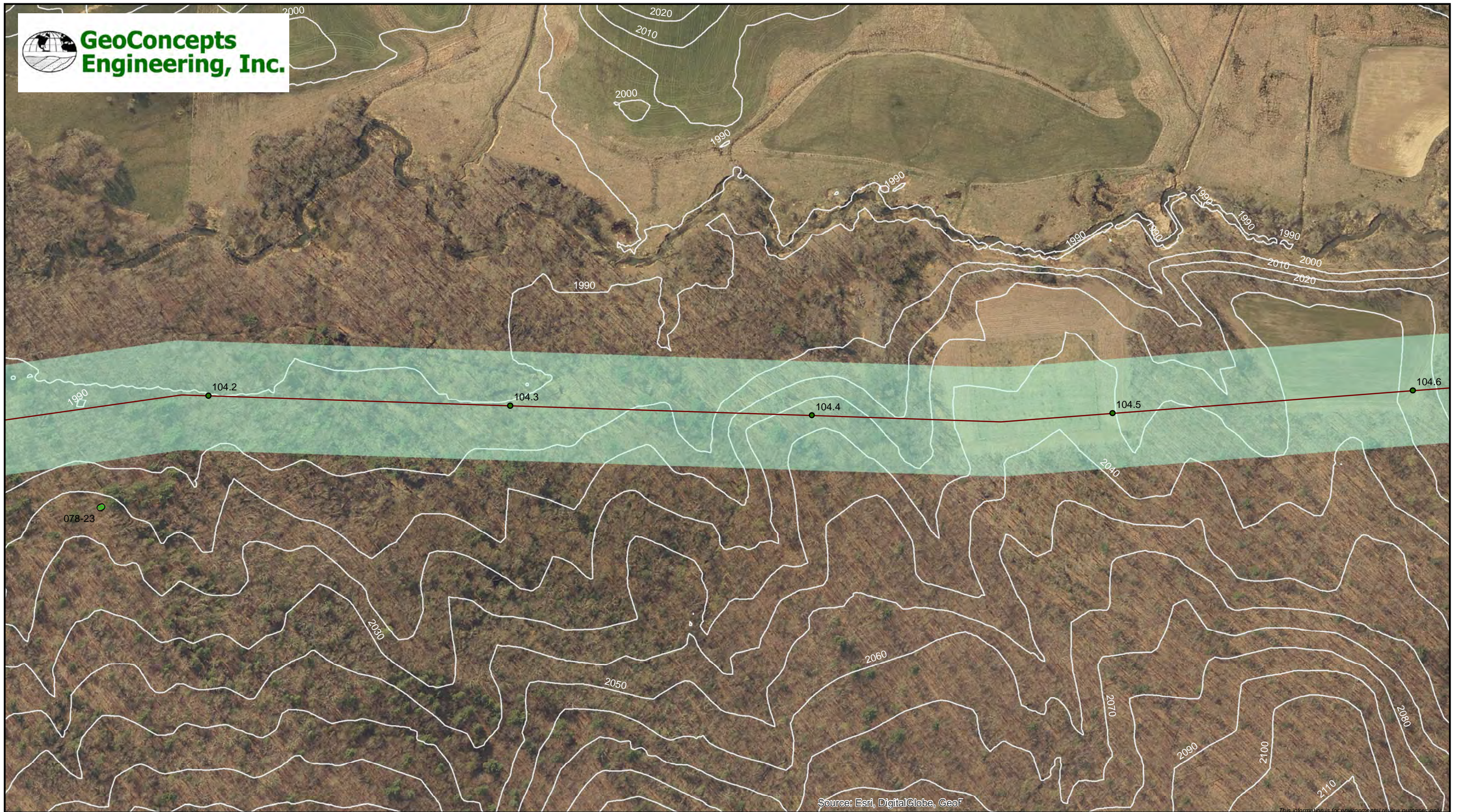


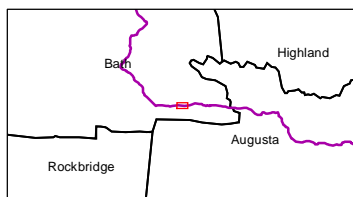


**GeoConcepts
Engineering, Inc.**

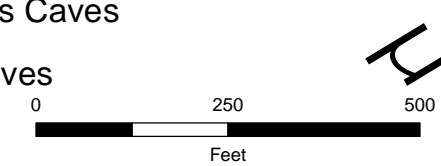


Source: Esri, DigitalGlobe, GeoF

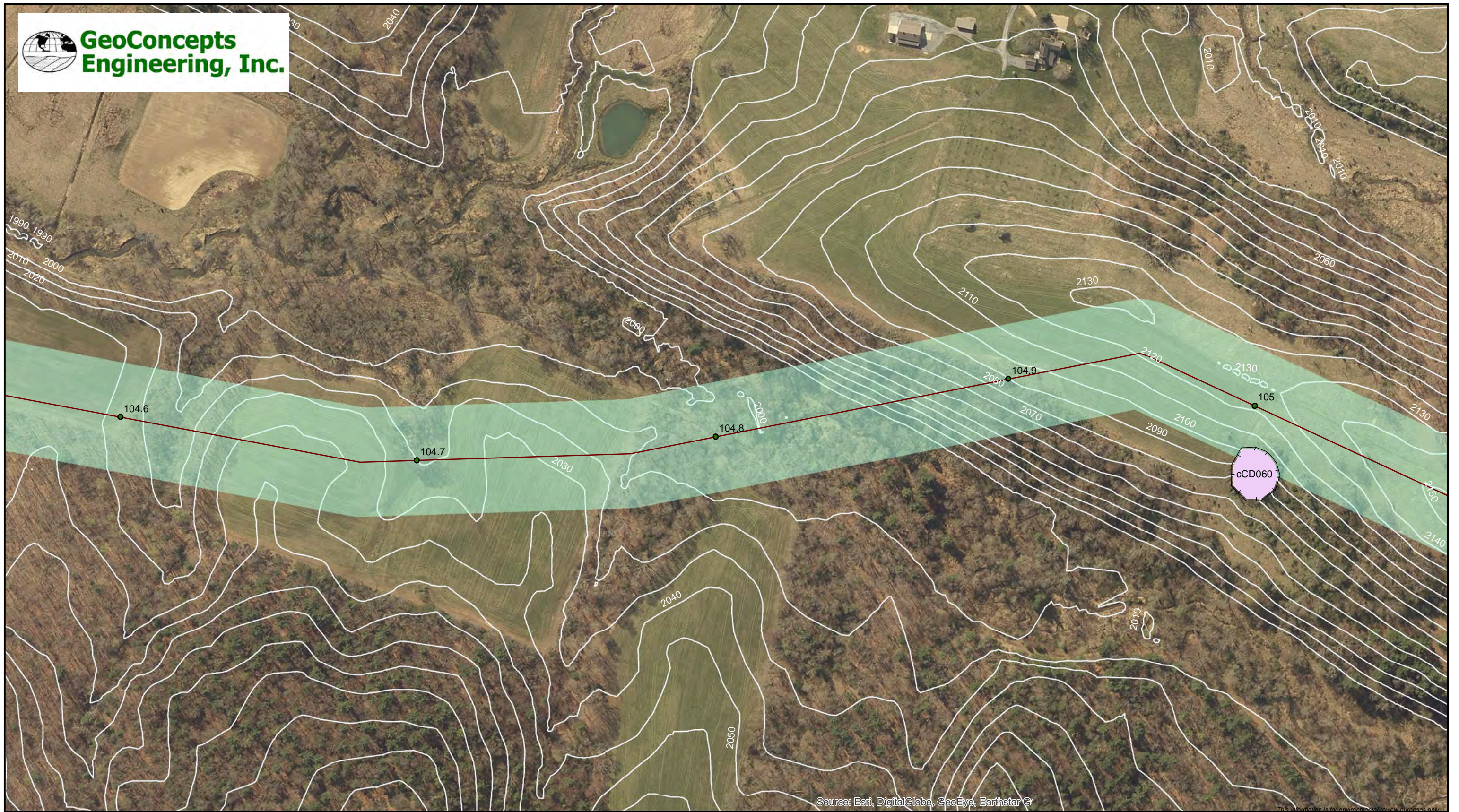
This information is for environmental review purposes only.



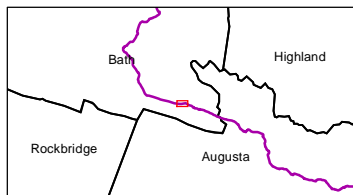
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



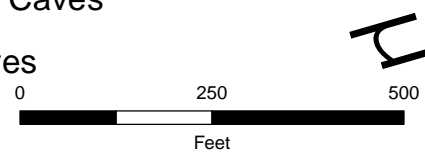
CONTOUR MAP 78
ATLANTIC COAST PIPELINE
11002.04



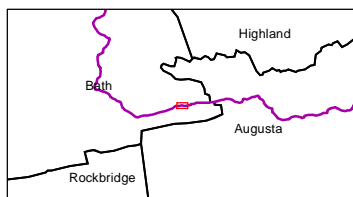
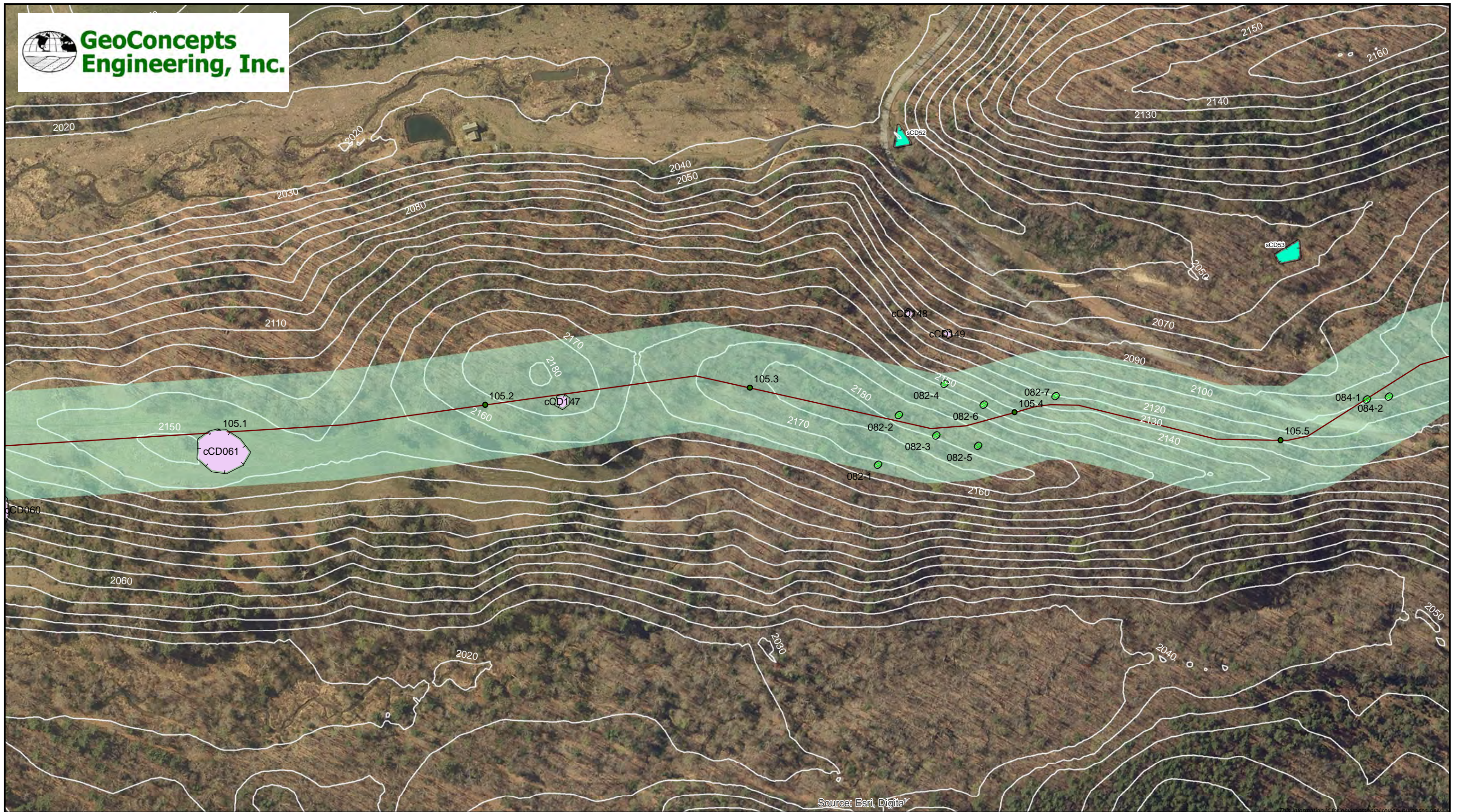
Source: Esri, DigitalGlobe, GeoEye, Earthstar ©




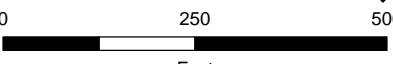
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 79
ATLANTIC COAST PIPELINE
11002.04



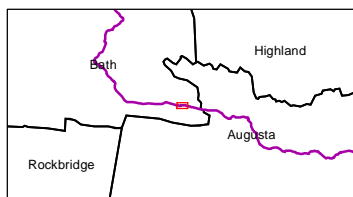
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⬢ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⬢ All Area Features	! Randolph Caves	



CONTOUR MAP 80
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye



● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⬢ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⬢ All Area Features	! Randolph Caves	

CONTOUR MAP 81
ATLANTIC COAST PIPELINE
11002.04

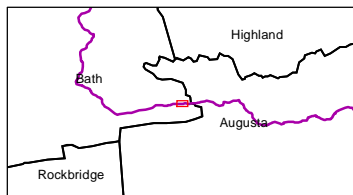


**GeoConcepts
Engineering, Inc.**

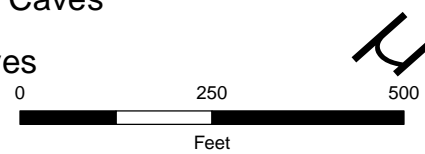


Source: Esri, DigitalGlobe

This information is for environmental review purposes only.



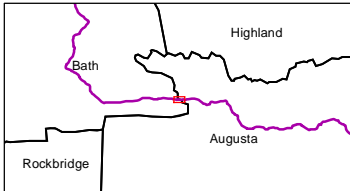
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- Pocahontas Caves
- Virginia Caves















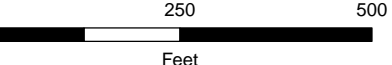
CONTOUR MAP 82
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, r














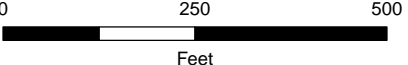
 Mileposts (0.1 mile)	 0.50 KRA	 300' Corridor Closed Depressions	 Pocahontas Caves
 Centerline	 All Point Features	 Suspect Closed Depressions	 Virginia Caves
 300' Corridor	 All Area Features	 Randolph Caves	

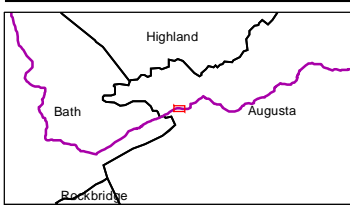
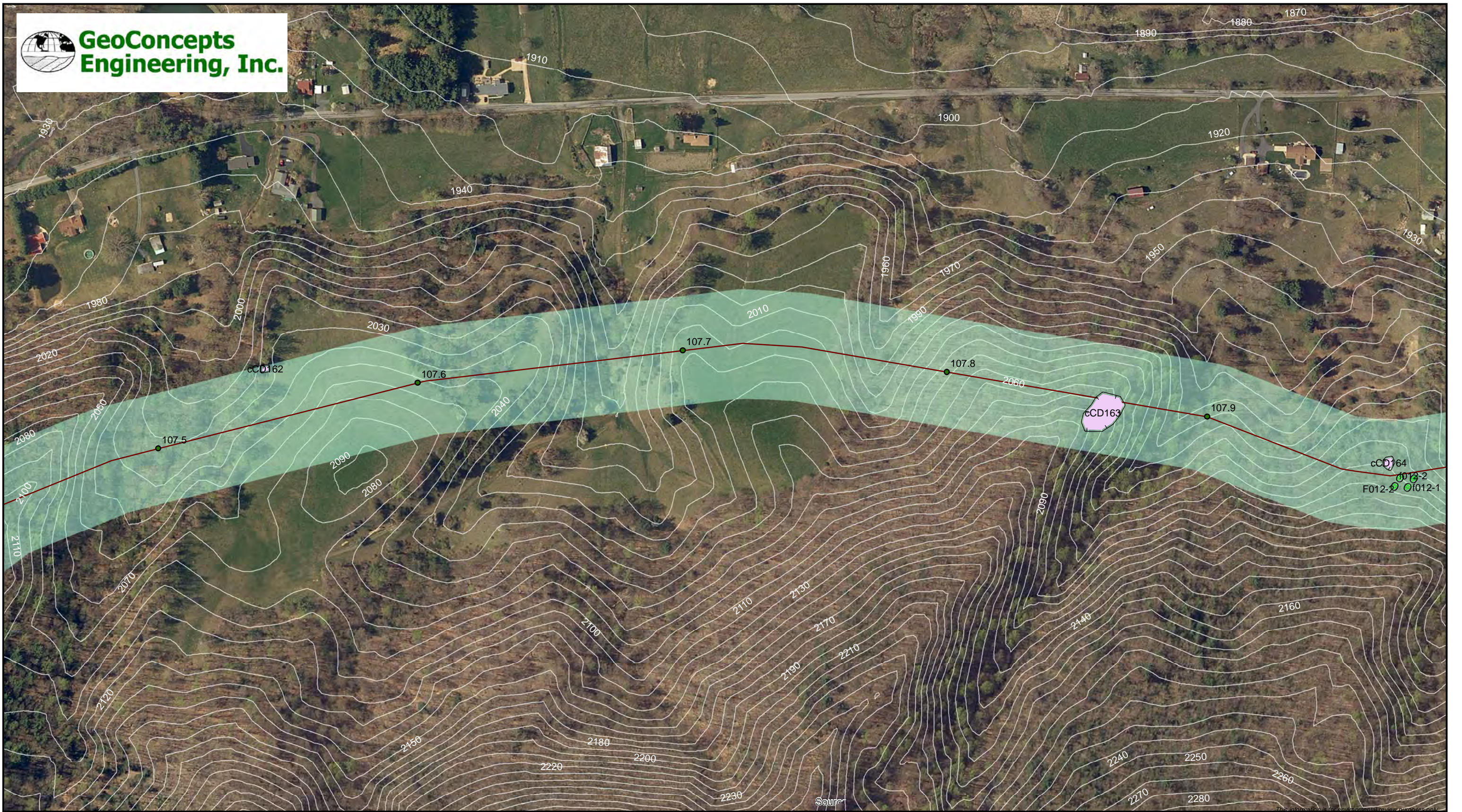
CONTOUR MAP 83
ATLANTIC COAST PIPELINE
11002.04



 Mileposts (0.1 mile)	 0.50 KRA	 300' Corridor Closed Depressions	 Pocahontas Caves
 Centerline	 All Point Features	 Suspect Closed Depressions	 Virginia Caves
 300' Corridor	 All Area Features	 Randolph Caves	



CONTOUR MAP 84
ATLANTIC COAST PIPELINE
11002.04



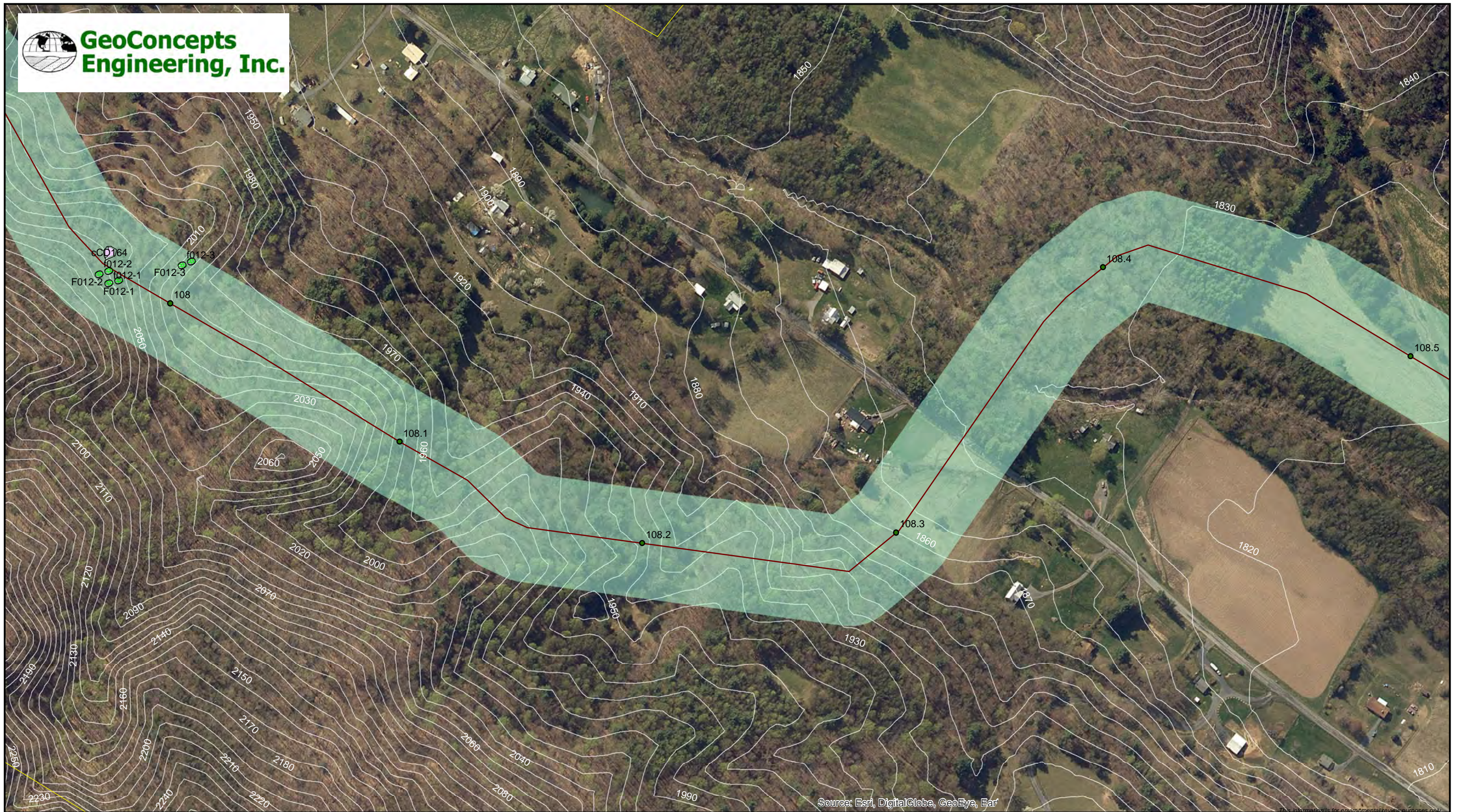
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	



CONTOUR MAP 85
ATLANTIC COAST PIPELINE
11002.04

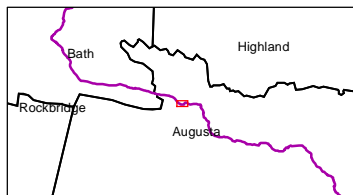


**GeoConcepts
Engineering, Inc.**

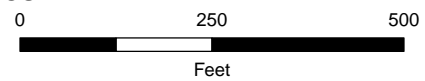


Source: Esri, DigitalGlobe, GeoEye, Earthstar

This information is for environmental review purposes only.



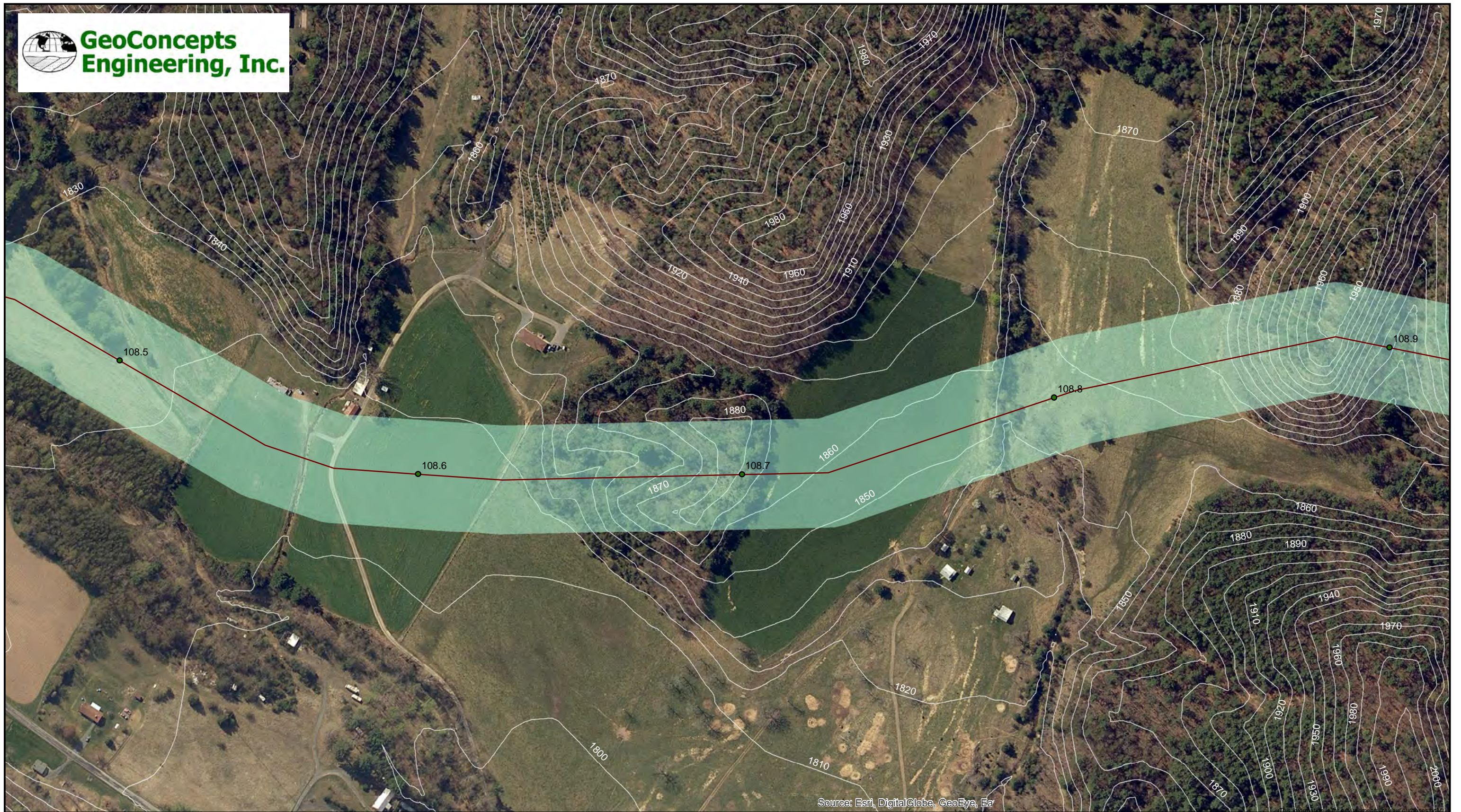
Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	Pocahontas Caves
Centerline	All Point Features	Suspect Closed Depressions	Virginia Caves
300' Corridor	All Area Features	Randolph Caves	



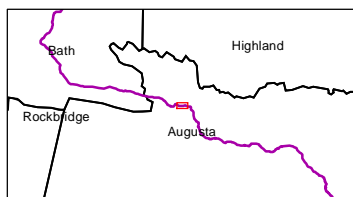
CONTOUR MAP 86
ATLANTIC COAST PIPELINE
11002.04



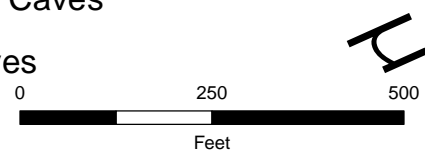
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar, etc.



- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves

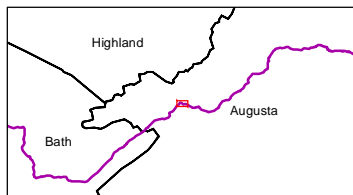
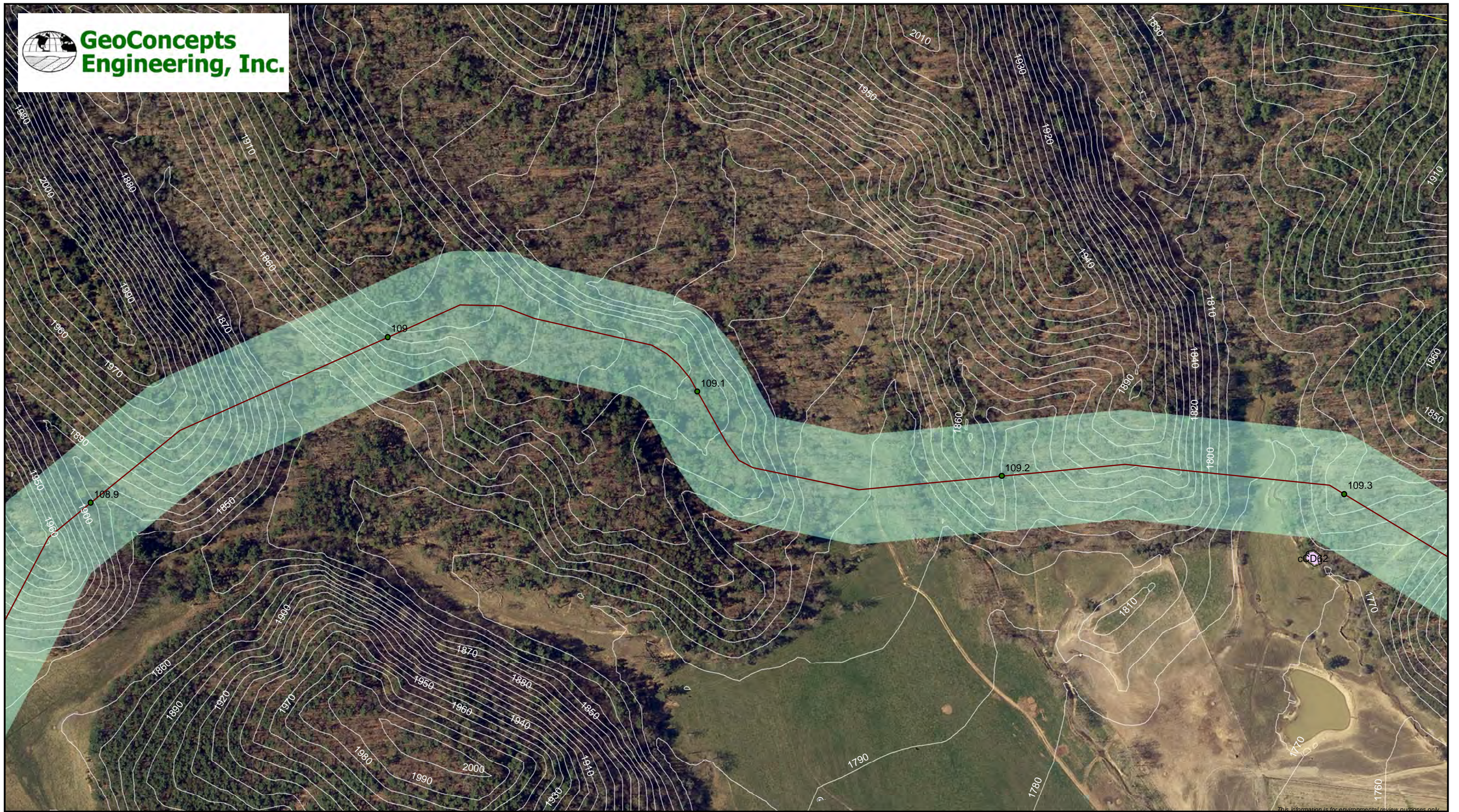


4

CONTOUR MAP 87
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



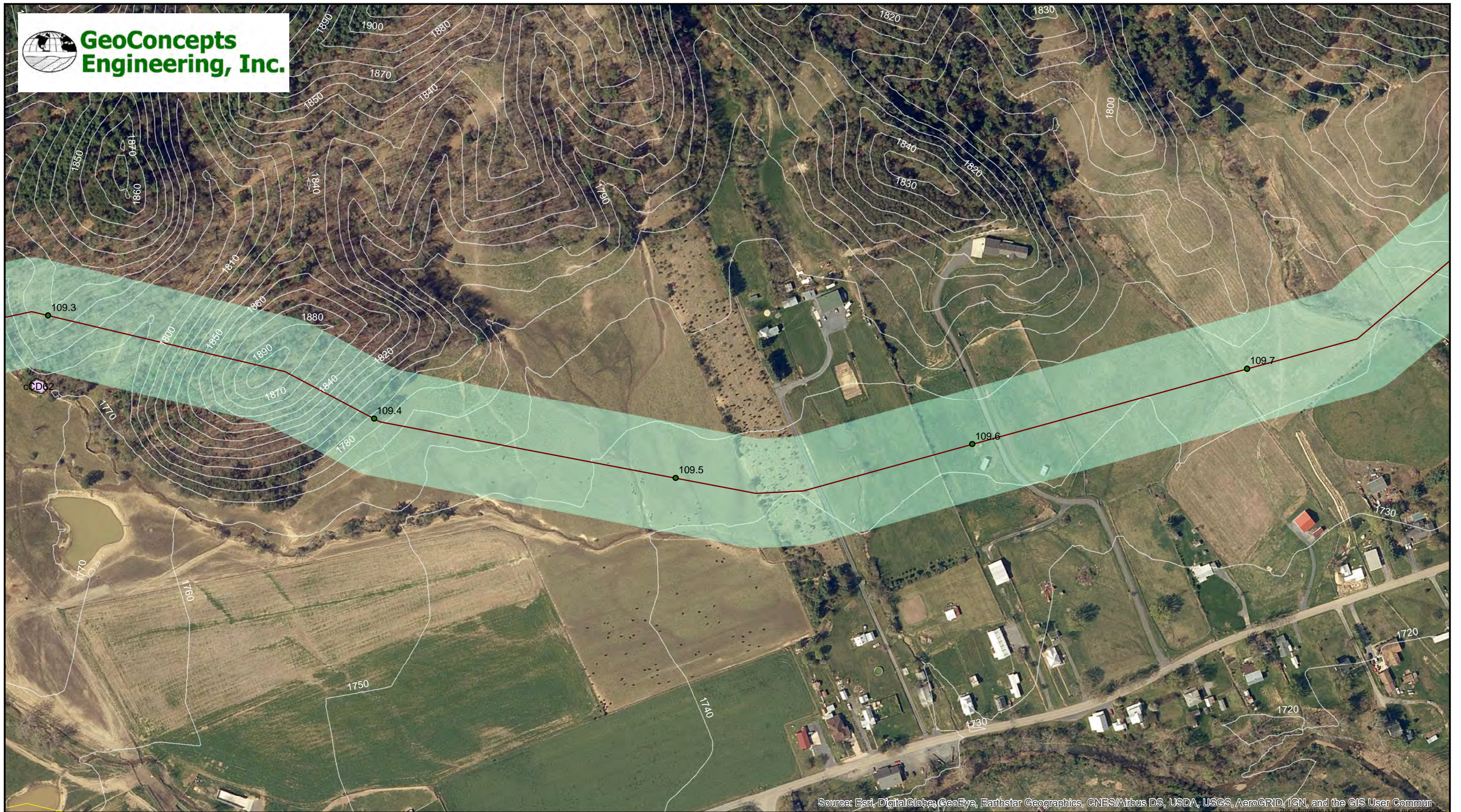
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	

0 250 500
Feet

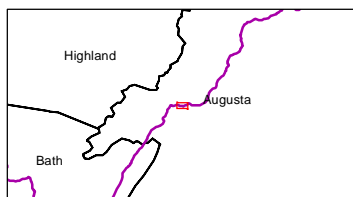
CONTOUR MAP 88
ATLANTIC COAST PIPELINE
11002.04



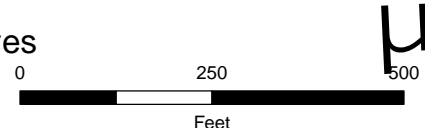
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



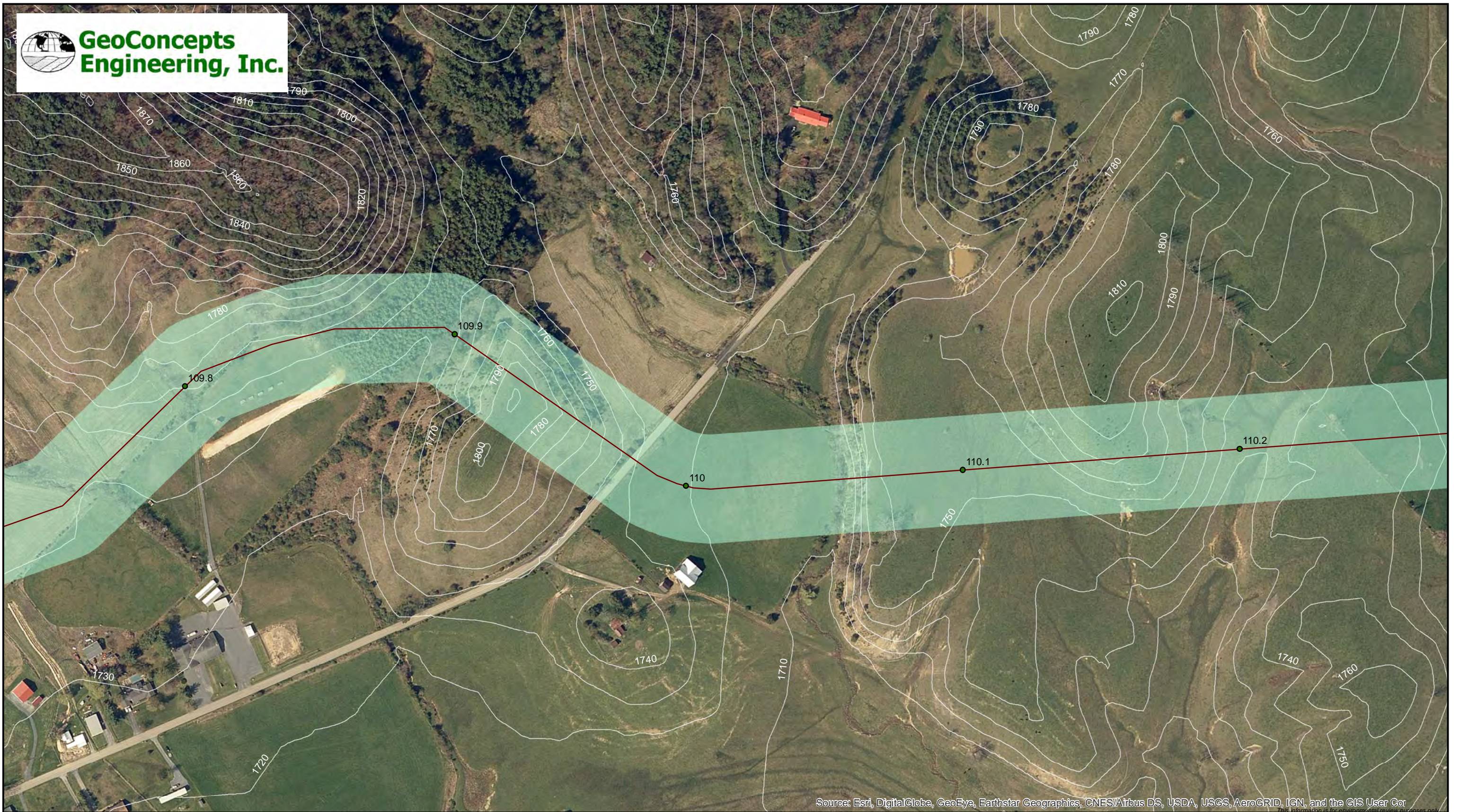
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	All Point Features	Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	



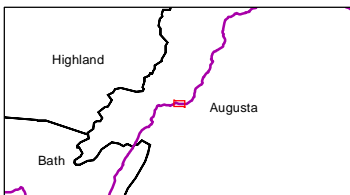
CONTOUR MAP 89
ATLANTIC COAST PIPELINE
11002.04



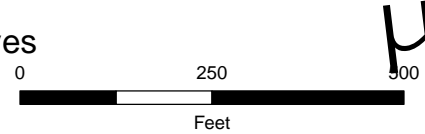
**GeoConcepts
Engineering, Inc.**



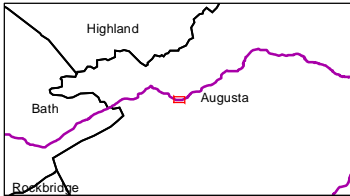
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



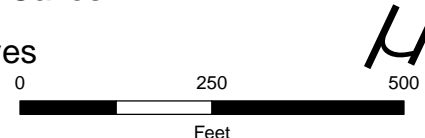
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 90
ATLANTIC COAST PIPELINE
11002.04



- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



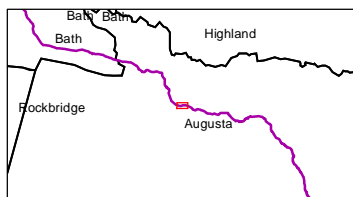
CONTOUR MAP 91
ATLANTIC COAST PIPELINE
11002.04



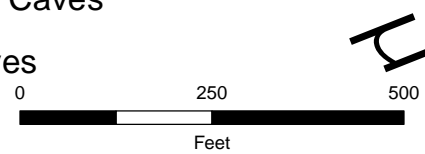
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earth



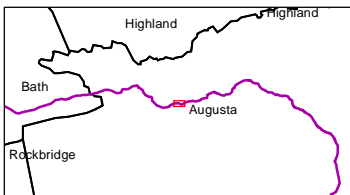
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 92
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, Digi



● Mileposts (0.1 mile)	□ 0.50 KRA	□ 300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	□ Suspect Closed Depressions	! Virginia Caves
■ 300' Corridor	■ All Area Features	! Randolph Caves	

CONTOUR MAP 93
ATLANTIC COAST PIPELINE
11002.04



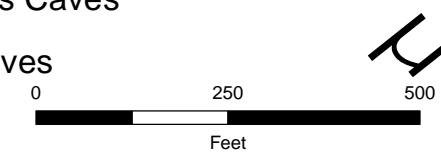
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe



- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 94
ATLANTIC COAST PIPELINE
11002.04

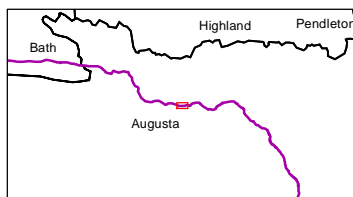


**GeoConcepts
Engineering, Inc.**

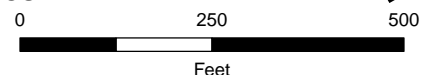


Source: Esri, DigitalGlobe, GeoEye

This information is for environmental review purposes only.



● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	All Point Features	Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	



CONTOUR MAP 95
ATLANTIC COAST PIPELINE
11002.04

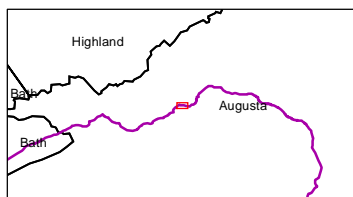


● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	300' Corridor Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	

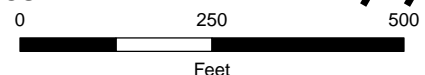
CONTOUR MAP 96
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	Pocahontas Caves
Centerline	All Point Features	Suspect Closed Depressions	Virginia Caves
300' Corridor	All Area Features	Randolph Caves	



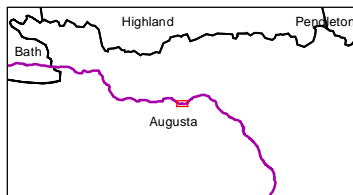
CONTOUR MAP 97
ATLANTIC COAST PIPELINE
11002.04



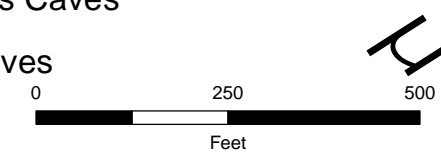
**GeoConcepts
Engineering, Inc.**



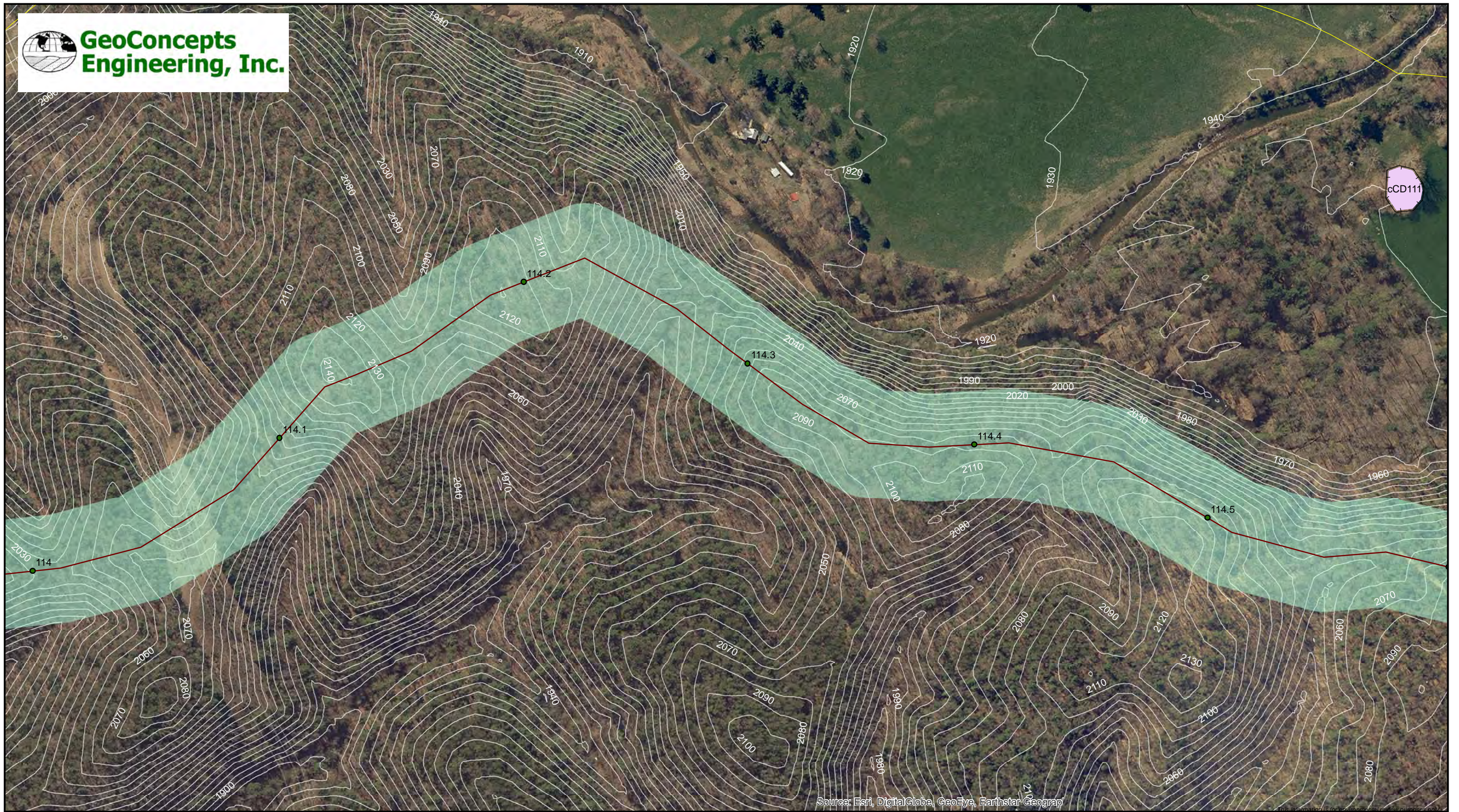
Source: Esri, DigitalGlobe, Geo



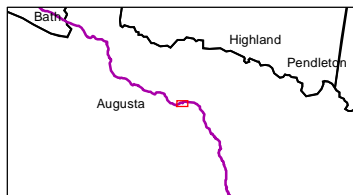
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 98
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geograph



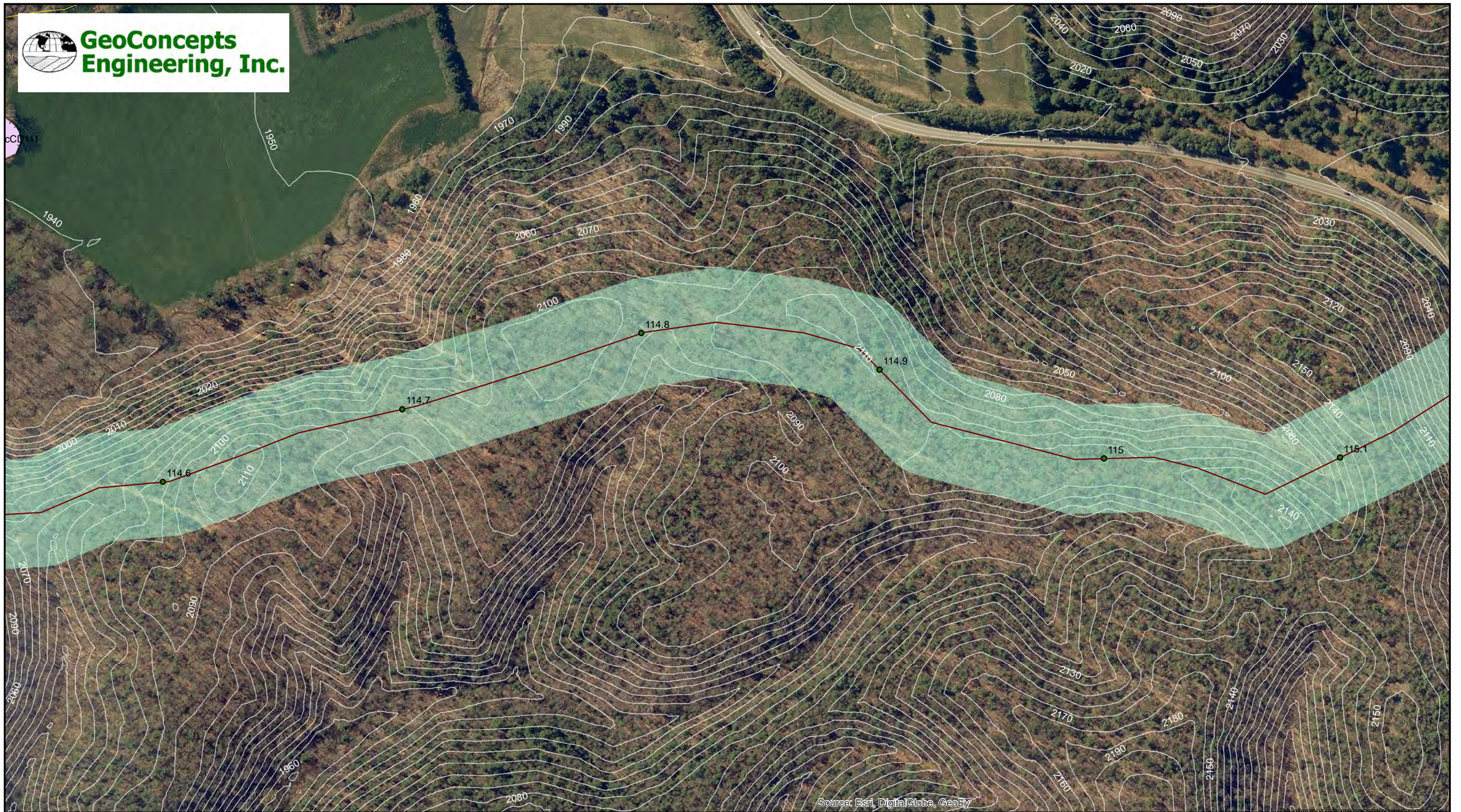
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	

0 250 500
Feet

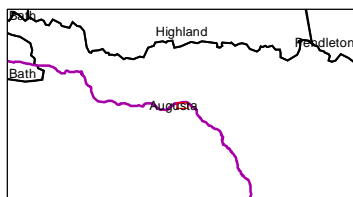
CONTOUR MAP 99
ATLANTIC COAST PIPELINE
11002.04



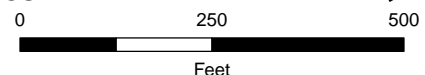
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye



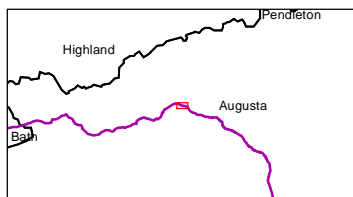
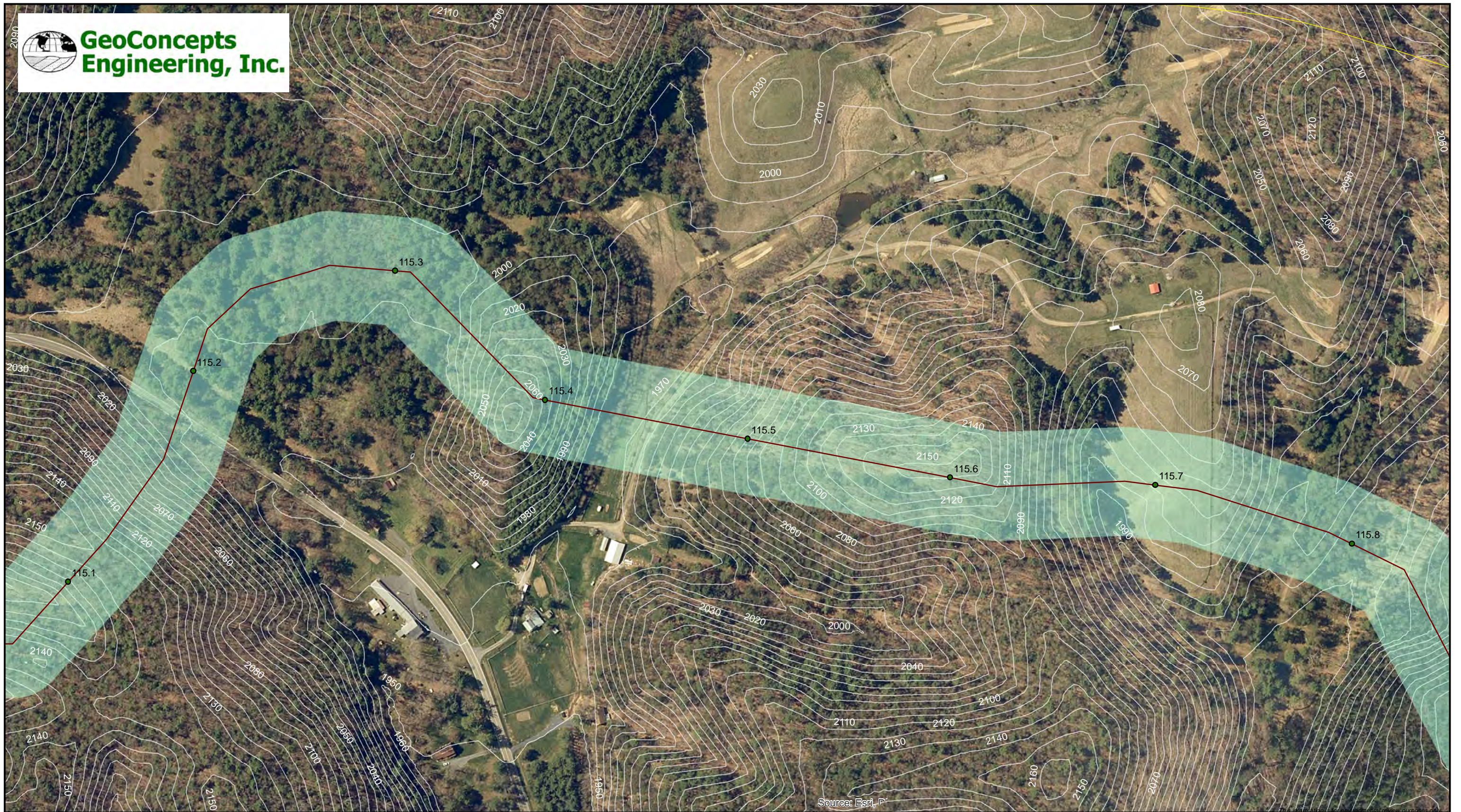
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- Pocahontas Caves
- Virginia Caves



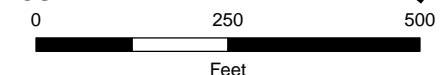
CONTOUR MAP 100
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



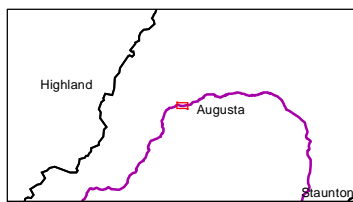
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	300' Corridor Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	



CONTOUR MAP 101
ATLANTIC COAST PIPELINE
11002.04



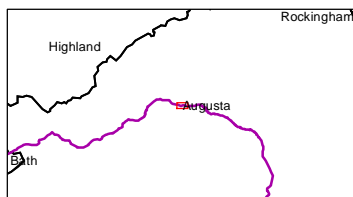
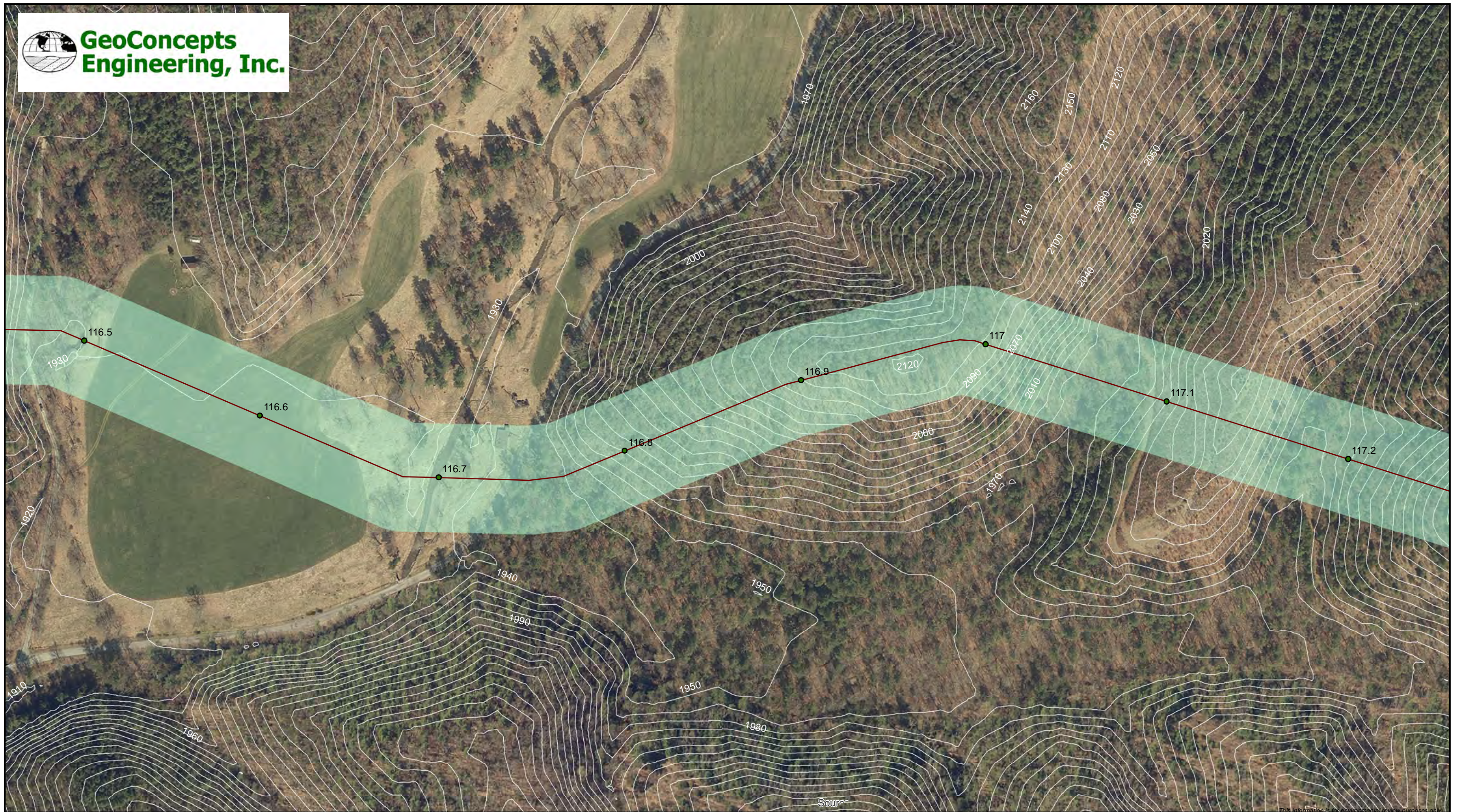
**GeoConcepts
Engineering, Inc.**



● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	All Point Features	Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	

0 250 500
Feet

**CONTOUR MAP 102
ATLANTIC COAST PIPELINE
11002.04**



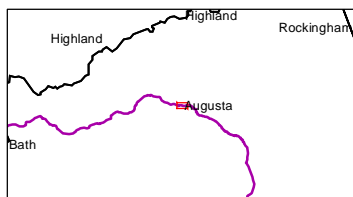
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	All Point Features	Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	

0 250 500
Feet

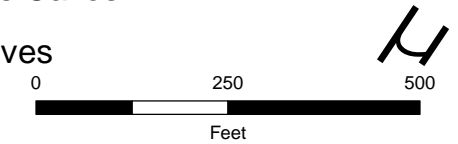
CONTOUR MAP 103
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



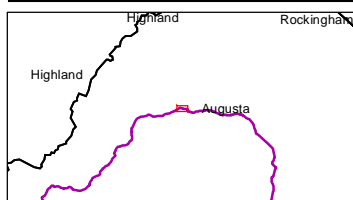
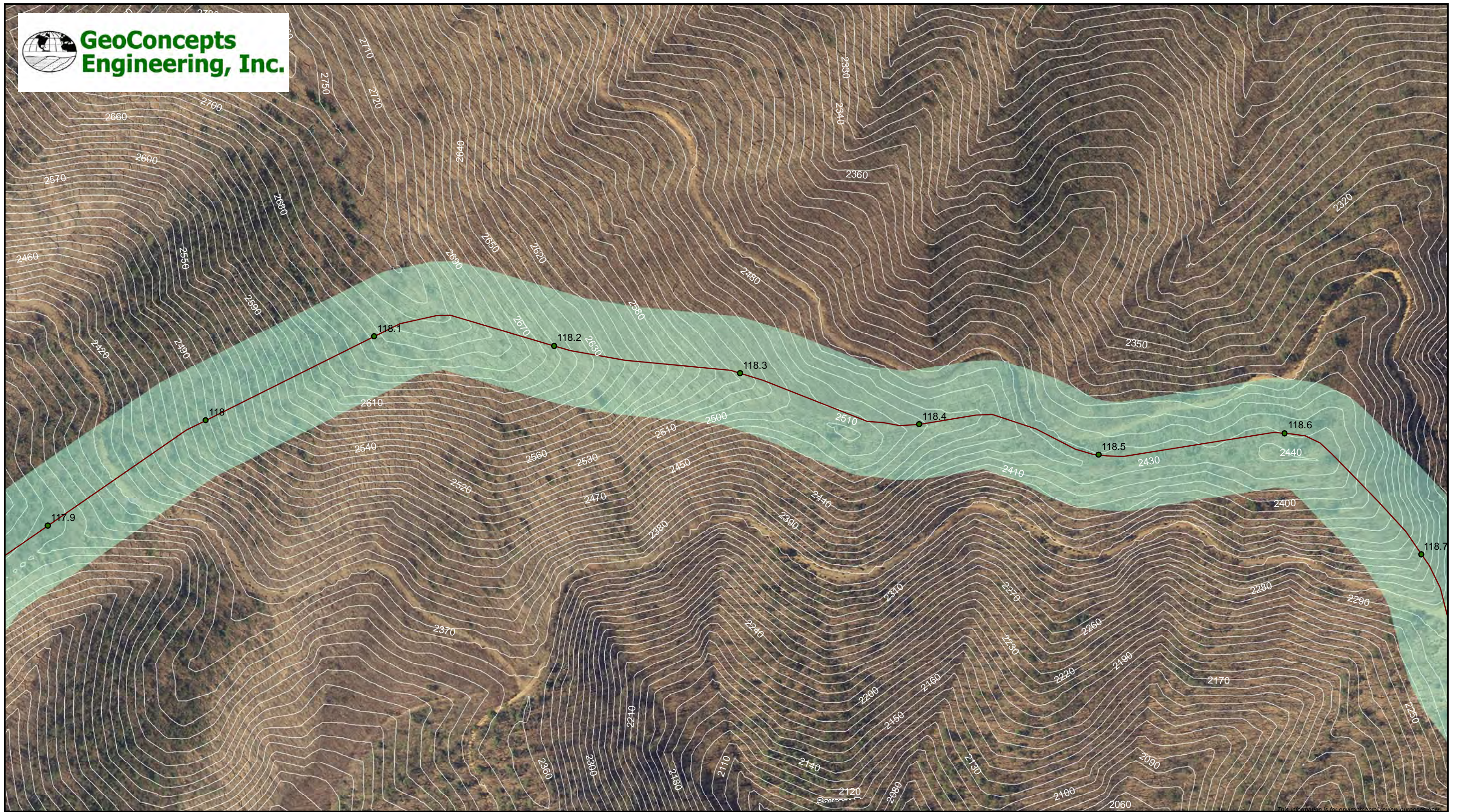
- Mileposts (0.1 mile)
- 0.50 KRA
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Pocahontas Caves
- Centerline
- ⊕ All Point Features
- Randolph Caves
- 300' Corridor
- All Area Features
- Virginia Caves



