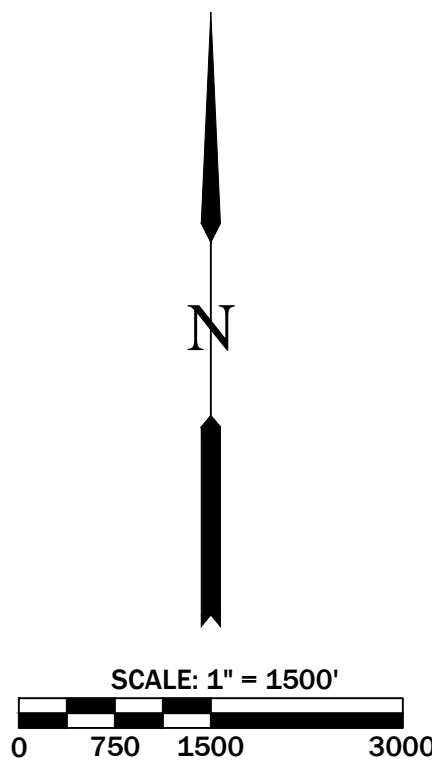
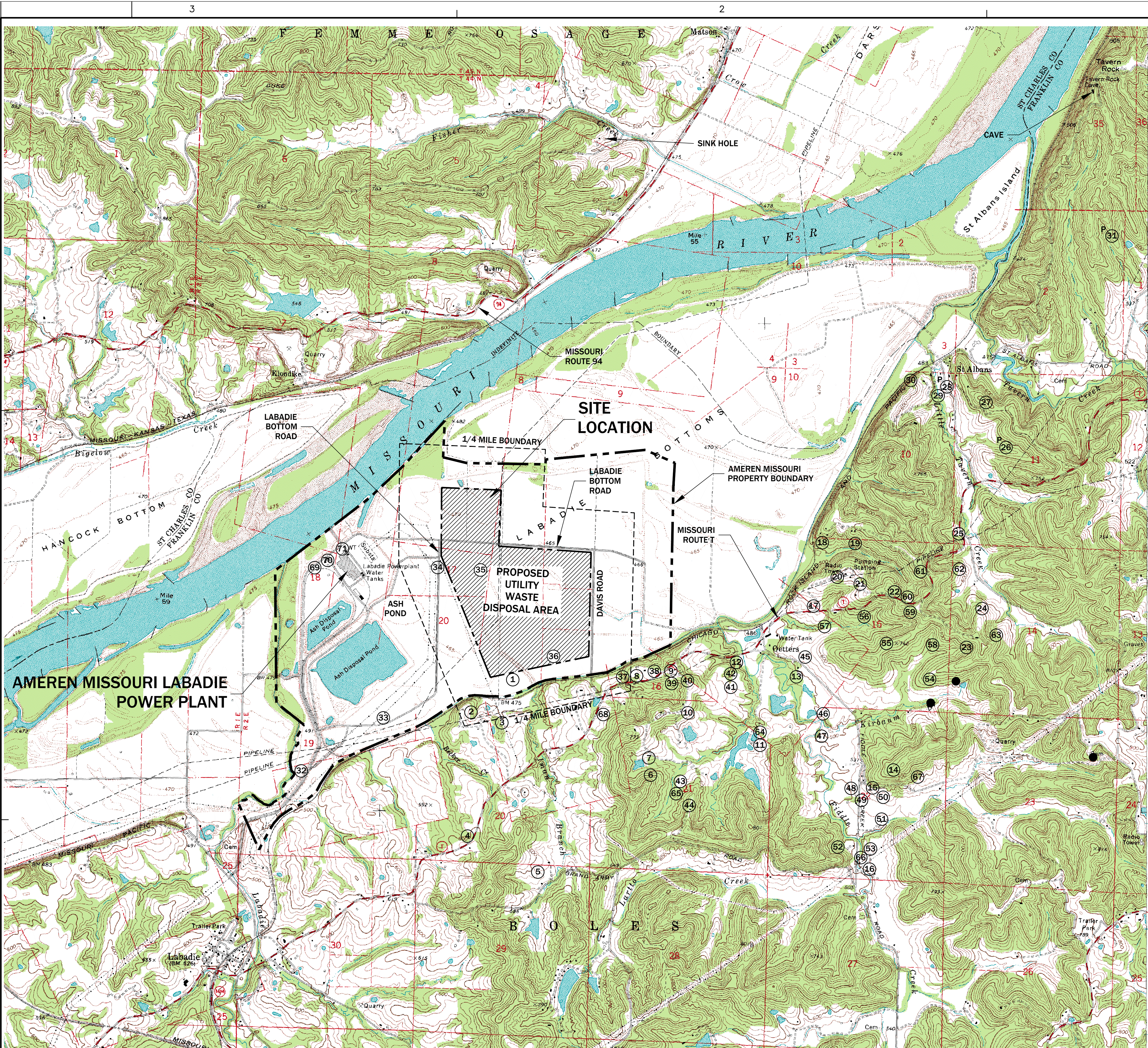


