

LEGEND		
	Proposed Pipeline Route	
	Survey Area	
	Study Area	
	Oil/Gas Well Location	
	Water Well Location	
	Section	
	State Land	
	County Boundary	
	Township/Range	

0 1,000 2,000 4,000  
Feet

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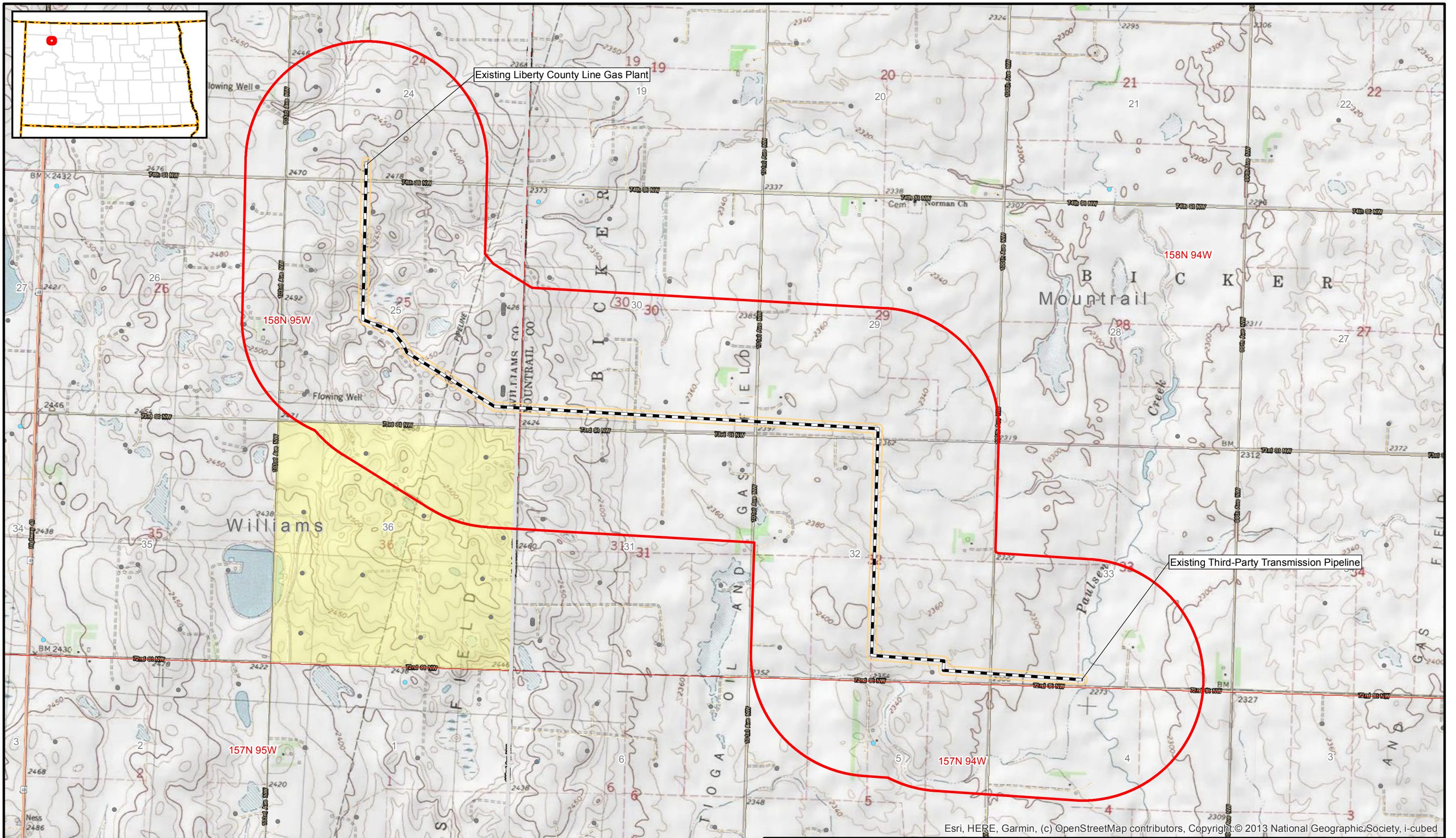
**LIBERTY**  
MIDSTREAM SOLUTIONS