CONTOUR MAP 104
ATLANTIC COAST PIPELINE
11002.04



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Engineering, Inc.**



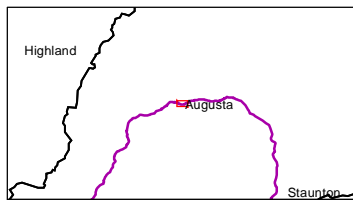
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	

0 250 500
Feet

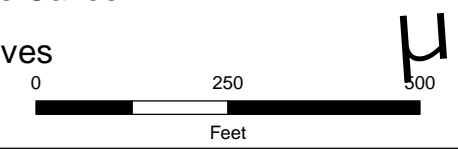
CONTOUR MAP 105
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



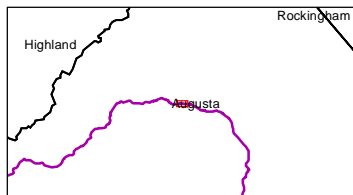
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 106
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
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- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves

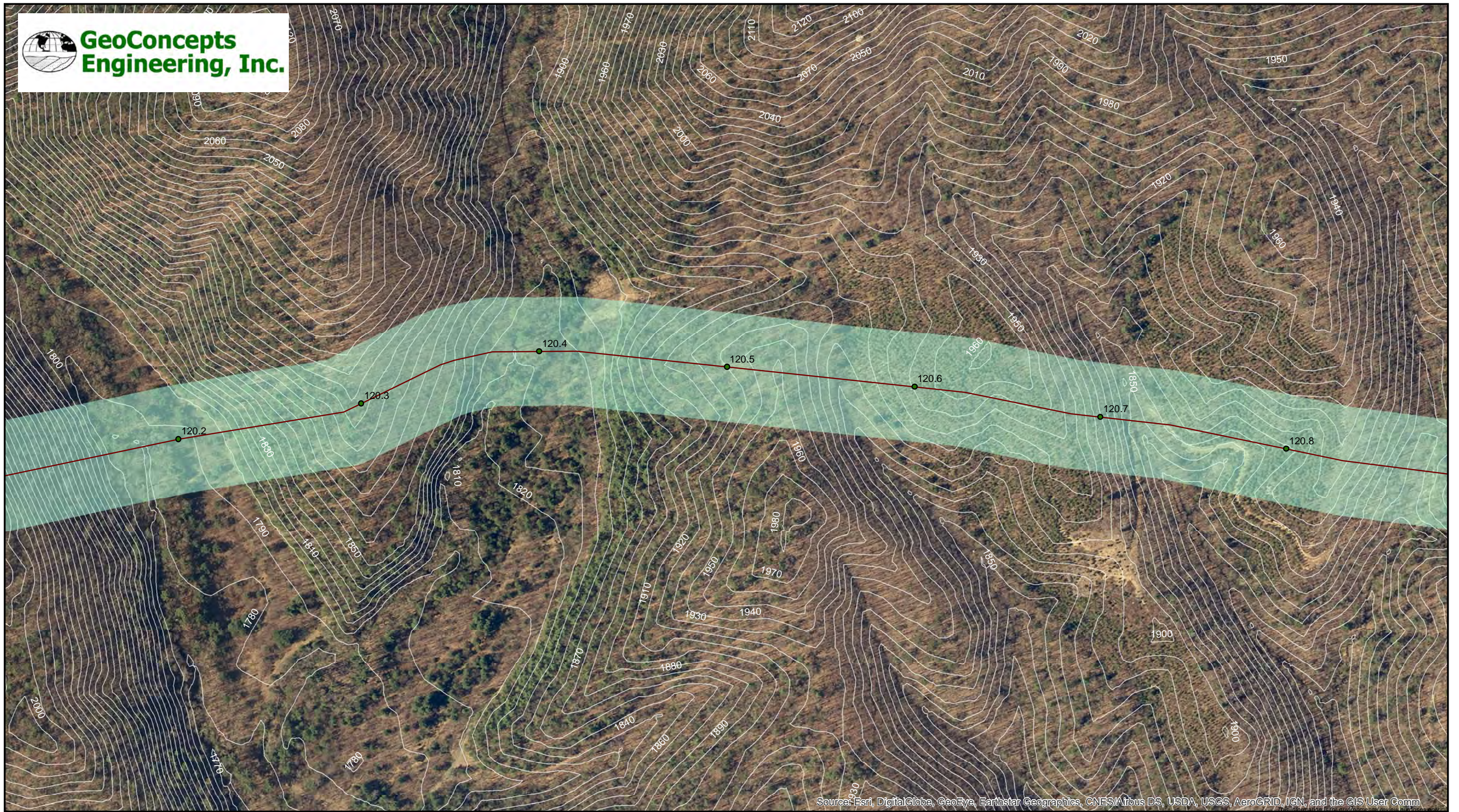


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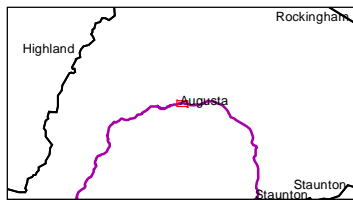
**CONTOUR MAP 107
ATLANTIC COAST PIPELINE
11002.04**



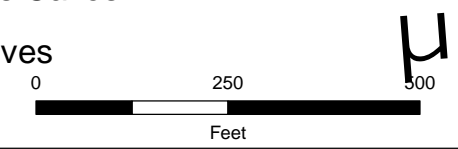
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



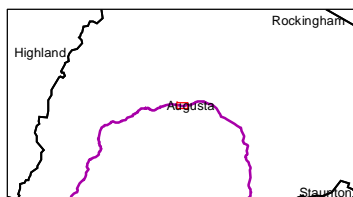
CONTOUR MAP 108
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



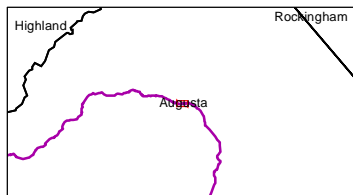
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



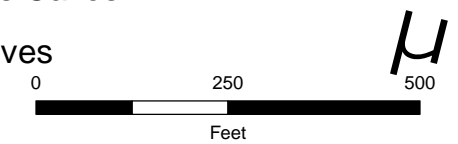
CONTOUR MAP 109
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



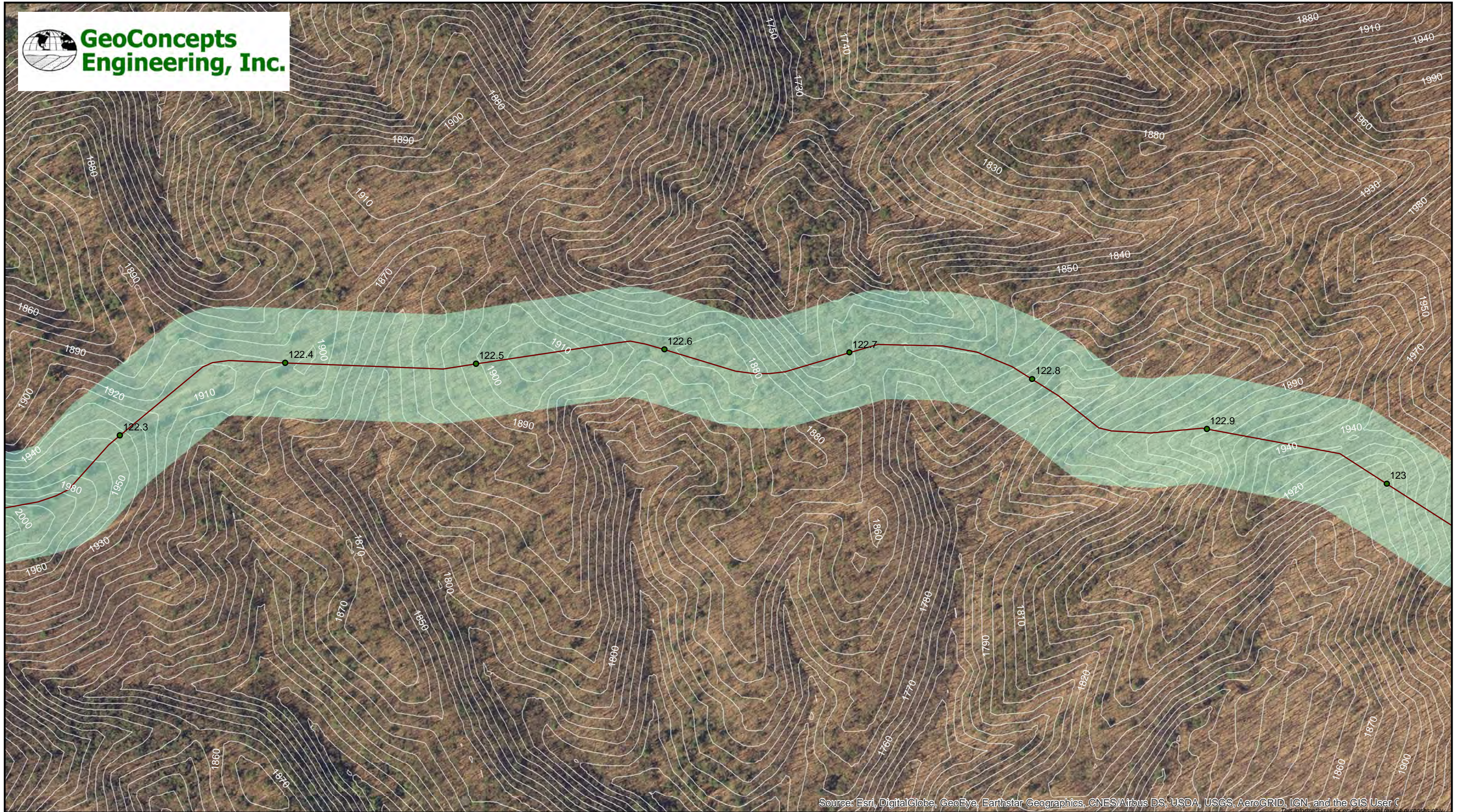
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 110
ATLANTIC COAST PIPELINE
11002.04



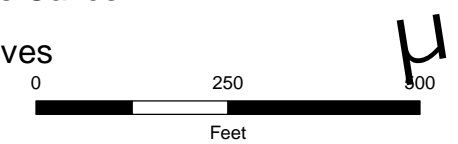
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User C



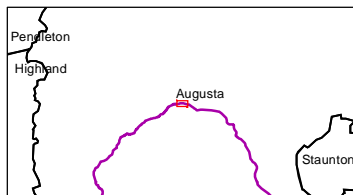
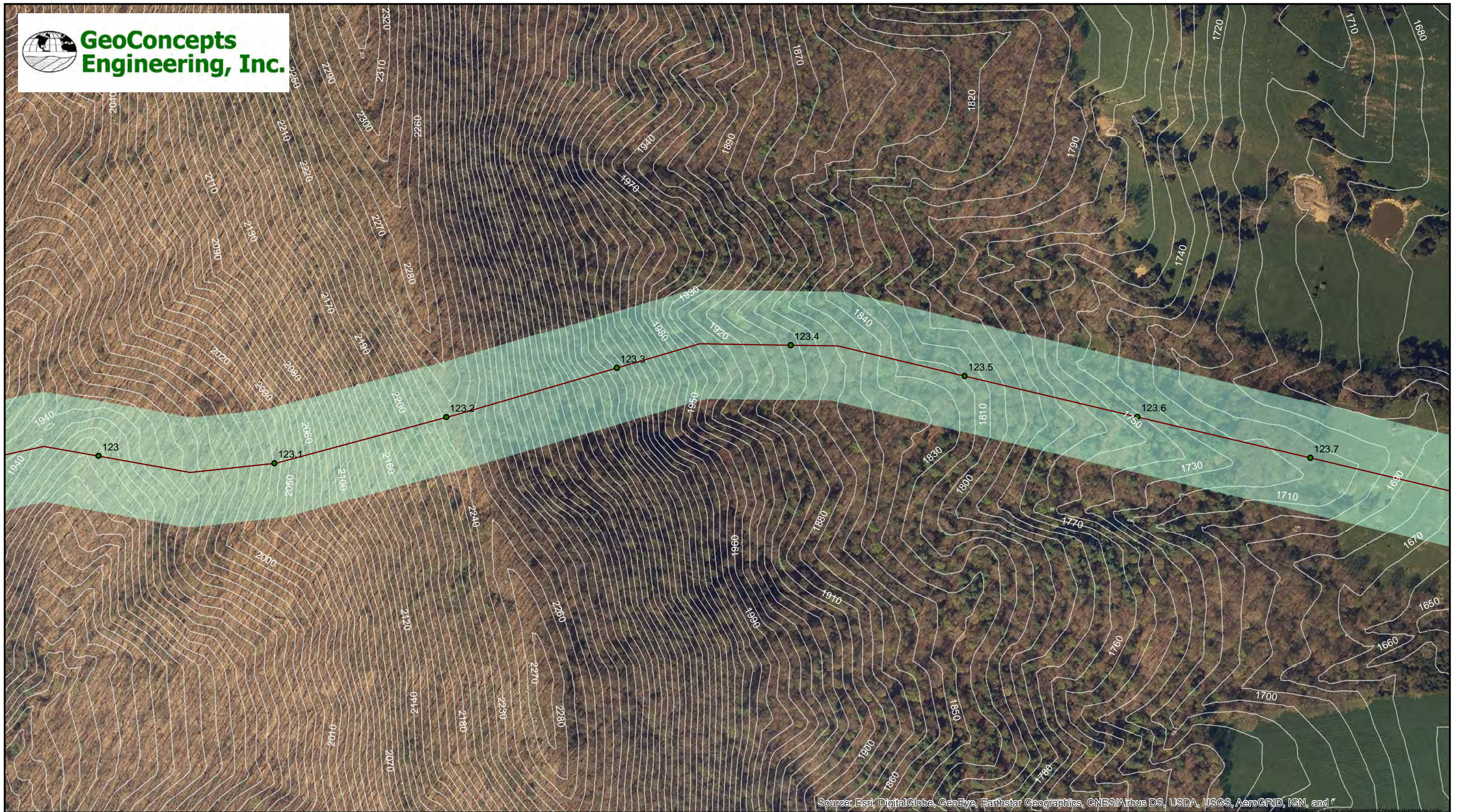
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



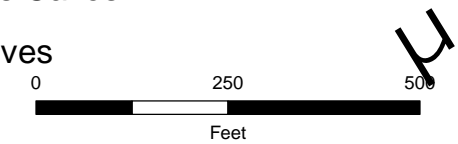
CONTOUR MAP 111
ATLANTIC COAST PIPELINE
11002.04



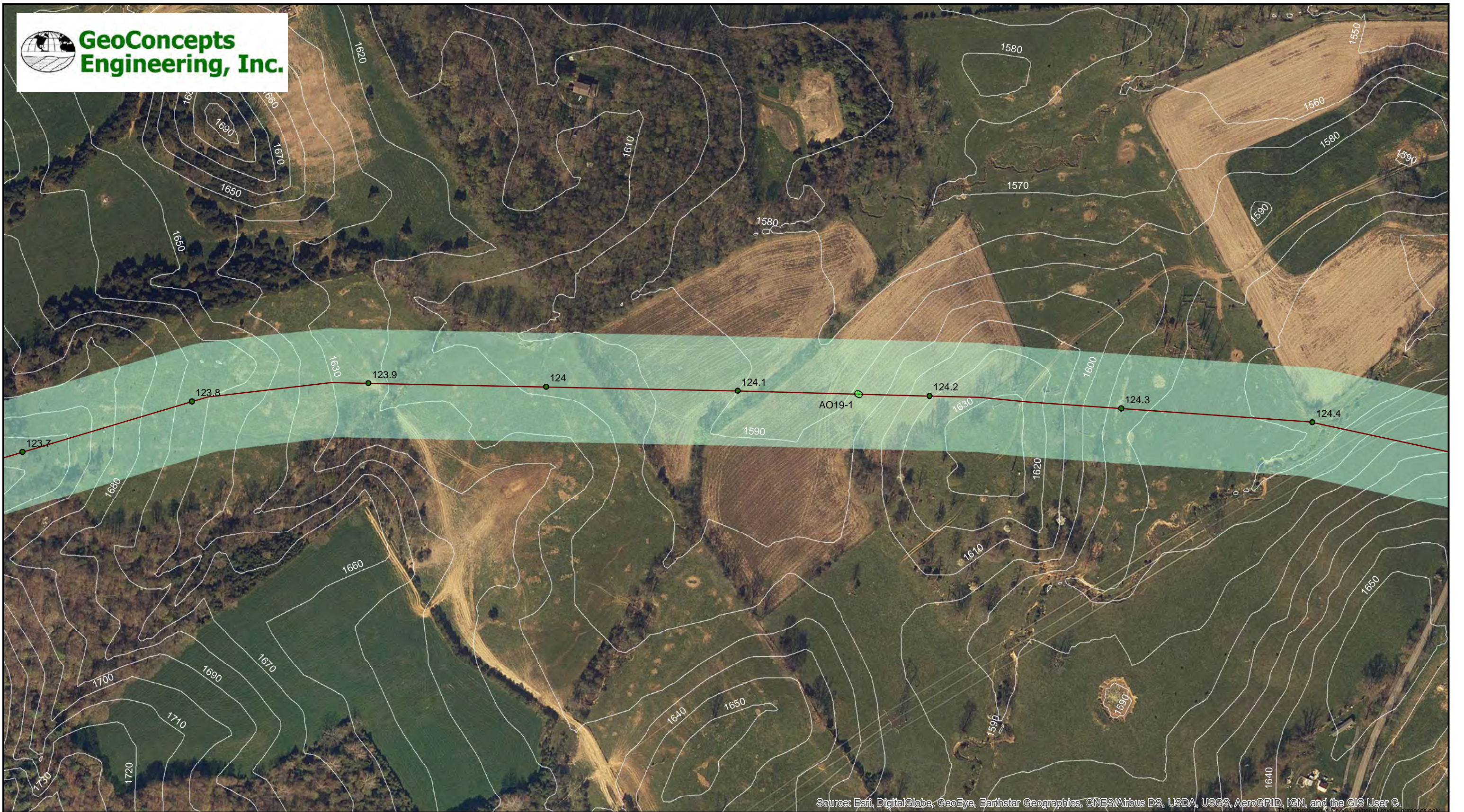
**GeoConcepts
Engineering, Inc.**



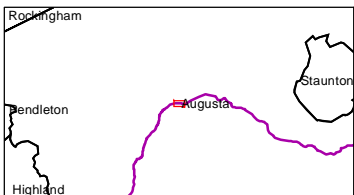
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 112
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User C...



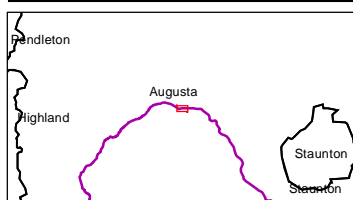
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	

0 250 500
Feet

CONTOUR MAP 113
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and other providers.



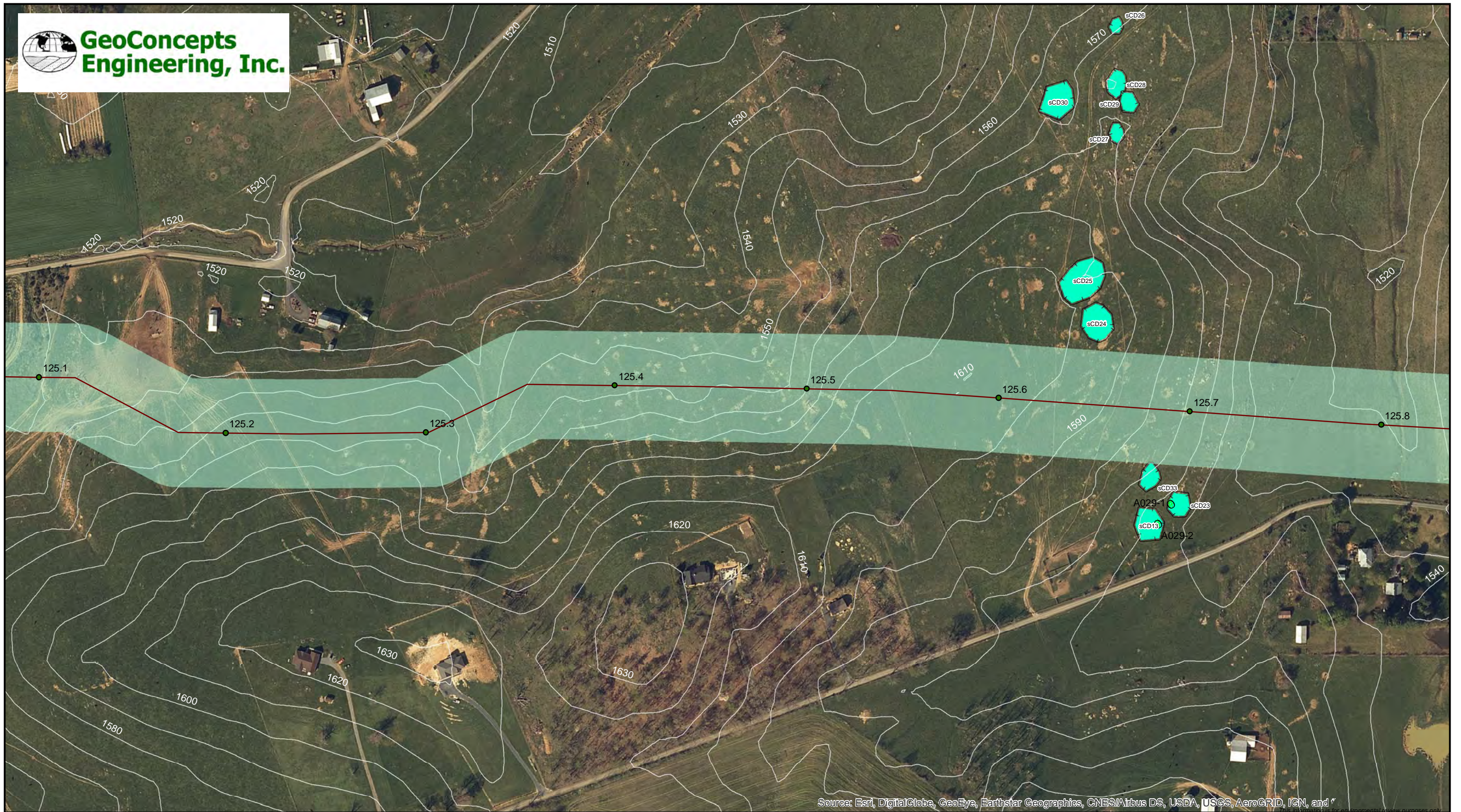
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	300' Corridor Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	

0 250 500
Feet

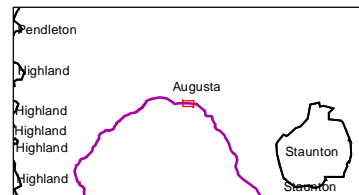
CONTOUR MAP 114
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and *



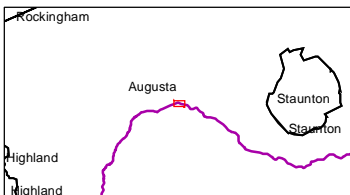
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	! Suspect Closed Depressions	! Virginia Caves
300' Corridor	□ All Area Features	! Randolph Caves	



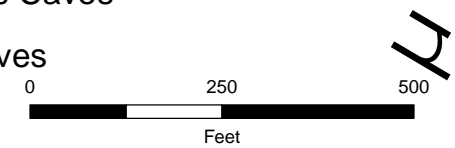
CONTOUR MAP 115
ATLANTIC COAST PIPELINE
11002.04



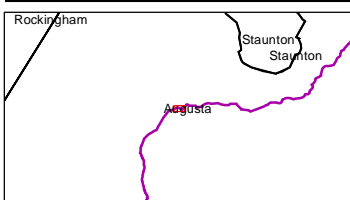
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



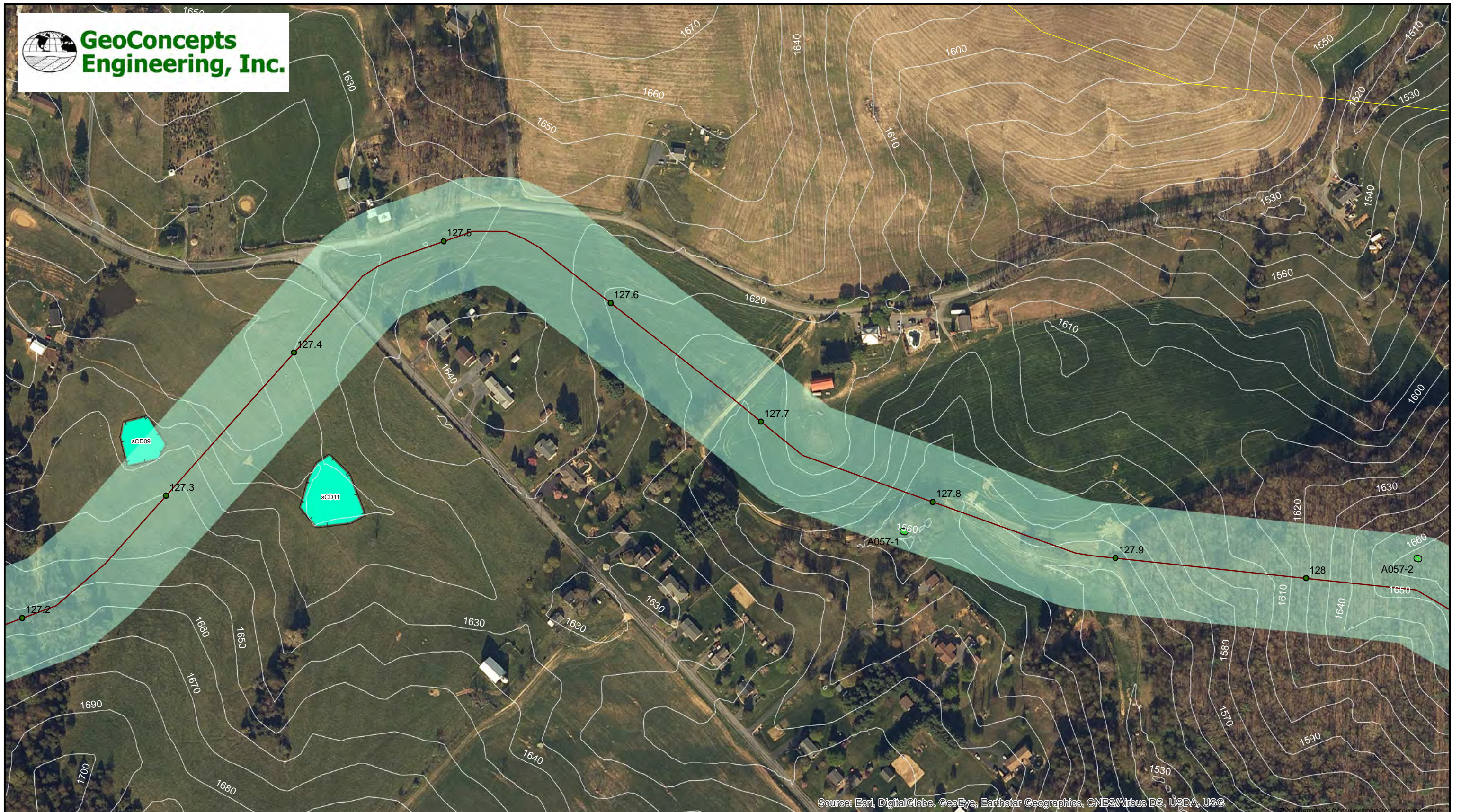
CONTOUR MAP 116
ATLANTIC COAST PIPELINE
11002.04



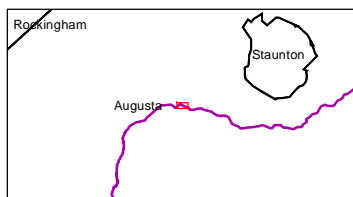
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	

0 250 500
Feet

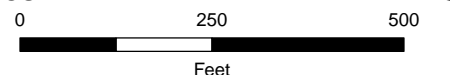
CONTOUR MAP 117
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USG



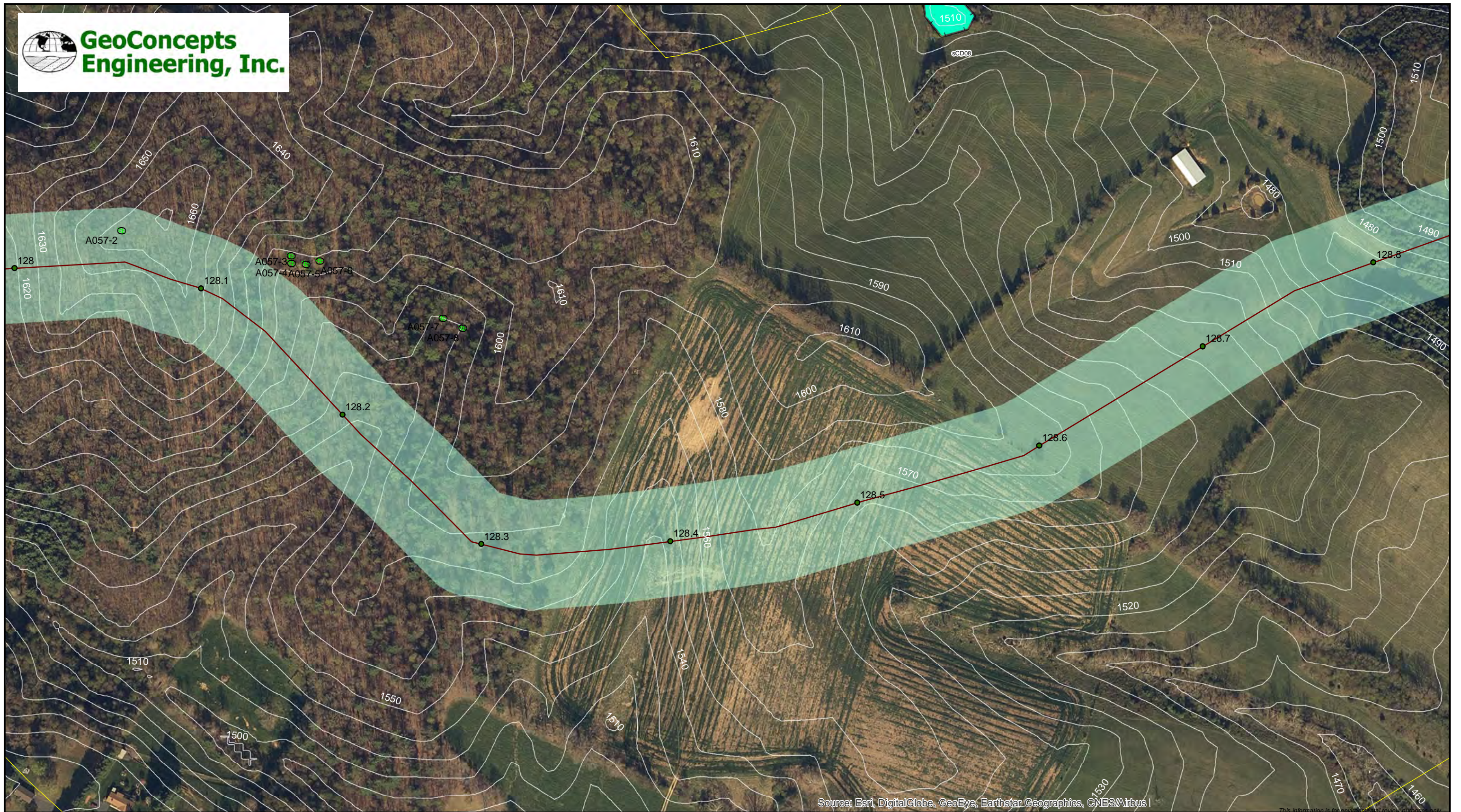
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	! Suspect Closed Depressions	! Virginia Caves
300' Corridor	■ All Area Features	! Randolph Caves	



