



# SABERTOOTH BATTERY ENERGY STORAGE SYSTEM PROJECT

## CULTURAL REOURCES TECHNICAL MEMORANDUM

PREPARED FOR:  
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## TABLE OF CONTENTS

Introduction.....	2
Soils .....	2
Hydrography.....	2
Previous Investigations and Archaeological Background .....	2
Results of Field Investigations .....	3
Project Disturbances.....	3
Conclusion .....	3
References Cited.....	3
Appendix A Report Exhibits .....	5
Appendix B Report Photos.....	6
Appendix C Shovel Test Table.....	7

## INTRODUCTION

Canacre, LLC (Canacre) is supporting Black Mountain Energy Storage, LLC (BMES) by providing a cultural resources technical memorandum for the Sabertooth Battery Energy Storage System (BESS) Project (Project), located in Christian County, Missouri. This technical memorandum presents the results of cultural resources background research and field investigations for the Project. BMES seeks to develop and permit a proposed battery energy storage facility located on an approximately 33.3-acre tract of land. The facility is identified as the Sabertooth BESS Project and is further described as follows:

A battery energy storage facility located approximately one mile south of Ozark, Missouri, off Old Prospect Road in Christian County, at PLSS T26NR21W02. The site is approximately 33.3 acres, all of which has been cleared pastureland with crisscrossing tree lines as far back as 1996.

Canacre conducted a cultural resources archival background check and archaeological field survey consistent with the standards and guidelines of Section 106 of the National Historic Preservation Act (NHPA 1992, as amended) and the Missouri State Parks State Historic Preservation Office (SHPO). The purpose of this technical memorandum is to briefly summarize the status of archaeological investigations and project cultural resources subsequent to the field survey conducted in March 2023. The project consists entirely of private land.

## SOILS

Soils in the archival area of the Sabertooth BESS Project are primarily the Goss Series. The Goss series consists of very deep, well drained soils formed in colluvium and residuum weathered from cherty limestone or cherty dolomite and some interbedded shale. These soils have no potential for recent Holocene alluvial deposition that would exhibit the potential for buried archaeological sites (SSURGO 2021).

## HYDROGRAPHY

The Project is located approximately one mile south of Ozark, Missouri, off Old Prospect Road in Christian County. One intermittent feeder creek of Finley Creek runs through the northeast corner of the Project area. Another intermittent feeder creek of Finely Creek runs 1.2 miles west of the Project. Finely Creek flows into James River, which empties into Table Rock Lake. The lake empties into the White River, which flows into the Mississippi River and out into the Gulf of Mexico (NHD 2021).

## PREVIOUS INVESTIGATIONS AND ARCHAEOLOGICAL BACKGROUND

A records and literature search was conducted for the proposed Project location to identify any previously conducted surveys, archaeological sites, or other cultural resources within 500 feet of proposed project infrastructure (archival area). Canacre reviewed the electronic databases of the Missouri Department of Natural Resources, Missouri State Parks, SHPO Archaeology Viewer, National Register Historic Districts and Sites Map Viewer, and other historic reference materials as determined necessary. The database was queried to identify known cultural sites and high probability areas for the presence of archaeological sites, historic structures, the National Register of Historic Places (NRHP) eligible properties or Districts, State Archeological Landmarks (SALs), State Historic sites, historic markers and previously conducted archaeological surveys located within or adjacent to the project. A cemetery search was not queried from these resources as the electronic database of the SHPO Archaeology Viewer did not have that information available.

No previously conducted archaeological surveys, archaeological sites or other cultural resources have been recorded within 500 feet of the proposed project area. However, a large, prehistoric site (23CN864) is within 0.5 miles of the Project's most northwestern extent. The site was recorded in April 2005 and has not been evaluated for NRHP

eligibility. The closest cemetery that shows up in Google Earth (2022) is the Selmore Cemetery, approximately 1.2 miles from the Project's most southwestern extent. Google Earth aerial photography (2022) shows the project location to have been cleared pastureland with crisscrossing tree lines as far back as 1996. Topographic maps from the National Geologic Map Database show no historic structures within 500 feet of the Project area.

