STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Investigation pursuant to 30 V.S.A. §§ 30 and 209 regarding the alleged failure of Vermont Gas Systems, Inc. to comply with the certificate of public good in Docket 7970 by burying the pipeline at less than required depth in New Haven, Vermont	)	Case No. 17-3550-INV

Affidavit and Certification of John St. Hilaire

I, John St. Hilaire, being duly sworn, hereby depose and state as follows:

1. I am employed by Vermont Gas Systems, Inc. ("VGS") as Vice President of Operations and I have held that position since 2015. I have been employed by VGS for 26 years in positions of increasing authority including Manager Gas Supply/Control and Director, Operations Services, Gas Supply and Gas control. I have an Associate in Science Degree in Mechanical Engineering Technology from Vermont Technical College (1989), a B.S. in Business Management from Champlain College (1999), an M.S. in Administration from St. Michaels College (2005) and a B.S. in Accounting from Champlain College (2010). I have personal knowledge of the information submitted in this affidavit, except where noted to be on information and belief.

2. The Addison Natural Gas Project ("ANGP" or "Project") route commences at the pre-existing transmission line at Severance Road in Colchester and extends to Route 7 in Middlebury traversing through portions of the towns of Essex, Williston, St. George, Hinesburg, Monkton and New Haven. The Public Utility Commission approved the Certificate of Public Good for the Project on December 23, 2013. *Petition of Vermont Gas Systems, Inc., for a certificate of public, pursuant to 30 V.S.A. § 248, authorizing the construction of the "Addison*

Natural Gas Pipeline," Docket 7970 (Vt. Pub. Util. Comm., Dec. 23, 2013) Final Order (hereafter "2013 Final Order").

Depth of Cover Survey Information for Project

3. I am personally familiar with the 2013 Final Order in Docket 7970 (Vt. Pub. Util. Comm., Dec. 23, 2013), the plans and evidence submitted in Docket 7970, and the permits and other agreements that contain requirements for the construction of the Project (collectively all referred to as "Project Documents").

4. VGS engaged the engineering firm of Clough, Harbour & Associates ("CHA") to provide survey services, including staking out right-of-way and the pipeline centerline, and taking top of pipe readings at the time of installation and depth of cover readings after final grade was achieved by the pipeline contractor. VGS also engaged CHA to provide as-built drawings, which CHA has not yet completed.

5. Based on the depth of cover information from CHA and that gathered by VGS employed surveyors, more than 95% of the ANGP pipeline was installed to a depth of at least 4 feet.

6. The entire ANGP pipeline was installed at least 36 inches underground at every one of the more than 4500 welds along its 41 mile length.

7. Based on the CHA survey data and that gathered by VGS employed surveyors, VGS has prepared a Depth Table that provides information about the depth of cover at each of over 4,500 locations. The Depth Table is attached here as **Exhibit 1.**

8. VGS' survey engineers confirmed installed depth of cover at approximately 4500 welds and inflection points along the length of the pipeline (approximately 4050 through survey

measurement of welds and 450 from Horizontal Directional Drilling ("HDD") reports and pipe locators).

9. The several portions of ANGP within an HDD or other drilled section were not measured at every weld. With respect to the HDDs, compliance is described in the notes section of the Depth Table, which specifically references the drill profile and describes our method for determining the shallowest depth of cover. For the road bores not involving HDD, compliance is described in the notes section of the Depth Table, which specifically references the depth identified using the pipe locator.

10. The Commission's summary of the Project's construction made this finding expressly related to depth of cover:

> e. Pipe lengths will be welded together, inspected, laid in the trench and warning tape will be laid over the line, and then the trench will be backfilled. The pipe will be covered by at least 36 inches of soil. The pipeline will have four feet of cover in agricultural areas and within the VELCO ROW, generally five feet of cover at road crossings, and seven feet of cover at open cut streams.

2013 Final Order at 40, Finding 62(e).

11. The PUC ordered VGS to comply with the terms of all state and federal agency permits and all separate landowner and other agreements, some of which contained specific depth of cover requirements. 2013 Final Order, at 11.

