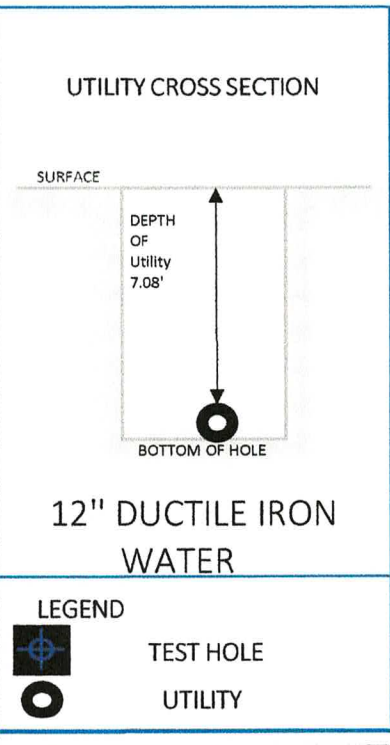
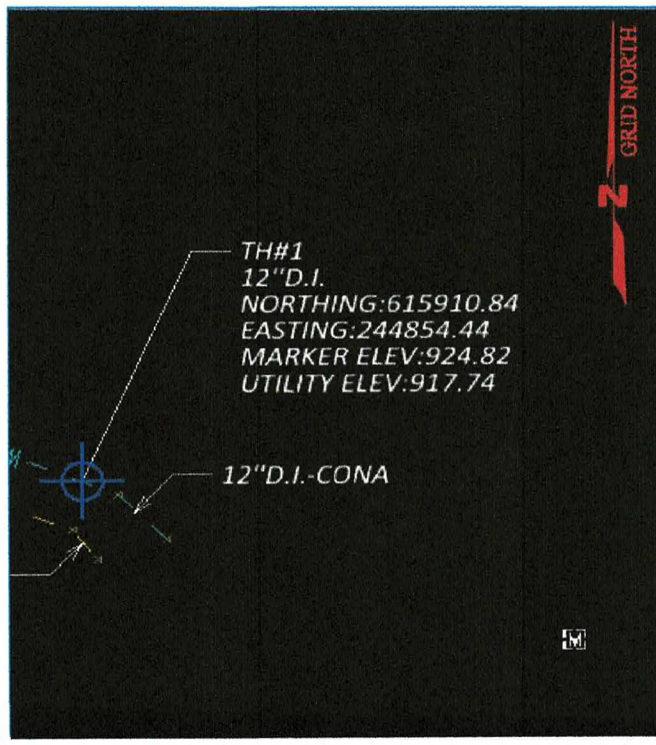




Surveying And Mapping, LLC (SAM)
 12480 DeBartolo Drive, Unit F
 North Jackson, OH 44451
 Office: 330-794-4455

SUE QUALITY LEVEL A
 TEST HOLE #1
 NEW ALBANY, OH
 12" D.I. WATER

Project:	FRA 161 NOISE WALL	Date Performed:	1/11/2024
SAM, LLC Project #	1023078248	Client:	ARCADIS
Project Location:	NEW ALBANY, OHIO 43084	Surface Material & Thickness:	NATURAL GROUND
Utility Location:	SR 161 NEW ALBANY CONDIT ROAD UNDERPASS	Marker Elevation:	924.82
Utility Sta./Offset:	N/A	Surface Condition:	GOOD
Record Utility:	12" DUCTILE IRON WATER	Trench Material:	CLAY
Utility Owner:	CITY OF NEW ALBANY	Utility Bedding Material:	CLAY
Contact:	N/A	Utility Found:	12" DUCTILE IRON WATER
Phone/Email:	N/A	Utility Condition:	GOOD
Field Crew:	TW/VS	Utility Depth:	7.08'
Field Conditions:	CLOUDY/ COLD		



PROJECT CONTROL

Coordinates shown are based on OHDOT LDP, Franklin CO, Grid, derived from GPS observations utilizing the Trimble Network..

EXCAVATION CENTERLINE COORD.

NORTHING 615910.84
 EASTING 244854.44
 TOP ELEV. 917.74

Rhett P. Sloan 5/23/24

Comments

- SAM, LLC laid out this Test Hole by designating the water prior to excavation of the utility.
- Field crew unable to get visual ID on pipe due to large amounts of backfilling water.