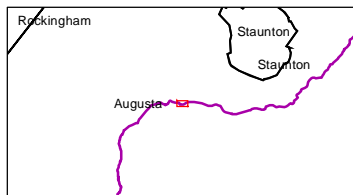
CONTOUR MAP 118
ATLANTIC COAST PIPELINE
11002.04



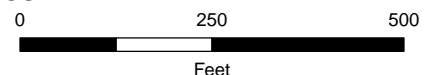
**GeoConcepts
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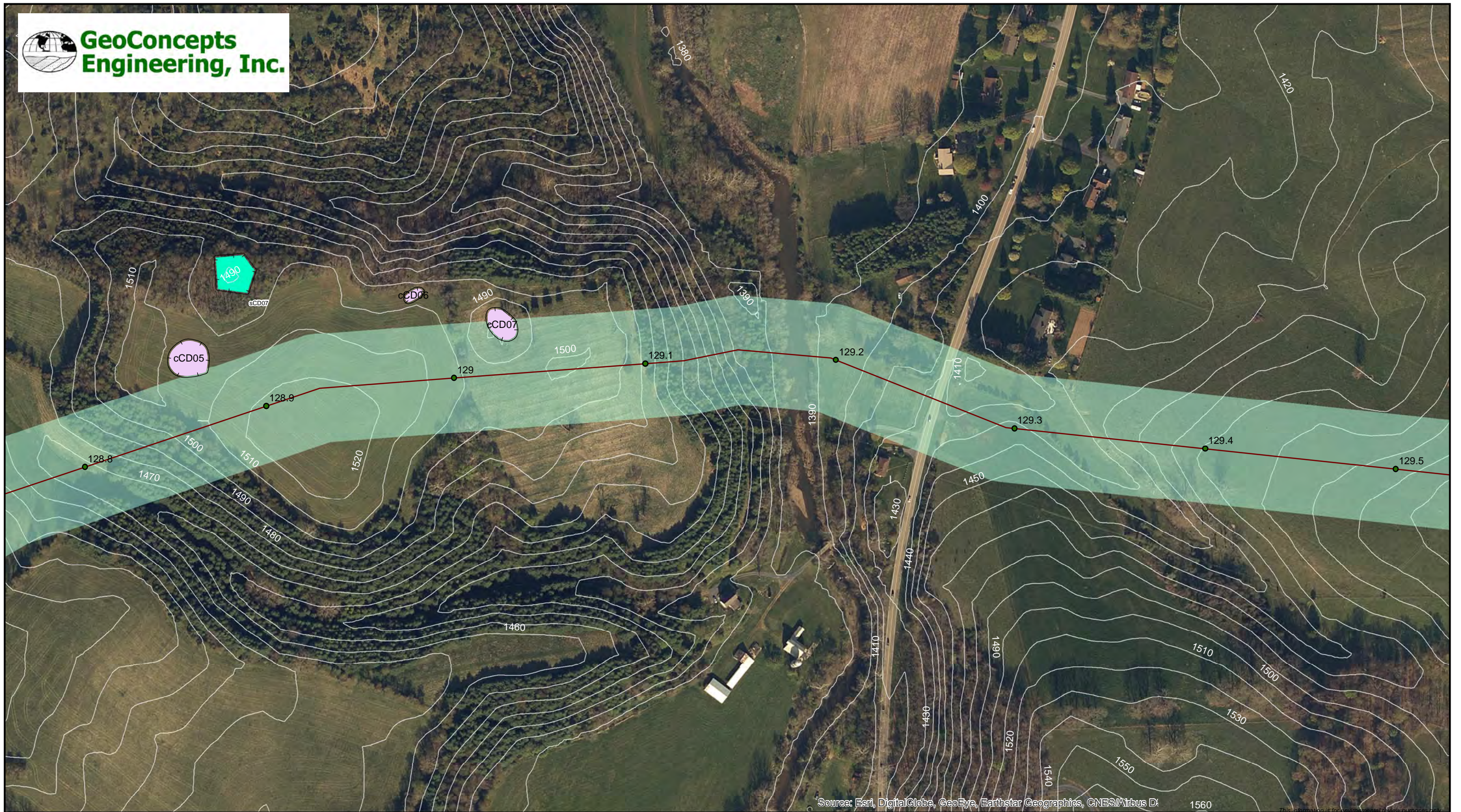
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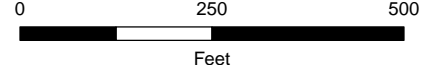
Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	Pocahontas Caves
Centerline	All Point Features	Suspect Closed Depressions	Virginia Caves
300' Corridor	All Area Features	Randolph Caves	



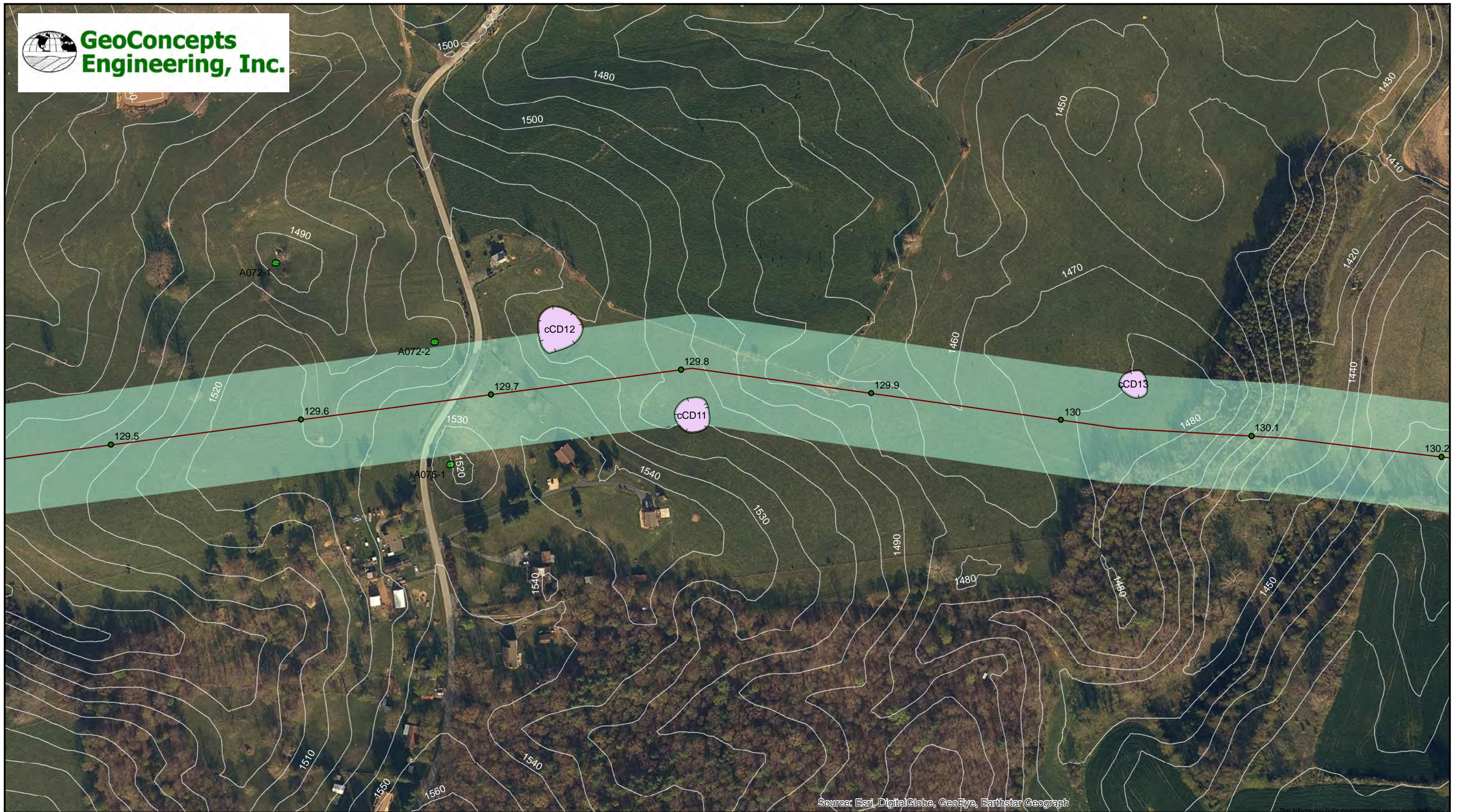
CONTOUR MAP 119
ATLANTIC COAST PIPELINE
11002.04



● Mileposts (0.1 mile)	□ 0.50 KRA	□ 300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	□ Suspect Closed Depressions	! Virginia Caves
■ 300' Corridor	□ All Area Features	! Randolph Caves	

CONTOUR MAP 120
ATLANTIC COAST PIPELINE
11002.04



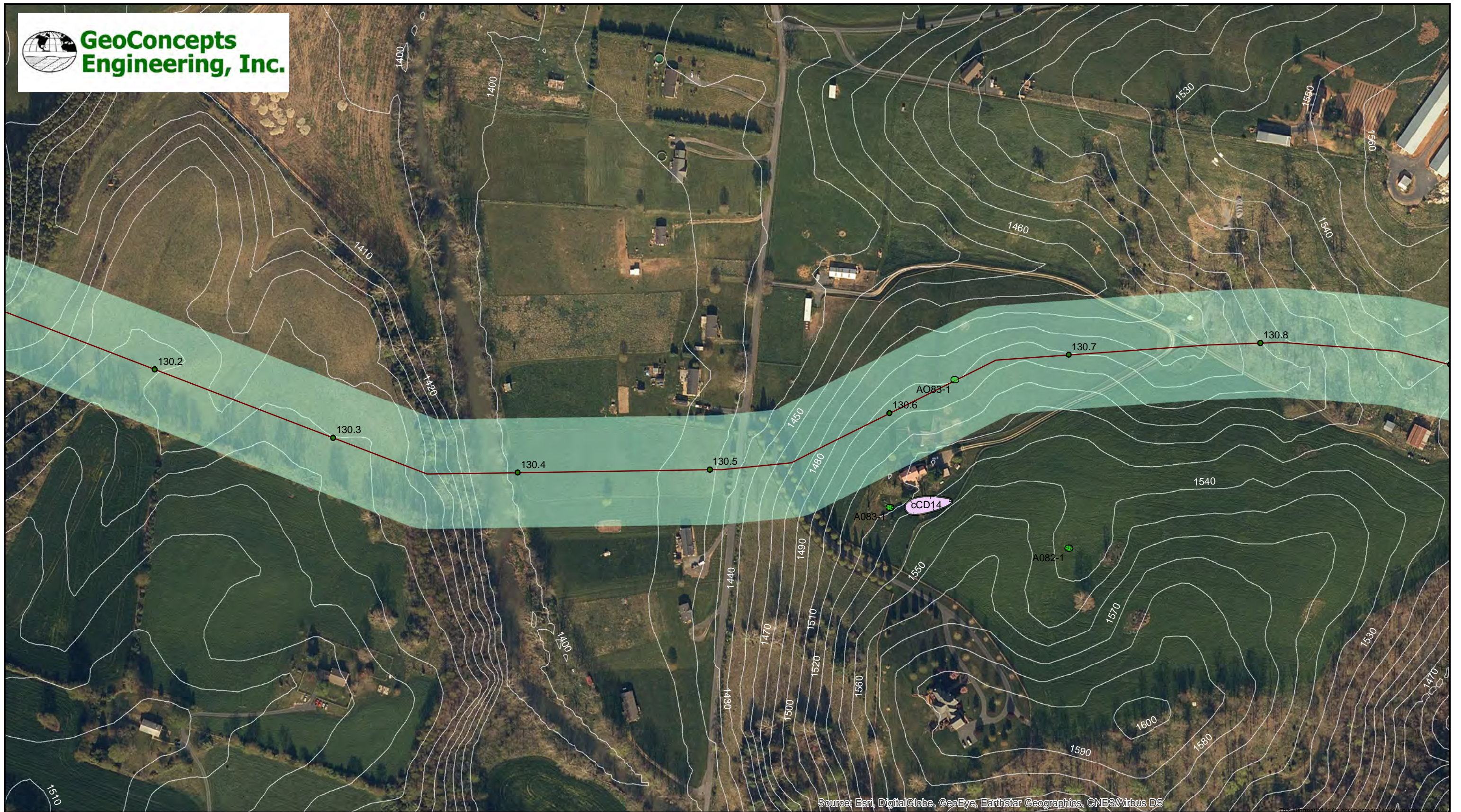
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	

0 250 500
Feet

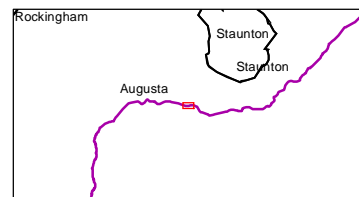
CONTOUR MAP 121
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS



● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊞ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊞ All Area Features	! Randolph Caves	

CONTOUR MAP 122
ATLANTIC COAST PIPELINE
11002.04



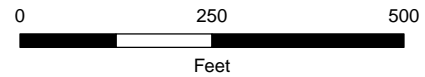
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe



- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 123
ATLANTIC COAST PIPELINE
11002.04



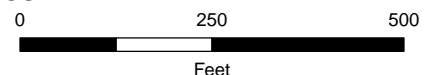
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Ge



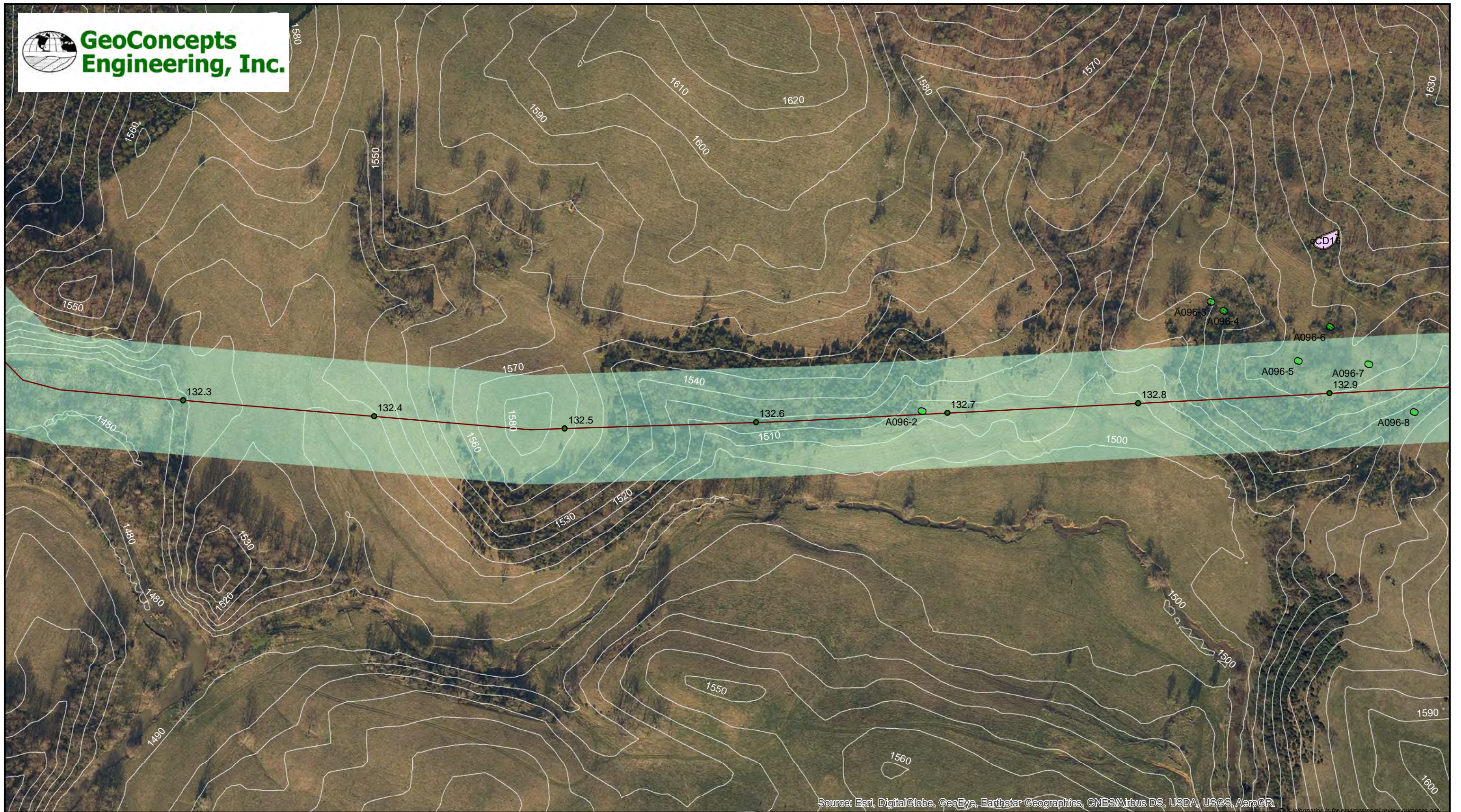
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	300' Corridor Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	



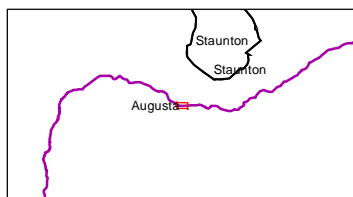
CONTOUR MAP 124
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



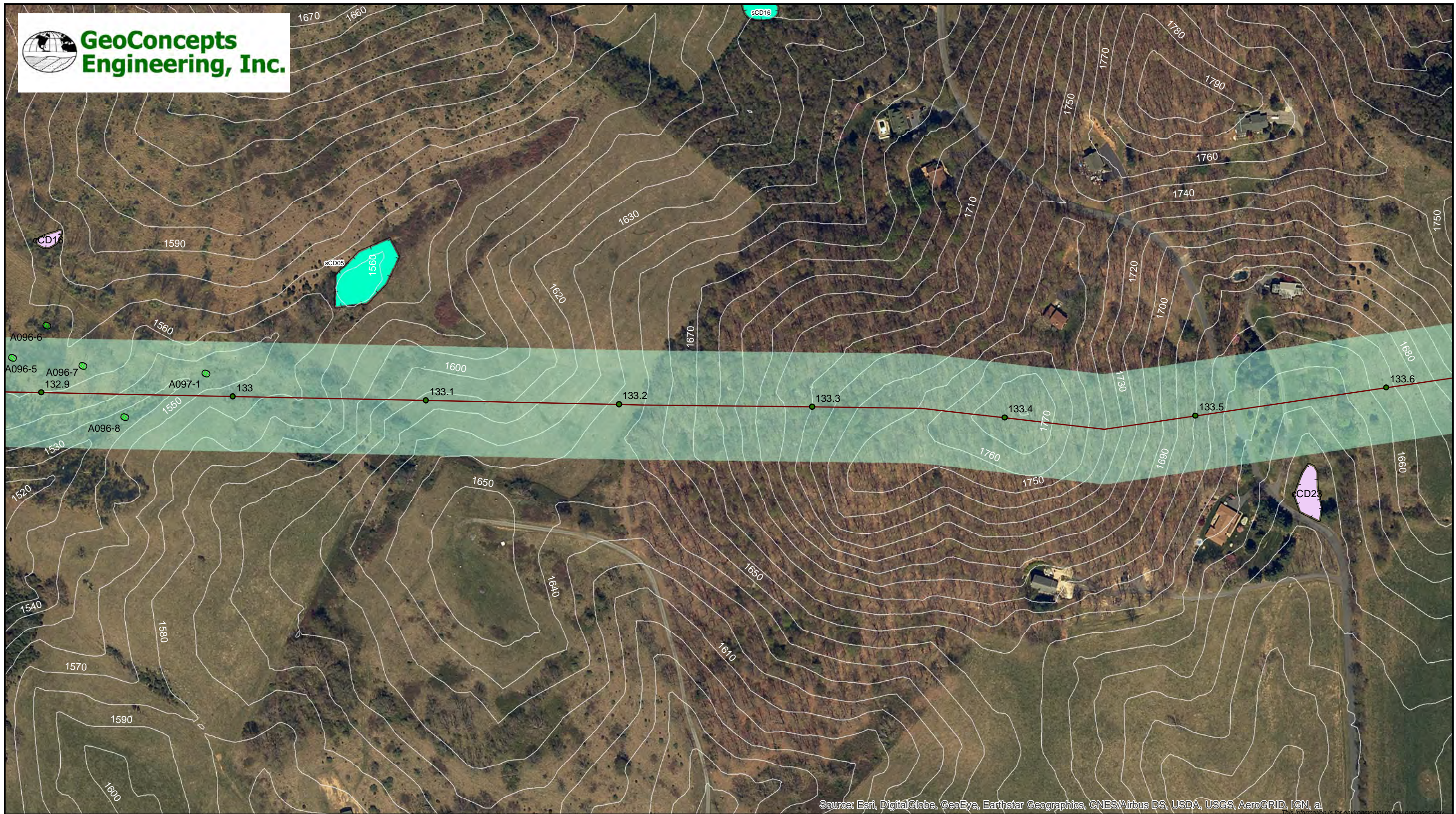
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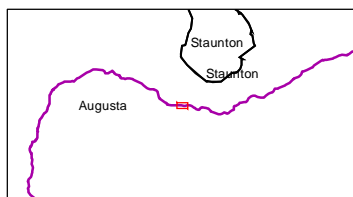
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	! Suspect Closed Depressions	! Virginia Caves
300' Corridor	□ All Area Features	! Randolph Caves	

0 250 500
Feet

CONTOUR MAP 125
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, a



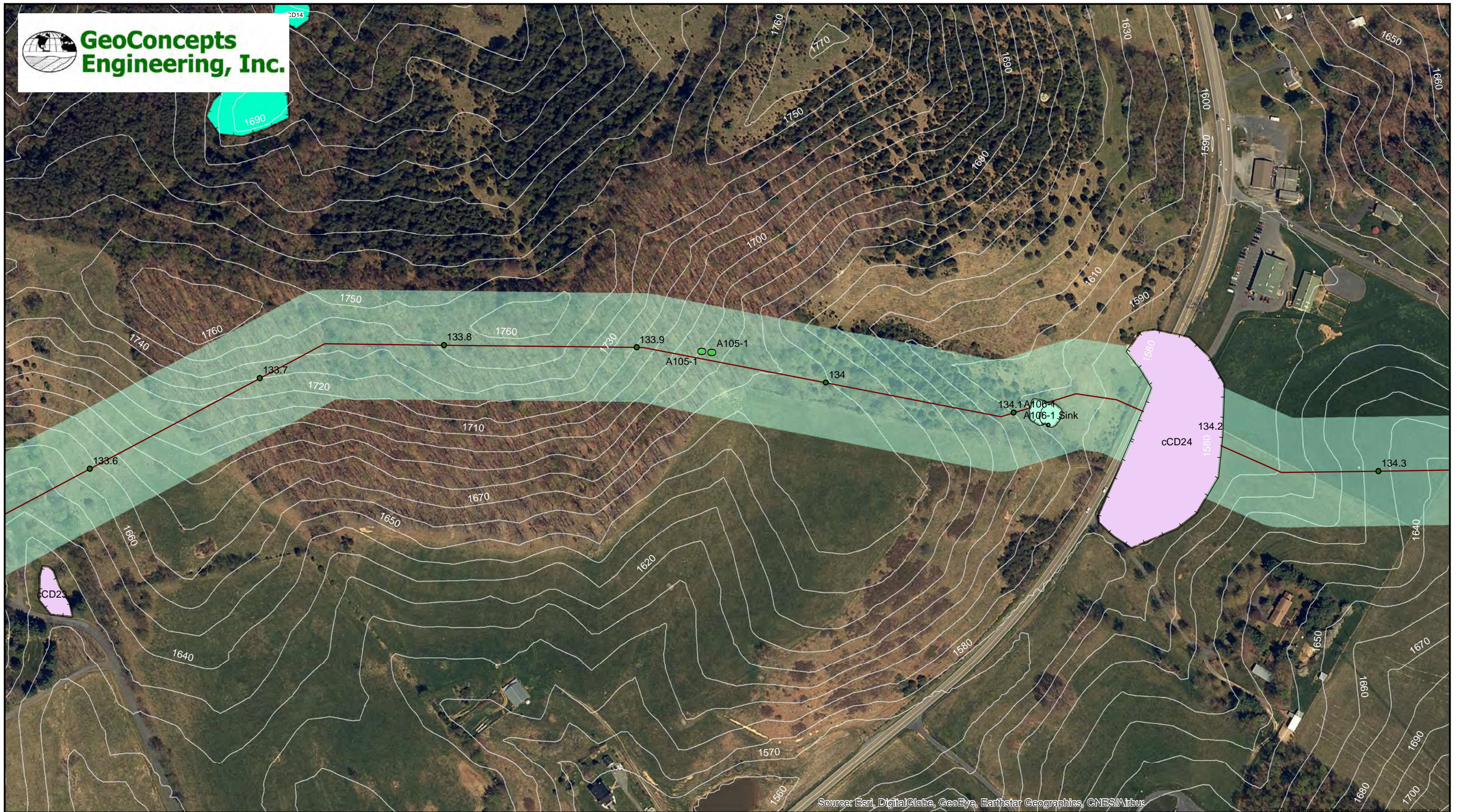
● Mileposts (0.1 mile)	□ 0.50 KRA	□ 300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	□ Suspect Closed Depressions	! Virginia Caves
□ 300' Corridor	□ All Area Features	! Randolph Caves	

CONTOUR MAP 126
ATLANTIC COAST PIPELINE
11002.04

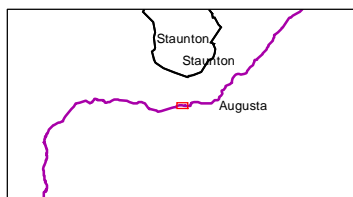
H
 0 250 500
 Feet



**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus



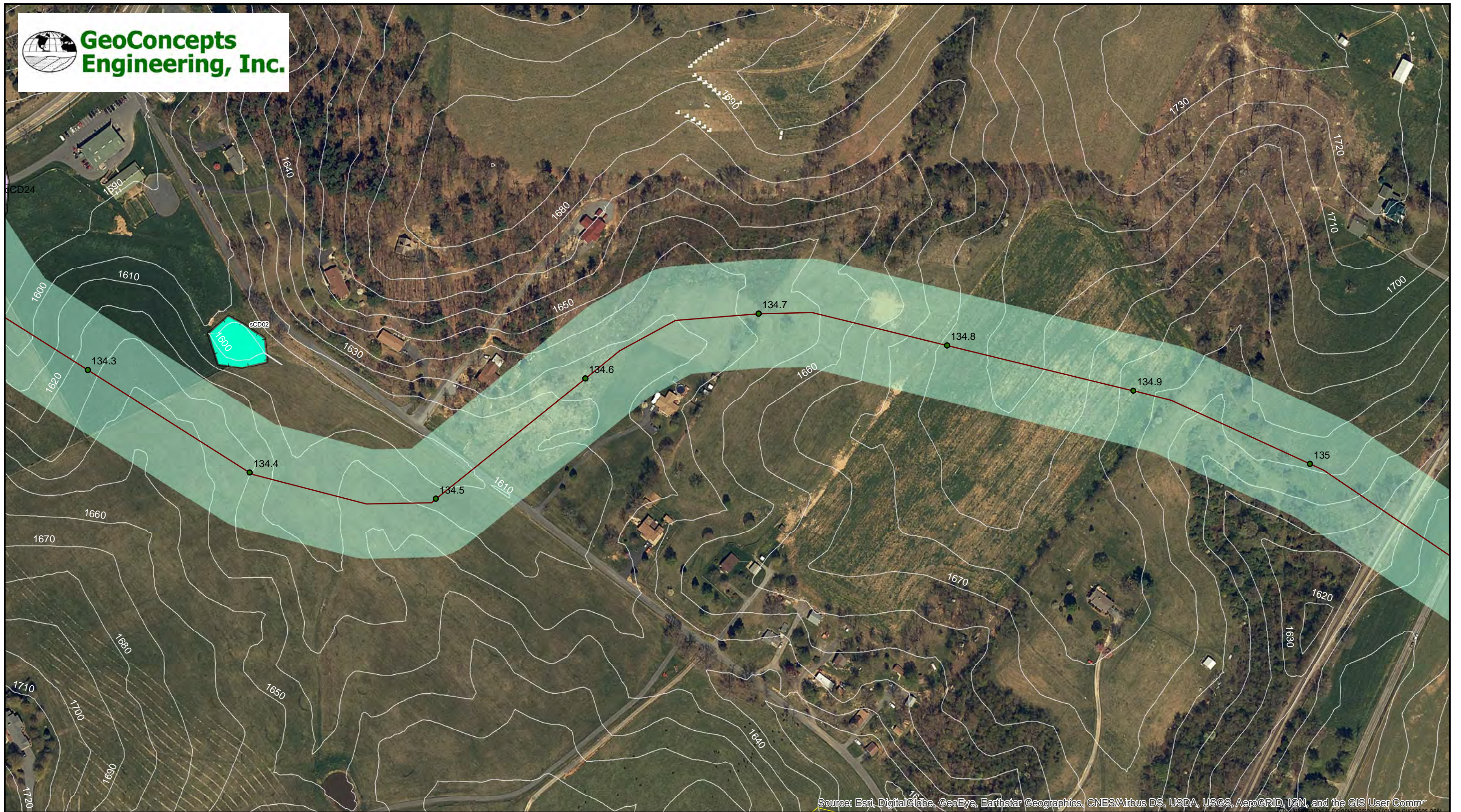
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	! Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	

0 250 500
Feet

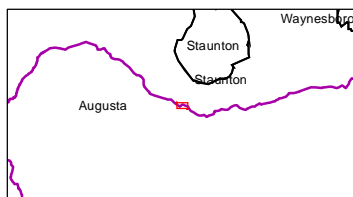
CONTOUR MAP 127
ATLANTIC COAST PIPELINE
11002.04



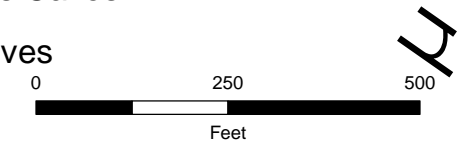
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



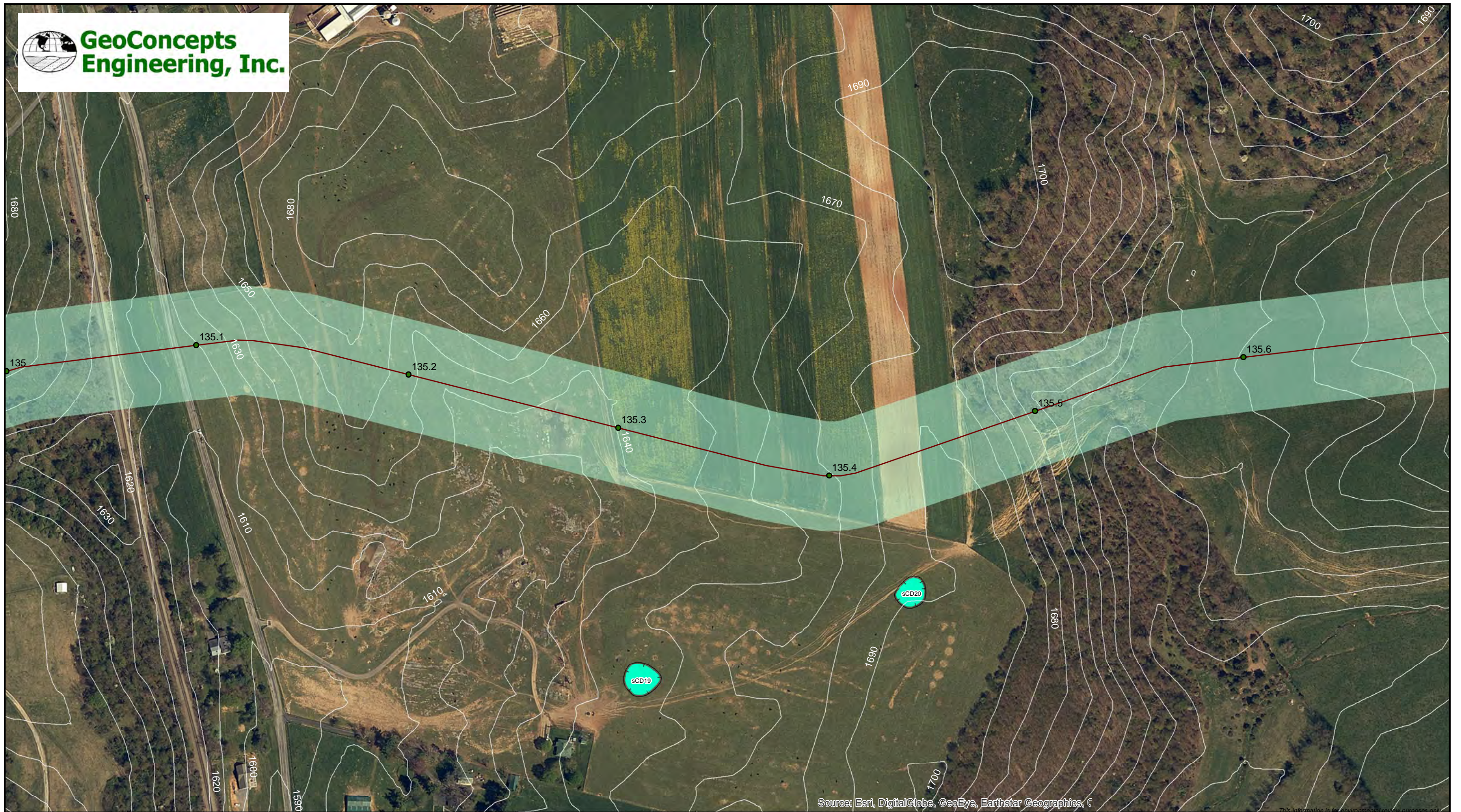
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