PROJECT NO.	20192055
CREATED:	11/14/2019
CREATED BY:	A. Leonard
CHECKED BY:	A. Dury
FILE NAME:	FigA2_Aerial.mxd

<b>Project Location Map</b>
Liberty Midstream Solutions, LLC Alliance Sales Line Williams and Mountrail Counties, North Dakota

FIGURE  
**1**

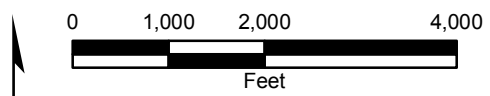
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**LEGEND**

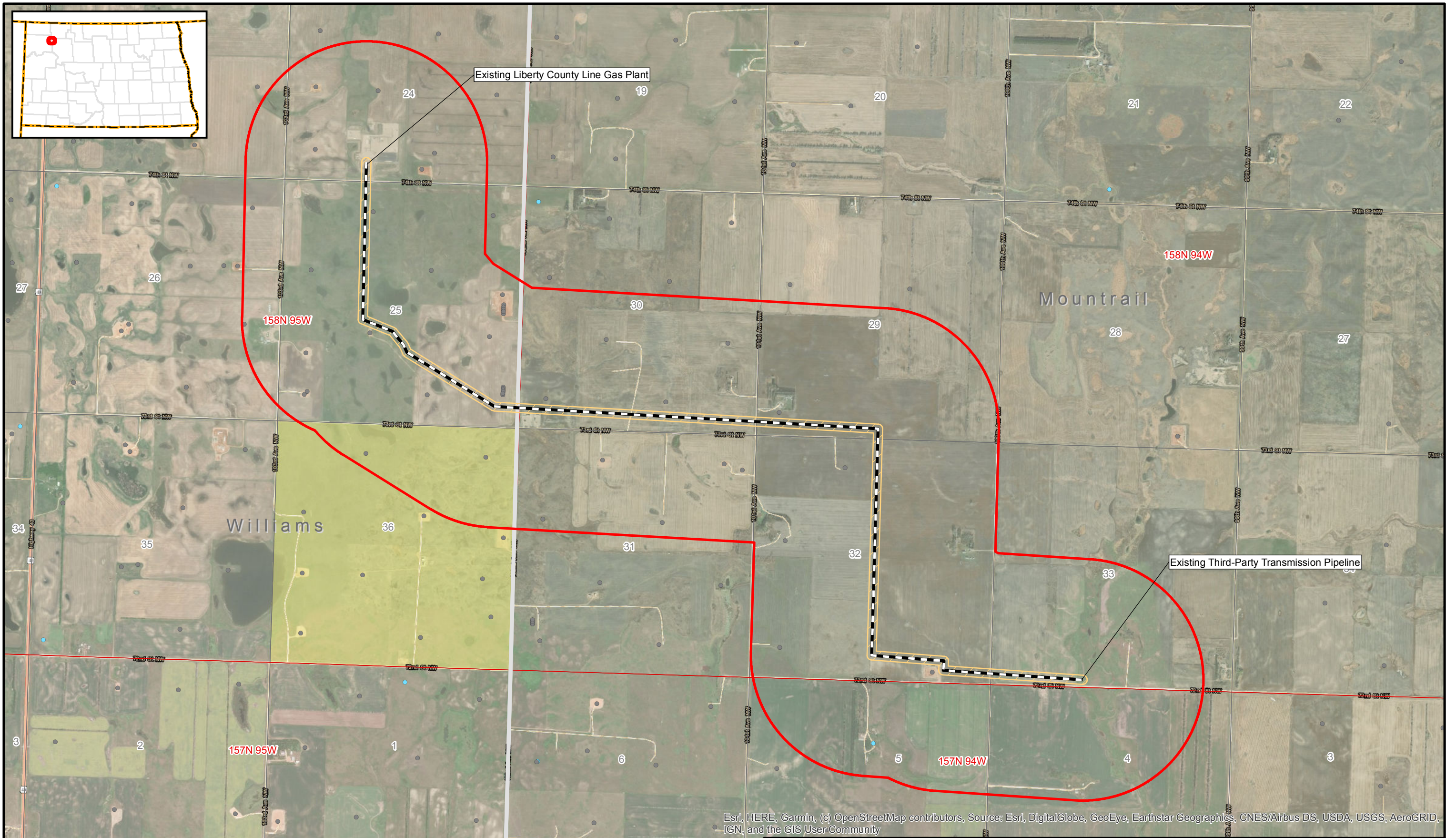
- Proposed Pipeline Route
- Survey Area
- Study Area
- Water Well Location
- State Land
- County Boundary
- Oil/Gas Well Location
- Section
- Township/Range