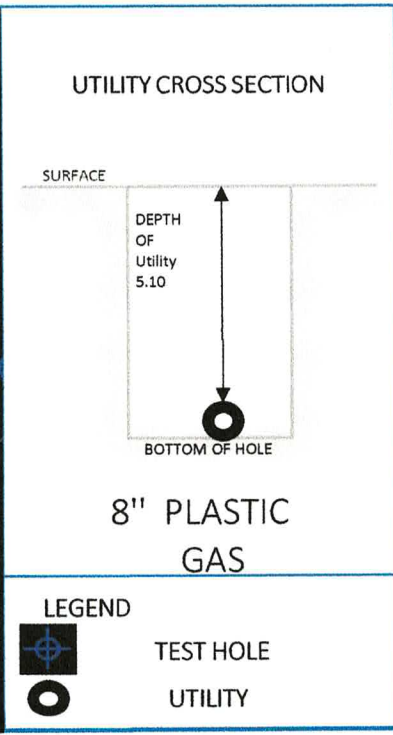
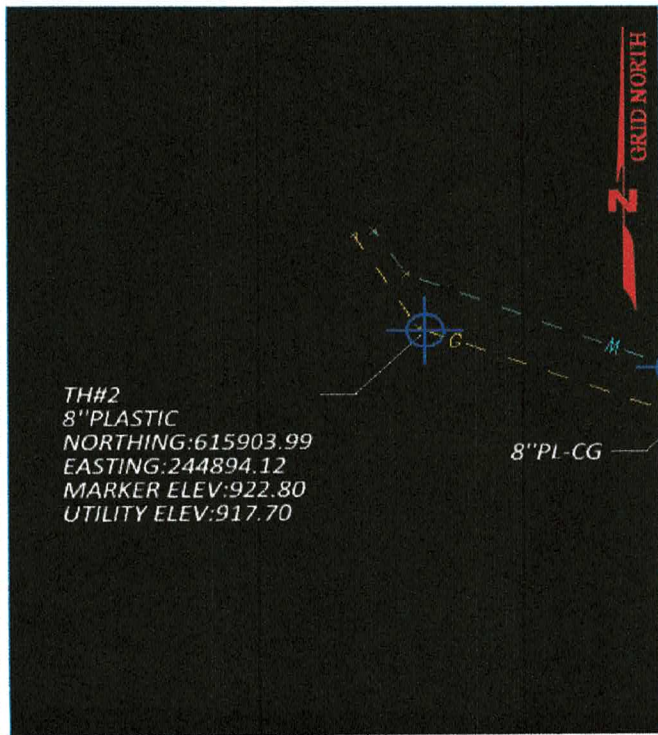
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 12480 DeBartolo Drive, Unit F
 North Jackson, OH 44451
 Office: 330-794-4455

SUE QUALITY LEVEL A
 TEST HOLE #2
 NEW ALBANY, OH
 8" PLASTIC GAS

Project: FRA 161 NOISE WALL Date Performed: 1/11/2024

SAM, LLC Project # 1023078248 Client: ARCADIS

Project Location:	NEW ALBANY, OHIO 43084	Surface Material & Thickness:	NATURAL GROUND
Utility Location:	SR 161 NEW ALBANY CONDUIT ROAD UNDERPASS	Surface Elevation:	922.80
Utility Sta./Offset:	N/A	Surface Condition:	GOOD
Record Utility:	8" PLASTIC GAS	Trench Material:	CLAY
Utility Owner:	COLUMBIA GAS	Utility Bedding Material:	CLAY
Contact:	N/A	Utility Found:	8" PLASTIC GAS
Phone/Email:	N/A	Utility Condition:	GOOD
Field Crew:	TW/VB	Utility Depth:	5.10'
Field Conditions:	CLOUDY/ COLD		



PROJECT CONTROL

Coordinates shown are based on OHDOT LDP, Franklin CO, Grid, derived from GPS observations utilizing the Trimble Network.

EXCAVATION CENTERLINE COORD.