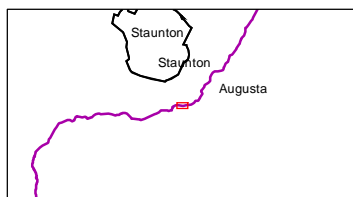
CONTOUR MAP 128
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



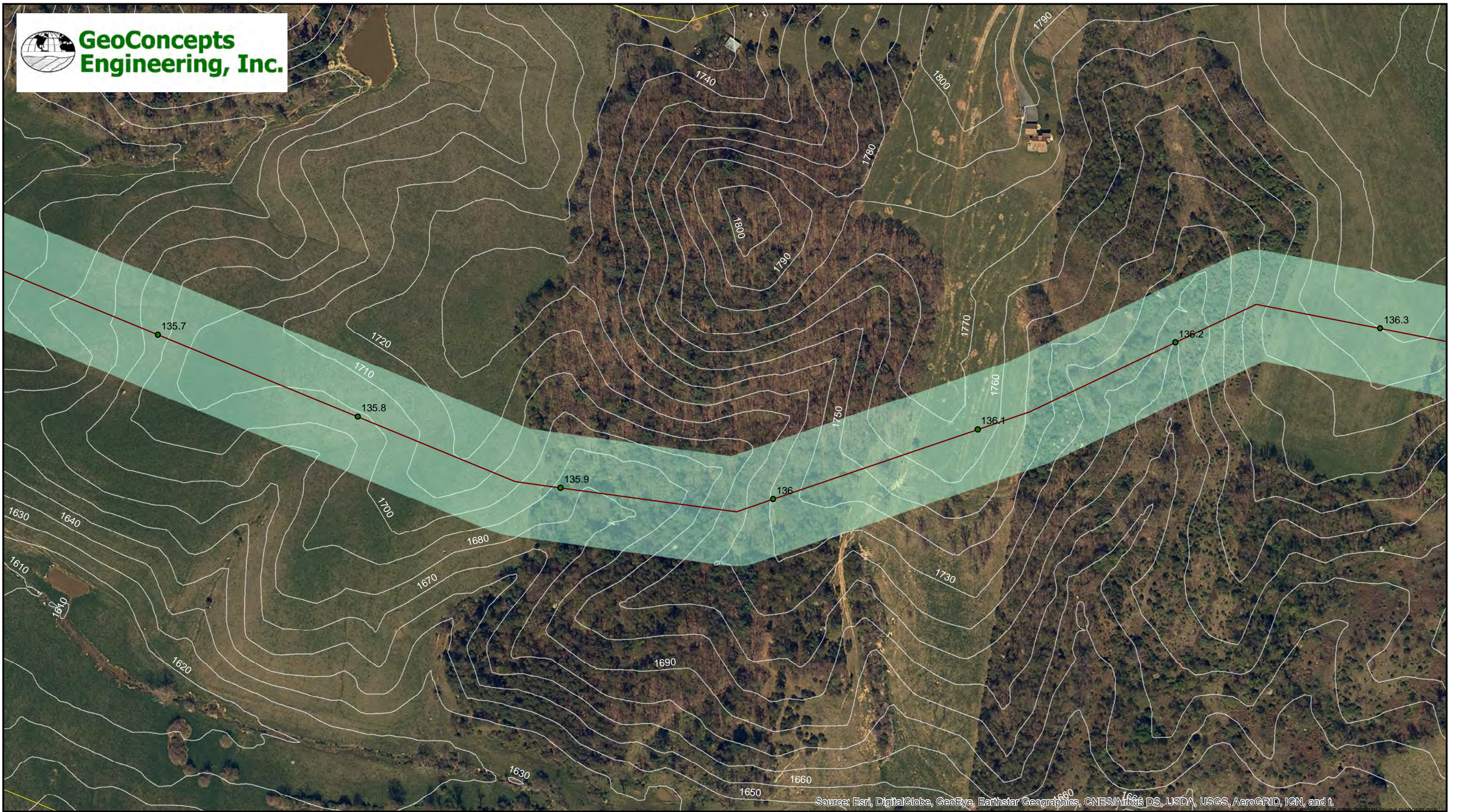
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, C



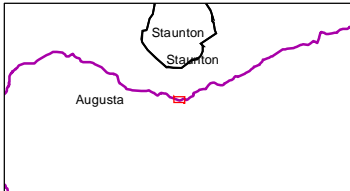
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	! Suspect Closed Depressions	! Virginia Caves
300' Corridor	! All Area Features	! Randolph Caves	

0 250 500
Feet

CONTOUR MAP 129
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and t

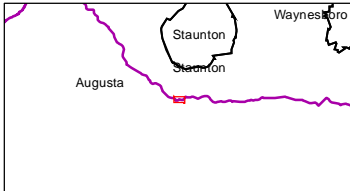


● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	300' Corridor Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	

CONTOUR MAP 130
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the



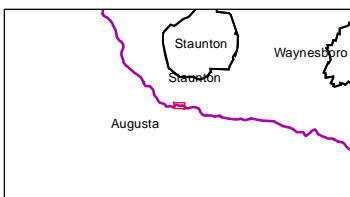
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	

0 250 500
Feet


CONTOUR MAP 131
ATLANTIC COAST PIPELINE
11002.04



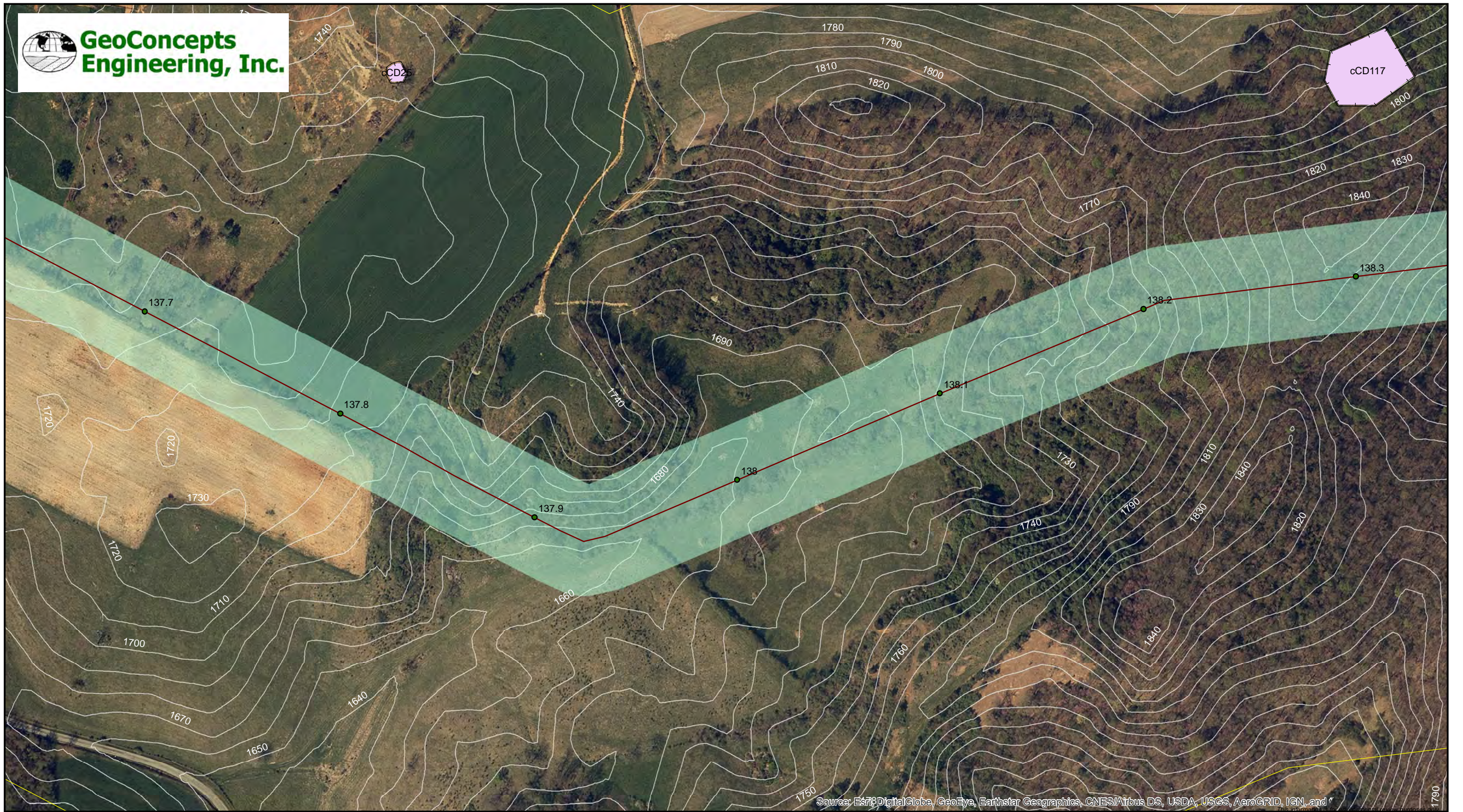
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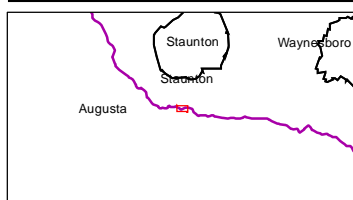
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	



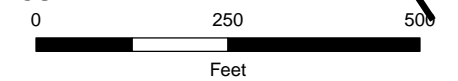
CONTOUR MAP 132
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and *



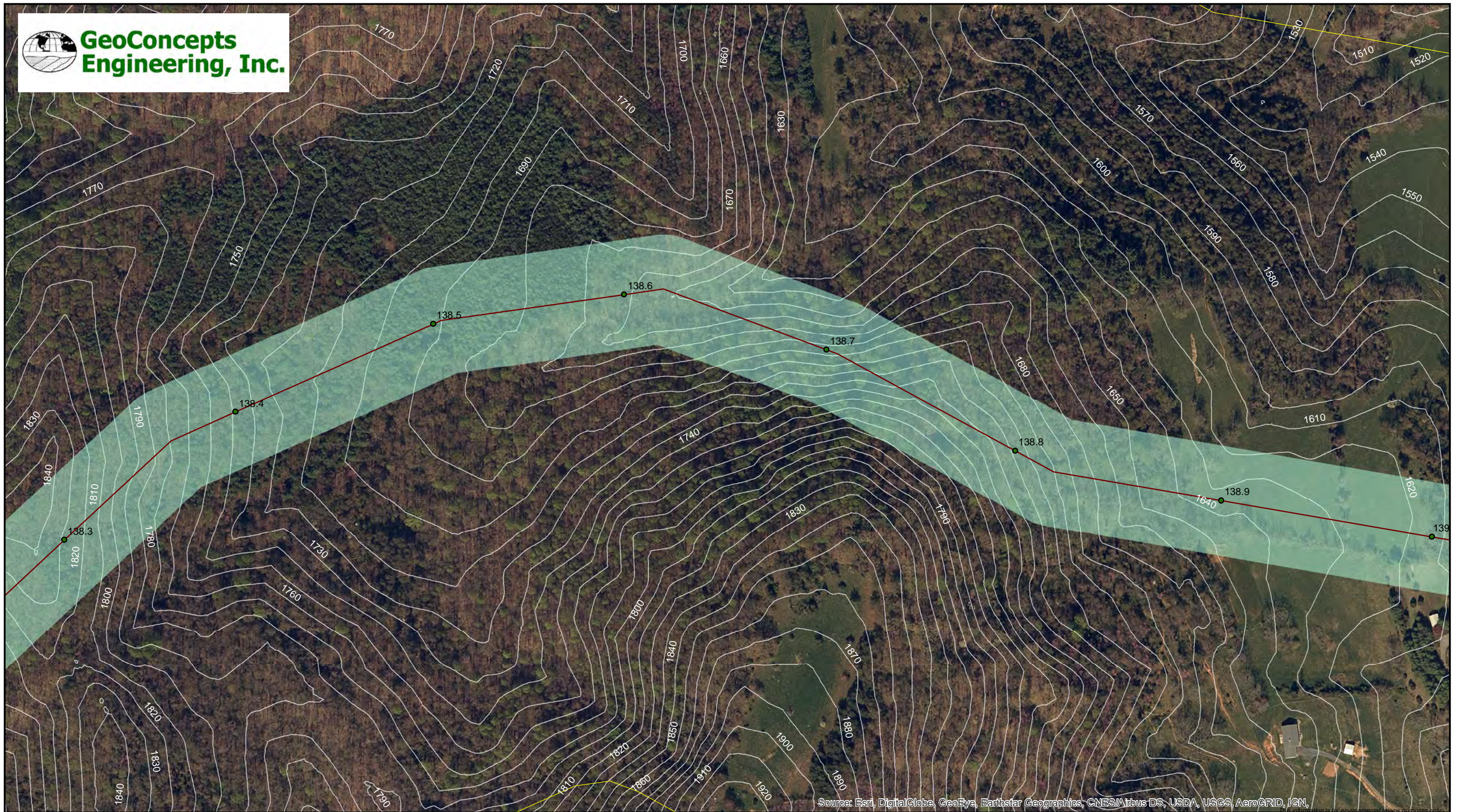
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— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	



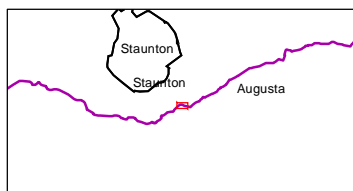
CONTOUR MAP 133
ATLANTIC COAST PIPELINE
11002.04



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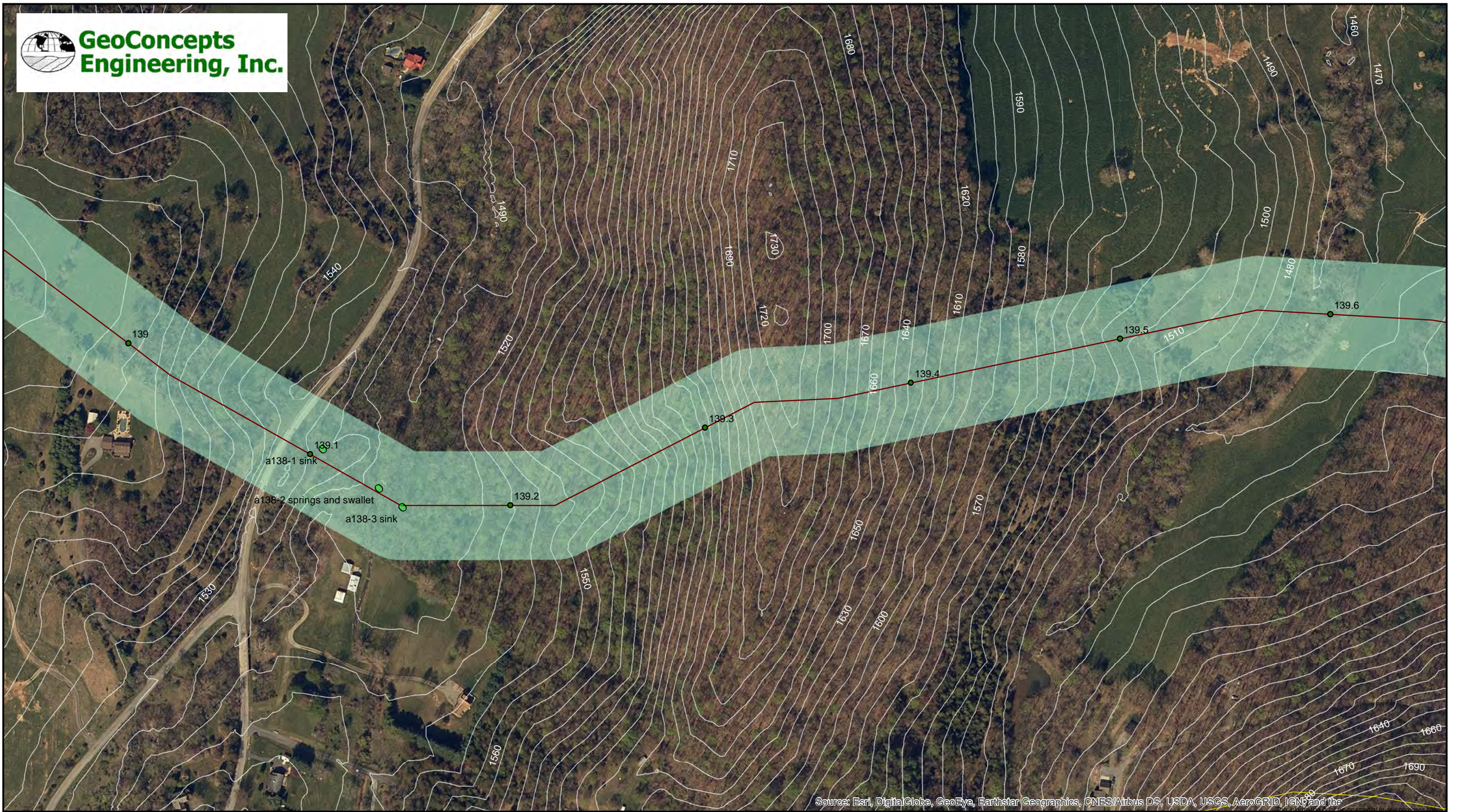
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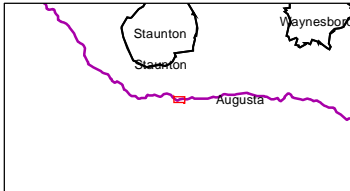
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	












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Feet

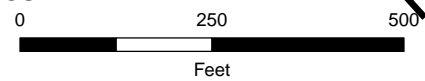
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ATLANTIC COAST PIPELINE
11002.04



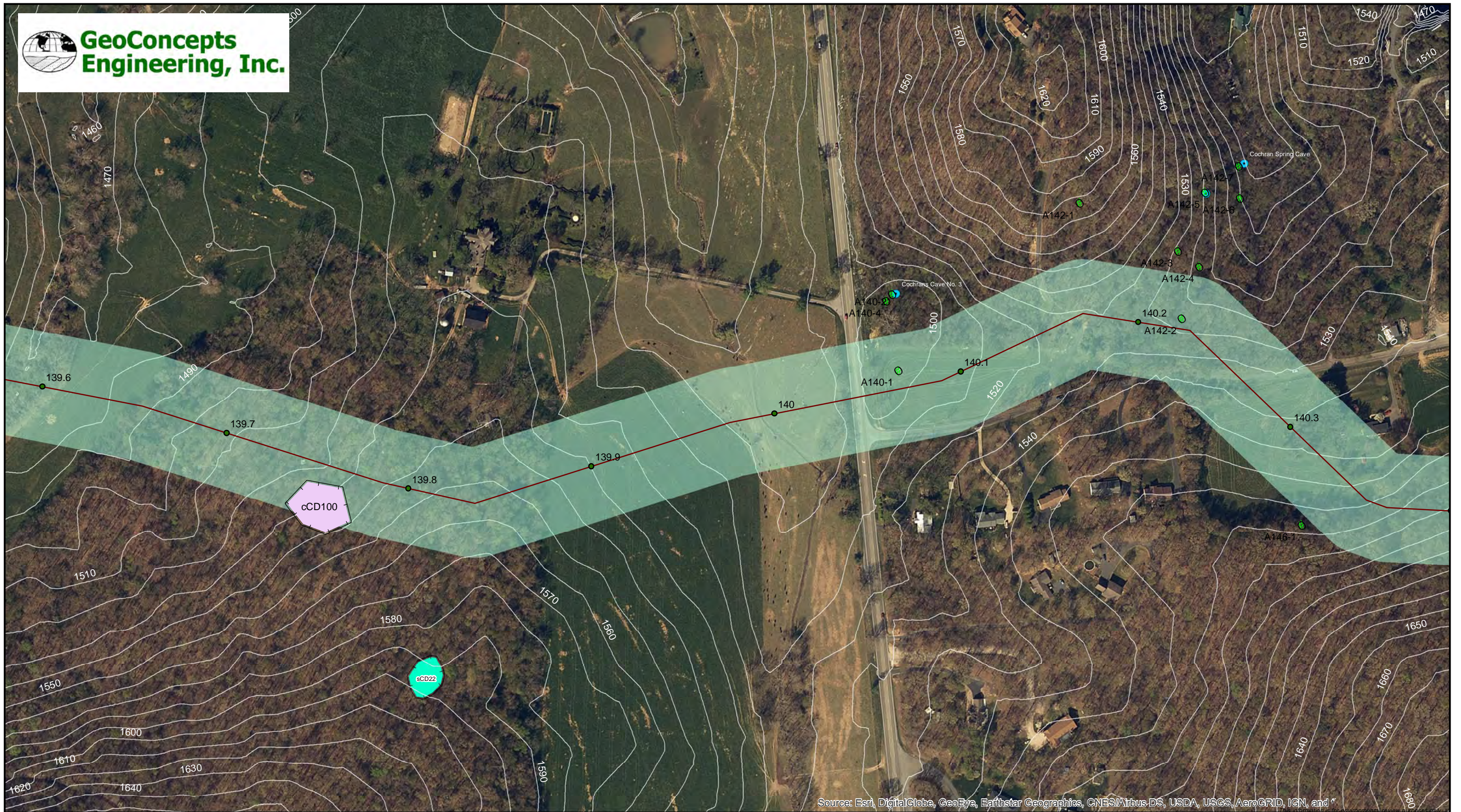
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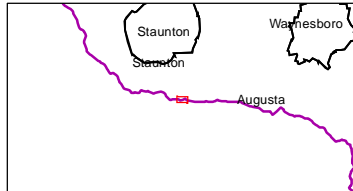
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 Centerline	 All Point Features	 Suspect Closed Depressions	 Virginia Caves
 300' Corridor	 All Area Features	 Randolph Caves	



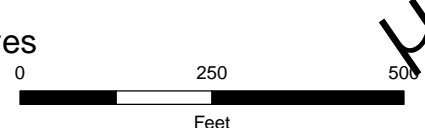
CONTOUR MAP 135
ATLANTIC COAST PIPELINE
11002.04



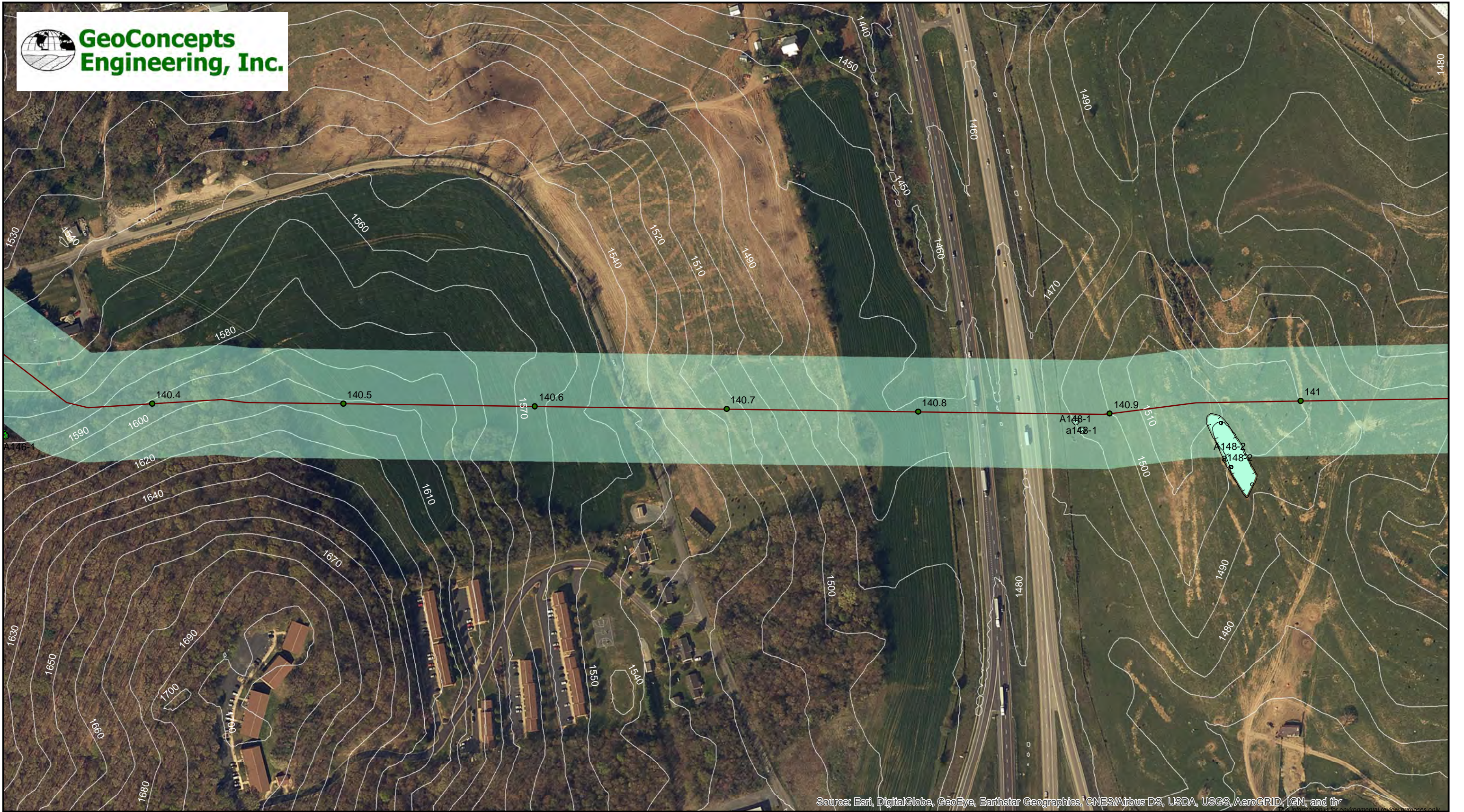
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and *



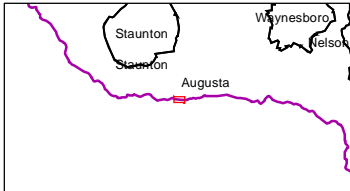
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



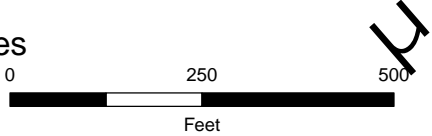
CONTOUR MAP 136
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the



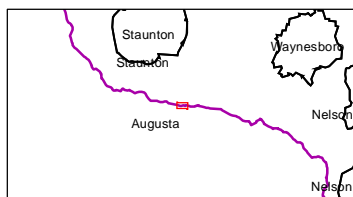
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 137
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and f



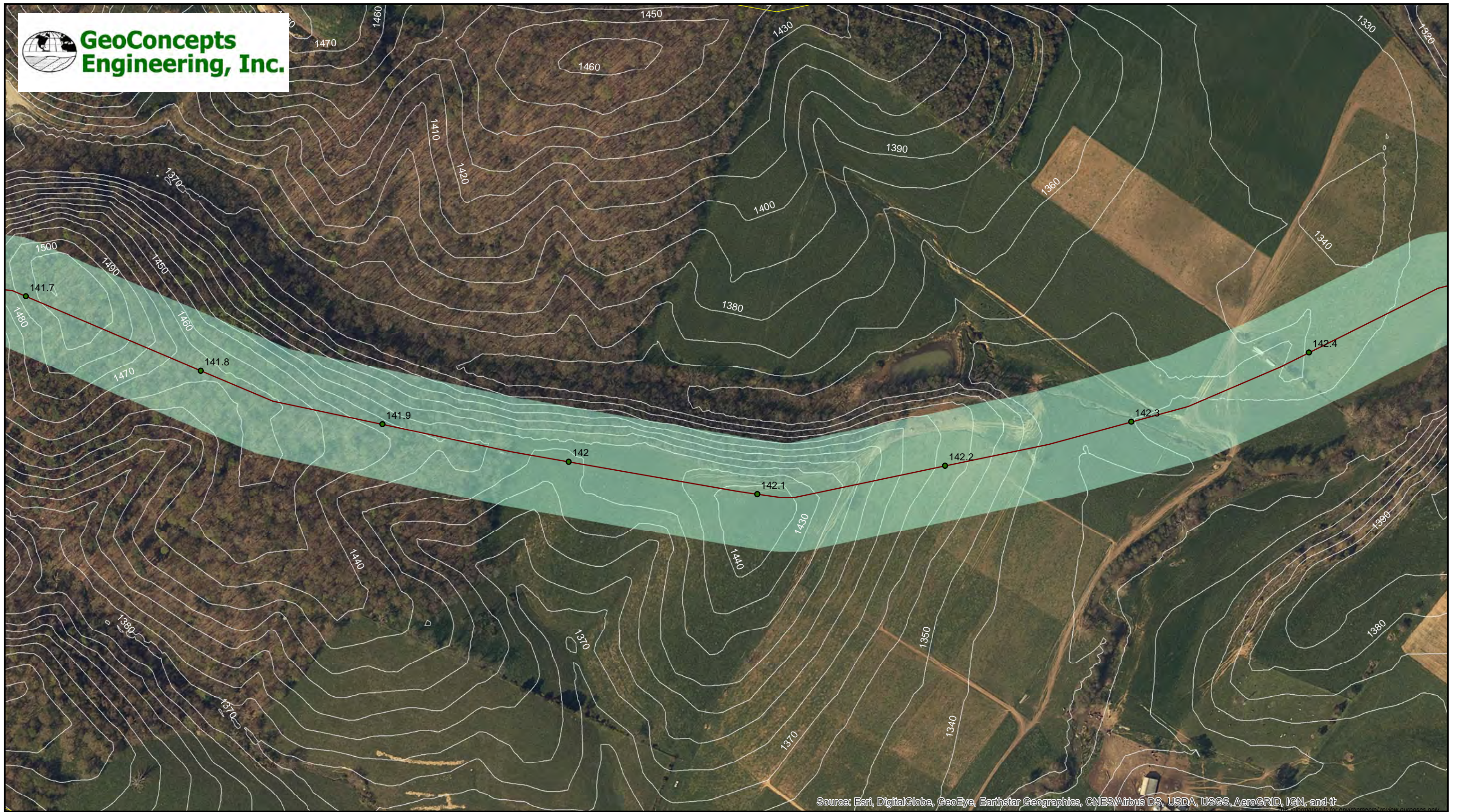
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



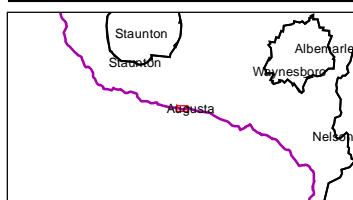
CONTOUR MAP 138
ATLANTIC COAST PIPELINE
11002.04



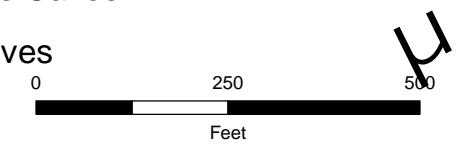
**GeoConcepts
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the