FIGURES

Detailed Site Investigation
Proposed Utility Waste Disposal Area
Ameren Labadie Power Plant

Prepared by: GREDELL Engineering Resources, Inc.

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REV.	W.O.



LEGEND

- AMEREN MISSOURI PROPERTY BOUNDARY
- 1/4 MILE BOUNDARY
- PROPOSED DISPOSAL AREA BOUNDARY
- EXISTING GROUND TOPOGRAPHY
- PRIVATE WELL
- PUBLIC WELL
- SPRING

NOTES

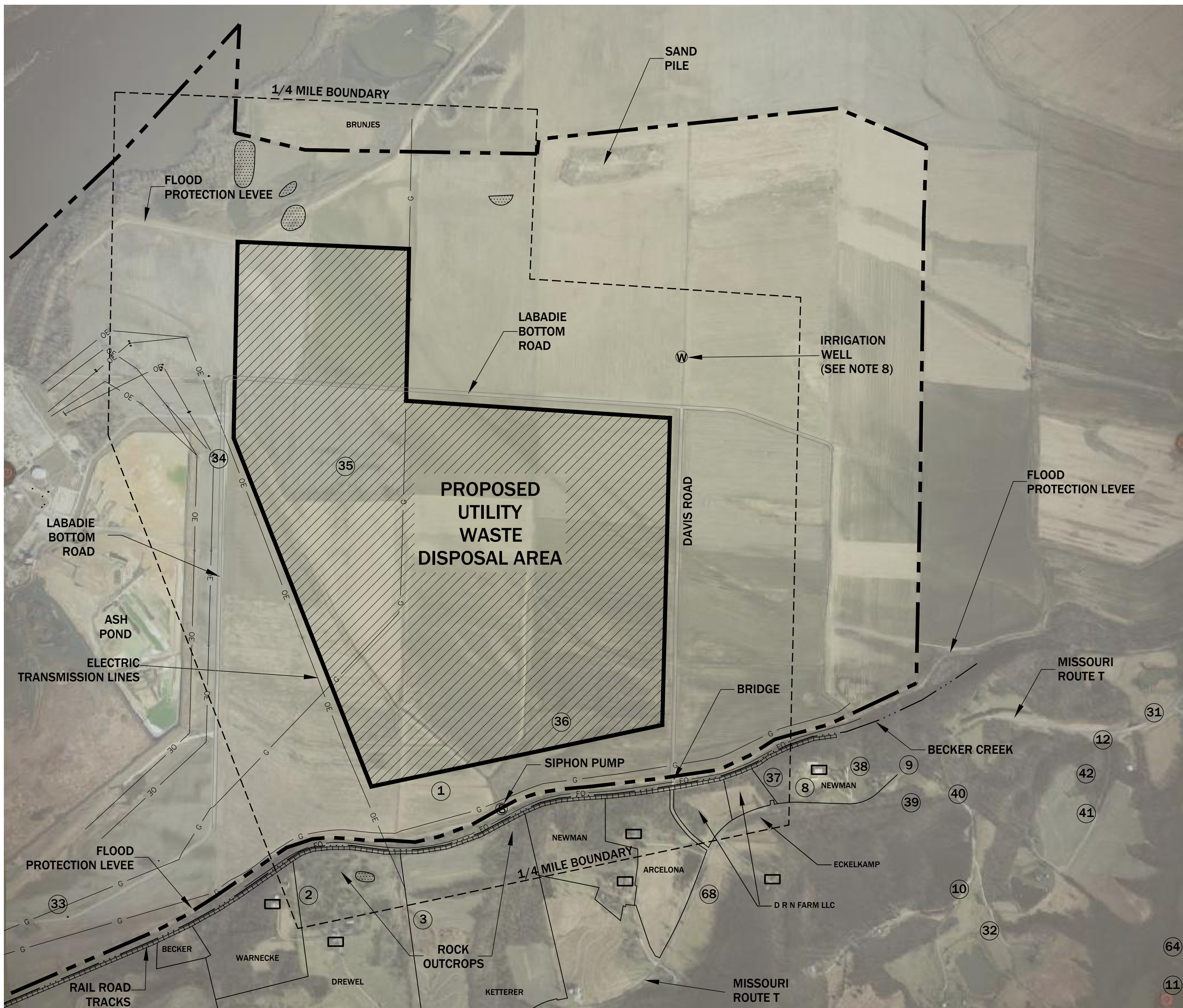
- ALL BOUNDARIES AND LOCATIONS ARE APPROXIMATE.
- SEE AERIAL PHOTO (FIGURE 2) FOR ADDITIONAL SITE INFORMATION.
- PRECIPITATION IS MEASURED AND RECORDED DAILY AT THE AMEREN MISSOURI LABADIE POWER PLANT.
- MISSOURI RIVER READINGS ARE MEASURED AND RECORDED DAILY AT THE AMEREN MISSOURI LABADIE POWER PLANT.
- SINK HOLE AND SPRING LOCATIONS OBTAINED FROM MEGA (2007).
- WELL LOCATIONS 1 THROUGH 67 BASED ON DATA OBTAINED FROM MEGA (2007). NOTE THAT THE LOCATIONS FOR WELL #'S 34, 35 AND 36 ARE BELIEVED TO BE IN ERROR. THE LOCATION FOR WELL #68 IS BASED ON VISUAL OBSERVATION DURING THE FIELD INVESTIGATION.
- WELLS 69, 70, AND 71 ARE OWNED AND OPERATED BY AMEREN MISSOURI.