NORTHING 615903.99
 EASTING 244894.12
 TOP ELEV. 917.70

STATE OF OHIO
 RHETT P. SLOAN
 8812
 REGISTERED PROFESSIONAL SURVEYOR

Rhett Sloan 5/23/24

Comments

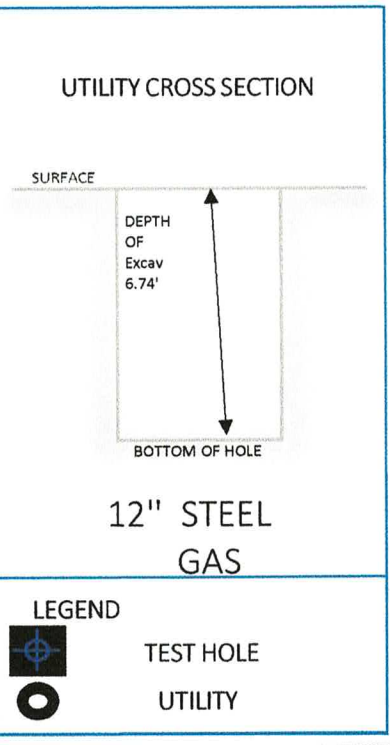
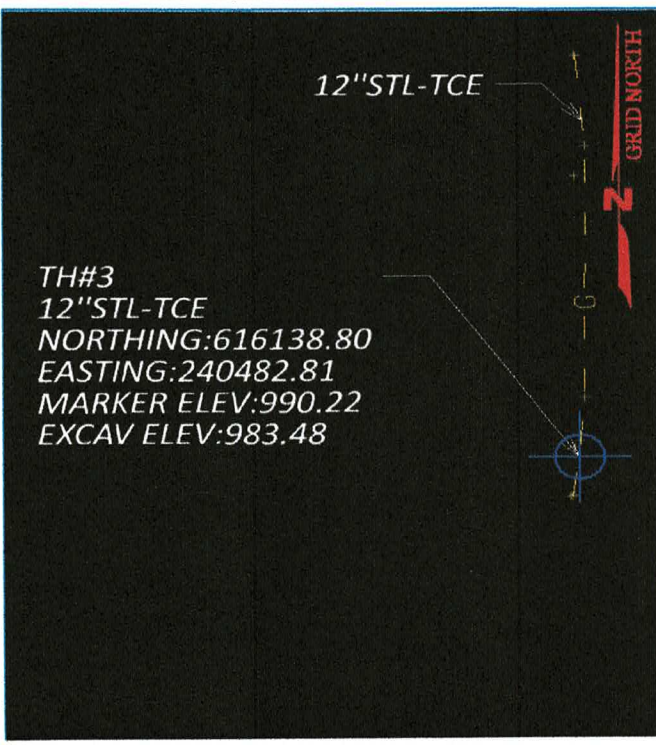
1. SAM, LLC laid out this Test Hole by designating the gas prior to excavation of the utility.
2. Field crew unable to get visual ID on pipe due to large amounts of backfilling water.



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 12480 DeBartolo Drive, Unit F
 North Jackson, OH 44451
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**SUE QUALITY LEVEL A
 TEST HOLE #3
 NEW ALBANY, OH
 12" STEEL GAS**

Project:	FRA 161 NOISE WALL	Date Performed:	1/19/2024
SAM, LLC Project #	1023078248	Client:	ARCADIS
Project Location:	NEW ALBANY, OHIO 43084	Surface Material & Thickness:	NATURAL GROUND
Utility Location:	SR 161 NEW ALBANY RD EXIT RAMP	Surface Elevation:	990.22
Utility Sta./Offset:	N/A	Surface Condition:	POOR
Record Utility:	12" STEEL GAS	Trench Material:	CLAY
Utility Owner:	TC ENERGY	Utility Bedding Material:	UNK
Contact:	N/A	Utility Found:	N/A
Phone/Email:	N/A	Utility Condition:	UNK
Field Crew:	RA/JP	Excav Depth:	6.74'
Field Conditions:	CLOUDY/ COLD		



PROJECT CONTROL

Coordinates shown are based on OHDOT LDP, Franklin CO, Grid, derived from GPS observations utilizing the Trimble Network.

EXCAVATION CENTERLINE COORD.

NORTHING	616138.80
EASTING	240482.81
EXCAV ELEV.	983.48

Comments

1. SAM, LLC laid out this Test Hole by designating the gas prior to excavation of the utility.
 2. Dug to a depth of 6.74' was unable to continue due to ground conditions. The crew encountered a rock shelf while performing vacu excavation. SAM field staff spoke with Christian Grillo and were advised to not use the jack hammer to penetrate the rock to expose the pipeline. SAM field staff made additional efforts to locate the gas line north of the off ramp and surveyed the 2 other locations where vacu excavation took place by others. This confirmed the horizontal alignment for the pipeline and provided electronic depths that coincide with information from TC Energy stating "The south side of 161 this line is approx. 12' to top of pipe and on the North side of 161 the line is approx. 15'6" to Top of pipe"