12. These specific permits and agreements include the Department of Environmental Conservation stream alteration permit and water quality permit, VTrans ROW permits, railroad licenses, Army Corp of Engineer permits, the VELCO MOA, and landowner agreements. VGS entered into agreements with more than 30 landowners along the route that specified depth of cover requirements. These requirements were at 3 or 4 feet, except one (Hurlburt) that required 5 feet; none set forth any deeper standard.

13. As outlined in VGS' August 4 filing, there is no requirement in the 2013 Final Order regarding depth of cover for "residential areas."

14. The attached Depth Table lists the type of regulation, permit or agreement that requires the deepest installed cover applicable to every measured location, and what that requirement is, except where that standard is tied to "as built" depths, which are described in the notes section. Notes in the Depth Table provide detail where needed on permit changes or amendments, and on other information specific to a particular measured location. For example, the depth required by VTrans per its permit varied by location. There are five locations in the VTrans right-of-way that VTrans has preliminarily indicated are acceptable at the installed depth, but which are subject to final inspection by VTrans once it has the "as-built" drawings from VGS. There are also individual location notations for a spot where a landowner put in a drainage swale over the pipeline between the time of installation and final measurement (and we have agreed that VGS will come onsite to restore this spot).

15. Also based upon these survey data and measurements, VGS has prepared maps for each town through which the ANGP passes. These maps illustrate the surveyed depths of cover over the pipeline, along with showing the depth of cover that VGS' contractors used to guide the pipeline construction. The maps are attached to this affidavit as **Exhibits 2 through 15**.

16. I am personally familiar with and knowledgeable about the information in Exhibits 1 through 15 because I worked closely with CHA and VGS personnel to compile the measurement data into Exhibit 1 and to prepare the maps attached as Exhibits 2 through 15.

17. The attached Depth Table and maps show that based on survey data, the pipeline's installed depth of cover complies with applicable regulations, permits and agreements, with the exception of the 18 locations in the Clay Plains Swamp.

18. On behalf of VGS, I certify that, other than the 18 welds in the Clay Plains Swamp, based on the information compiled by the CHA and VGS survey teams as shown in the Depth Table attached here as Exhibit 1, the pipeline's installed depth complies with the Project's permits, agreements, and the 2013 Final Order.

ANGP Project Background

19. VGS engaged Over & Under and later Michels Corporation ("Michels") for the Project to perform pipeline construction and related activities including clearing/grading, ditching, stringing (transporting and placing pipe along the right-of-way), bending, welding, coating, lowering-in, backfill, testing, clean up, and restoration.

20. Vermont Gas contracted with Michels to undertake mainline construction in 2015 and 2016, including approximately 30 miles of the ANGP in 2016. As the contractor, Michels was responsible for construction means and methods.

21. As noted above, VGS engaged the engineering firm of CHA to provide survey services, including staking out right-of-way and the pipeline centerline, taking top of pipe readings at the time of installation and depth of cover readings after final grade was achieved by the pipeline contractor, and providing as-built services.

22. VGS engaged Hatch Mott McDonald ("HMM") in 2016 to provide construction inspection services including providing inspection of the construction management and all construction, welding, and coating inspectors. Previously, McDaniel Technical Services, Inc.

provided inspection services in 2015, and AK Environmental, LLC, provided construction inspection services in 2014.

23. VGS engaged PWC to provide construction management services.

24. In addition, VGS had a management team of VGS employees, who, together with PWC personnel, oversaw construction of the Project, providing, among other things, engineering support and project management services.

25. Throughout the construction of this pipeline, VGS worked with the Department of Public Service ("Department"), through both its gas engineer G.C. Morris and John MacCauley, its outside expert hired to help with field oversight for Project.

26. VGS had weekly meetings during the construction with the Department to address any concerns that arose, and the Department's representatives were on-site frequently during installation. VGS continues to have weekly meetings with the Department to review and close out remaining details on the Project.

27. The Project, which consists of 41 miles of pipeline, is connected by over 4,500 welds and buried beneath the ground either through open trenching or Horizontal Directional Drilling ("HDD").

28. As constructed, the pipeline passes through a portion of New Haven that is identified in the ANR MOU as the Red/Silver Maple Green Ash Swamp. This area is also called the Clay Plains Swamp and will be referred to as such in this Affidavit.