- ADDITIONAL WELL INFORMATION PROVIDED IN APPENDIX 12.

SOURCE: USGS LABADIE QUADRANGLE

THE GEOLOGIST WHO REVIEWED AND APPROVED THIS REPORT ASSUMES RESPONSIBILITY ONLY FOR GEOLOGIC INTERPRETATIONS OF DATA APPEARING ON THE PAGE AND DISCLAIMS PURSUANT TO SECTION 236.456 RSMO ANY RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES, REPORTS OR OTHER DOCUMENTS OR INSTRUMENTS NOT PREPARED UNDER THE SUPERVISION OF THE GEOLOGIST RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS FIGURE REFERS.		REITZ & JENS, INC. CONSULTING ENGINEERS 1055 CORPORATE SQUARE DRIVE ST. LOUIS, MISSOURI 63132 314.993.4132 (voice) 314.993.4177 (fax)		GRIEDEL Engineering Resources, Inc. ENVIRONMENTAL ENGINEERING LAND AIR WATER 1055 Cash High Street Jefferson City, Missouri 65101 Telephone (573) 599-9678 Facsimile (573) 599-9679	
PREPARED FOR Ameren Missouri					
DRAWN 020411 W.J.A. (GER)		FIGURE 1 DETAILED SITE INVESTIGATION PROPOSED UTILITY WASTE DISPOSAL AREA SITE LOCATION MAP			
CHKD. M.C.C. (GER)		LOCATION 001004		CLASS 02010	
SUPV. M.C.C. (GER)		LABADIE PLANT		REV.	
APPD. M.C.C. (GER)		ST. LOUIS, MISSOURI		FIG (1).DWG	