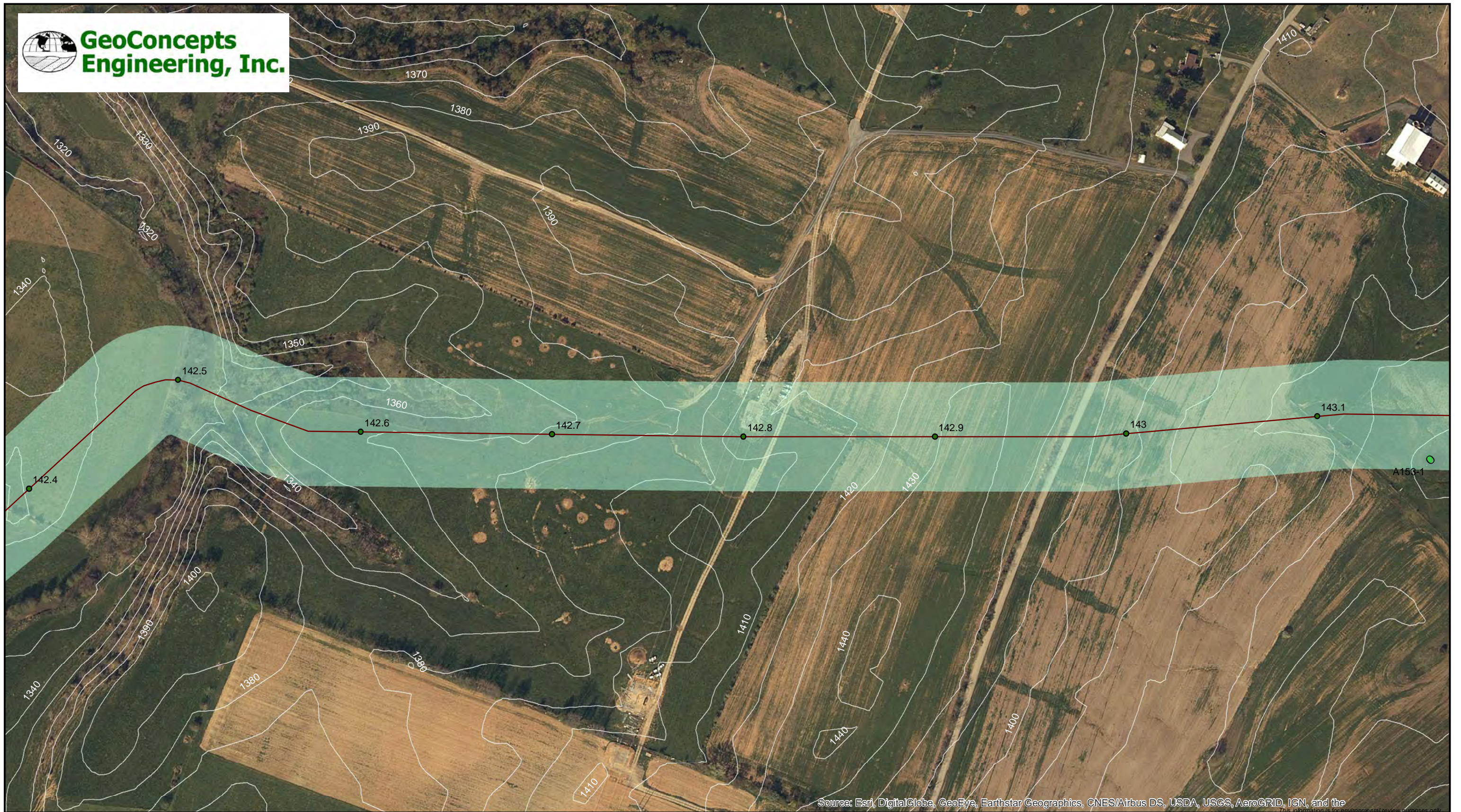
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



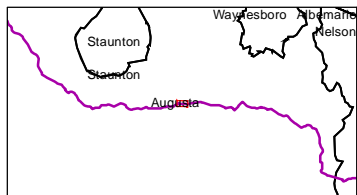
CONTOUR MAP 139
ATLANTIC COAST PIPELINE
11002.04



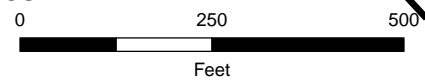
**GeoConcepts
Engineering, Inc.**



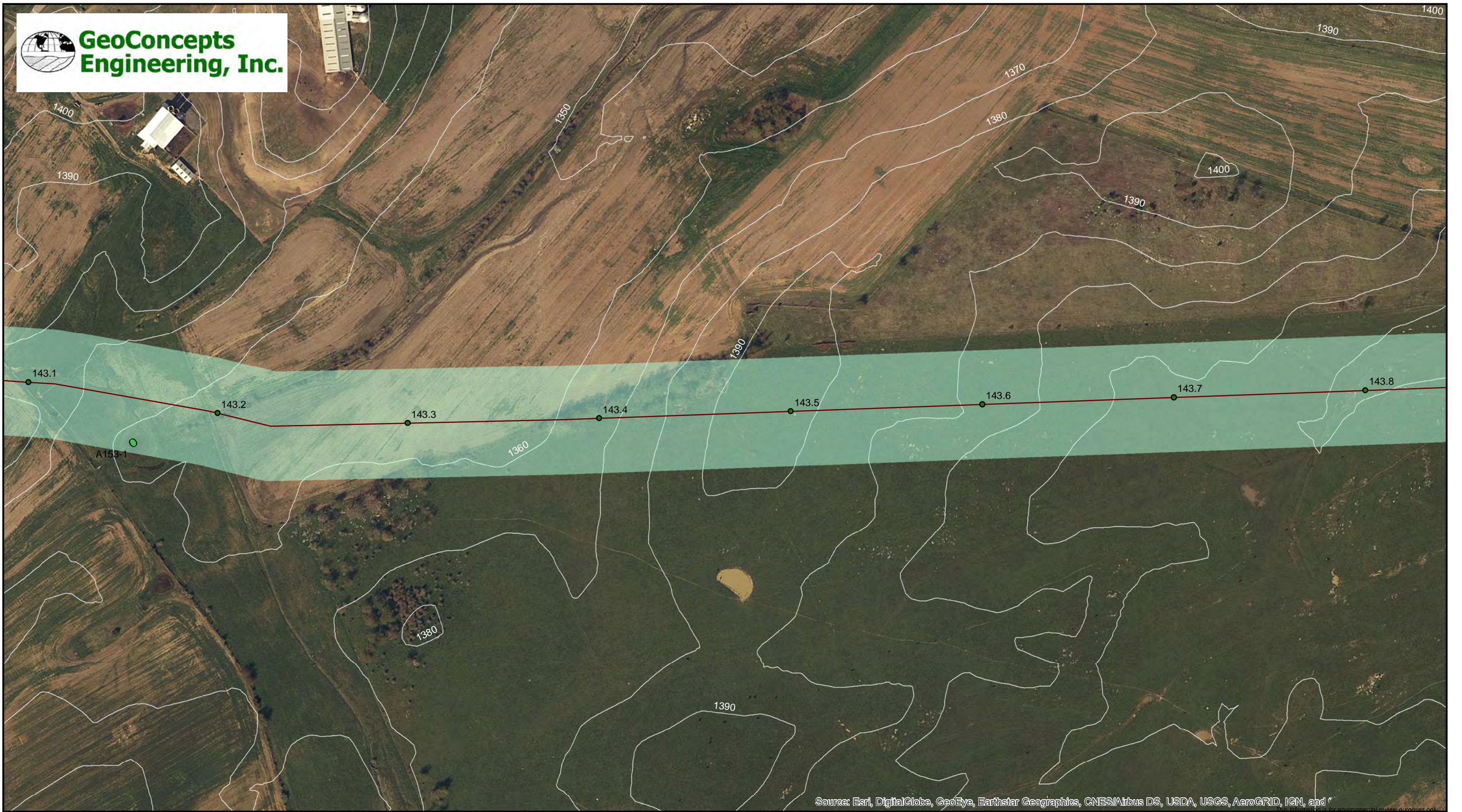
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the



- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



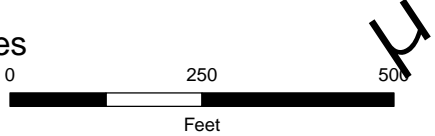
CONTOUR MAP 140
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and *



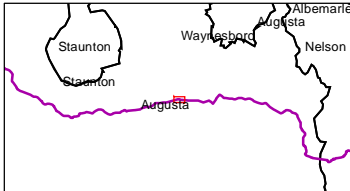
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 141
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS U



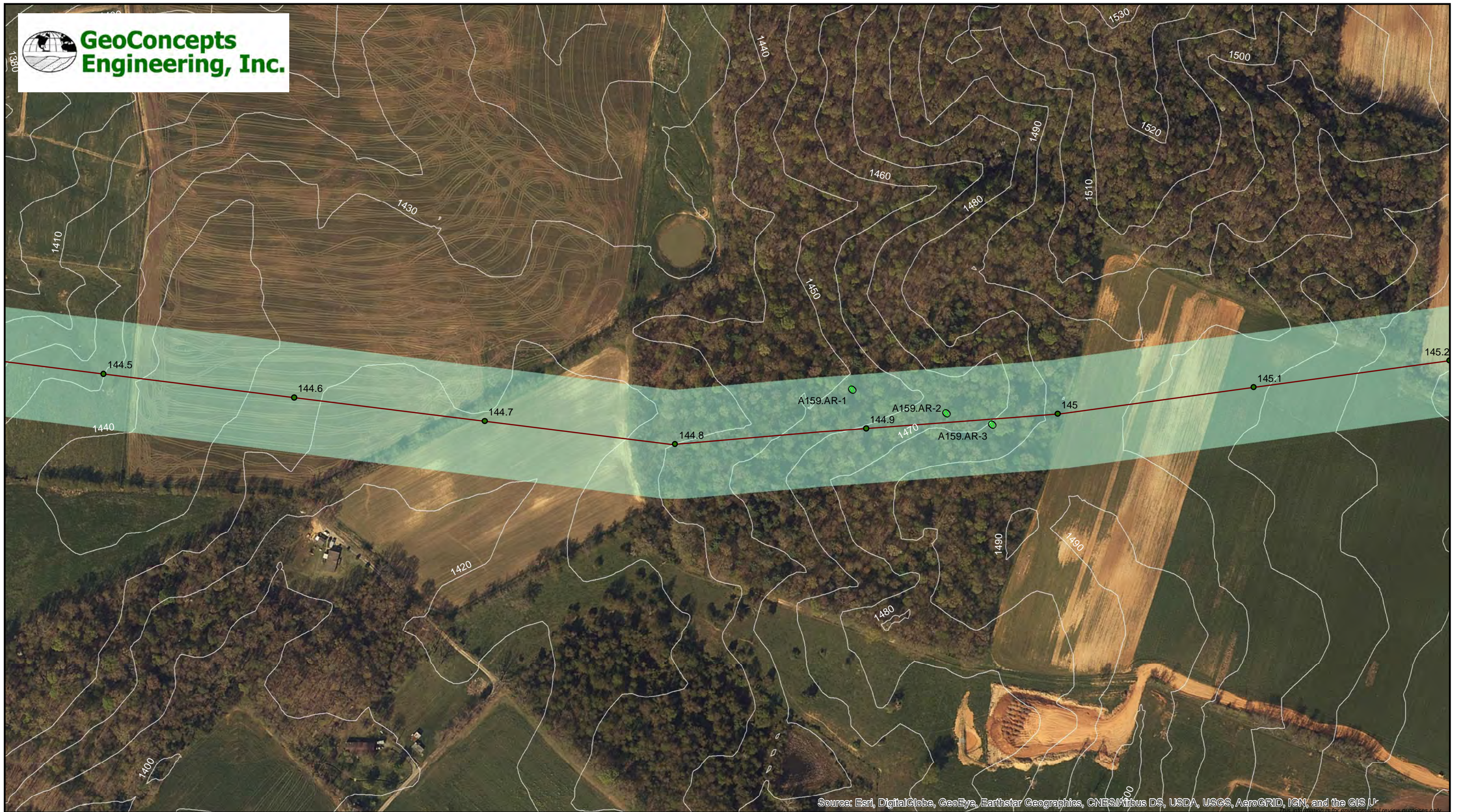
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	300' Corridor Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	

0 250 500
Feet

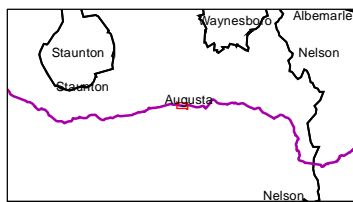
CONTOUR MAP 142
ATLANTIC COAST PIPELINE
11002.04



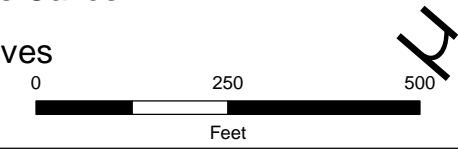
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



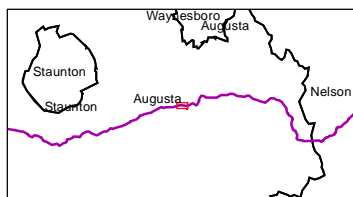
CONTOUR MAP 143
ATLANTIC COAST PIPELINE
11002.04



**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



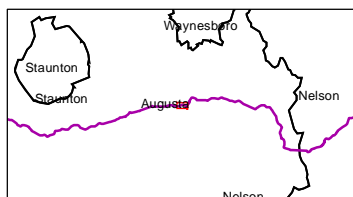
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves




CONTOUR MAP 144
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

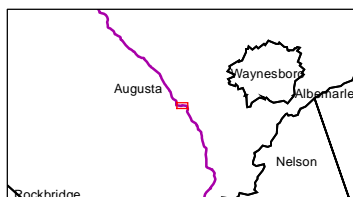


● Mileposts (0.1 mile)	□ 0.50 KRA	▨ 300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊙ All Point Features	▨ Suspect Closed Depressions	! Virginia Caves
■ 300' Corridor	■ All Area Features	! Randolph Caves	



0 250 500
Feet

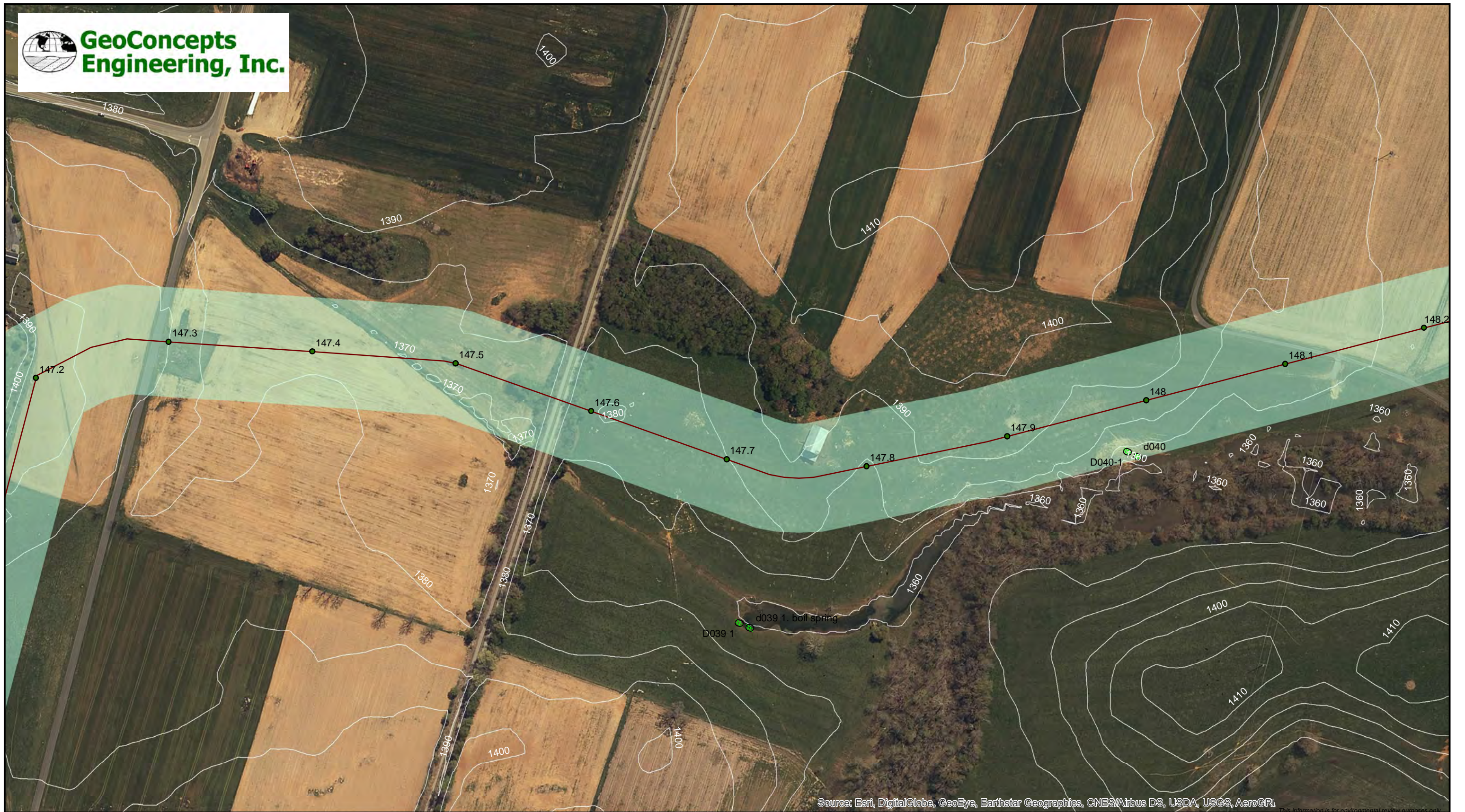
CONTOUR MAP 145
ATLANTIC COAST PIPELINE
11002.04



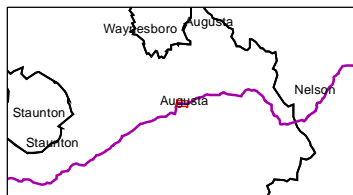
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves



CONTOUR MAP 146
ATLANTIC COAST PIPELINE
11002.04



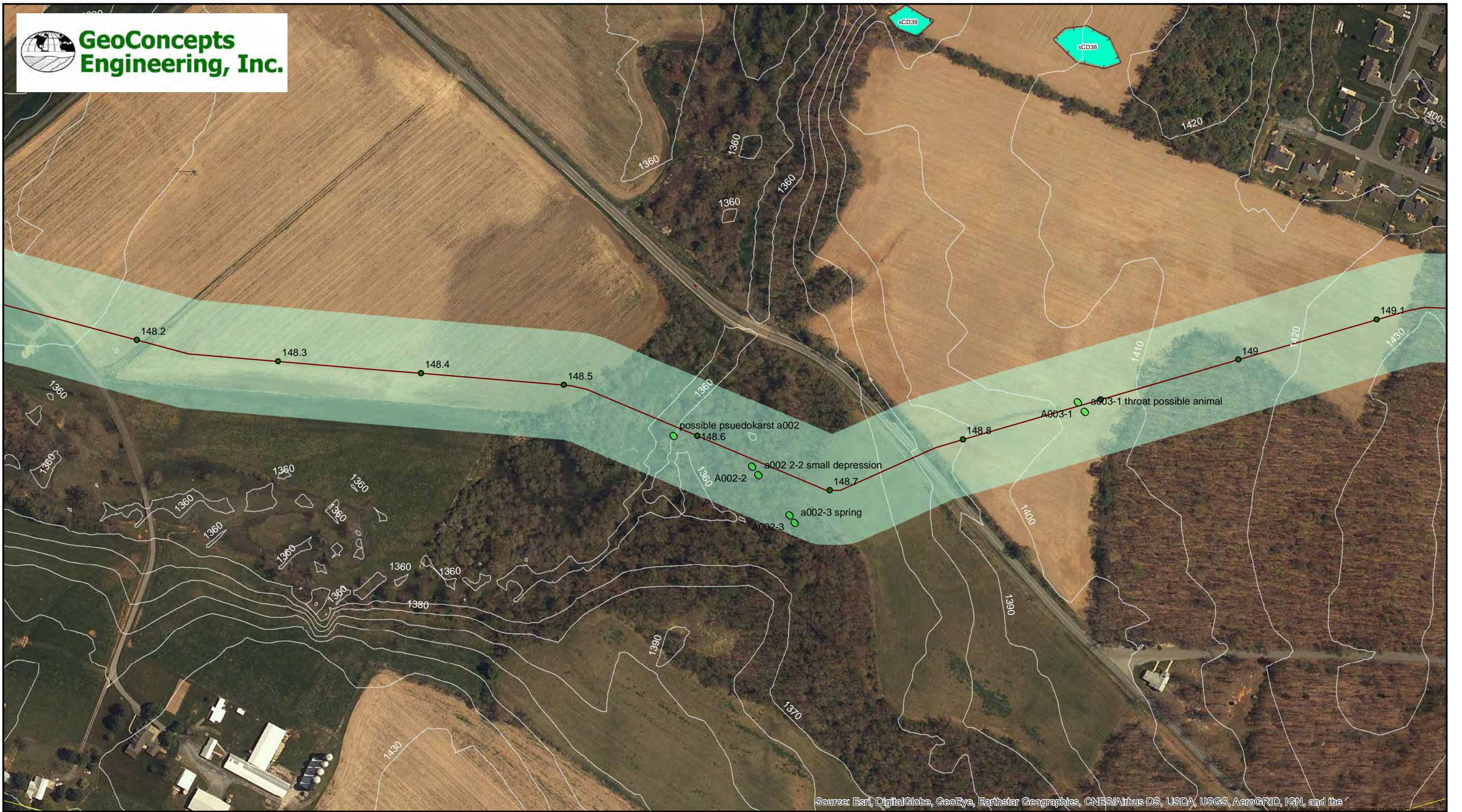
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, etc.



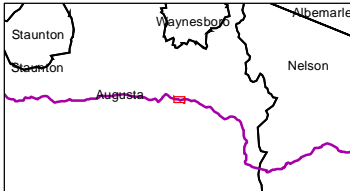
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⊠ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⊠ All Area Features	! Randolph Caves	

CONTOUR MAP 147
ATLANTIC COAST PIPELINE
11002.04

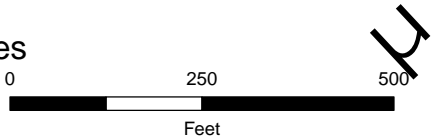
0 250 500
 Feet



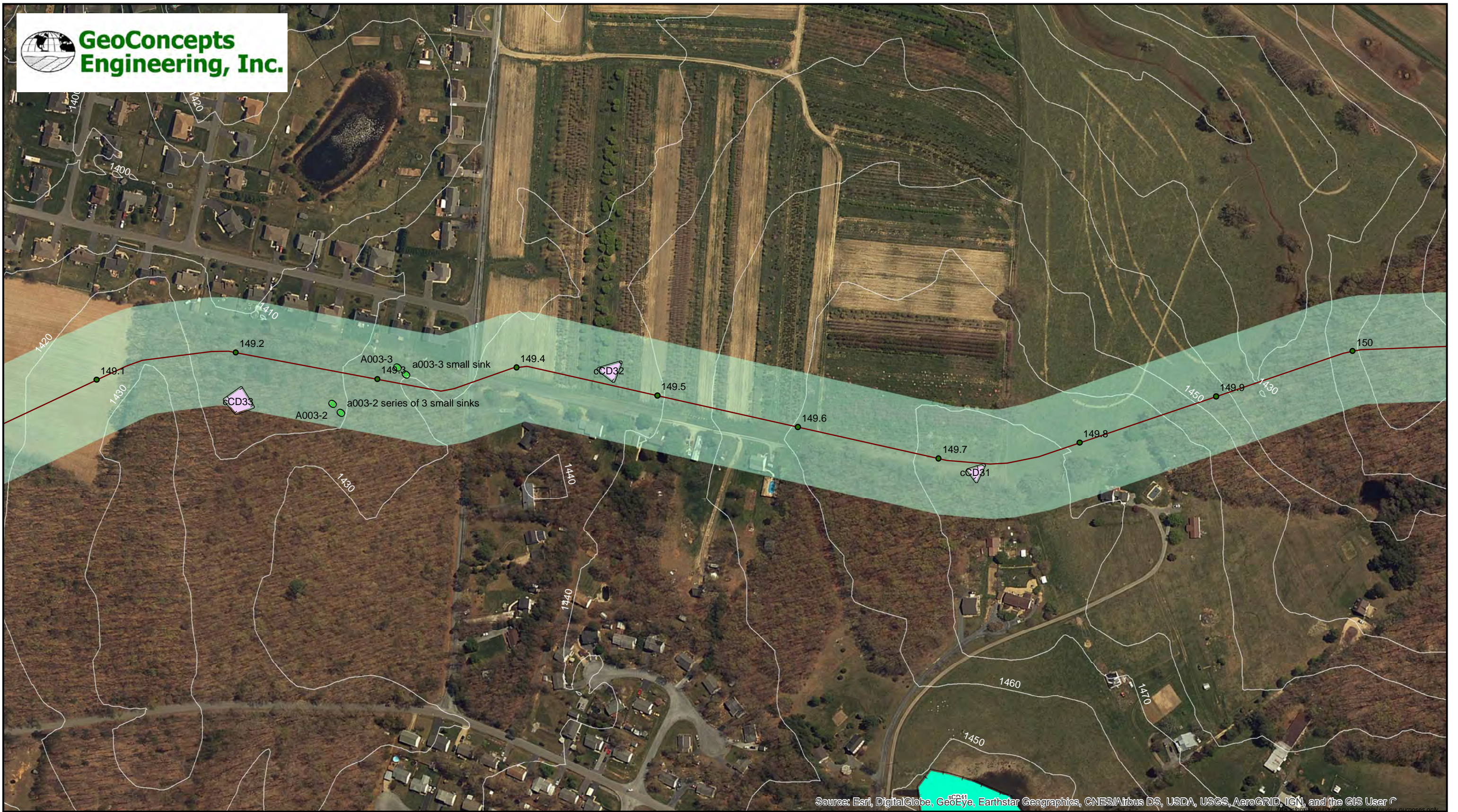
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the



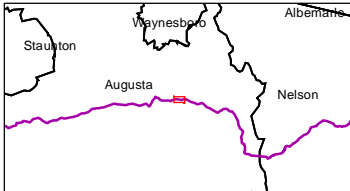
- Mileposts (0.1 mile)
- Centerline
- 300' Corridor
- 0.50 KRA
- ⊕ All Point Features
- All Area Features
- 300' Corridor Closed Depressions
- Suspect Closed Depressions
- ! Randolph Caves
- ! Pocahontas Caves
- ! Virginia Caves














CONTOUR MAP 148
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User



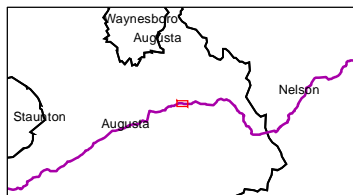
 Mileposts (0.1 mile)	 0.50 KRA	 300' Corridor Closed Depressions	 Pocahontas Caves
 Centerline	 All Point Features	 Suspect Closed Depressions	 Virginia Caves
 300' Corridor	 All Area Features	 Randolph Caves	




CONTOUR MAP 149
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID,

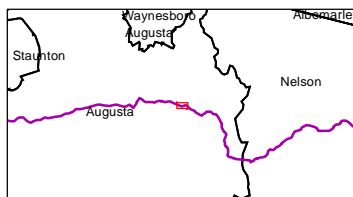
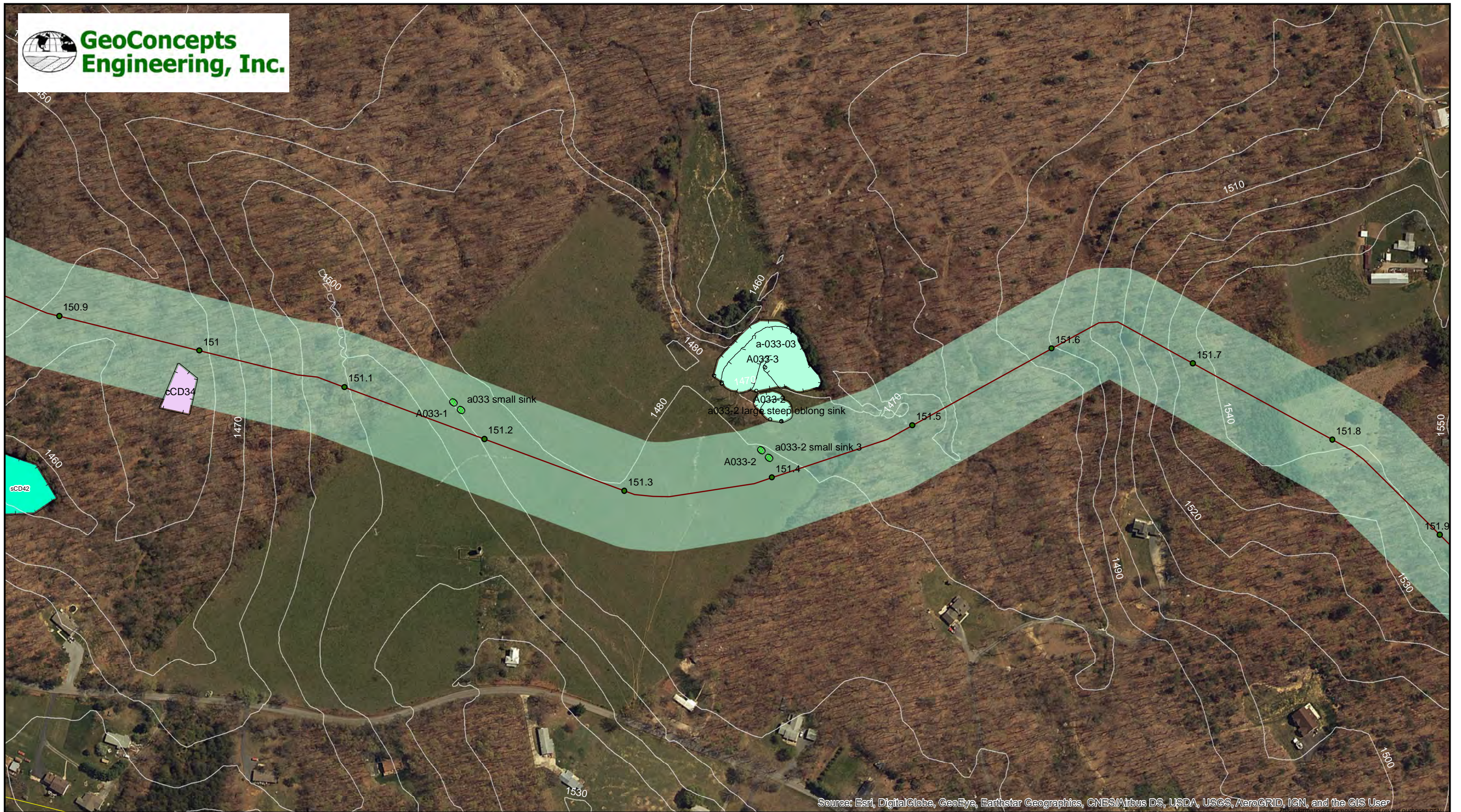


● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	⬢ Suspect Closed Depressions	! Virginia Caves
300' Corridor	⬢ All Area Features	! Randolph Caves	

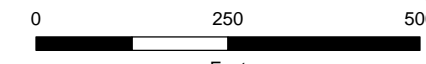


0 250 500
Feet

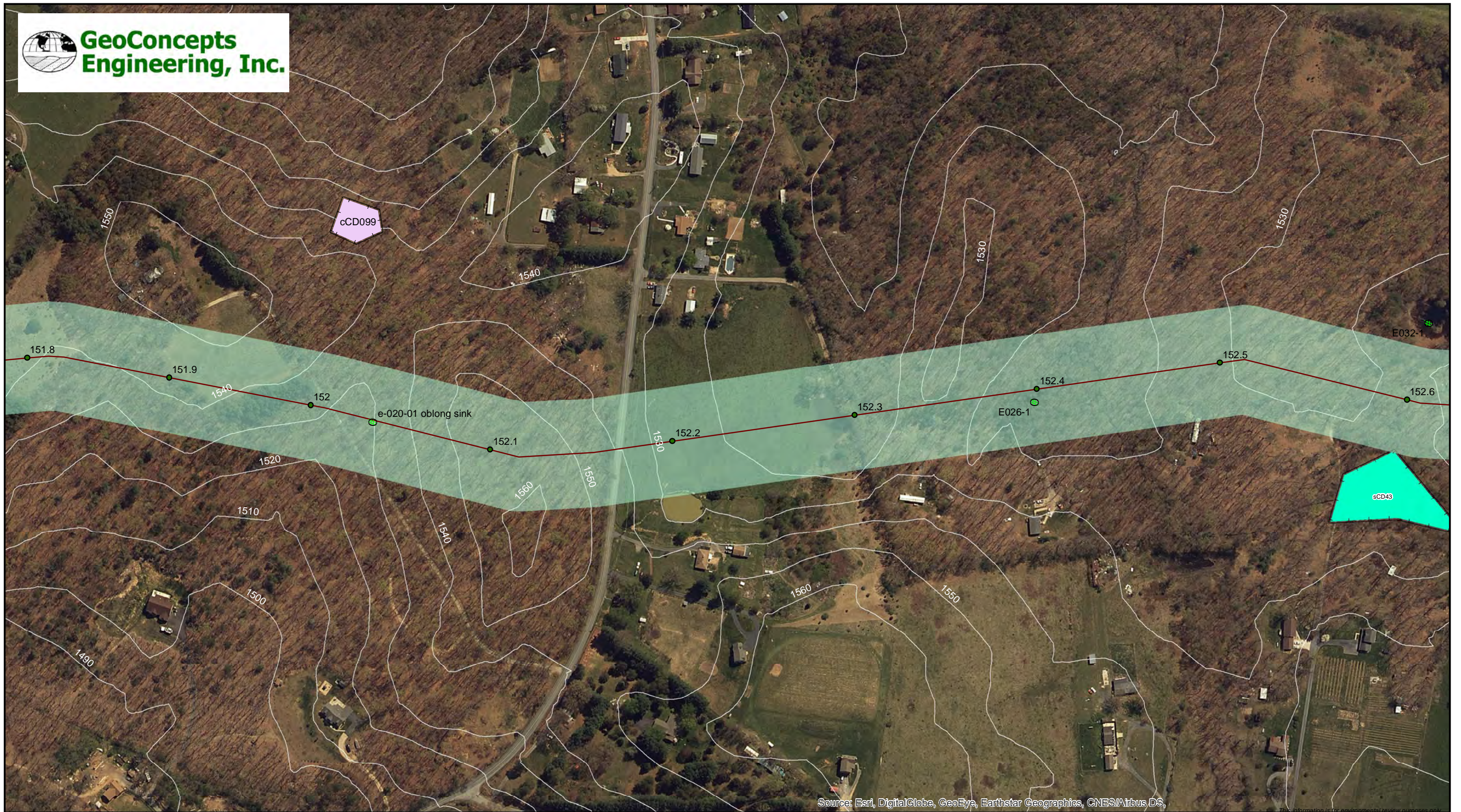
CONTOUR MAP 150
ATLANTIC COAST PIPELINE
11002.04