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PROJECT NO.	20192055
CREATED:	11/14/2019
CREATED BY:	A. Leonard
CHECKED BY:	A. Dury
FILE NAME:	FigA1_Topo.mxd

<b>Topography Map</b>	FIGURE
Liberty Midstream Solutions, LLC Alliance Sales Line Williams and Mountrail Counties, North Dakota	<b>A-1</b>



**LEGEND**

- Proposed Pipeline Route
- Survey Area
- Study Area
- Water Well Location
- State Land
- County Boundary
- Township/Range
- Oil/Gas Well Location
- Section

0 1,000 2,000 4,000  
Feet

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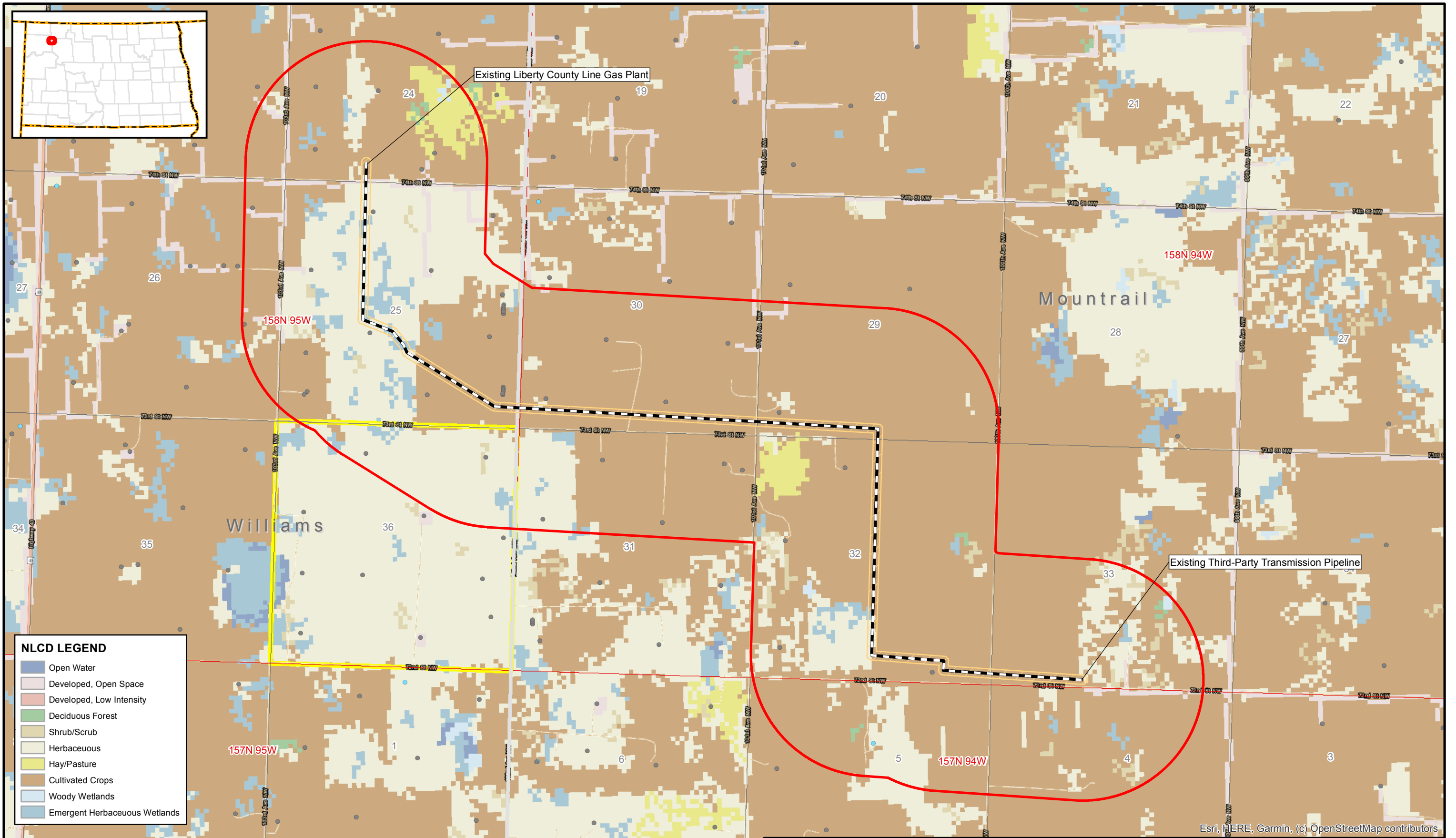
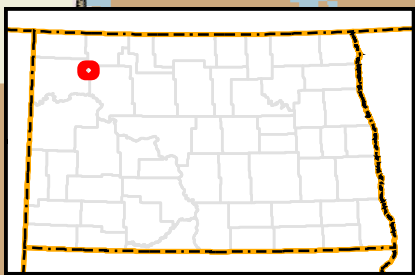
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PROJECT NO.	20192055
CREATED:	11/14/2019
CREATED BY:	A. Leonard
CHECKED BY:	A. Dury
FILE NAME:	FigA2_Aerial.mxd