PRINT DIST.	
REVISIONS	
REV.	W.O.




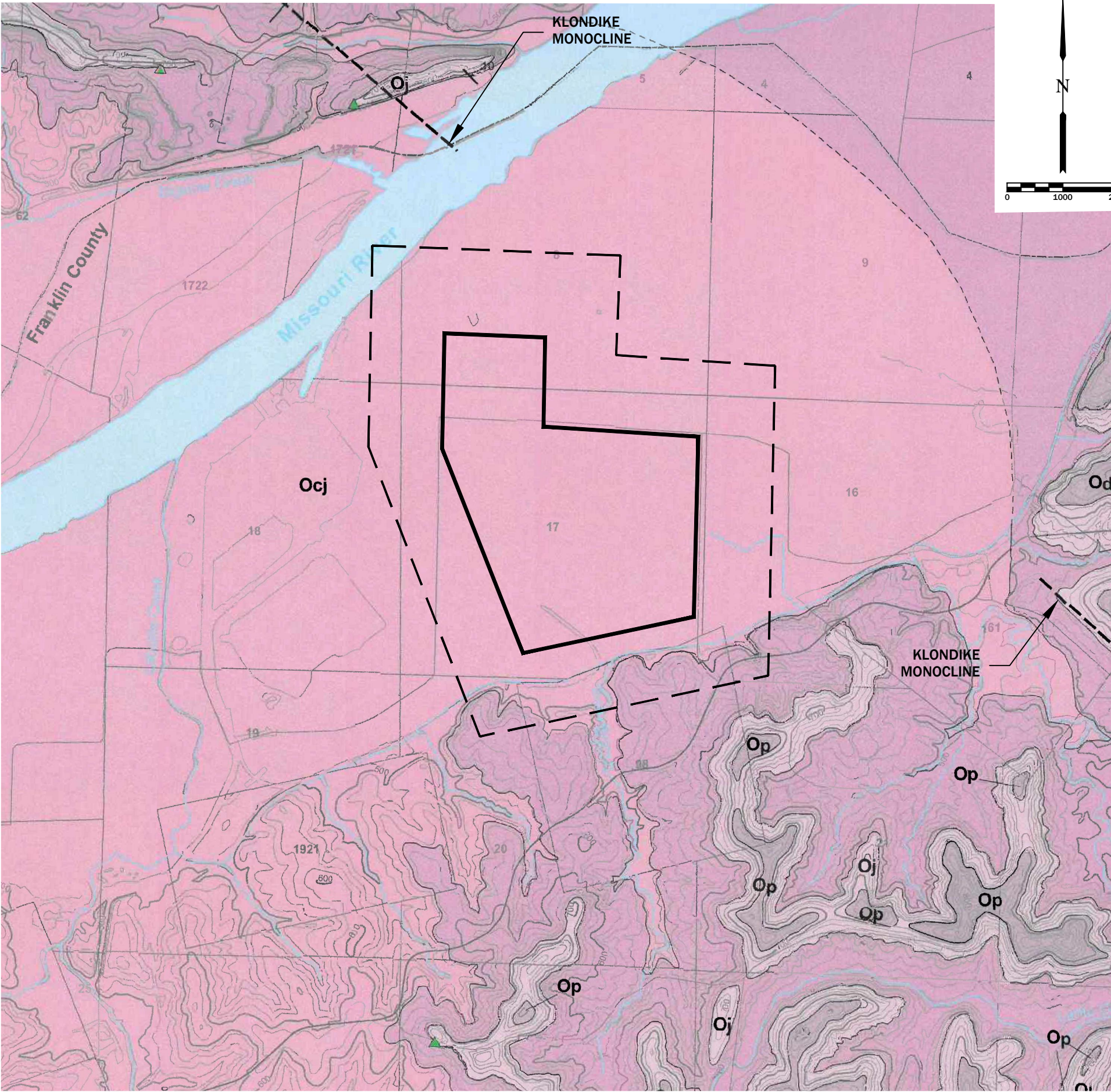
LEGEND

- AMEREN MISSOURI PROPERTY BOUNDARY
- 1/4 MILE BOUNDARY
- PROPOSED DISPOSAL AREA BOUNDARY
- RAILROAD
- CREEK
- EXISTING OVERHEAD ELECTRIC
- EXISTING MISSOURI PIPELINE
- EXISTING FIBER OPTIC LINE
- RESIDENCE / STRUCTURES
- APPROXIMATE AREA SHOWN ON NATIONAL WETLANDS INVENTORY MAP (SEE APPENDIX 13).
- EXISTING POWER POLE
- PRIVATE WELL
- IRRIGATION WELL
- SIPHON PUMP

NOTES

- ALL BOUNDARIES AND LOCATIONS ARE APPROXIMATE.
- AERIAL PHOTOGRAPH PROVIDED BY REITZ AND JENS, INC. AERIAL DATE: MARCH 13, 2009.
- LAND USE WITHIN 1/4 MILE OF PROPOSED WASTE BOUNDARY IS AGRICULTURAL EXCEPT FOR AREAS OF SINGLE-FAMILY RESIDENTIAL ON THE RIVER BLUFFS SOUTH OF SITE.
- NO MINED OR QUARRIED AREAS, MINE SHAFTS, OR MINE SPOIL AREAS LOCATED WITHIN 1/4 MILE OF PROPOSED WASTE BOUNDARY.