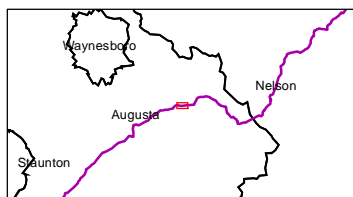
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	! Suspect Closed Depressions	! Virginia Caves
300' Corridor	■ All Area Features	! Randolph Caves	





CONTOUR MAP 151
ATLANTIC COAST PIPELINE
11002.04



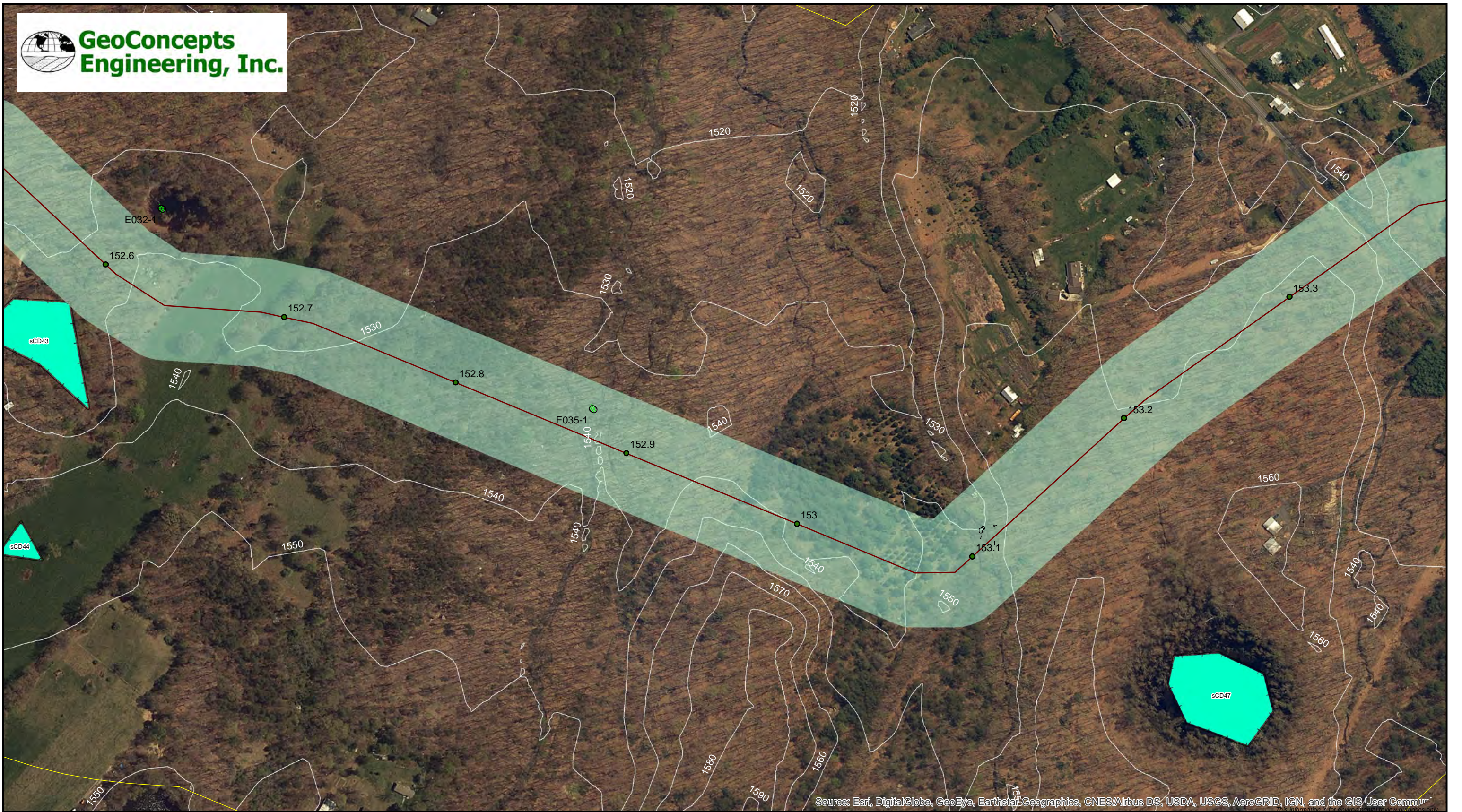
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS,



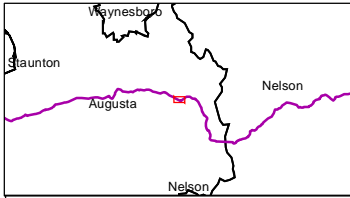
● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	! Suspect Closed Depressions	! Virginia Caves
300' Corridor	■ All Area Features	! Randolph Caves	

CONTOUR MAP 152
ATLANTIC COAST PIPELINE
11002.04



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



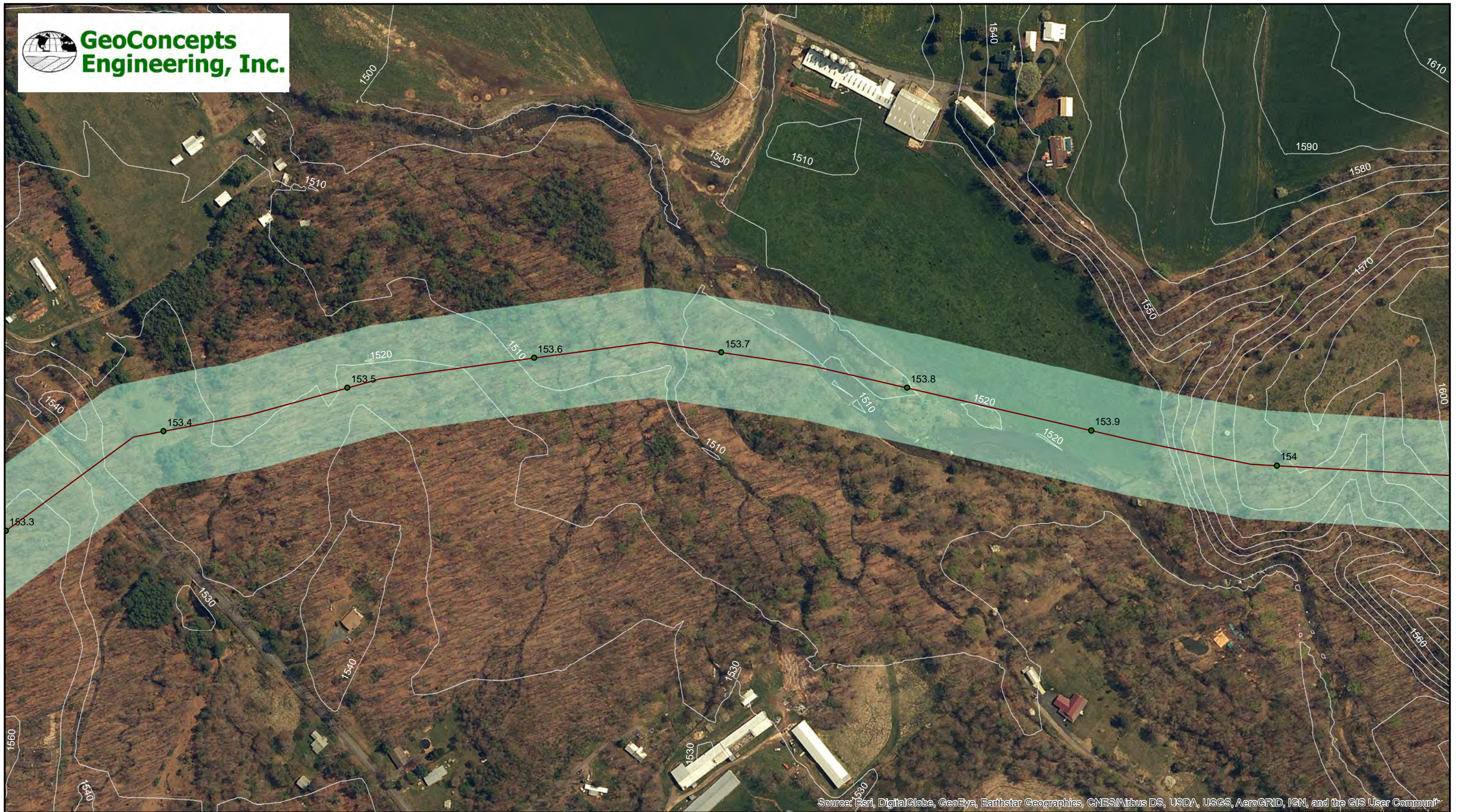
● Mileposts (0.1 mile)	□ 0.50 KRA	□ 300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	□ Suspect Closed Depressions	! Virginia Caves
■ 300' Corridor	□ All Area Features	! Randolph Caves	

CONTOUR MAP 153
ATLANTIC COAST PIPELINE
11002.04

0 250 500
Feet



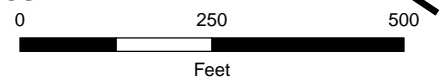
**GeoConcepts
Engineering, Inc.**



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



● Mileposts (0.1 mile)	0.50 KRA	300' Corridor Closed Depressions	! Pocahontas Caves
— Centerline	⊕ All Point Features	300' Corridor Suspect Closed Depressions	! Virginia Caves
300' Corridor	All Area Features	! Randolph Caves	



CONTOUR MAP 154
ATLANTIC COAST PIPELINE
11002.04

APPENDIX C

Tables

TABLE 1. Suspect Closed Depressions (Data Review)

Feature ID	easting	northing	Area SF	Map Unit	Formation	Geologic Period	State	County
sCD01	2174711.71	13853562.15	10259	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD02	2172496.98	13859014.30	14982	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD03	2170894.09	13860006.24	31524	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD04	2173107.90	13862449.06	25651	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD05	2171361.21	13865574.48	19059	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD06	2172108.88	13873784.39	7640	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD07	2173460.25	13885939.77	8866	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD08	2173530.46	13887516.31	10076	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD09	2172419.88	13893260.72	10756	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD10	2171949.52	13893700.85	10126	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD11	2172382.06	13892719.33	21478	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD12	2172098.40	13899441.94	27279	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD13	2169365.69	13900088.55	5097	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD14	2173380.84	13862339.74	6908	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD15	2173665.82	13862309.42	5214	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD16	2172439.97	13864839.15	5089	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD17	2171520.44	13857446.48	10641	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD18	2175194.79	13856731.14	1143	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD19	2172889.47	13854765.49	5931	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD20	2173046.15	13854001.88	4499	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD21	2178922.17	13844495.42	324308	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD22	2187806.32	13836296.62	7365	Ob	Beekmantown Group	Ordovician	VA	Augusta
sCD23	2169466.15	13900088.03	2959	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD24	2169559.97	13900628.82	6282	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD25	2169592.39	13900747.48	10005	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD26	2170060.65	13901275.18	988	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD27	2169896.74	13901030.48	1389	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD28	2169972.64	13901143.05	2640	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD29	2169971.34	13901082.05	1834	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD30	2169813.10	13901195.36	6321	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD31	2170158.59	13901500.45	6490	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD32	2168855.41	13899184.41	138554	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD33	2169441.18	13900195.27	2495	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
sCD37	2216569.69	13811674.70	2402	€e	Elbrook Formation	Cambrian	VA	Augusta
sCD38	2220777.25	13809707.01	11859	€e	Elbrook Formation	Cambrian	VA	Augusta
sCD39	2220466.87	13810093.83	4804	€e	Elbrook Formation	Cambrian	VA	Augusta
sCD40	2220776.12	13810128.34	131	€e	Elbrook Formation	Cambrian	VA	Augusta
sCD41	2221386.06	13805972.20	45139	€wb	Waynesboro Formation	Cambrian	VA	Augusta
sCD42	2223619.38	13802463.04	51390	€wb	Waynesboro Formation	Cambrian	VA	Augusta
sCD43	2226064.38	13795896.42	40690	€s	Shady Dolomite	Cambrian	VA	Augusta
sCD44	2225563.22	13795622.98	5425	€s	Shady Dolomite	Cambrian	VA	Augusta
sCD45	2226589.19	13792455.28	48037	€s	Shady Dolomite	Cambrian	VA	Augusta
sCD46	2226299.84	13792860.38	26373	€s	Shady Dolomite	Cambrian	VA	Augusta
sCD47	2227066.62	13792679.53	28257	€s	Shady Dolomite	Cambrian	VA	Augusta
sCD48	2025894.14	13861118.29	6077	DSu	Ridgeley Sandstone, Helderberg and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
sCD49	2025643.33	13861270.90	2747	DSu	Ridgeley Sandstone, Helderberg and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
sCD50	2027129.53	13859810.35	2920	DSu	Ridgeley Sandstone, Helderberg and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
sCD51	2027123.65	13861013.68	13413	DSu	Ridgeley Sandstone, Helderberg and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
sCD52	2077366.03	13854407.26	1137	DSu	Ridgeley Sandstone, Helderberg and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
sCD53	2078342.02	13854941.46	2074	DSu	Ridgeley Sandstone, Helderberg and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
sCD54	2080996.89	13857340.21	116754	DSu	Ridgeley Sandstone, Helderberg and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
sCD34	1892268.63	13989142.62	11810	Pnr	New River	Pennsylvanian	WV	Randolph
sCD35	1892528.27	13989054.72	1557	Pnr	New River	Pennsylvanian	WV	Randolph
sCD36	1896839.69	13982705.59	2641	Pnr	New River	Pennsylvanian	WV	Randolph

Note: Coordinate System = UTM 17N, US Feet

TABLE 2. 300-Foot Survey Corridor Closed Depressions (Data Review)

Feature ID	easting	northing	Map Unit	Geological Formation	Geologic Period	State	County
cCD05	2173217.12	13886049.35	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD06	2173432.33	13885444.01	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD07	2173367.51	13885196.72	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD08	2173522.20	13882093.11	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD09	2173278.21	13881803.38	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD10	2172913.64	13881762.49	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD11	2172934.80	13881126.36	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD12	2173231.63	13881449.33	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD13	2172810.10	13879915.67	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD14	2172254.51	13876973.32	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD15	2170366.97	13871533.66	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
cCD16	2171131.73	13866417.14	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD17	2170899.32	13866374.28	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD18	2170776.62	13866428.01	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD19	2182065.35	13845234.23	€e	Elbrook Formation	Cambrian	VA	Augusta
cCD20	2171543.09	13898032.23	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
cCD21	2189396.57	13836327.28	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD22	2171347.68	13873419.07	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD23	2171749.80	13862944.93	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD24	2172265.92	13859892.35	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD25	2181656.87	13845162.19	€e	Elbrook Formation	Cambrian	VA	Augusta
cCD31	2222130.67	13806547.55	€wb	Waynesboro Formation	Cambrian	VA	Augusta
cCD32	2221733.10	13807512.83	€e	Elbrook Formation	Cambrian	VA	Augusta
cCD33	2221037.22	13808269.06	€e	Elbrook Formation	Cambrian	VA	Augusta
cCD34	2224215.30	13802207.39	€wb	Waynesboro Formation	Cambrian	VA	Augusta
cCD51	2226557.13	13795764.90	[s	Shady Dolomite	Cambrian	VA	Augusta
cCD62	2096253.94	13875320.21	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Augusta
cCD99	2226558.38	13798789.67	[wb	Waynesboro Formation	Cambrian	VA	Augusta
cCD100	2187831.28	13836848.01	Ob	Beekmantown Group	Ordovician	VA	Augusta
cCD101	2114241.33	13887823.01	Db	Brallier Formation	Devonian	VA	Augusta
cCD102	2114323.80	13888134.98	Db	Brallier Formation	Devonian	VA	Augusta
cCD103	2114568.13	13888446.33	Db	Brallier Formation	Devonian	VA	Augusta
cCD104	2115265.37	13888691.01	Db	Brallier Formation	Devonian	VA	Augusta
cCD105	2115135.33	13888755.75	Db	Brallier Formation	Devonian	VA	Augusta
cCD106	2115017.45	13888821.97	Db	Brallier Formation	Devonian	VA	Augusta
cCD107	2115114.41	13889094.2	Db	Brallier Formation	Devonian	VA	Augusta
cCD108	2115357.17	13891306.52	Db	Brallier Formation	Devonian	VA	Augusta
cCD109	2118807.66	13893468.62	Db	Brallier Formation	Devonian	VA	Augusta
cCD110	2119117.96	13893709.31	Db	Brallier Formation	Devonian	VA	Augusta
cCD111	2120049.10	13900200.01	Db	Brallier Formation	Devonian	VA	Augusta
cCD112	2112929.44	13885197.56	Db	Brallier Formation	Devonian	VA	Augusta
cCD113	2111176.42	13883796.96	Db	Brallier Formation	Devonian	VA	Augusta
cCD116	2110296.15	13881284.56	Db	Brallier Formation	Devonian	VA	Augusta
cCD117	2183889.25	13843692.3	[e	Elbrook Formation	Cambrian	VA	Augusta
cCD159	2083760.29	13863348.09	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
cCD160	2084700.06	13863973.47	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
cCD161	2084720.67	13864020.6	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
cCD162	2087011.79	13867029.34	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
cCD163	2089118.67	13867976.37	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
cCD164	2089882.45	13868213.13	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
cCD165	2120913.39	13902768.48	Db	Brallier Formation		VA	Augusta
cCD03	2034247.14	13857616.03	Skrt	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD35	2028870.02	13859749.63	DSu	Ridgeley Sandstone, Helderberg and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD60	2076312.34	13851898.23	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
cCD61	2076660.00	13852474.44	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
cCD114	2057053.68	13837297.06	Db	Brallier Formation	Devonian	VA	Bath

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cCD115	2057035.96	13837230.99	Db	Brallier Formation	Devonian	VA	Bath
cCD118	2017367.87	13872343.64	Oun	Juniata, Oswego, Martinsburg (Reedsville and Dolly Ridge), Eggleston Formation	Ordovician	VA	Bath
cCD119	2016634.68	13872465.76	Oun	Juniata, Oswego, Martinsburg (Reedsville and Dolly Ridge), Eggleston Formation	Ordovician	VA	Bath
cCD120	2017102.03	13871996.03	Oun	Juniata, Oswego, Martinsburg (Reedsville and Dolly Ridge), Eggleston Formation	Ordovician	VA	Bath
cCD124	2033822.17	13853101.23	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD125	2033607.13	13852855.33	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD126	2033489.21	13852842.98	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD127	2034371.54	13853376.44	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD128	2034433.37	13852498.87	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD129	2033767.38	13852737.79	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD130	2033725.46	13852782.96	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD131	2033583.91	13852786.85	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD132	2034529.92	13852207.98	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD133	2033714.38	13852537.78	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD134	2033599.00	13851379.43	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD135	2033459.51	13850897.93	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD136	2034049.42	13850341.48	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD137	2031861.12	13857426.6	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD138	2031515.59	13857385.51	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD139	2031687.11	13857614.34	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD140	2034396.47	13854574.64	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD141	2034189.44	13854255.06	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD142	2034374.70	13854420.35	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD143	2034383.27	13854509.98	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD144	2034535.40	13854057.23	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD145	2034210.49	13853827.98	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD146	2062630.39	13837988.23	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD147	2077222.72	13853235.7	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD148	2077723.63	13854084.29	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD149	2077837.52	13854118.73	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD150	2081788.75	13860778.95	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD151	2081799.71	13860706.35	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD152	2081773.74	13860616.51	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD153	2083514.29	13860624.59	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD154	2083601.04	13860694.86	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD155	2083590.86	13860560.55	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD156	2083586.45	13860775.29	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD157	2083429.35	13860311.63	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD158	2083513.91	13860562.16	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD01	2007832.18	13891945.05	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
cCD02	2008373.69	13891426.19	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
cCD04	2003451.24	13900029.50	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD36	1984847.63	13909681.31	Dch	Chemung Formation	Devonian	VA	Highland
cCD37	1985092.11	13909623.77	Dch	Chemung Formation	Devonian	VA	Highland
cCD38	1985461.24	13909507.32	Dch	Chemung Formation	Devonian	WV	Highland
cCD52	1999607.65	13905832.81	Db	Brallier Formation	Devonian	VA	Highland
cCD53	1984742.52	13910850.18	Dch	Chemung Formation	Devonian	VA	Highland
cCD54	1988242.94	13910508.08	Dch	Chemung Formation	Devonian	VA	Highland
cCD55	1998868.55	13908315.78	Dch	Chemung Formation	Devonian	VA	Highland
cCD56	1994245.96	13912615.94	Dch	Chemung Formation	Devonian	VA	Highland
cCD57	2010660.76	13890544.09	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
cCD58	2010582.40	13889638.78	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
cCD59	2010528.62	13889567.75	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
cCD63	2003630.75	13899224.44	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD64	2003925.98	13899332.11	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD65	2003868.84	13899119.27	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD66	2003920.12	13899146.6	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD67	2003787.64	13898985.15	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland

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cCD68	2003677.99	13899077.01	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD69	2003586.56	13899301.44	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD70	2004032.49	13898912.16	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD71	2003996.78	13898800.67	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD72	2004289.63	13898823.79	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD73	2004304.83	13898953.28	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD74	2004341.84	13898698.09	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD75	2003967.51	13898876.82	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD76	2003546.93	13898845.49	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD77	2004118.63	13898962.98	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD78	2004173.95	13898938.54	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD79	2004031.04	13899272.39	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD80	2004324.79	13898429.76	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD81	2004515.01	13898158.45	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD82	2004519.48	13898086.58	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD83	2004269.26	13898268.56	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD84	2003879.13	13898604.24	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD85	2003496.73	13899150.78	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD86	2003535.26	13899294.03	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD87	2003513.04	13899015.6	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD88	2003459.71	13898900.55	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD89	2003447.38	13898799.07	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD90	2003459.50	13898627.87	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD91	2003459.13	13899254.53	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD92	2003628.28	13899586.92	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD93	2003865.36	13899480.11	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD94	2003750.58	13899379.66	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD95	2003806.78	13899355.09	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD96	2004033.67	13899350.68	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD97	2003958.88	13899217.59	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD98	2004203.88	13898901.1	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
cCD121	2011749.71	13885338.59	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Highland
cCD122	2011655.45	13883993.01	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Highland
cCD123	2011756.58	13883474.82	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Highland
cCD26	1911837.45	13940476.95	Mh	Hinton	Mississippian	WV	Pocahontas
cCD39	1967193.82	13910353.40	Db	Brallier	Devonian	WV	Pocahontas
cCD40	1957956.21	13913652.72	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD41	1958592.42	13914748.98	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD42	1953135.96	13916073.80	Db	Brallier	Devonian	WV	Pocahontas
cCD43	1953082.33	13915912.64	Db	Brallier	Devonian	WV	Pocahontas
cCD44	1929028.82	13921405.67	Mp	Pocono	Mississippian	WV	Pocahontas
cCD45	1924724.91	13923284.16	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD46	1910029.82	13963378.21	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD166	1924118.776	13924652.95	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD167	1924315.805	13924705.96	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD168	1923185.374	13925899.55	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD169	1923116.277	13925714.18	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD170	1912688.433	13929853.07	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD171	1911943.362	13930778.44	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD172	1911562.636	13930923.47	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD173	1913615.786	13951011.98	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD174	1912728.477	13955225.91	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD175	1912800.192	13955633.44	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD176	1913221.157	13955542.07	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD177	1912397.005	13955550.76	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD178	1912291.817	13955685.07	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD179	1912581.788	13956433.49	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD180	1912676.994	13956330.32	Mg	Greenbrier	Mississippian	WV	Pocahontas

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cCD181	1912767.824	13956403.53	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD182	1912788.955	13956319.74	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD183	1911909.787	13956716.86	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD184	1911803.096	13956556.83	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD185	1912512.314	13957246.87	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD186	1912631.125	13958450.77	Mg	Greenbrier	Mississippian	WV	Pocahontas
cCD187	1936638.01	13921867.79	Dhs	Hampshire	Devonian	WV	Pocahontas
cCD188	1913379.95	13942660.21	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD189	1913355.137	13950927.02	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD190	1913444.397	13950828.52	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD191	1910778.064	13956294.44	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD192	1911503.478	13958396.89	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD193	1911646.221	13958249.23	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD194	1911954.874	13958682.01	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD195	1911506.703	13959720.62	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD196	1911134.224	13959840.09	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD197	1911344.46	13959968.58	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD198	1910550.294	13961217.43	Mbf	Bluefield	Mississippian	WV	Pocahontas
cCD214	1961698.565	13910594.16	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD215	1961756.643	13910685.62	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD216	1961766.256	13910821.89	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD217	1961766.359	13910885.21	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD218	1961714.49	13910971.2	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD219	1961706.56	13911011.58	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD220	1961758.324	13911136.32	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD221	1961876.098	13911122.94	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD222	1961878.694	13911333.2	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD223	1961821.993	13911255.75	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD224	1962074.64	13911612.36	Dohl	Oriskany Sandstone	Devonian	WV	Pocahontas
cCD225	1964206.762	13910194.36	Dmb	Harrell, Mahantango, Marcellus	Devonian	WV	Pocahontas
cCD226	1908230.497	13933653.12	Mh	Hinton	Mississippian	WV	Pocahontas
cCD227	1908040.024	13933608.86	Mh	Hinton	Mississippian	WV	Pocahontas
cCD228	1908525.875	13934829.94	Mh	Hinton	Mississippian	WV	Pocahontas
cCD229	1908496.443	13934681.28	Mh	Hinton	Mississippian	WV	Pocahontas
cCD230	1908782.061	13934640.34	Mh	Hinton	Mississippian	WV	Pocahontas
cCD231	1908574.948	13934428.02	Mh	Hinton	Mississippian	WV	Pocahontas
cCD232	1908426.033	13934364.47	Mh	Hinton	Mississippian	WV	Pocahontas
cCD233	1961528.41	13911010.11	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD234	1961668.134	13911373.98	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD235	1961704.276	13911343.56	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD236	1961628.091	13911251.2	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD237	1961770.486	13911288.71	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD238	1961837.181	13911375.42	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD239	1961802.678	13911507.15	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD240	1961646.578	13911641.52	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD241	1961631.697	13911704.8	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD242	1961835.329	13911704.34	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD243	1961752.241	13911828.03	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD244	1961668.962	13911895.64	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD245	1961811.102	13911871.8	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD246	1961873.767	13911863.12	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD247	1962035.19	13911823.67	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD248	1962154.655	13911968.88	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD249	1961668.944	13912030.82	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD250	1961940.927	13912086.25	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD251	1962065.193	13912143.32	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD252	1962081.61	13912061.1	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD253	1962261.57	13912114.66	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas

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cCD254	1910626.333	13937438.66	Mbp	Bluestone, Princeton	Mississippian	WV	Pocahontas
cCD255	1910376.613	13937342.88	Mbp	Bluestone, Princeton	Mississippian	WV	Pocahontas
cCD256	1912208.827	13938906.84	Mbp	Bluestone, Princeton	Mississippian	WV	Pocahontas
cCD257	1961309.958	13912269.13	Smc	McKenzie	Silurian	WV	Pocahontas
cCD258	1915730.241	13927217.36	Mh	Hinton	Mississippian	WV	Pocahontas
cCD259	1961645.755	13911016.74	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD260	1961622.006	13910979.13	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD261	1961991.296	13911617.04	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD262	1911222.812	13937212.45	Mh	Hinton	Mississippian	WV	Pocahontas
cCD27	1891738.66	13988909.97	Pnr	New River	Pennsylvanian	WV	Randolph
cCD28	1891724.14	13988768.11	Pnr	New River	Pennsylvanian	WV	Randolph
cCD29	1895499.57	13986358.47	Pnr	New River	Pennsylvanian	WV	Randolph
cCD30	1897258.69	13982898.79	Pnr	New River	Pennsylvanian	WV	Randolph
cCD47	1887175.50	14001215.31	Pnr	New River	Pennsylvanian	WV	Randolph
cCD48	1887280.76	14000969.68	Pnr	New River	Pennsylvanian	WV	Randolph
cCD49	1880061.91	14029769.83	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD50	1880326.21	14029714.79	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD199	1887299.781	13997874.65	Mbf	Bluefield	Mississippian	WV	Randolph
cCD200	1880926.298	14020753.16	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD201	1881483.774	14020517.44	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD202	1881490.295	14021155.92	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD203	1881820.031	14022449.47	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD204	1881500.966	14025205.17	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD205	1881699.23	14026587.14	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD206	1881819.809	14027524.66	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD207	1880062.226	14029770.12	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD208	1880326.844	14029714.62	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD209	1880753.599	14030479.32	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD210	1881401.983	14033080.96	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD211	1882267.929	14035515.32	Pnk	Kanawha	Pennsylvanian	WV	Randolph
cCD212	1880741.734	14030991.37	Pnr	New River	Pennsylvanian	WV	Randolph
cCD213	1890098.783	14051462.82	Pnr	New River	Pennsylvanian	WV	Randolph
cCD263	1887206.725	13998800.77	Mh	Hinton	Mississippian	WV	Randolph
cCD264	1887469.499	13998875.93	Mh	Hinton	Mississippian	WV	Randolph
cCD265	1887161.62	14002082.83	Pnr	New River	Pennsylvanian	WV	Randolph

Note: Coordinate System = UTM 17N, US Feet

TABLE 3. LIDAR Sinks (Data Review)

Feature ID	easting	northing	Map Unit	Formation	Geologic Period
LS01	2189865.78	13836543.15	Ob	Beekmantown Group	Ordovician
LS02	2188851.75	13837227.57	Ob	Beekmantown Group	Ordovician
LS03	2187848.27	13838300.49	Ob	Beekmantown Group	Ordovician
LS04	2183886.03	13843708.04	€e	Elbrook Formation	Cambrian
LS05	2170064.31	13901284.29	O€co	Conococheague Formation	Ordovician - Cambrian
LS06	2169972.19	13901140.36	O€co	Conococheague Formation	Ordovician - Cambrian
LS07	2169972.19	13901088.54	O€co	Conococheague Formation	Ordovician - Cambrian
LS08	2169891.59	13901036.73	O€co	Conococheague Formation	Ordovician - Cambrian
LS09	2169580.70	13900754.63	O€co	Conococheague Formation	Ordovician - Cambrian
LS10	2169580.70	13900633.72	O€co	Conococheague Formation	Ordovician - Cambrian
LS11	2170146.32	13901494.47	O€co	Conococheague Formation	Ordovician - Cambrian
LS12	2190341.01	13836188.70	Ob	Beekmantown Group	Ordovician
LS13	2190429.55	13836129.67	Ob	Beekmantown Group	Ordovician
LS14	2190243.78	13836105.37	Ob	Beekmantown Group	Ordovician
LS15	2187835.53	13836858.66	Ob	Beekmantown Group	Ordovician
LS16	2187662.92	13838546.07	Ob	Beekmantown Group	Ordovician
LS17	2187782.71	13838314.30	Ob	Beekmantown Group	Ordovician
LS18	2187773.60	13838332.52	Ob	Beekmantown Group	Ordovician
LS19	2226549.16	13798795.85	€wb	Waynesboro Formation	Cambrian
LS20	2226800.50	13792985.14	€s	Shady Dolomite	Cambrian
Note: Coordinate System = UTM 17N, US Feet					