<b>Aerial Map</b>
Liberty Midstream Solutions, LLC Alliance Sales Line Williams and Mountrail Counties, North Dakota

FIGURE  
**A-2**

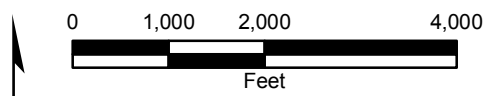


**NLCD LEGEND**

Open Water
Developed, Open Space
Developed, Low Intensity
Deciduous Forest
Shrub/Scrub
Herbaceous
Hay/Pasture
Cultivated Crops
Woody Wetlands
Emergent Herbaceous Wetlands

**LEGEND**

Proposed Pipeline Route	Water Well Location	Section
Survey Area	State Land	County Boundary
Study Area	County Boundary	Township/Range
Oil/Gas Well Location		

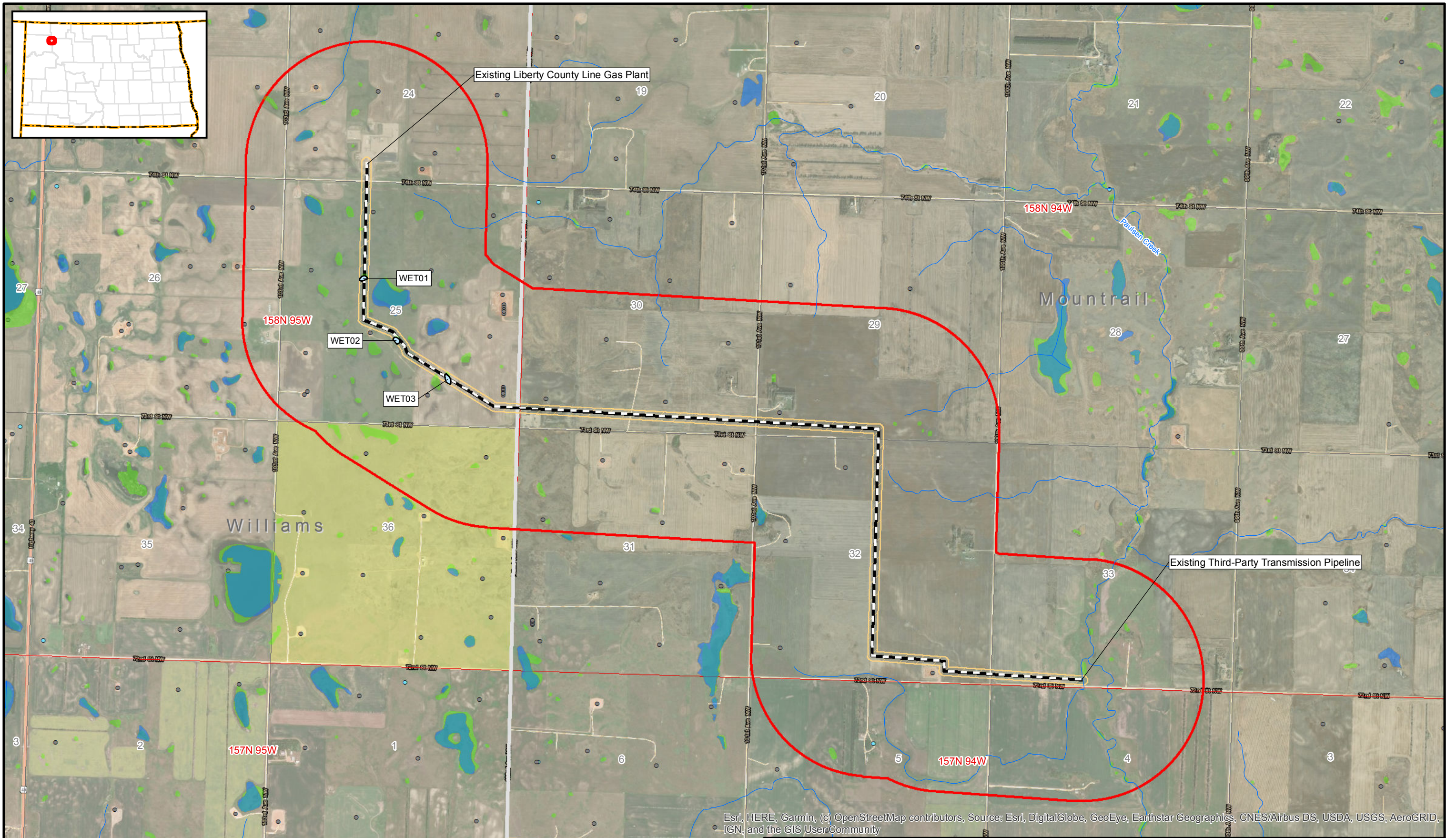


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PROJECT NO.	20192055
CREATED:	11/14/2019
CREATED BY:	A. Leonard
CHECKED BY:	A. Dury
FILE NAME:	FigA3_LandUse.mxd

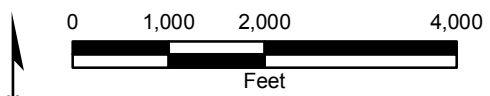
<b>Land Use Map</b>
Liberty Midstream Solutions, LLC Alliance Sales Line Williams and Mountrail Counties, North Dakota

FIGURE  
**A-3**



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LEGEND		
Proposed Pipeline Route	Survey Area	County Boundary
Delineated Features (SWCA)	Study Area	Township/Range
NHD Flowline	Oil/Gas Well Location	Section
NHD Waterbody	Water Well Location	
NWI Wetlands	State Land	