## RESULTS OF FIELD INVESTIGATIONS

The Sabertooth BESS Project area is situated on gently sloping land decreasing in elevation from southwest to northeast towards the intermittent feeder creek. The Project area is located one mile south of Ozark, Missouri, off Old Prospect Road in Christian County (Exhibits 1-2). The vegetation includes tall and short grasses with some wooded areas (Photo 1). Surface visibility was 0% to 10% across the Project with some visibility in washed out areas. However, the majority of the Project area was covered with tall grasses. One transmission line right of way (ROW) runs through the southern end of the Project area going from west to east (Photos 2-3; Exhibit 2). Field investigations proceeded from the vicinity of the creek in the northwestern corner (Photos 4-5) of the Project, working eastward in a systematic pedestrian walkover in approximately 30-meter intervals. Judgmental shovel tests (STs) focused mainly on the intermittent feeder creek in the northwestern corner of the Project, however, some STs were placed throughout the Project area to obtain better coverage. A total of 18 STs were excavated, all of which were negative for cultural materials.

All 18 STs contained identical soil profiles of a dark yellowish brown 10YR 4/4 silty clay loam (Photo 6) and ranged from 20-40 centimeters below surface (cmbs) with an average depth of 31 cmbs before terminating due to either impassable gravels, dense tree roots, or reaching a max depth of 40 cmbs.

## PROJECT DISTURBANCES

One transmission line ROW runs through the southern end of the Project area going from west to east (Photos 2-3; Exhibit 2). Some slightly disturbed roadways run along the western side of the Project area and nearby ST 14 for the ranching activities that take place on the land (Photo 7).

## CONCLUSION

Due to no cultural findings along with the absence of any NRHP sites or SAL sites, consistent with the standards and guidelines of Section 106 of the NHPA, and the Missouri SHPO, the Sabertooth BESS Project is recommended for no further archaeological investigations, and it is Canacre's recommendation that the project proceed to construction.

## REFERENCES CITED

Google Earth Pro

2022 Google Earth Pro Aerial Imagery, streaming database, accessed April 3, 2023.

Historic Districts and Sites Map Viewer

2023 Historic Districts and Sites Map Viewer (arcgis.com),

<https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=e3a6d822d215486ba20aad6badd7174>, accessed April 3, 2023.

SHPO Archaeology Viewer

2023 Missouri Department of Natural Resources, Missouri State Parks, State Historic Preservation Office (SHPO) Archaeology Viewer,

<https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=9a91136c6340497b96fd7a198a0b886e>,  
accessed April 3, 2023.

#### National Hydrography Dataset

2022 National Hydrography Dataset (NHD) Electronic Database,

<https://www.usgs.gov/core-science-systems/national-geospatial-program/data-tools>, accessed April 3, 2023.

#### NGMDB

2022 National Geological Map Database (NGMDB). Electronic resource,

<https://ngmdb.usgs.gov/topoview/viewer/#15/29.2923/-99.6134>, accessed April 3, 2023.