29. The pipeline contractors and CHA knew the required depth of cover for a particular area based on the documents provided to them by VGS at the time of construction, including the 2013 Final Order, and related materials submitted to the PUC in Docket 7970, the collateral permits related to the ANGP, and construction level plans.

30. Michels began construction work for the season on approximately May 23, 2016 and completed construction activities on December 12, 2016. During construction, Michels met with VGS personnel frequently, including weekly construction management meetings to discuss the current status of pipeline construction and plans for upcoming work.

The Process for Determining Depth of Cover Along the Pipeline

31. During the construction process for the ANGP, depth of cover verification involved the following four step process for open cut installations:

a. Sections of the pipeline were prepared for installation and "cribbed" or placed in a "staging trench" to protect it while the trench was prepared. Pipelines are typically staged on wood cribbing along a trench line until they are ready to be lowered into the final trench. In wet swamp conditions, where the soil does not support the pipeline on wood cribbing, the pipe is put in a shallow "staging trench" until the contractor is ready to move forward with installing the pipe by digging along each side to remove muddy soil and slowly lower the pipe. To do this, the contractor digs a small trench, not much larger than the pipe, to stage the pipe until the trenching and installation can occur. Once the pipeline contractor has completed welding, coating, x-ray, trenching, and lowered the pipe into the trench, CHA was called in to take an electronic measurement of "elevation" at the top of each weld. The elevation measurement records an X, Y, Z coordinate. This gave a longitudinal and latitudinal measurement for each weld.

b. The pipeline contractor then backfilled and restored the site including replacing topsoil and contouring to return the site as close to its original condition as practicable. Once this step was complete, CHA returned to the location and took a second elevation recording at the top of cover and a new X, Y, Z coordinate. Collecting the data took several weeks.

c. CHA then compiled its survey data and compared the initial top of weld elevations with the post installation top of cover elevation measurements to calculate depth of the pipe.

d. After performing its data compilation, CHA then provided VGS with a list of welds where the expected depth of cover may not have been achieved. VGS then did further surveys at locations provided by CHA to again measure depth of cover.

32. In general, if a calculation confirmed a weld was not at required depth of cover, VGS worked with Michels to remediate the depth of cover at these locations.

33. After remediation, CHA or VGS personnel performed additional survey work to confirm that the required depth of cover had been met through the remediation efforts.

The Installation of the Pipeline in the Clay Plains Swamp

34. The VELCO MOA provides: "VGS will design the Project in VELCO's ROW and access roads into VELCO's ROW to meet an HS-20+15% standard which VGS plans to meet by using Class 3 pipe interred at a depth of 4 feet." VELCO MOA, at 3, attached here as **Exhibit 16**.

35. Consistent with VGS' plan to meet the VELCO loading standard as set forth in the VELCO MOA, the construction specifications provided to Michels called for a 4-foot depth of cover in this area.

36. I am informed that the pipe was staged in the Clay Plains Swamp in early September and installed on September 15, 16, 19 and 20, 2016. It took four days to install approximately 2,500 feet of pipeline due to the wet conditions. Based on the pace of work in other locations, I would have expected it to take around two days to install this amount of pipe.

37. There is very limited public access in the area of the Clay Plains Swamp where the pipe was installed. There is no road or trail meant for a vehicle. For practical purposes, the only expected loading in this area would be by VELCO to access its own facilities, though the loading standard would protect the pipeline from public uses as well.

38. I oversaw the completion of the Root Cause Analysis of the Clay Plains depth of cover matter requested by the Commission, which is attached here as **Exhibit 17**. I believe the following facts in Paragraphs 39-62 reflected in that Root Cause analysis to be true based upon the work done to create it.

39. Given the wet soil conditions in this location, Michels began its work by constructing a mat road to access and install the pipeline, using 8 foot wooden mats. In the Clay Plains Swamp area, the ROW and work space was narrow, compared to other areas of the ANGP. Michels used a staging trench as the field team prepared for actual trenching and pipe lowering at a later date.

40. On September 15, Michels began the process of excavating to lower the pipe and was unable to achieve depth within the planned working hours.