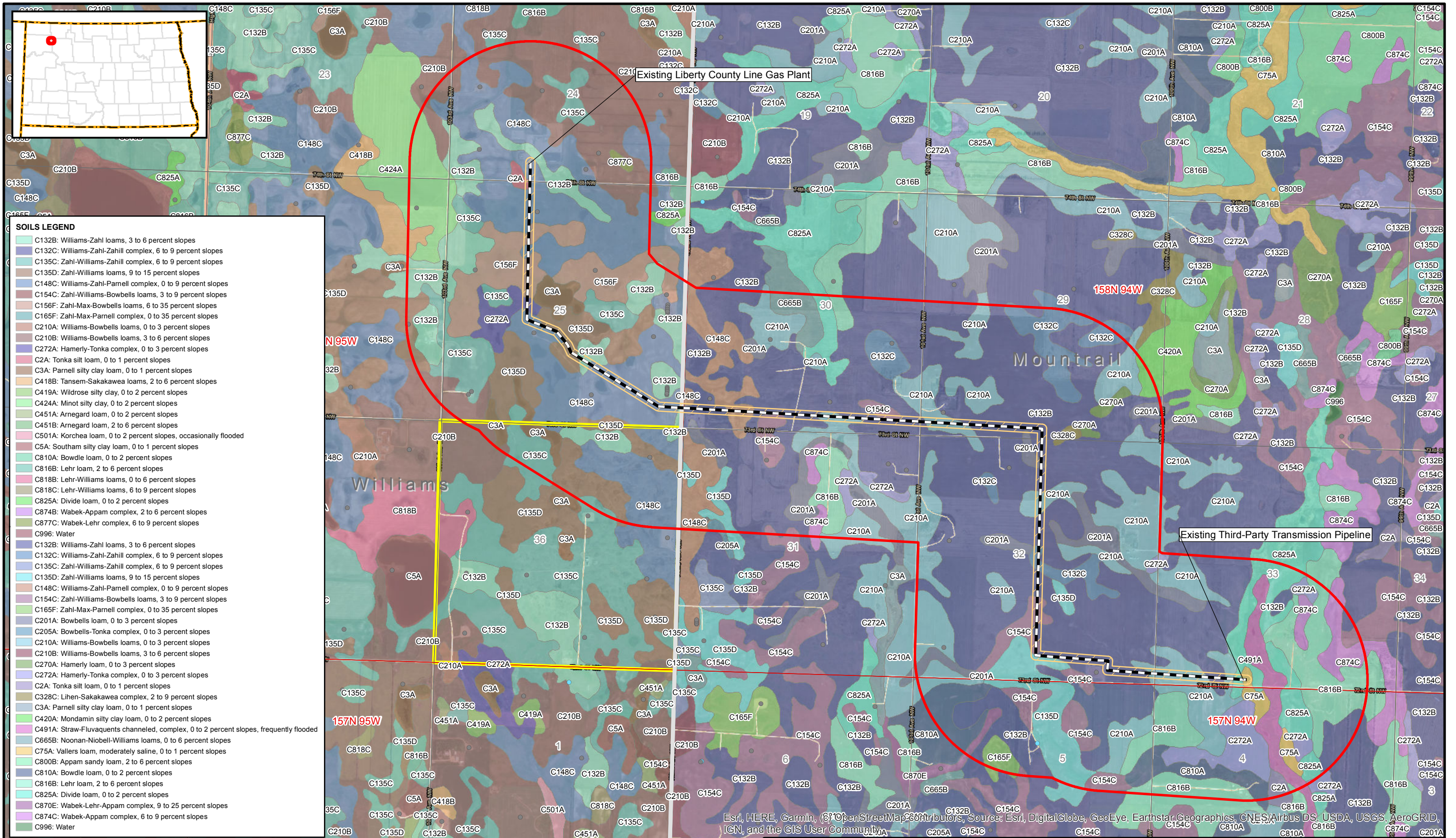


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PROJECT NO.	20192055
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CREATED BY:	A. Leonard
CHECKED BY:	A. Dury
FILE NAME:	FigA4_Hydro.mxd

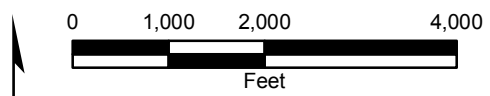
<b>Wetlands and Waterbodies Map</b>		FIGURE
Liberty Midstream Solutions, LLC Alliance Sales Line Williams and Mountrail Counties, North Dakota		<b>A-4</b>

Date: 11/14/2019 User: ALeonard Path: \\azgisstor01\GIS\_Projects\Client\LibertyMidstream\20192055\_NDIMXD\Report\FigA5\_Soils.mxd