- NO SPRINGS, LAKES, CAVES, OR SINKHOLES LOCATED WITHIN 1/4 MILE OF PROPOSED WASTE BOUNDARY (STREAMS AND ROCK OUTCROPS NOTED).
- WELL LOCATIONS BASED ON DATA OBTAINED FROM MEGA (2007). NOTE THAT THE LOCATIONS FOR WELLS #S 34, 35 AND 36 ARE BELIEVED TO BE IN ERROR. THE LOCATION FOR WELL #68 IS BASED ON VISUAL OBSERVATION DURING THE FIELD INVESTIGATION.
- POTENTIAL JURISDICTIONAL WETLAND AREAS MAY EXIST WITHIN DSI LIMITS AND ARE SUBJECT TO VERIFICATION BY U.S. ARMY CORPS OF ENGINEERS (USACE). SEE APPENDIX 13 FOR ADDITIONAL WETLAND INFORMATION.
- IRRIGATION WELL AND PIVOT SYSTEM NOT USED DURING THE DSI FIELD INVESTIGATION.
- AVAILABLE BORROW MATERIAL WITHIN DSI LIMITS WILL BE UTILIZED TO THE EXTENT PRACTICABLE. ADDITIONAL BORROW MATERIAL WILL BE OBTAINED FROM OFF SITE SOURCES.
- DSI LIMITS LOCATED WITHIN 100-YEAR FLOOD PLAIN. SEE APPENDIX 11 FOR ADDITIONAL FLOODWAY INFORMATION.