41. On September 16, Michels continued efforts to lower the pipe, using wider wooden mats placed along the wall of the dug trench along with multiple excavators to help hold wet soil and aid in lowering the pipe. The work proceeded slowly, extending into the following work week on September 19 and 20. Michels reported progress, but told VGS representatives that great care had to be taken to protect equipment and workers using the wooden mats for stability. Michels reported that at one point, a piece of equipment exiting the site slipped off its mat and became stuck temporarily in mud.

42. VGS personnel directed its inspection contractor, HMM, to inform Michels to continue using its best efforts to get the pipe buried to the planned depth of four feet.

43. On September 19, VGS informed VELCO of the challenges Michels was experiencing installing the pipeline within the Clay Plains Swamp ROW. Concerned that Michels may not achieve the planned 4-foot depth specified, VGS discussed with VELCO whether its loading standards could be achieved with a shallower burial at this location. On September 20, VGS shared with VELCO an engineering analysis performed in May 2016 that showed VELCO's loading standard would be met with depths at 3 feet. See September 20 email from John St. Hilaire to Peter Lind at VELCO, with Mr. Lind's response, attached hereto at

Exhibit 18 (the attachment to this email is the May 25 Mott McDonald engineering analysis of the loading standard VGS provided to VELCO). VGS also informed VELCO that its contractor would continue to work to reach a 4-foot depth and complete installation in this area.

44. Following the protocol for the pipeline installed though open trenching, during initial installation VGS' survey contractor CHA took a measurement at the top of the pipe at each weld in the Clay Plains Swamp, so that final interred depth could be determined after fill, contouring and clean-up. Actual depth of cover cannot be determined until after these steps occur and cover is placed on the pipe.

45. On September 20, Michels completed installation in this section of the VELCO ROW and discontinued trenching activities.

46. On September 21, VELCO told VGS that it agreed that its loading standard could be met at a shallower depth than 4 feet, so long as other protective measures were put in place, such as additional markers, and the companies memorialized in writing any modified methods employed. See Exhibit 18.

47. After the installation, Michels spent approximately 8 days on clean-up and final grade in the Clay Plains Swamp. Based on the pace of work in other locations, I would have expected it to take about 3 days for these activities in typical open field conditions.

48. Due to the wet, muddy soil, CHA was unable to reenter the Clay Plains Swamp until November 4 and 6 to take final grade depth of cover measurements.

49. On November 9, 2016, CHA reported to VGS that, for the 2016 season, 290 welds may not have been installed to depth, including 18 in Clay Plains Swamp. All other measurements in the Clay Plains Swamp met the 4-foot specification.

50. On November 11, 2016, VGS informed Michels of the depth deficiencies for the 2016 season identified by the surveyor, and Michels worked to remediate these locations.

51. By December 12, 2016, Michels had remediated the depth of cover issues except the 18 locations in the Clay Plains Swamp. The remediation work typically involves adding more cover and further contouring the soil surface.

52. Michels informed VGS during this remediation work that the Clay Plains Swamp locations could not be successfully remediated through adding cover and further contouring due to the environmentally-sensitive area. As well, Michels communicated to VGS that it lacked confidence that a second attempt at burying the pipe would be any more successful in terms of getting the pipe to four feet throughout the Clay Plains Swamp.

53. Given the challenges faced by VGS' contractors when installing the pipeline within the Clay Plains Swamp, VGS believes that any attempts to rebury the pipeline at these locations would cause greater environmental harm than leaving the pipeline where it is.

54. The 18 locations in the Clay Plains Swamp had an installed depth of between 3.0 and 3.8. At these depths, the VELCO MOA loading standard is still met according to the engineering analysis VGS obtained.

55. The 18 locations in the Clay Plains Swamp were installed at a safe depth because they are at least as deep as the federal depth requirement adopted by the PUC, and meet the VELCO loading standard. VGS also implemented additional protective measures requested by VELCO, as described below.

56. Given the practical challenges of working in the Swamp and the environmental concerns, VGS management determined that it would pursue leaving the pipeline interred at

installed depth at those locations since VELCO loading standards were achieved at those depths, and would seek party and regulatory approval for that plan.

57. During remediation work in mid-November, 2016, VGS informed VELCO that certain locations within the Clay Plains Swamp did not meet 4-foot planned installation depth according to survey measurements.