SOILS LEGEND	
C132B: Williams-Zahl loams, 3 to 6 percent slopes	
C132C: Williams-Zahl-Zahill complex, 6 to 9 percent slopes	
C135C: Zahl-Williams-Zahill complex, 6 to 9 percent slopes	
C135D: Zahl-Williams loams, 9 to 15 percent slopes	
C148C: Williams-Zahl-Parnell complex, 0 to 9 percent slopes	
C154C: Zahl-Williams-Bowbells loams, 3 to 9 percent slopes	
C156F: Zahl-Max-Bowbells loams, 6 to 35 percent slopes	
C165F: Zahl-Max-Parnell complex, 0 to 35 percent slopes	
C210A: Williams-Bowbells loams, 0 to 3 percent slopes	
C210B: Williams-Bowbells loams, 3 to 6 percent slopes	
C272A: Hamerly-Tonka complex, 0 to 3 percent slopes	
C2A: Tonka silt loam, 0 to 1 percent slopes	
C3A: Parnell silty clay loam, 0 to 1 percent slopes	
C418B: Tanselm-Sakakawea loams, 2 to 6 percent slopes	
C419A: Wildrose silty clay, 0 to 2 percent slopes	
C424A: Minot silty clay, 0 to 2 percent slopes	
C451A: Arnegard loam, 0 to 2 percent slopes	
C451B: Arnegard loam, 2 to 6 percent slopes	
C501A: Korchea loam, 0 to 2 percent slopes, occasionally flooded	
C5A: Southam silty clay loam, 0 to 1 percent slopes	
C810A: Bowdle loam, 0 to 2 percent slopes	
C816B: Lehr loam, 2 to 6 percent slopes	
C818B: Lehr-Williams loams, 0 to 6 percent slopes	
C818C: Lehr-Williams loams, 6 to 9 percent slopes	
C825A: Divide loam, 0 to 2 percent slopes	
C874B: Wabek-Appam complex, 2 to 6 percent slopes	
C877C: Wabek-Lehr complex, 6 to 9 percent slopes	
C996: Water	
C132B: Williams-Zahl loams, 3 to 6 percent slopes	
C132C: Williams-Zahl-Zahill complex, 6 to 9 percent slopes	
C135C: Zahl-Williams-Zahill complex, 6 to 9 percent slopes	
C135D: Zahl-Williams loams, 9 to 15 percent slopes	
C148C: Williams-Zahl-Parnell complex, 0 to 9 percent slopes	
C154C: Zahl-Williams-Bowbells loams, 3 to 9 percent slopes	
C165F: Zahl-Max-Parnell complex, 0 to 35 percent slopes	
C201A: Bowbells loam, 0 to 3 percent slopes	
C205A: Bowbells-Tonka complex, 0 to 3 percent slopes	
C210A: Williams-Bowbells loams, 0 to 3 percent slopes	
C210B: Williams-Bowbells loams, 3 to 6 percent slopes	
C270A: Hamerly loam, 0 to 3 percent slopes	
C272A: Hamerly-Tonka complex, 0 to 3 percent slopes	
C2A: Tonka silt loam, 0 to 1 percent slopes	
C328C: Lihen-Sakakawea complex, 2 to 9 percent slopes	
C3A: Parnell silty clay loam, 0 to 1 percent slopes	
C420A: Mondamin silty clay loam, 0 to 2 percent slopes	
C491A: Straw-Fluvaquents channeled, complex, 0 to 2 percent slopes, frequently flooded	
C665B: Noonan-Niobell-Williams loams, 0 to 6 percent slopes	
C75A: Vallers loam, moderately saline, 0 to 1 percent slopes	
C800B: Appam sandy loam, 2 to 6 percent slopes	
C810A: Bowdle loam, 0 to 2 percent slopes	
C816B: Lehr loam, 2 to 6 percent slopes	
C825A: Divide loam, 0 to 2 percent slopes	
C870E: Wabek-Lehr-Appam complex, 9 to 25 percent slopes	
C874C: Wabek-Appam complex, 6 to 9 percent slopes	
C996: Water	

LEGEND	
Proposed Pipeline Route	Water Well Location
Survey Area	State Land
Study Area	County Boundary
Oil/Gas Well Location	Township/Range
Section	