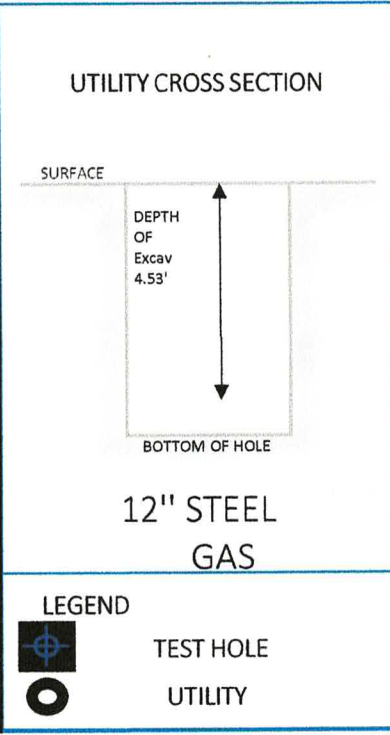
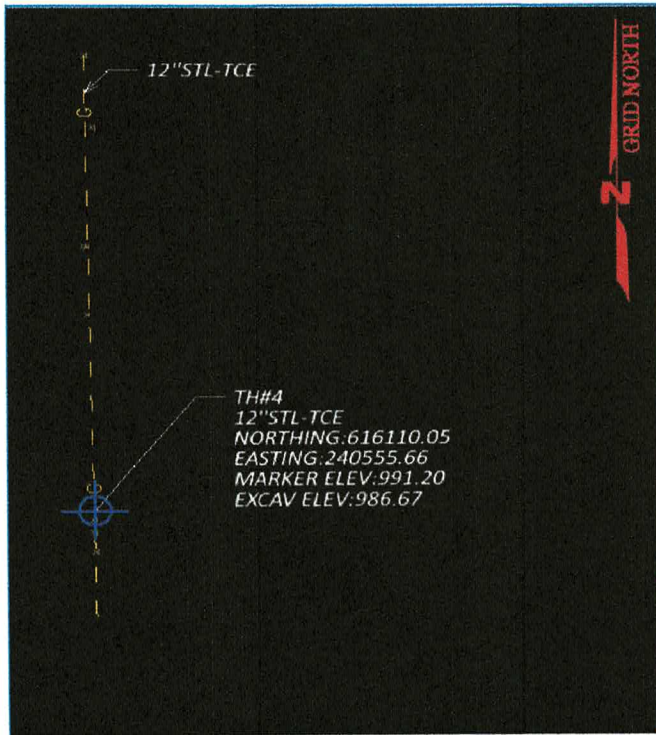
Surveying And Mapping, LLC (SAM)
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 North Jackson, OH 44451
 Office: 330-794-4455

SUE QUALITY LEVEL A
 TEST HOLE #4
 NEW ALBANY, OH
 12" STEEL GAS

Project: FRA 161 NOISE WALL Date Performed: 1/19/2024

SAM, LLC Project # 1023078248 Client: ARCADIS

Project Location:	NEW ALBANY, OHIO 43084	Surface Material & Thickness:	NATURAL GROUND
Utility Location:	SR 161 NEW ALBANY ROAD EXIT	Surface Elevation:	991.20
Utility Sta./Offset:	N/A	Surface Condition:	POOR
Record Utility:	12" STEEL GAS	Trench Material:	CLAY
Utility Owner:	TC ENERGY	Utility Bedding Material:	UNK
Contact:	N/A	Utility Found:	N/A
Phone/Email:	N/A	Utility Condition:	UNK
Field Crew:	TW/VB	Excav Depth:	DUG:4.53 PROBE:6.33
Field Conditions:	CLOUDY/ COLD		



LEGEND
 TEST HOLE
 UTILITY

PROJECT CONTROL

Coordinates shown are based on OHDOT LDP, Franklin CO, Grid, derived from GPS observations utilizing the Trimble Network.

EXCAVATION CENTERLINE COORD.