TABLE 4. Area Features (Field Survey)

Feature ID	easting	northing	Risk Rank	Karst ID	Map Unit	Formation	Geologic Period	State	County
a-033-03	2225302.605	13800992.44	Low	Sinkhole	[wb	Waynesboro Formation	Cambrian	VA	Augusta
A033-2	2225210.44	13800926.78	Moderate	Sinkhole	€wb	Waynesboro Formation	Cambrian	VA	Augusta
a033-2	2225206.477	13800896.73	Low	Sinkhole	[wb	Waynesboro Formation	Cambrian	VA	Augusta
A033-3	2225306.53	13801022.33	Low	Sinkhole	€wb	Waynesboro Formation	Cambrian	VA	Augusta
A106-1	2172337.05	13860247.54	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
a106-1	2172330.696	13860217.7	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A131-1	2178853.65	13846885.71	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
a132-1	2178849.496	13846855.73	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A132-2	2179221.71	13846325.10	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
a132-2	2179216.26	13846296	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A148-1	2192273.40	13833374.62	High	Sinkhole	Oeln	Edinburg Formation, Lincolshire and New Market Limestones	Ordovician	VA	Augusta
a148-1	2192270.448	13833344.71	Low	Sinkhole	Oeln	Edinburg Formation, Lincolshire and New Market Limestones	Ordovician	VA	Augusta
A148-2	2192543.50	13833041.26	High	Sinkhole	Oeln	Edinburg Formation, Lincolshire and New Market Limestones	Ordovician	VA	Augusta
a148-2	2192540.403	13833010.14	Low	Sinkhole	Oeln	Edinburg Formation, Lincolshire and New Market Limestones	Ordovician	VA	Augusta
A162-1	2210936.57	13817641.23	High	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
a162-1	2210933.171	13817610.49	High	Sinkhole	O[co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A162-2	2211059.84	13817441.55	Moderate	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
a162-2	2211055.161	13817411.18	High	Sinkhole	O[co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A162-3	2211386.25	13817042.79	Moderate	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
a162-3	2211383.05	13817012.76	High	Sinkhole	O[co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A165-1	2211813.52	13816398.29	High	Sinkhole	€e	Elbrook Formation	Cambrian	VA	Augusta
a165-1	2211809.68	13816368.29	Moderate	Sinkhole	[e	Elbrook Formation	Cambrian	VA	Augusta
A165-2	2211722.85	13816685.96	Moderate	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
a165-2	2211719.104	13816655.22	High	Sinkhole	O[co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
D006-1	2213304.81	13814867.99	Moderate	Sinkhole	€e	Elbrook Formation	Cambrian	VA	Augusta
d006-1	2213300.713	13814837.19	High	Sinkhole	[e	Elbrook Formation	Cambrian	VA	Augusta
36-024-1	2028572.562	13859889.79	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
c009	2003453.09	13899845.3	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C009-1	2003453.40	13899874.21	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-1	2003628.31	13899613.92	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-1	2003626.637	13899584.2	Low	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-10	2003956.55	13899261.10	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-10	2003951.959	13899231.8	Low	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-11	2003789.34	13899010.95	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-11	2003784.45	13898982.06	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-12	2004025.45	13898946.27	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-2	2003793.38	13899452.49	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-2	2003789.471	13899421.51	Low	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-3	2003594.33	13899321.74	High	Cave	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-3	2003588.855	13899291.66	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-5	2003746.03	13899360.73	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-5	2003744.327	13899332.06	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-6	2003917.16	13899368.21	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-6	2003914.437	13899338.03	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-9	2003891.64	13899155.63	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-9	2003888.868	13899126.77	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c011-1	2004021.408	13898917.22	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C011-6	2004557.41	13898418.50	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c011-6	2004554.698	13898388.23	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C025-1	2007902.85	13892345.18	High	Sinkhole	Skrt	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
C025-2	2007973.29	13892344.99	High	Sinkhole	Skrt	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
C028-1	2007797.65	13892539.50	High	Sinkhole	Skrt	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
c028-1	2007797.072	13892508.88	Moderate	Sinkhole	Skrt	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
c028-2	2007968.86	13892313.99	Moderate	Sinkhole	Skrt	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
c028-3	2007897.224	13892310.02	Moderate	Sinkhole	Skrt	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
C028-4	2007865.34	13892306.19	High	Sinkhole	Skrt	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland

Table 4 - Field_area_all Formatted (Updated).xls

c028-4	2007863.018	13892272.29	Moderate	Sinkhole	Skrt	Keefe Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
C028-5	2008072.91	13892145.78	High	Sinkhole	Skrt	Keefe Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
c028-5	2008067.273	13892111.12	Moderate	Sinkhole	Skrt	Keefe Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
C028-6	2008090.06	13892086.66	High	Sinkhole	Skrt	Keefe Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
c028-6	2008089.319	13892055.98	Moderate	Sinkhole	Skrt	Keefe Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
C030-1	2011317.06	13889600.53	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Highland
C030-2	2010671.80	13890561.13	High	Sinkhole	Skrt	Keefe Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
c032-1	2010666.31	13890529.3	Moderate	Sinkhole	Skrt	Keefe Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Highland
c032-2	2011313.016	13889569.17	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Highland
E023-2	1913593.98	13951026.95	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e023-2	1913605.065	13951010.88	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E028-3	1911982.64	13930729.45	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e028-3	1911973.797	13930703.1	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E030-1	1923228.721	13925847.36	Low	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e030-6	1921967.961	13925792.88	Low	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E031-1	1921971.30	13925822.78	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E031-2	1921950.93	13925876.46	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E032-2	1923232.38	13925878.76	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E033-2	1924310.82	13924730.82	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e033-2	1924309.605	13924700.55	Low	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E033-3	1924118.84	13924695.27	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e033-3	1924115.335	13924663.31	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E033-4	1924462.99	13923326.25	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e033-4	1924460.072	13923295.79	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E033-5	1924717.36	13923309.61	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e033-5	1924714.501	13923278.77	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E036-1	2227096.836	13793441.76	Low	Sinkhole	[s	Shady Dolomite	Cambrian	WV	Pocahontas
e036-1	1931751.413	13922799.95	Low	Sinkhole	Dhs	Hampshire	Devonian	WV	Pocahontas
E051-4	1960367.71	13912915.15	High	Sinkhole	St	Tuscarora Sandstone	Silurian	WV	Pocahontas
E057-1	1962165.88	13911968.25	Moderate	Sinkhole	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
E057-2	1962105.47	13912062.96	Moderate	Sinkhole	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
E058-1	1962032.02	13911802.60	High	Sinkhole	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
E058-3	1962044.09	13911907.14	High	Sinkhole	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
e086-11	1911456.87	13955914.47	Low	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
e086-3	1911387.94	13959942.36	Moderate	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
b025-12	1893742.075	13986940.28	Low	Sinkhole	Pnrr	Pottsville	Pennsylvanian	WV	Randolph
b025-13	1894088.353	13986705.41	Moderate	Sinkhole	Pnrr	Pottsville	Pennsylvanian	WV	Randolph
b025-8	1891432.026	13988728.6	Moderate	Sinkhole	Pnrr	Pottsville	Pennsylvanian	WV	Randolph
B074-2	1888034.30	13993663.22	Moderate	Sinkhole	Mh	Hinton	Mississippian	WV	Randolph
b074-2	1888031.934	13993634.75	Low	Sinkhole	Mh	Mauch Chunk	Mississippian	WV	Randolph
B074-3	1888001.46	13993593.12	High	Sinkhole	Mh	Hinton	Mississippian	WV	Randolph
b074-3	1887997.629	13993569.73	Low	Sinkhole	Mh	Mauch Chunk	Mississippian	WV	Randolph
B074-4	1887934.32	13993557.65	High	Sinkhole	Mh	Hinton	Mississippian	WV	Randolph
b074-4	1887928.461	13993533.88	Moderate	Sinkhole	Mh	Mauch Chunk	Mississippian	WV	Randolph
Note: Coordinate System = UTM 17N, US Feet									

Table 5. Point Features (Field Survey)

Feature ID	Easting	Northing	risk rank	Karst ID		Formation	Geologic Period	State	County
a002-1	2219211.78	13809702.06	Low	Sinkhole	[e	Elbrook Formation	Cambrian	VA	Augusta
A002-2	13809492.36	2219311.13	Moderate	Sinkhole	€e	Elbrook Formation	Cambrian	VA	Augusta
a002-2	2219308.00	13809463.03	Low	Sinkhole	[e	Elbrook Formation	Cambrian	VA	Augusta
A002-3	13809323.95	2219294.66	Moderate	Sinkhole	€e	Elbrook Formation	Cambrian	VA	Augusta
a002-3	2219291.26	13809298.65	Low	Spring	[e	Elbrook Formation	Cambrian	VA	Augusta
A003-1	13809008.26	2220087.60	High	Sinkhole	€e	Elbrook Formation	Cambrian	VA	Augusta
a003-1	2220083.34	13808976.44	Low	Sinkhole	[e	Elbrook Formation	Cambrian	VA	Augusta
A003-2	13808058.94	2221190.45	Moderate	Sinkhole	€e	Elbrook Formation	Cambrian	VA	Augusta
a003-2	2221184.57	13808025.74	Low	Sinkhole	[e	Elbrook Formation	Cambrian	VA	Augusta
A003-3	13807979.73	2221379.73	High	Sinkhole	€e	Elbrook Formation	Cambrian	VA	Augusta
a003-3	2221379.31	13807949.55	Low	Sinkhole	[e	Elbrook Formation	Cambrian	VA	Augusta
A029-1	13900099.32	2169447.36	Moderate	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A029-2	13900073.54	2169388.00	Moderate	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
a032	2224036.88	13803084.04	Low	Sinkhole	[wb	Waynesboro Formation	Cambrian	VA	Augusta
A032-1	13803112.93	2224040.15	High	Sinkhole	€wb	Waynesboro Formation	Cambrian	VA	Augusta
a033	2224661.63	13801572.89	Low	Sinkhole	[wb	Waynesboro Formation	Cambrian	VA	Augusta
A033-1	13801603.10	2224664.88	Moderate	Sinkhole	€wb	Waynesboro Formation	Cambrian	VA	Augusta
A033-2	13800860.50	2225093.90	High	Sinkhole	€wb	Waynesboro Formation	Cambrian	VA	Augusta
a033-2	2225090.75	13800830.93	Low	Sinkhole	[wb	Waynesboro Formation	Cambrian	VA	Augusta
A057-1	13891155.74	2172612.04	High	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A057-2	13889757.78	2172832.99	Moderate	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A057-3	13889288.41	2172785.16	Low	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A057-4	13889286.72	2172765.30	Low	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A057-5	13889246.55	2172764.57	Low	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A057-6	13889209.12	2172775.83	Low	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A057-7	13888862.95	2172633.05	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A057-8	13888807.63	2172607.51	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A072-1	13882182.26	2173544.75	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A072-2	13881789.83	2173255.67	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A075-1	13881804.82	2172914.96	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A082-1	13876572.08	2172165.18	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A083-1	13877070.59	2172240.66	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A086-1	13874467.06	2172373.63	low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A086-2	13874347.02	2172539.08	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A086-3	13874152.00	2172488.90	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A086-4	13873436.31	2171341.81	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A092-1	13871553.12	2170345.21	Low	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A096-1	13869845.82	2169775.54	Low	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A096-2	13867337.67	2170353.27	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A096-3	13866667.84	2170877.75	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A096-4	13866627.22	2170864.63	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A096-5	13866390.26	2170793.22	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A096-6	13866334.94	2170909.15	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A096-7	13866202.38	2170842.47	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A096-8	13866043.82	2170754.60	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A097-1	13865881.14	2170947.49	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A105-1	13861180.28	2172473.46	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A105-2	2172471.67	13861153.20	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
a138-1	2185082.87	13839140.76	Low	Spring	O[co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
a138-2	2185125.72	13838956.40	Low	Spring	O[co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
a138-3	2185139.18	13838874.55	Moderate	Sinkhole	O[co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A140-1	13836254.05	2189353.91	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A140-2	13836437.45	2189458.27	High	Cave	Ob	Beekmantown Group	Ordovician	VA	Augusta
A140-4	13836430.45	2189434.98	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A142-1	13836351.97	2190025.93	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A142-2	13835930.46	2190077.17	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta

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A142-3	13836088.91	2190174.06	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A142-4	13836020.64	2190197.90	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A142-5	13836180.12	2190326.84	High	Cave	Ob	Beekmantown Group	Ordovician	VA	Augusta
A142-6	13836113.67	2190397.34	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A142-7	13836187.40	2190444.10	High	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A146-1	13835275.05	2190027.37	Low	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A153-1	13826929.64	2201881.15	Moderate	Sinkhole	Ob	Beekmantown Group	Ordovician	VA	Augusta
A159.AR-1	13820861.83	2208450.89	Low	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A159.AR-2	13820622.79	2208570.58	Low	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
A159.AR-3	13820507.31	2208629.56	High	Sinkhole	O€co	Conococheague Formation	Ordovician - Cambrian	VA	Augusta
d039	2216970.21	13812427.06	Low	Spring	[e	Elbrook Formation	Cambrian	VA	Augusta
D039 1	13812458.90	2216974.04	Moderate	Spring	€e	Elbrook Formation	Cambrian	VA	Augusta
d040	2217739.12	13811549.95	Low	Spring	[e	Elbrook Formation	Cambrian	VA	Augusta
D040-1	13811580.87	2217743.36	Low	Spring	€e	Elbrook Formation	Cambrian	VA	Augusta
e-020-01	2226011.54	13798694.03	Low	Sinkhole	[wb	Waynesboro Formation	Cambrian	VA	Augusta
E026-1	13796885.81	2226231.94	Moderate	Sinkhole	€wb	Waynesboro Formation	Cambrian	VA	Augusta
E032-1	13795826.58	2226546.65	Moderate	Sinkhole	€s	Shady Dolomite	Cambrian	VA	Augusta
E035-1	13794535.69	2226764.54	Moderate	Sinkhole	€s	Shady Dolomite	Cambrian	VA	Augusta
E062-1	13781826.09	2225952.59	Moderate	Sinkhole	€ch	Chilhowee Group	Cambrian	VA	Augusta
E064-1	13780641.45	2224628.25	Moderate	Sinkhole	€ch	Chilhowee Group	Cambrian	VA	Augusta
F002-1	13863911.99	2085227.92	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
f002-1	2085227.89	13863879.69	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
F002-2	13862823.86	2084516.14	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
F012-1	13868204.18	2089963.01	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
f012-1	2089959.25	13868176.06	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
F012-2	13868189.50	2089928.38	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
f012-2	2089926.02	13868161.14	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
F012-3	13868408.64	2089994.91	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
f012-3	2089994.01	13868380.44	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Augusta
052.5-1	2053783.09	13836446.47	Moderate	Sinkhole	Db	Brallier Formation	Devonian	VA	Bath
060-1	13837582.28	2057667.08	Low	Sinkhole	Db	Brallier Formation	Devonian	VA	Bath
062-1	13837513.79	2058547.83	High	Sinkhole	Db	Brallier Formation	Devonian	VA	Bath
075-1	13839373.67	2069639.94	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
075-2	13838878.00	2069004.03	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
075-3	13838830.02	2068962.88	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
077-1	13841688.58	2071121.76	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
077-2	13841181.92	2070646.63	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
078-1	13845542.02	2073394.36	Moderate	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-10	13843964.78	2072678.30	High	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-11	13843860.40	2072514.04	Moderate	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-12	13843775.01	2072575.75	High	Cave	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-13	13843787.27	2072511.35	High	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-14	13843652.11	2072433.42	High	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-15	13843597.84	2072440.01	High	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-16	13843677.25	2072372.90	High	Spring	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-17	13843444.04	2072346.72	High	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-19	13841912.15	2071291.59	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
078-2	13845226.27	2073351.85	Moderate	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-20	13841863.10	2071295.33	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
078-21	13841999.60	2071101.71	Low	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-22	13842006.13	2071032.27	High	Spring	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-23	13845692.60	2073685.16	Low	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-3	13845272.13	2073245.35	High	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-4	13845339.94	2073147.87	High	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-5	13844684.80	2072942.81	High	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-6	13844589.73	2073019.88	Moderate	Spring	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-7	13844490.73	2072930.27	Moderate	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
078-8	13844163.94	2072724.71	High	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath

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078-9	13844098.98	2072650.67	Moderate	Sinkhole	Dmn	Millboro Shale and Needmore Formation	Devonian	VA	Bath
082-1	13853727.27	2077958.98	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
082-2	13853864.37	2077902.75	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
082-3	13853898.64	2078013.73	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
082-4	13854014.46	2077929.78	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
082-5	13853959.58	2078115.69	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
082-6	13854050.71	2078046.72	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
082-7	13854207.41	2078169.07	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
083-1	13855308.72	2079065.12	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
083-2	13855710.90	2079384.82	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
084-1	13854808.49	2078777.73	High	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
084-2	13854856.32	2078816.33	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
36-024-1	2029812.67	13859089.75	Low	Spring	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
x001-1	2084513.29	13862790.81	Moderate	Sinkhole	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
C010-13	13898910.79	2003977.05	High	Cave	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-14	13898888.27	2004068.62	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-15	13898860.43	2004089.23	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-16	13898852.87	2004120.74	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-4	13899357.54	2003626.00	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-4	2003618.49	13899321.63	Low	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-7	13899310.40	2003845.48	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-7	2003842.36	13899278.96	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C010-8	13899215.25	2003832.94	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c010-8	2003829.00	13899186.24	Low	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C011-1	13897131.76	2004891.46	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
C011-2	13897075.94	2004996.07	Moderate	Sinkhole	Oun	Juniata, Oswego, Martinsburg (Reedsville and Dolly Ridge), Eggleston Formation	Ordovician	VA	Highland
c011-2	2003975.51	13898883.30	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c011-3	2004065.15	13898859.00	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c011-4	2004087.28	13898829.75	High	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c011-5	2004117.19	13898822.50	Low	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c023-1	2004886.72	13897103.06	Moderate	Sinkhole	Ols	Mocassin Formation, Bays Formation, Unit C, Unit B, Unit A	Ordovician	VA	Highland
c023-2	2004994.03	13897046.91	Moderate	Sinkhole	Oun	Juniata, Oswego, Martinsburg (Reedsville and Dolly Ridge), Eggleston Formation	Ordovician	VA	Highland
A007-1	13693844.82	2288340.43	Moderate	Sinkhole	€ca	Candler Formation - phyllite and schist	Cambrian	VA	Nelson
n02-1	2234690.50	13764468.70	Low	Spring	[Zc	Catoctin Formation - metabasalt	Cambrian - late Proterozoic	VA	Nelson
b075-1	1903452.36	13979369.05	Low	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
b075-2	1904143.90	13979133.03	Low	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
C013-1	13943919.34	1913363.54	High	Spring	Mbf	Bluefield	Mississippian	WV	Pocahontas
C013-2	13943777.89	1913361.34	Moderate	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
C013-3	13943607.90	1913212.70	High	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
C013-4	13943391.91	1913277.76	High	Spring	Mbf	Bluefield	Mississippian	WV	Pocahontas
E023-1	13949522.10	1914060.70	Moderate	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
E023-3	13951110.01	1913547.21	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e023-3	1913544.77	13951078.72	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E023-4	13951666.46	1913271.47	Low	Spring	Mg	Greenbrier	Mississippian	WV	Pocahontas
E023-5	13948608.08	1914688.26	Moderate	Sinkhole	Mh	Hinton	Mississippian	WV	Pocahontas
E023-6	13950502.92	1913761.67	High	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
E023-7	13950761.55	1913707.35	Moderate	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
E023-8	13952498.21	1912987.33	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E028-1	13930375.09	1912262.09	Low	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E028-2	13930173.23	1913156.72	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e028-2	1913151.74	13930140.26	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E028-4	13930800.01	1911727.31	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e028-4	1911727.70	13930767.75	Low	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E028-5	13930947.89	1911571.48	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e028-5	1911575.40	13930921.52	Low	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E028-6	13932330.07	1909475.25	Moderate	Sinkhole	Mh	Hinton	Mississippian	WV	Pocahontas
E030-2	1923219.93	13925799.61	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E030-3	1923232.62	13925760.07	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas

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E030-4	1922746.19	13925725.00	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E030-5	1922662.62	13925773.55	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E030-8	1920453.67	13925475.94	Low	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
E030-9	1919107.75	13925563.62	Low	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
E031-3	13925755.45	1922751.00	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E031-4	13925802.95	1922671.65	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E031-5	13925505.09	1920456.97	High	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
E031-6	13925595.56	1919111.92	High	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
E032-3	13925829.66	1923222.59	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E032-4	13925791.57	1923235.16	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E033-1	13924863.43	1924324.75	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e033-1	1924320.65	13924833.50	Low	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E033-6	13922903.46	1924684.64	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e033-6	1924681.92	13922872.79	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E033-7	13922907.63	1924670.17	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e033-7	1924666.52	13922874.28	High	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
E037-1	13922321.57	1930809.82	Low	Spring	Dhs	Hampshire	Devonian	WV	Pocahontas
E051-1	13916099.18	1954245.57	High	Sinkhole	Dmb	Harrell, Mahantango, Marcellus	Devonian	WV	Pocahontas
E051-2	13915149.63	1955935.64	High	Sinkhole	Dmb	Harrell, Mahantango, Marcellus	Devonian	WV	Pocahontas
E051-3	13914976.60	1956177.85	Low	Sinkhole	Dmb	Harrell, Mahantango, Marcellus	Devonian	WV	Pocahontas
E053-1	13916199.02	1953390.92	High	Sinkhole	Db	Brallier	Devonian	WV	Pocahontas
E053-2	13916165.41	1953504.53	High	Sinkhole	Db	Brallier	Devonian	WV	Pocahontas
E053-3	13916185.17	1954092.48	Moderate	Sinkhole	Dmb	Harrell, Mahantango, Marcellus	Devonian	WV	Pocahontas
E057-3	13912299.09	1961410.70	High	Sinkhole	Smc	McKenzie	Silurian	WV	Pocahontas
E058-2	13911951.00	1961991.18	Moderate	Sinkhole	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
E058-6	13911964.87	1961862.43	High	Sinkhole	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
e086-1	13955449.38	1912356.83	Moderate	Spring	Mg	Greenbrier	Mississippian	WV	Pocahontas
e086-10	13955990.25	1911559.77	Low	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
e086-12	13955097.77	1912148.32	Low	Spring	Mg	Greenbrier	Mississippian	WV	Pocahontas
e086-13	13955644.33	1912806.90	Moderate	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e086-2	13960080.67	1910314.35	High	Sinkhole	Mh	Hinton	Mississippian	WV	Pocahontas
e086-4	13959758.04	1911538.24	Low	Spring	Mbf	Bluefield	Mississippian	WV	Pocahontas
e086-5	13959637.05	1911179.72	Low	Spring	Mbf	Bluefield	Mississippian	WV	Pocahontas
e086-6	13959174.36	1911709.20	Low	Spring	Mbf	Bluefield	Mississippian	WV	Pocahontas
e086-7	13957466.08	1911878.60	Moderate	Sinkhole	Mbf	Bluefield	Mississippian	WV	Pocahontas
e086-8	13956926.94	1911779.35	Low	Sinkhole	Mg	Greenbrier	Mississippian	WV	Pocahontas
e086-9	13957256.51	1912049.66	Moderate	Spring	Mg	Greenbrier	Mississippian	WV	Pocahontas
B025-1	13992495.80	1888025.73	High	Sinkhole	Mh	Hinton	Mississippian	WV	Randolph
b025-1	1888024.21	13992466.10	Moderate	Sinkhole	Mh	Hinton	Mississippian	WV	Randolph
b025-10	1891493.43	13988654.71	Moderate	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
b025-11	1891734.64	13988653.97	Low	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
b025-14	1894214.90	13986637.22	Low	Sinkhole	Mbp	Bluestone, Princeton	Mississippian	WV	Randolph
B025-15	13983062.10	1896952.58	High	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
b025-15	1896950.03	13983030.13	High	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
B025-16	13982921.88	1897235.46	High	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
b025-16	1897237.16	13982888.74	High	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
B025-17	13982736.96	1897056.82	Low	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
B025-18	13982438.46	1898496.09	Moderate	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
b025-18	1898496.76	13982405.25	Low	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
B025-2	13992355.37	1887979.88	High	Spring	Mh	Hinton	Mississippian	WV	Randolph
b025-2	1887975.36	13992325.57	Low	Spring	Mh	Hinton	Mississippian	WV	Randolph
B025-3	13991966.01	1888304.19	Modereate	Spring	Mh	Hinton	Mississippian	WV	Randolph
b025-3	1888302.66	13991934.18	Low	Spring	Mh	Hinton	Mississippian	WV	Randolph
B025-4	13990872.71	1890052.29	Moderate	Sinkhole	Mbp	Bluestone, Princeton	Mississippian	WV	Randolph
b025-4	1890049.19	13990841.77	Low	Sinkhole	Mbp	Bluestone, Princeton	Mississippian	WV	Randolph
b025-5	1891239.60	13989230.63	Moderate	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
b025-7	1891472.00	13988836.57	Low	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph
b025-9	1891427.01	13988694.51	Low	Sinkhole	Pnrr	New River	Pennsylvanian	WV	Randolph

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B074-1	13993694.57	1887981.40	Moderate	Spring	Mh	Hinton	Mississippian	WV	Randolph
b074-1	1887981.70	13993670.39	Low	Spring	Mh	Hinton	Mississippian	WV	Randolph
B074-5	13993039.91	1888033.24	High	Spring	Mh	Hinton	Mississippian	WV	Randolph
b074-5	1888030.37	13993007.72	Low	Spring	Mh	Hinton	Mississippian	WV	Randolph
B075-1	13979401.14	1903455.43	High	Sinkhole	Mbf	Bluefield	Mississippian	WV	Randolph
B075-2	13979164.50	1904146.92	Moderate	Sinkhole	Mbf	Bluefield	Mississippian	WV	Randolph
E023-2	1914056.91	13949492.42	Moderate	Sinkhole	Mh	Hinton	Mississippian	WV	Randolph
E027-1	1909475.13	13932285.83	Moderate	Sinkhole	Mh	Hinton	Mississippian	WV	Randolph
Note: Coordinate System = UTM 17N, US Feet									

APPENDIX D
George Washington National Forest Karst Survey
Summary

Appendix D

KARST SURVEY SUMMARY

George Washington National Forest (GWNF), Virginia

Milepost: 96.8-97.2, 105.8-105.9, 121.1-123.2

Geological Maps - Appendix A: Maps 26, 30, 37

Contour Maps - Appendix B: Maps 68-69, 81-83, 111-112

Terrain and Geology – The proposed Atlantic Coast Pipeline (ACP) intercepts the GWNF in karst terrain at three disconnected areas: from MP121.1 to 123.2 just west of Little North Mountain and north of Jennings' Gap in Augusta County; from MP105.8 to 150.9 in the Back Draft area of northeastern Bath County; and from MP96.8 to 97.2 in the Poplar Hollow area of central Bath County. All three karst areas fall within the Folded Appalachian Section of the Valley and Ridge Physiographic Province of Virginia. The section from MP121.1 to 123.2 is mapped as underlain by undivided Upper Silurian and Lower Devonian Limestone; the sections from MP105.8 to 150.9 and from MP96.8 to 97.2 are mapped underlain by the Lower Devonian and Silurian age Helderberg Group carbonates, and the Silurian age Cayugan Group carbonates. A detailed description of the geological units is presented in the main body of the report.

Data Review – The data review identified 18 features within the GWNF karst areas described above. The features are described in Table 1 - GWNF Data Review Summary. One small cave was identified from the proprietary database of the Virginia Speleological Survey (VSS), named "Deuces Wild" Cave. The cave is 18 feet long, completely explored and not considered significant by the VSS.

Field Survey – 96.8-97.2 has not been surveyed as access permission has not been obtained from the landowners. 105.8-105.9 and 122.8-123.4 have been surveyed. Only one feature was located during the field survey, a sinking stream section identified as E035-1 located downgradient from the proposed centerline. Because of its location and drainage characteristics, the feature is considered to be of moderate risk of impact from construction.

TABLE 1. GWNF Data Review Summary

Feature ID	easting	northing	Map Unit	Geological Formation	Geologic Period	State	County
cCD36	1984847.63	13909681.31	Dch	Chemung Formation	Devonian	VA	Highland
cCD37	1985092.113	13909623.77	Dch	Chemung Formation	Devonian	VA	Highland
cCD38	1985461.236	13909507.32	Dch	Chemung Formation	Devonian	VA	Highland
cCD053	1984742.522	13910850.18	Dch	Chemung Formation	Devonian	VA	Highland
cCD054	1988242.935	13910508.08	Dch	Chemung Formation	Devonian	VA	Highland
cCD056	1994245.964	13912615.94	Dch	Chemung Formation	Devonian	VA	Highland
cCD127	2034371.54	13853376.44	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD128	2034433.374	13852498.87	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD129	2033767.385	13852737.79	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD130	2033725.464	13852782.96	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD132	2034529.918	13852207.98	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD133	2033714.376	13852537.78	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD134	2033598.999	13851379.43	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD03	2034247.143	13857616.03	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD144	2034535.399	13854057.23	Skr	Keefer Sandstone, Rose Hill and Tuscarora Formations	Silurian	VA	Bath
cCD150	2081788.752	13860778.95	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD151	2081799.713	13860706.35	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
cCD152	2081773.74	13860616.51	DSu	Ridgeley Sandstone, Helderber and Cayuga Groups	Lower Devonian - Upper Silurian	VA	Bath
Note: Coordinate System = UTM 17N, US Feet							

APPENDIX E

Monongahela National Forest Karst Survey Summary

Appendix E

KARST SURVEY SUMMARY

Monongahela National Forest (MNF), Pocahontas County, West Virginia

Milepost: 73.1-73.6, 80.7-80.9

Geological Maps - Appendix A: Maps 14-15, 18-19

Contour Maps - Appendix B: Maps 27-28, 36-37

Terrain and Geology Summary – Two areas of karst terrain within the Monongahela National Forest (MNF) are intercepted by the proposed route of the Atlantic Coast Pipeline (ACP): the section from MP80.7 to 80.9 is located along the summit and flanks of Big Ridge, located between Michael Mountain to the west and Allegheny Mountain to the east; and from MP73.1 to 73.6, located on Cloverlick Mountain. Both sections are within the Pocahontas County section of the MNF.

The section from MP80.7 to 80.9 is located within the westernmost section of the Valley and Ridge Physiographic Province of West Virginia. The proposed ACP alignment in this section is mapped as underlain by the Upper Silurian and Lower Devonian age carbonates of the Helderberg Group, and the Silurian age Cayugan Group rocks.

The section from MP73.1 to 73.6 is located within the Allegheny Mountain subsection of the Appalachian Plateau Province. This section of the alignment is mapped as underlain by the Mississippian age rocks of the Bluefield and Hinton Formations of the Mauch Chunk Group. Caves are known to occur within the Reynolds Limestone member of the Bluefield, and the Avis Limestone member of the Hinton.

Data Review – The data review identified 9 features within the MNF karst areas described above. The features are described in Table 1 - MNF Data Review Summary. There were no caves identified within either of the MNF sections.

Field Survey – Both the MP73.1-73.6 and MP80.6-80.8 sections have been surveyed for karst features. Two features were identified within the section from MP80.6 to 80.8, and identified as E058-6 and E057-3, respectively. Both features are small (6 foot diameter) shallow sinkholes, located within 20 feet of the proposed centerline. They both appear to accept surface drainage. Due to their proximity to the proposed centerline, and their drainage characteristics, the two features were designated as being a high risk of impact from construction.

TABLE 1. MNF Data Review Summary

Feature ID	easting	northing	Map Unit	Geological Formation	Geologic Period	State	County
cCD39	1967193.825	13910353.4	Db	Brallier	Devonian	WV	Pocahontas
cCD251	1962065.193	13912143.32	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD244	1961668.962	13911895.64	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD249	1961668.944	13912030.82	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD253	1962261.57	13912114.66	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD250	1961940.927	13912086.25	Stw	Tonoloway, Wills Creek, Williamsport	Silurian	WV	Pocahontas
cCD255	1910376.613	13937342.88	Mbp	Bluestone, Princeton	Mississippian	WV	Pocahontas
cCD257	1961309.958	13912269.13	Smc	McKenzie	Silurian	WV	Pocahontas
cCD258	1915730.241	13927217.36	Mh	Hinton	Mississippian	WV	Pocahontas
Note: Coordinate System = UTM 17N, US Feet							