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DRAWN 020411 W.J.A. (GER)		PREPARED FOR Ameren Missouri			
CHKD. M.C.C. (GER)		FIGURE 2 DETAILED SITE INVESTIGATION PROPOSED UTILITY WASTE DISPOSAL AREA AERIAL PHOTOGRAPH			
SUPV. M.C.C. (GER)		LOCATION 001004		CLASS 02010	
APPD. M.C.C. (GER)		LABADIE PLANT		REV.	
		Ameren Missouri ST. LOUIS, MISSOURI		FIG (2)(3)(NAT-WETLND).DWG	



CORRELATION OF MAP UNITS

MAP UNIT SYMBOL	SYSTEM/SUBSYSTEM	SERIES	FORMATION/MAPPABLE UNIT	THICKNESS IN FEET
Pk	Carboniferous/Pennsylvanian	Desmoinesian	Krebs Subgroup	0 - 40
~ Unconformity ~				
Mbk	Carboniferous/Mississippian	Osagean	Burlington-Kaokuk Limestone	0 - 60
Mcfj	Carboniferous/Mississippian	Osagean and Kinderhookian	Fern Glen Formation and Kinderhookian Series	0 - 50
~ Unconformity ~				
Dsg	Devonian	Upper Devonian	Sulphur Springs Group	0 - 20
~ Unconformity ~				
Ok	Ordovician	Mohawkian	Kimmswick Limestone	0 - 90
Od	Ordovician	Mohawkian	Decorah Group	10 - 20
Op	Ordovician	Mohawkian	Plattin Group	120 - 130
Oj	Ordovician	Mohawkian	Joachim Dolomite	110 - 120
Osp	Ordovician	Mohawkian	St. Peter Sandstone	80 - 150
~ Unconformity ~				
Ocj	Ordovician	Ibexian	Cotter and Jefferson City Dolomites	430 - 510*

* Complete thickness is not exposed on the Labadie 7.5' quadrangle

LEGEND

1/4 MILE BOUNDARY

PROPOSED DISPOSAL AREA BOUNDARY

BY	REVISION DESCRIPTION	DATE	NO.

Detailed Site Investigation Report
Ameren Missouri Labadie Power Plant
Proposed Utility Waste Disposal Area
Franklin County, Missouri

Figure 3
Geologic Map
(Starbuck, 2010)

FIGURE 3	PROJECT NO. LABADIE	FILE NO. FIGS (2)(3)	SCALE AS SHOWN	DATE 2/2011	APPROVED M.C.C. (GER)	CHECKED M.C.C. (GER)	DRAWN W.J.A. (GER)	DESIGNED M.C.C. (GER)	SURVEYED NA
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LAND AIR WATER