58. On December 1, 2016, I updated the Department's gas engineer regarding its depth of cover survey results and remediation, including the locations in the Clay Plains Swamp.

59. During the week of December 28, I discussed the "leave in place" option with the Department's public advocacy staff.

60. On January 3, 2017, I spoke in detail with the Department engineer regarding the 18 locations in the Clay Plains Swamp, the work involved in installing the pipeline, and the decision to pursue leaving the pipeline as is with Department support if VELCO agreed.

61. From January through April 25, 2017, VGS worked with VELCO to determine whether VELCO, consistent with its initial September review of the issue, would agree to leave the pipe as installed given satisfaction of the loading standard. On April 25, 2017, VELCO provided its letter of approval to VGS to leave the pipe in place with additional conditions. See VELCO April 25, 2017 Letter, attached here **Exhibit 19** (also provided with VGS' June 2 NSC request).

62. This letter and the engineering analysis performed in May 2016 that showed VELCO's loading standard would be met with depths at 3 feet was provided to the Department on April 26, 2017 for review by the Department gas engineer and Dave Berger, the Department independent engineering consultant.

Safety Measurement Implemented By VGS

63. VGS has implemented numerous "layers of protection," to maintain the integrity of the pipeline in addition to burying it at a certain depth. Together, these measures are all aimed at protecting the buried pipe and include: 1) placement of pipeline markers, 2) implementation of a damage prevention program, 3) use of the One-Call System – federal law requiring use of 811, 4) patrolling the pipeline, 5) performing leak surveys, 6) utilizing the company's public awareness programs, 7) odorization of the gas, 8) observation of excavations, and 9) requirements for soft excavation techniques in tolerance zones, meaning use of hand shoveling close to pipe.

64. The PUC's 2013 Final Order specifically requires ongoing monitoring and remediation:

> 273. VGS will also develop and implement a plan to monitor for and mitigate occurrence of unstable soil and ground movement and if observed conditions indicate the possible loss of cover, perform a depth of cover study, and replace cover as necessary to restore the depth of cover or apply alternative means to provide protection equivalent to the originally required depth of cover for both transmission and distribution pipes. Berger reb. pf. at 9.

65. VGS' ongoing Transmission Maintenance Plan fulfills this requirement.

66. As I described above, VGS also has kept the Department involved in its progress on the Project during construction and to date.

67. Department compliance personnel were present regularly on site during construction of the ANGP, for the purpose of monitoring pipeline safety compliance. In addition, the Department's gas engineer conducted weekly meetings with VGS project team members to review, discuss and assess pipeline construction safety and compliance. Those meetings still occur, as VGS closes out remaining items with the Department.

Project Opponents' Two Claims Regarding Depth Of Cover

68. The picture attached to the Project Opponent's June 23 filing, submitted by Lawrence Shelton, shows the pipeline during an interim point of construction, in a staging trench where it would be lowered and installed at a later date. Mr. Shelton has also sent this photo to PHMSA. PHMSA has not yet closed its review, but as VGS has noted, all locations along the pipeline were installed deeper than the 3-foot depth of cover required by federal regulations.

69. Based on its review of the photo and description of it being taken just south of the Hurlburt property, it appears the photo was taken in the VELCO ROW within Clay Plains Swamp.

70. I cannot say specifically which section of the Clay Plains Swamp pipeline is shown in Mr. Shelton's photo, but based on survey data, VGS has information that all of the pipeline in the Clay Plains Swamp was installed between 3 and 4 feet, not at 18 inches as suggested by Mr. Shelton's photo.

71. Project Opponents' comments also claim that G.C. Morris, the Department's gas engineer, informed Mr. Shelton that VGS made the pipeline deeper at this location by pushing a backhoe down directly on the pipe or the ground above it. I can say unequivocally that the method described was not utilized here (or elsewhere – it is not a method of pipe installation). It is possible that what was described was instead the common industry installation method described above for swampy areas that was in fact used in this location – to stage the pipe in a shallow trench and then dig through the muddy soil on each side next to the pipe, creating a deeper trench as the digging continues and thereby lowering the staged pipe as mud beneath it subsides into the void created by the trenching.