NORTHING 616110.05
 EASTING 240555.66
 TOP ELEV. 986.67



Rhett Sloan 5/23/24

Comments

1. SAM, LLC laid out this Test Hole by designating the gas prior to excavation of the utility.
2. Dug to a depth of 4.53' probe to 6.33' was unable to continue due to ground conditions and obstructions. The crew encountered a rock shelf while performing vaccum excavation. SAM field staff spoke with Christian Grillo and were advised to not use the jack hammer to penetrate the rock to expose the pipeline. SAM field staff made additional efforts to locate the gas line north of the off ramp and surveyed the 2 other locations where vaccum excavation took place by others. This confirmed the horizontal alignment for the pipeline and provided electronic depths that coincide with information from TC Energy stating "The south side of 161 this line is approx. 12' to top of pipe and on the North side of 161 the line is approx. 15'6" to Top of pipe"

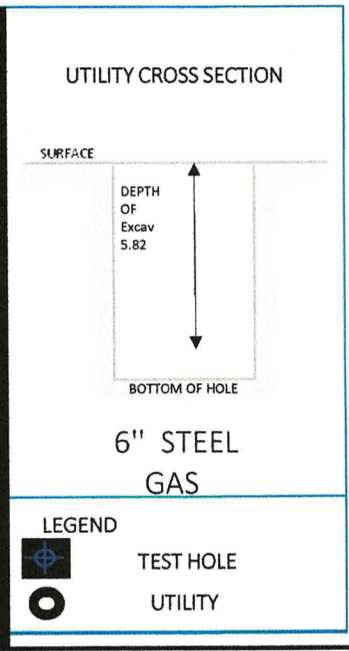
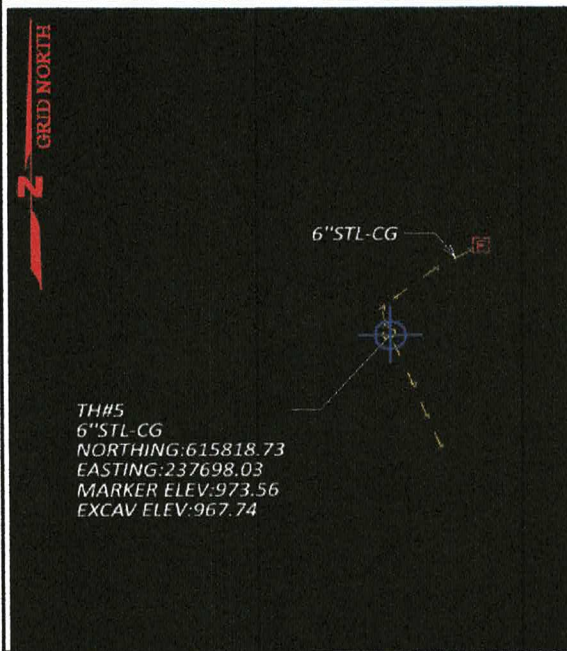


Surveying And Mapping, LLC (SAM)
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SUE QUALITY LEVEL A
 TEST HOLE #5
 NEW ALBANY, OH
 6" STEEL GAS

Project:	FRA 161 NOISE WALL	Date Performed:	1/19/2024
SAM, LLC Project #	1023078248	Client:	ARCADIS

Project Location:	NEW ALBANY, OHIO 43084	Surface Material & Thickness:	NATURAL GROUND
Utility Location:	SR 161 NEW ALBANY CONDIT ROAD UNDERPASS	Surface Elevation:	973.56
Utility Sta./Offset:	N/A	Surface Condition:	POOR
Record Utility:	6" STEELGAS	Trench Material:	CLAY
Utility Owner:	COLUMBIA GAS	Utility Bedding Material:	UNK
Contact:	N/A	Utility Found:	N/A
Phone/Email:	N/A	Utility Condition:	UNK
Field Crew:	TW/VS	Excav Depth:	DUG:5.82 PROBE:7.86
Field Conditions:	CLOUDY/ COLD		



PROJECT CONTROL

Coordinates shown are based on OHDOT LDP, Franklin CO, Grid, derived from GPS observations utilizing the Trimble Network.

EXCAVATION CENTERLINE COORD.

NORTHING 615818.73
 EASTING 237698.03
 TOP ELEV. 967.74

Rhett P. Sloan 5/23/24

Comments

1. SAM, LLC laid out this Test Hole by designating the gas prior to excavation of the utility.

2. Dug to a depth of 5.82' and probed to 7.86' was unable to continue due to ground conditions and obstructions. No pipeline was exposed. This test hole was on a NiSource/Columbia Gas line on the north side of FRA 161 and was difficult to detect directly under FRA 161 and was only detected on the slopes of either side of the highway. Per a Teams call with Arcadis/SAM/Columbia there is only one gas line crossing just west of Harlem Road.

