019

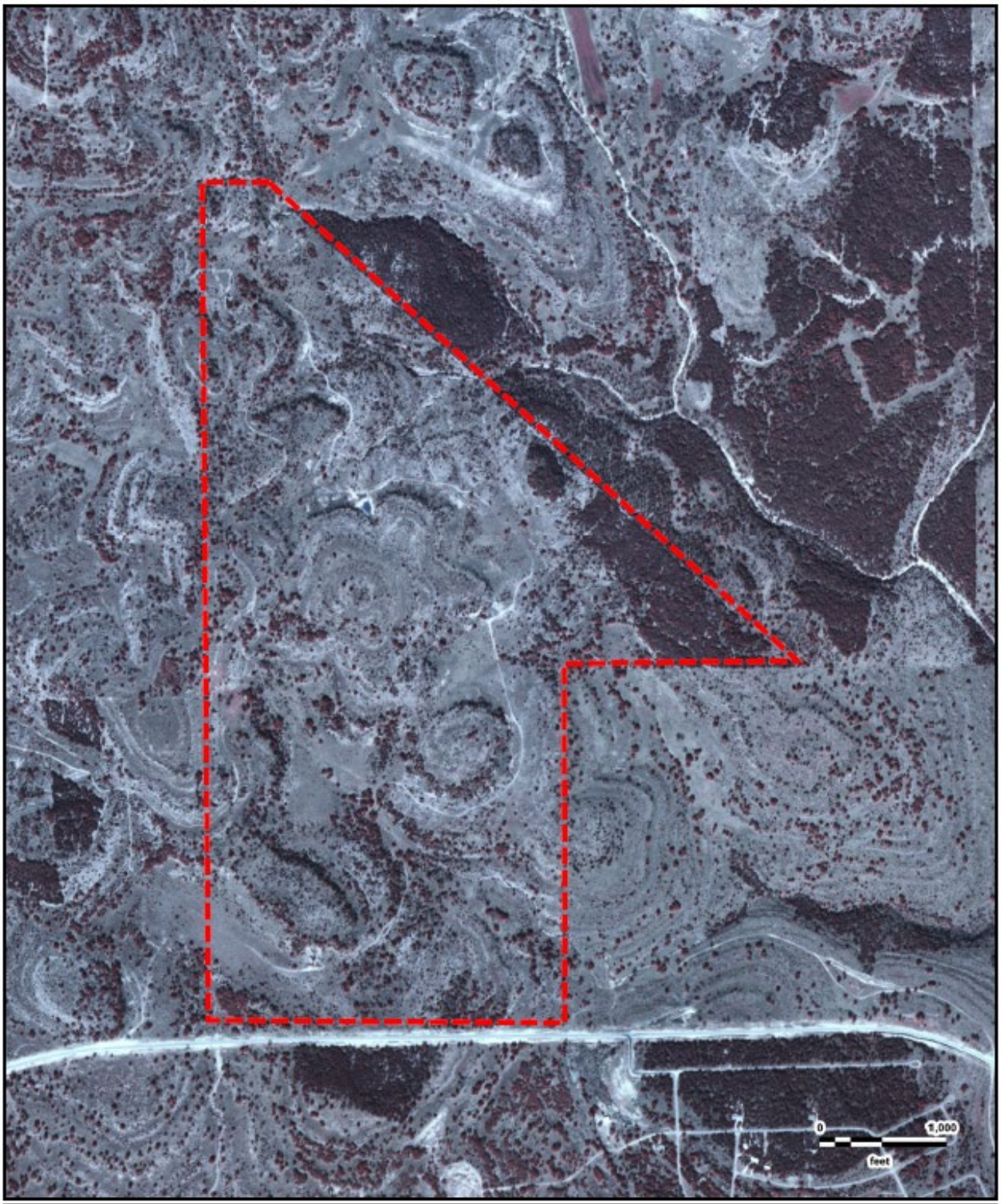


N
W E
S

Loma Ranch Tract
ASCS
10/31/1969

GeoSearch

JOB #: 321688 - 10/31/2019



N
W E
S

Loma Ranch Tract
USGS
01/23/1983

GeoSearch

JOB #: 321688 - 10/31/2019

Appendix C – Project Area Photographs

Photo 1: APE Overview, facing east

Photo 2: APE Overview, facing north

Photo 3: Vegetation Overview, facing east

Photo 4: Vegetation Overview, facing north

Photo 5: Example of typical shovel test (JJH 9), terminated at limestone bedrock 15 cmbs