1505 East High Street
Jefferson City, Missouri 65101

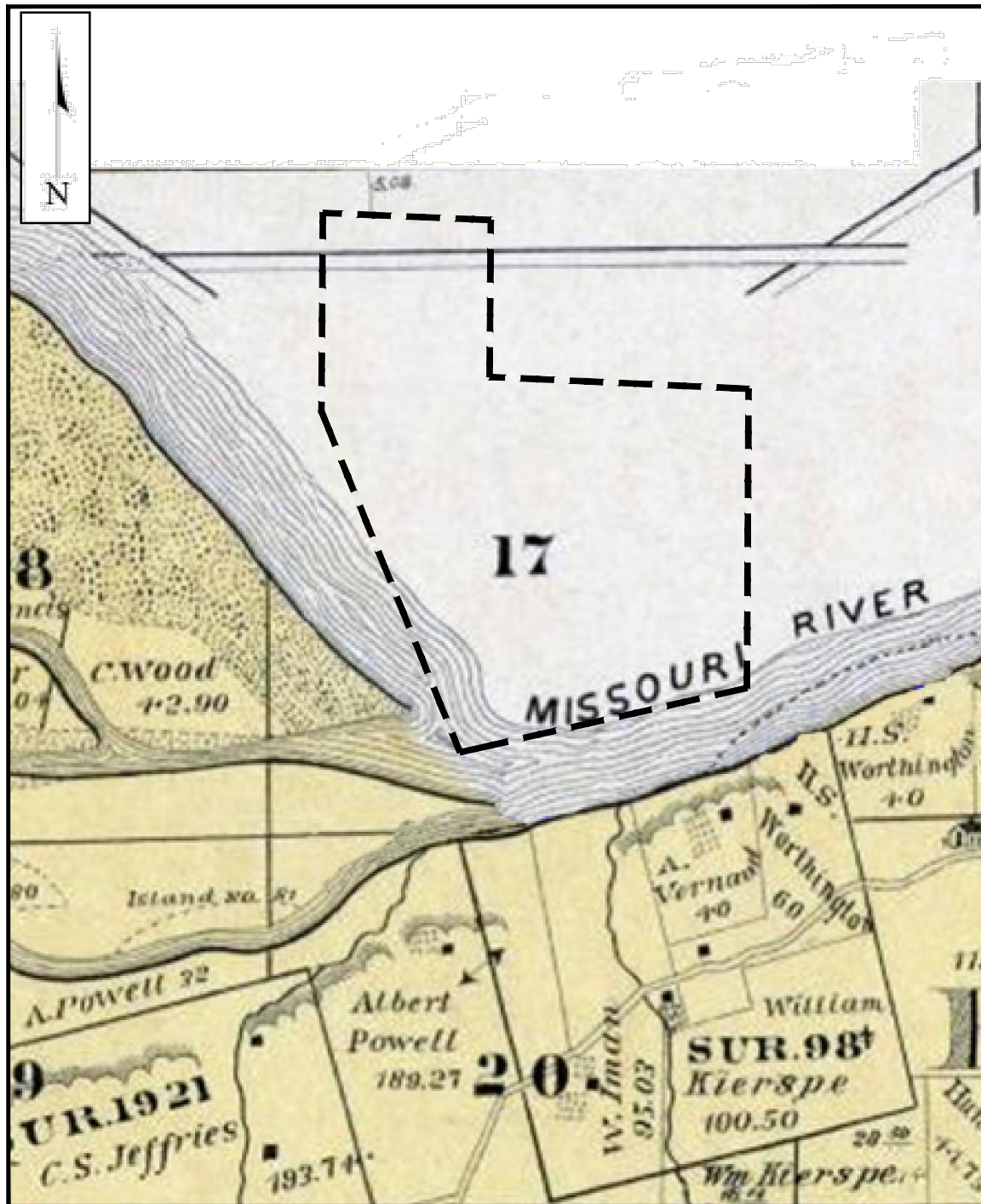
Telephone: (573) 659-9078
Facsimile: (573) 659-9079

PREPARED FOR

Ameren

MISSOURI

ST. LOUIS, MISSOURI



MODIFIED FROM: PRAIRIE ARCHAEOLOGY AND RESEARCH, 2009

SOURCE: (1878 Atlas Map of Franklin County, Missouri).

LEGEND

— — — — — DSI LIMITS

Detailed Site Investigation Report
Ameren Missouri Labadie Power Plant
Proposed Utility Waste Disposal Area
Franklin County, Missouri



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Figure 4
Historical Position of the Missouri River - 1878

PREPARED FOR



ST. LOUIS, MISSOURI

DATE 9/2010	SCALE N.T.S.	FIGURE FIGURE 4	REV
DRAWN BY: WJA	APPROVED BY: MCC	PROJECT NO.	



MODIFIED FROM: PRAIRIE ARCHAEOLOGY AND RESEARCH, 2009

LEGEND

SOURCE: (1898 Standard Atlas Map of Franklin County, Missouri). DSI LIMITS

Detailed Site Investigation Report
Ameren Missouri Labadie Power Plant
Proposed Utility Waste Disposal Area
Franklin County, Missouri



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Figure 5
Historical Position of the Missouri River - 1898

PREPARED FOR



ST. LOUIS, MISSOURI

DATE 9/2010	SCALE N.T.S.	FIGURE FIGURE 5	REV
DRAWN BY: WJA	APPROVED BY: MCC	PROJECT NO.	