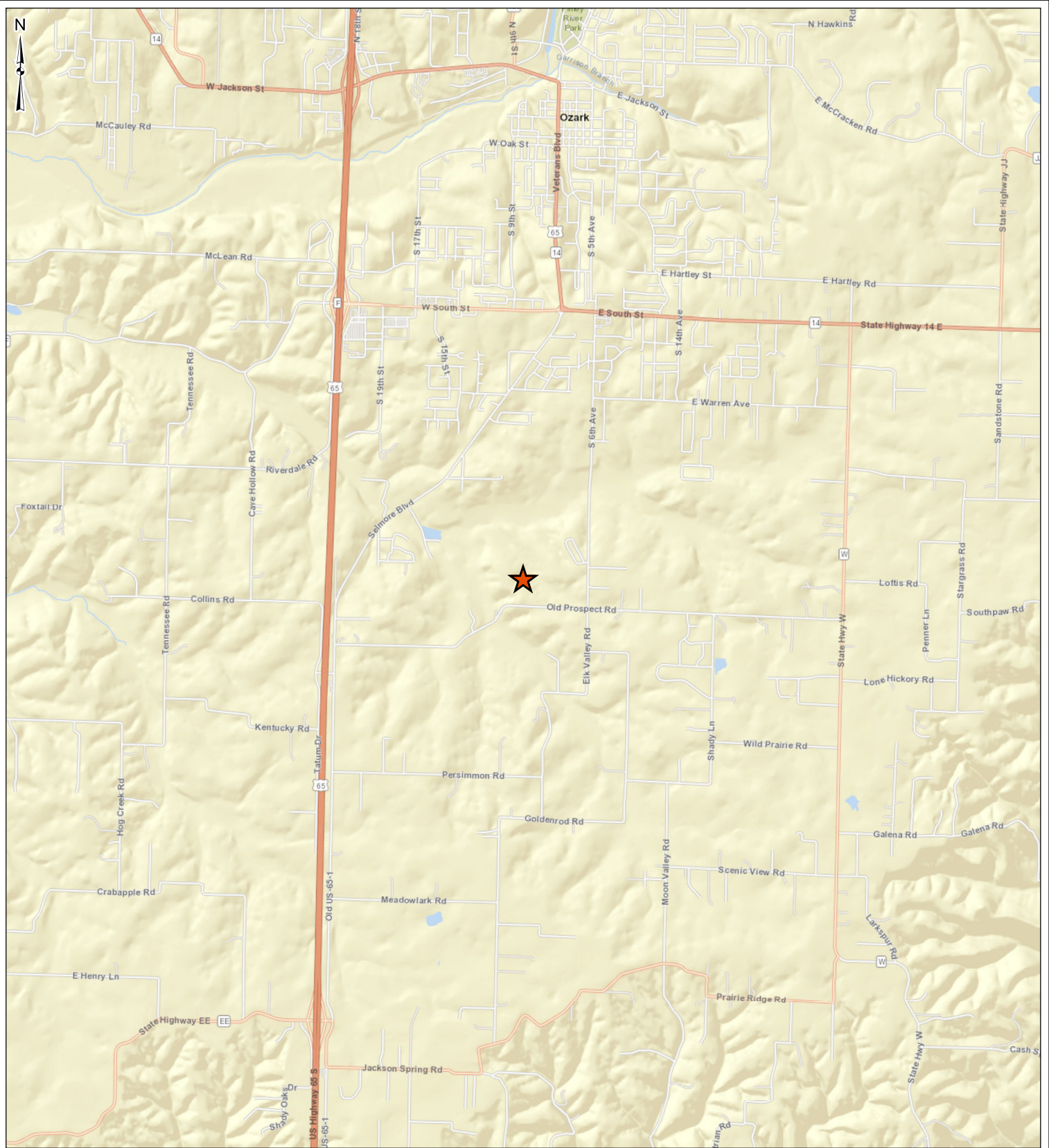
#### SoilWeb

2019 SoilWeb: An online soil survey browser for USDA-NRCS Detailed Soil Survey Data (SSURGO), Electronic streaming database, <https://soilseries.sc.egov.usa.gov/> accessed April 3, 2023.