Photo 6: Example of typical shovel test (JJH 12), terminated at limestone bedrock 15 cmbs

Appendix D – Investigation Point Data

Investigation Point Data									
Location	**Point Number**	**Level**	**Test Depth (cmbs)**	**Munsell Soil Color**	**Soil Texture**	**Location Notes**	**Reason for Termination**	**Comments**	**Cultural Material**
WWTF	1	1	0-10	10 YR 5/2	Si Lo	Slight rise that slopes towards the SE; Desert Scrubland Vegetation w/ Live Oak, Post Oak and Cedar; 90% GSV	Bedrock/ impasse	75-80% Gravel and Cobbles (Quarter Size)	None
WWTF	2	1-2	0-15	10 YR 5/2	Si Lo	Slight rise that slopes towards the SE; Desert Scrubland Vegetation w/ Live Oak, Post Oak and Cedar; 90% GSV	Bedrock/ impasse	75-80% Gravel and Cobbles (Quarter Size)	None
WWTF	3	1	0-5	10 YR 5/2	Si Lo	Slight rise that slopes towards the SE; Desert Scrubland Vegetation w/ Live Oak, Post Oak and Cedar; 90% GSV	Bedrock/ impasse	75-80% Gravel and Cobbles (Quarter Size)	None
WWTF	4	1	0-10	10 YR 5/2	Si Lo	Slight rise that slopes towards the SE; Desert Scrubland Vegetation w/ Live Oak, Post Oak and Cedar; 90% GSV	Bedrock/ impasse	75-80% Gravel and Cobbles (Quarter Size)	None
WWTF	5	1	0-5	10 YR 5/2	Si Lo	Slight rise that slopes towards the SE; Desert Scrubland Vegetation w/ Live Oak, Post Oak and Cedar; 90% GSV	Bedrock/ impasse	75-80% Gravel and Cobbles (Quarter Size)	None
WWTF	6	1	0-20	10 YR 5/3	Si Lo	Slight rise that slopes towards the SE; Desert Scrubland Vegetation w/ Live Oak, Post Oak and Cedar; 90% GSV	Bedrock/ impasse	75-80% Gravel and Cobbles (Quarter Size)	None

Investigation Point Data									
Location	**Point Number**	**Level**	**Test Depth (cmbs)**	**Munsell Soil Color**	**Soil Texture**	**Location Notes**	**Reason for Termination**	**Comments**	**Cultural Material**
WWTF	7	1-2	0-15	10 YR 5/2	Si Lo	Low rise situated in dense vegetation within a grove of cedar intermixed with Live Oak and Post Oak 75% GSV	Bedrock/ impasse	Cobbles throughout and close to surficial bedrock	None
WWTF	8	1	0-5	10 YR 5/2	Si Lo	Low rise situated in dense vegetation within a grove of cedar intermixed with Live Oak and Post Oak 75% GSV	Bedrock/ impasse	Cobbles throughout and close to surficial bedrock	None
WWTF	9	1-2	0-15	10 YR 5/3	Sa Lo	Low rise situated in dense vegetation within a grove of cedar intermixed with Live Oak and Post Oak 75% GSV	Bedrock/ impasse	Cobbles throughout and close to surficial bedrock	None
WWTF	10	1-2	0-15	10 YR 5/3	Sa Lo	Low rise situated in dense vegetation within a grove of cedar intermixed with Live Oak and Post Oak 75% GSV	Bedrock/ impasse	Cobbles throughout and close to surficial bedrock	None
WWTF	11	1	0-10	10 YR 5/3	Sa Lo	Low rise situated in dense vegetation within a grove of cedar intermixed with Live Oak and Post Oak 75% GSV	Bedrock/ impasse	Cobbles throughout and close to surficial bedrock	None
WWTF	12	1-2	0-15	10 YR 5/2	Sa Lo	Low rise situated in dense vegetation within a grove of cedar intermixed with Live Oak and Post Oak 75% GSV	Bedrock/ impasse	Cobbles throughout and close to surficial bedrock	None