72. Regarding the photograph claiming to depict a crossing on the Sucker Brook in Williston covered by the DEC's Stream Alteration Permit, the Project Opponents reference a VELCO inspector field note on August 29, 2016 that the pipe is not to required depth at a stream in Williston. The note itself suggests additional work in the rock is needed to achieve depth.

73. The installation of this crossing was not completed on August 29. The contractors were able to install the pipe under the Sucker Brook to a depth in excess of 7 feet. See Attachment 1 (ANGP Stream Depth Table) to my August 4, 2017 Affidavit submitted in this matter.

Root Cause Analyses

74. Attached to this Affidavit are Root Cause Analyses for: a) the Clay Plains Swamp depth of cover matter; b) the 2016 Harsh Sunflower incident that was the subject of Docket 8791; c) and the induced voltage protections subject to a Notice of Potential Violation and settlement in Docket 8814, which are labeled **Exhibits 17, 20, and 21**, respectively

75. I oversaw the preparation of these documents for VGS and am familiar with their content, including the information regarding contractor work onsite which I believe to be true.

76. These Root Cause Analyses demonstrate that VGS' project management has been proactive and effective in addressing compliance issues that have arisen in this large and complex Project.

Dated at Burlington, Vermont this 11 day of August, 2017.

John St. Hilaire

Subscribed and sworn to before me this 11 day of August, 2017.

Notary Public
My commission expires: 2/10/19

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 0	4.3	3.0	PHMSA		Colchester
Location 1	3.6	3.0	PHMSA		Colchester
Location 2	3.2	3.0	PHMSA		Colchester
Location 3	4.9	3.0	PHMSA		Colchester
Location 4	5.9	3.0	PHMSA		Colchester
Location 5	5.3	3.0	PHMSA		Colchester
Location 6	6.2	3.0	PHMSA		Colchester
Location 7	6.7	3.0	PHMSA		Colchester
Location 8	6.4	3.0	PHMSA		Colchester
Location 9	5.5	4.0	VTRANS		Colchester
Location 10	5.2	4.0	VTRANS		Colchester
Location 11	6.8	4.0	VTRANS		Colchester
Location 12	6.7	4.0	VTRANS		Colchester
Location 13	6.8	4.0	VTRANS		Colchester
Location 14	6.3	4.0	VTRANS		Colchester
Location 15	5.9	4.0	VTRANS		Colchester
Location 16	6.1	4.0	VTRANS		Colchester
Location 17	6.0	4.0	VTRANS		Colchester
Location 18	6.0	4.0	VTRANS		Colchester
Location 19	6.2	4.0	VTRANS		Colchester
Location 20	6.3	4.0	VTRANS		Colchester
Location 21	6.0	4.0	VTRANS		Colchester
Location 22	6.5	4.0	VTRANS		Colchester
Location 23	7.7	4.0	VTRANS		Colchester
Location 24	7.6	4.0	VTRANS		Colchester
Location 25	6.5	4.0	VTRANS		Colchester
Location 26	6.8	4.0	VTRANS		Colchester
Location 27	6.8	4.0	VTRANS		Colchester
Location 28	6.7	4.0	VTRANS		Colchester
Location 29	6.6	4.0	VTRANS		Colchester
Location 30	6.5	4.0	VTRANS		Colchester
Location 31	7.1	4.0	VTRANS		Colchester
Location 32	7.0	4.0	VTRANS		Colchester
Location 33	6.8	4.0	VTRANS		Colchester
Location 34	6.6	4.0	VTRANS		Colchester
Location 35	7.2	4.0	VTRANS		Colchester
Location 36	6.3	4.0	VTRANS		Colchester
Location 37	7.6	4.0	VTRANS		Colchester
Location 38	7.2	4.0	VTRANS		Colchester
Location 39	6.4	4.0	VTRANS		Colchester
Location 40	5.6	4.0	VTRANS		Colchester
Location 41	5.4	4.0	VTRANS		Colchester
Location 42	5.8	4.0	VTRANS		Colchester
Location 43	4.9	4.0	VTRANS		Colchester
Location 44	6.1	4.0	VTRANS		Colchester
Location 45	6.4	4.0	VTRANS		Colchester
Location 46	6.7	4.0	VTRANS		Colchester
Location 47	6.2	4.0	VTRANS		Colchester
Location 48	7.0	4.0	VTRANS		Colchester
Location 49	6.6	4.0	VTRANS		Colchester
Location 50	7.3	4.0	VTRANS		Colchester
Location 51	7.0	4.0	VTRANS		Colchester
Location 52	5.7	4.0	VTRANS		Colchester
Location 53	6.8	4.0	VTRANS		Colchester
Location 54	11.4	4.0	VTRANS		Colchester
Location 55	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Colchester
Location 56	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Colchester
Location 57	ROADBORE	5.0	Road Crossing	Mill Pond Road, Pipeline locator indicated a depth of 11.6 feet in roadway.	Colchester
Location 58	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Colchester
Location 59	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Colchester
Location 60	6.1	4.0	VTRANS		Colchester