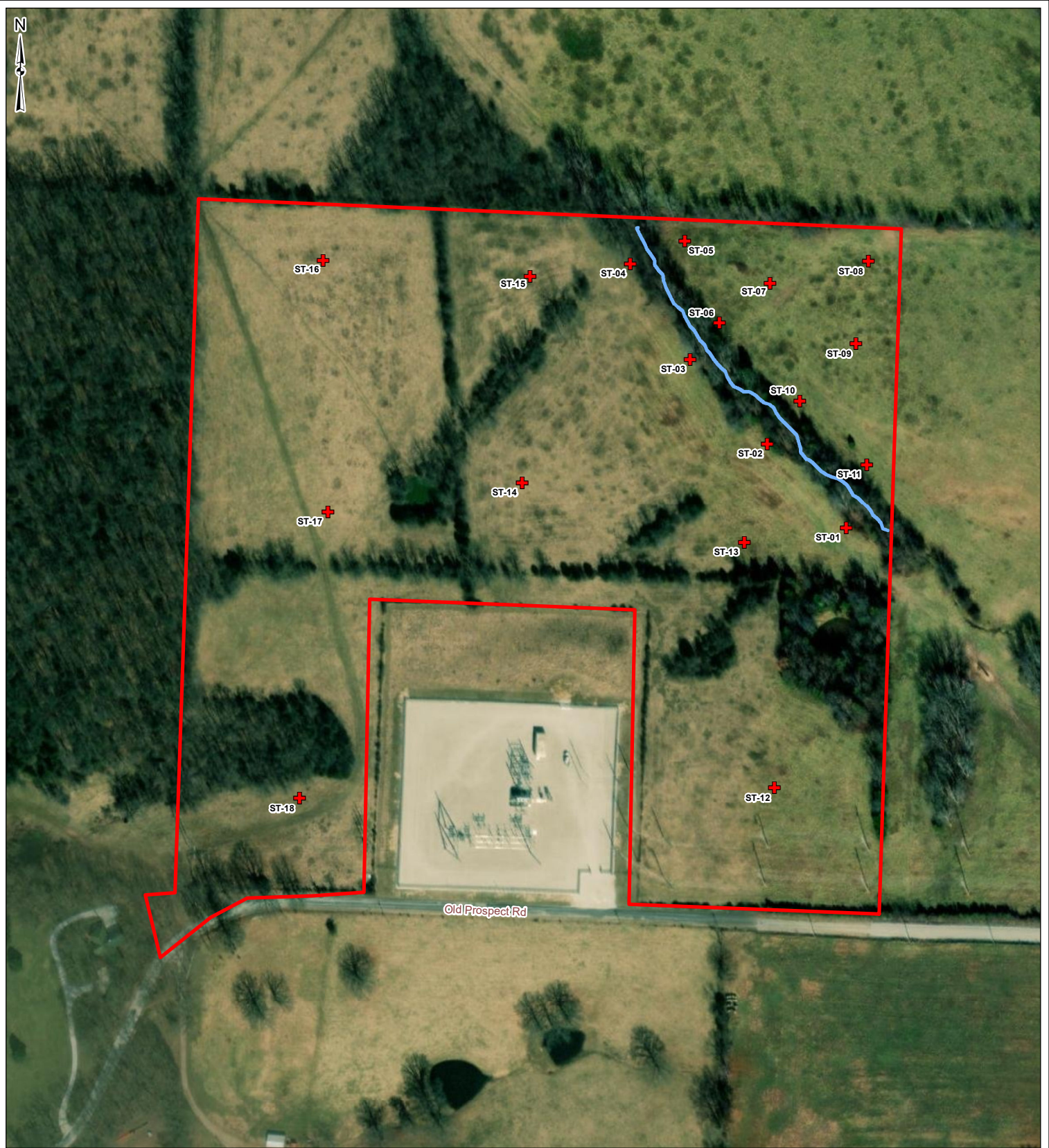
#### USDA

2016 National Cooperative Soil Survey, United States Department of Agriculture (USDA), Electronic Database, <https://soilseries.sc.egov.usa.gov/> accessed April 3, 2023.

## APPENDIX A REPORT EXHIBITS







**Exhibit 2**  
 Cultural Shovel Test Map  
**Black Mountain Energy Storage Sabertooth BESS**

- Project Boundary
- + Negative Shovel Test
- Steam

Scale - 1:3,000  
 0 50 100 200 300 400  
 Feet

**County:** Christian County  
**State:** Missouri  
**Date:** April 2023  
 Coordinate System: NAD 1983 BLM Zone 15N ftUS  
 Projection: Transverse Mercator  
 Datum: North American 1983  
 Units: Foot US



Imagery Source: Service Layer Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



## APPENDIX B REPORT PHOTOS

## Sabertooth Battery Energy Storage Site Project



Photo 1: General Overview of the Project area



Photo 2: Transmission line in southern half of Project area facing east



## Sabertooth Battery Energy Storage Site Project



Photo 3: Transmission line and substation in southern half of Project area facing west



Photo 4: Creek in Project area facing southeast



Sabertooth Battery Energy Storage Site Project



Photo 5: Creek in project area facing northwest



Photo 6: ST 1



Sabertooth Battery Energy Storage Site Project



Photo 7: Dirt roads by ST 14

## APPENDIX C SHOVEL TEST TABLE

ST Numbers	Sediment Colors	Sediment Texture	Depth of Termination (cmbs)	Level (cm)	Negative/Possitive	Reason for Termination
1	10YR 4/4	Silty Clay Loam	40	0-40	N	Max Depth
2	10YR 4/4	Silty Clay Loam	40	0-40	N	Max Depth
3	10YR 4/4	Silty Clay Loam	40	0-40	N	Max Depth
4	10YR 4/4	Silty Clay Loam	20	0-20	N	Impassable Gravels
5	10YR 4/4	Silty Clay Loam	35	0-35	N	Dense Tree Root
6	10YR 4/4	Silty Clay Loam	40	0-40	N	Max Depth
7	10YR 4/4	Silty Clay Loam	30	0-30	N	Impassable Gravels
8	10YR 4/4	Silty Clay Loam	25	0-25	N	Impassable Gravels
9	10YR 4/4	Silty Clay Loam	25	0-25	N	Impassable Gravels
10	10YR 4/4	Silty Clay Loam	20	0-20	N	Impassable Gravels
11	10YR 4/4	Silty Clay Loam	30	0-30	N	Impassable Gravels
12	10YR 4/4	Silty Clay Loam	40	0-40	N	Max Depth
13	10YR 4/4	Silty Clay Loam	30	0-30	N	Impassable Gravels
14	10YR 4/4	Silty Clay Loam	35	0-35	N	Impassable Gravels
15	10YR 4/4	Silty Clay Loam	30	0-30	N	Impassable Gravels
16	10YR 4/4	Silty Clay Loam	30	0-30	N	Impassable Gravels
17	10YR 4/4	Silty Clay Loam	30	0-30	N	Impassable Gravels
18	10YR 4/4	Silty Clay Loam	30	0-30	N	Impassable Gravels