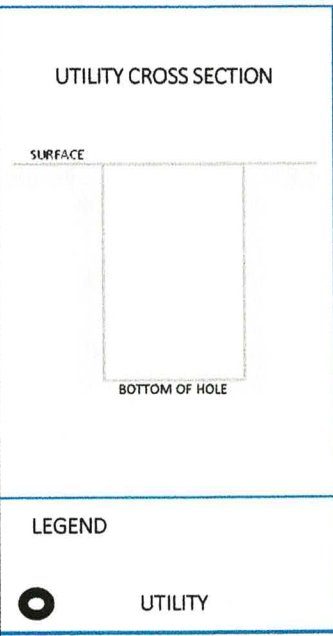
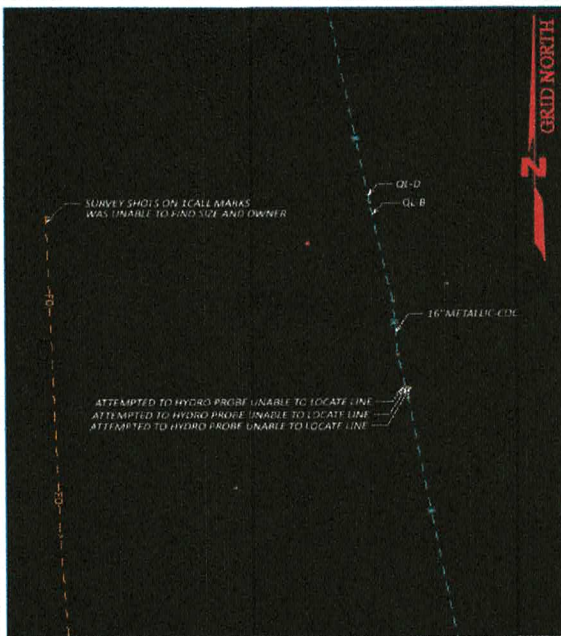


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 North Jackson, OH 44451
 Office: 330-794-4455

SUE QUALITY LEVEL A
 HARLEM RD WATER
 NEW ALBANY, OH
 16" METALLIC WATER

Project: FRA 161 NOISE WALL **Date Performed:** 4/12/2024
SAM, LLC Project # 1023078248 **Client:** ARCADIS

Project Location:	NEW ALBANY, OHIO 43084	Surface Material & Thickness:	NATURAL GROUND
Utility Location:	SR 161/HARLEM RD UNDERPASS	Surface Elevation:	975.41
Utility Sta./Offset:	N/A	Surface Condition:	POOR
Record Utility:	16" METALLIC WATER	Trench Material:	CLAY
Utility Owner:	CITY OF COLUMBUS	Utility Bedding Material:	UNK
Contact:	N/A	Utility Found:	N/A
Phone/Email:	N/A	Utility Condition:	UNK
Field Crew:	TW/VS	Excav Depth:	PROBE



PROJECT CONTROL

Coordinates shown are based on OHDOT LDP, Franklin CO, Grid, derived from GPS observations utilizing the Trimble Network.

EXCAVATION CENTERLINE COORD.

NORTHING 615909.36
EASTING 237875.48
TOP ELEV.

Comments

We made an attempt on the water line but encountered a few issues. We gathered as much data as we could to help build a narrative for you to try to move forward with the design/construction. Tom Turner was on site with us and provided information as to how the water mark got where it is. Tom stated

1. The water is 73' feet from the CL of Harlem Rd.
2. It is estimated at 15' in depth near the fence line
3. The water is under the 54" CMP storm drain that crosses the area

Our equipment could not detect the water line with accuracy where Tom had it marked by the ROW fence, but north of the ROW we could detect it. We feel comfortable saying the horizontal alignment is "close" but not to the level as we did at the ramp or the other utilities. We have a signal at the blow off valve back away from 161 but the signal dies there. We took a depth measurement at the valve but hit an obstruction at 6'. Due to the "weak" signal we had with our pipe and cable locator and some GPR data we have depicted the location in the SUE base map.

We did attempt to dig and hydro probe on the one-call marks but encountered lots of roots and then rock below that at 3' at the preferred location and along the line in other locations. We depicted some of the probing locations for reference. Being that there is minimal hope for finding this line with out some major additional efforts, and being that there is an engineered drawing, I would advise to use the water record to build the vertical profile into your design for this area. I know all of this is not ideal, but we put a lot of effort into just getting this far.