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 61	4.5	4.0	VTRANS		Colchester
Location 62	4.9	4.0	VTRANS		Colchester
Location 63	4.7	4.0	VTRANS		Colchester
Location 64	6.4	4.0	VTRANS		Colchester
Location 65	7.5	4.0	VTRANS		Colchester
Location 66	7.7	4.0	VTRANS		Colchester
Location 67	8.5	4.0	VTRANS		Colchester
Location 68	8.1	4.0	VTRANS		Colchester
Location 69	7.3	4.0	VTRANS		Colchester
Location 70	6.3	4.0	VTRANS		Colchester
Location 71	5.1	4.0	VTRANS		Colchester
Location 72	5.3	4.0	VTRANS		Colchester
Location 73	6.1	4.0	VTRANS	Crossing ID #01, 2012-SC-CM-1 (P)	Colchester
Location 74	6.5	4.0	VTRANS	Crossing ID #01, 2012-SC-CM-1 (P)	Colchester
Location 75	6.8	4.0	VTRANS	Crossing ID #01, 2012-SC-CM-1 (P)	Colchester
Location 76	8.5	4.0	VTRANS		Colchester
Location 77	8.2	4.0	VTRANS		Colchester
Location 78	9.5	4.0	VTRANS		Colchester
Location 79	8.3	4.0	VTRANS		Colchester
Location 80	12.6	4.0	VTRANS		Colchester
Location 81	11.8	4.0	VTRANS		Colchester
Location 82	16.4	4.0	VTRANS		Colchester
Location 83	14.9	4.0	VTRANS		Colchester
Location 84	14.5	4.0	VTRANS		Colchester
Location 85	7.1	4.0	VTRANS		Colchester
Location 86	5.3	4.0	VTRANS		Colchester
Location 87	5.2	4.0	VTRANS		Colchester
Location 88	6.2	4.0	VTRANS		Colchester
Location 89	6.6	4.0	VTRANS		Colchester
Location 90	6.8	4.0	VTRANS		Colchester
Location 91	7.1	4.0	VTRANS		Colchester
Location 92	7.3	4.0	VTRANS		Colchester
Location 93	7.0	4.0	VTRANS		Colchester
Location 94	7.2	4.0	VTRANS		Colchester
Location 95	8.2	4.0	VTRANS		Colchester
Location 96	7.8	4.0	VTRANS		Colchester
Location 97	6.0	4.0	VTRANS		Colchester
Location 98	5.7	4.0	VTRANS		Colchester
Location 99	6.2	4.0	VTRANS		Colchester
Location 100	6.4	4.0	VTRANS		Colchester
Location 101	9.8	4.0	VTRANS		Colchester
Location 102	10.1	4.0	VTRANS		Colchester
Location 103	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 104	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 105	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 106	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 107	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 108	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 109	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 110	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 111	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 112	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 113	HDD	7.0	DEC Stream	Crossing ID #02, 2012-SC-CM-3 (P) (Tributary to Indian Brook), Estimated location for Depth from HDD profile (36.0 feet).	Colchester
Location 114	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 115	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 116	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 117	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 118	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 119	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 120	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 121	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 122	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 123	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 124	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 125	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 126	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 127	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 128	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 129	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 130	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 131	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 132	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 133	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 134	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 135	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 136	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 137	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 138	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 139	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 140	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 141	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 142	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 143	8.1	4.0	VTRANS		Colchester
Location 144	5.7	4.0	VTRANS		Colchester
Location 145	7.2	4.0	VTRANS		Colchester
Location 146	4.0	4.0	VTRANS		Colchester
Location 147	4.2	4.0	VTRANS		Colchester
Location 148	4.6	4.0	VTRANS		Colchester