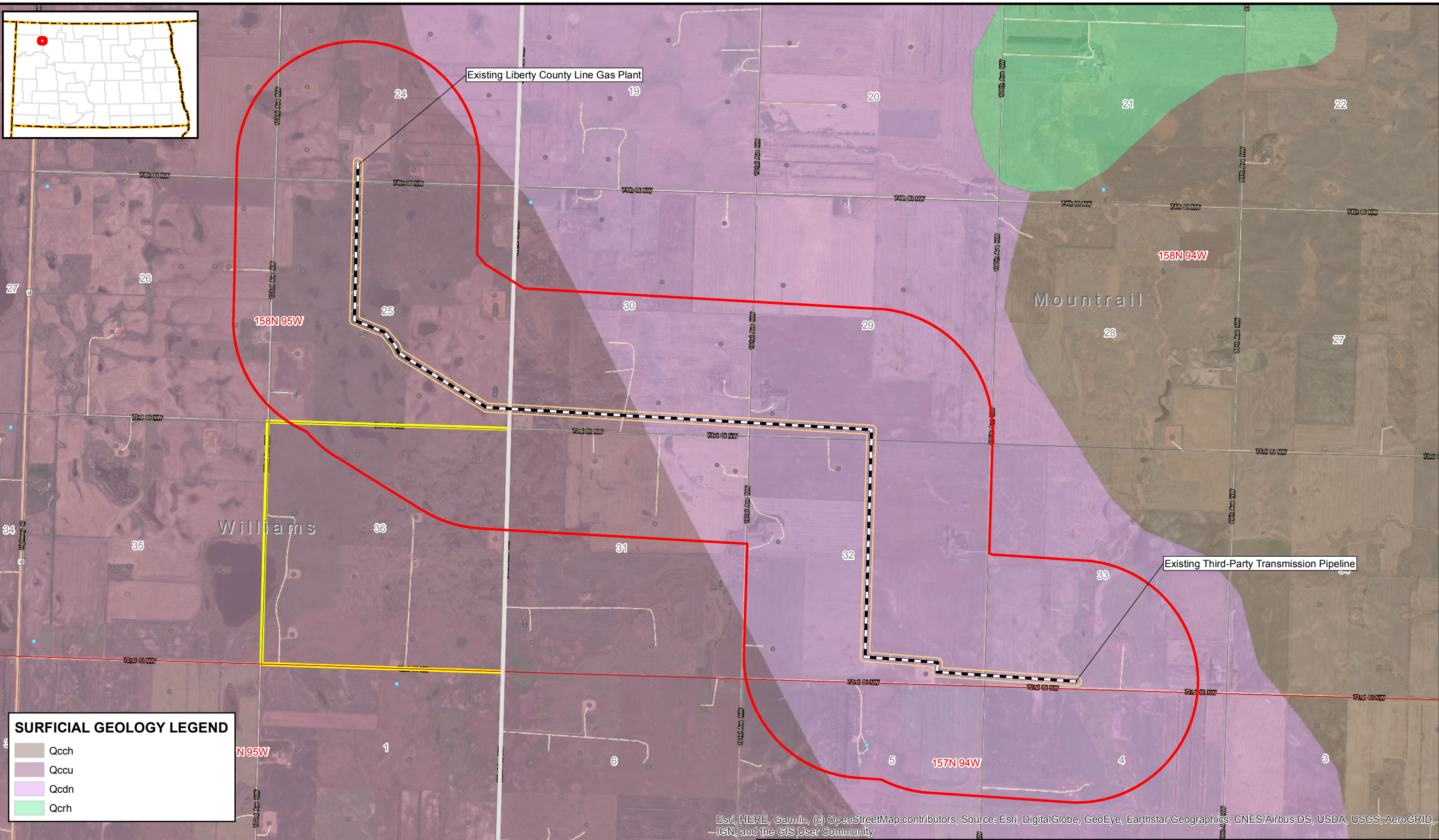
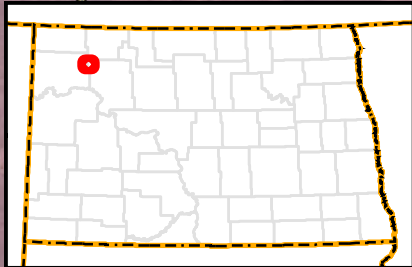


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PROJECT NO.	20192055
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CHECKED BY:	A. Dury
FILE NAME:	FigA5_Soils.mxd

<b>Soils Map</b>		FIGURE
Liberty Midstream Solutions, LLC Alliance Sales Line Williams and Mountrail Counties, North Dakota		<b>A-5</b>

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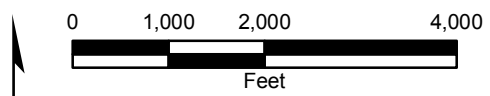


**SURFICIAL GEOLOGY LEGEND**

- Qcch
- Qccu
- Qcdn
- Qcrh

**LEGEND**

- Proposed Pipeline Route
- Water Well Location
- Section
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- State Land
- Study Area
- County Boundary
- Oil/Gas Well Location
- Township/Range



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CREATED BY:	A. Leonard
CHECKED BY:	A. Dury
FILE NAME:	FigA6_SurfGeology.mxd

<b>Surficial Geology Map</b>
Liberty Midstream Solutions, LLC Alliance Sales Line Williams and Mountrail Counties, North Dakota

FIGURE  
**A-6**