Location 149	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 150	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 151	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 152	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 153	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 154	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 155	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 156	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 157	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 158	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 159	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 160	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 161	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 162	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Colchester
Location 163	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 164	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 165	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 166	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 167	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 168	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 169	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 170	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 171	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 172	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 173	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 174	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 175	HDD	7.0	DEC Stream	Crossing ID #03, 2012-TB-IB-1 (P) (Indian Brook), Estimated location for Depth from HDD Profile (46.0 feet).	Essex
Location 176	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 177	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 178	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 179	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 180	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 181	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 182	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 183	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 184	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 185	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 186	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 187	5.1	4.0	VTRANS		Essex
Location 188	5.0	4.0	VTRANS		Essex
Location 189	5.8	4.0	VTRANS		Essex
Location 190	5.6	4.0	VTRANS		Essex
Location 191	6.0	4.0	VTRANS		Essex
Location 192	6.3	4.0	VTRANS		Essex
Location 193	6.0	4.0	VTRANS		Essex
Location 194	7.0	4.0	VTRANS		Essex
Location 195	7.8	4.0	VTRANS		Essex
Location 196	8.6	4.0	VTRANS		Essex
Location 197	4.3	4.0	VTRANS		Essex
Location 198	5.0	4.0	VTRANS		Essex
Location 199	10.5	4.0	VTRANS		Essex
Location 200	4.2	4.0	VTRANS		Essex
Location 201	5.5	4.0	VTRANS		Essex
Location 202	9.6	4.0	VTRANS		Essex
Location 203	5.8	4.0	VTRANS		Essex
Location 204	8.3	4.0	VTRANS		Essex
Location 205	7.7	4.0	VTRANS		Essex
Location 206	10.0	4.0	VTRANS		Essex
Location 207	5.8	4.0	VTRANS		Essex
Location 208	6.2	4.0	VTRANS		Essex
Location 209	5.2	4.0	VTRANS		Essex
Location 210	6.2	4.0	VTRANS		Essex
Location 211	4.9	4.0	VTRANS		Essex
Location 212	4.7	4.0	VTRANS		Essex
Location 213	5.3	4.0	VTRANS		Essex
Location 214	5.3	4.0	VTRANS		Essex
Location 215	5.3	4.0	VTRANS		Essex
Location 216	5.1	4.0	VTRANS		Essex
Location 217	4.4	4.0	VTRANS		Essex
Location 218	4.4	4.0	VTRANS		Essex
Location 219	7.5	4.0	VTRANS		Essex
Location 220	4.0	4.0	VTRANS		Essex
Location 221	6.9	4.0	VTRANS		Essex
Location 222	6.5	4.0	VTRANS		Essex
Location 223	6.3	4.0	VTRANS		Essex
Location 224	10.6	4.0	VTRANS		Essex
Location 225	6.8	4.0	VTRANS		Essex
Location 226	11.2	4.0	VTRANS		Essex
Location 227	6.6	4.0	VTRANS		Essex
Location 228	5.6	4.0	VTRANS		Essex
Location 229	4.9	4.0	VTRANS		Essex
Location 230	6.1	4.0	VTRANS		Essex
Location 231	6.5	4.0	VTRANS		Essex
Location 232	7.0	4.0	VTRANS		Essex
Location 233	6.9	4.0	VTRANS		Essex
Location 234	7.6	4.0	VTRANS		Essex
Location 235	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 236	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 237	HDD	5.0	Road Crossing	Route 2A, Pipeline locator indicated a depth of 18.3 feet in roadway.	Essex
Location 238	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 239	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 240	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 241	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 242	HDD	4.0	VTRANS	Railroad Crossing nearby this weld, Pipeline locator indicated a depth of 27.0 feet under railroad. 25-foot minimum required under this railroad.	Essex
Location 243	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 244	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 245	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 246	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 247	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 248	6.0	4.0	VTRANS		Essex
Location 249	5.1	4.0	VTRANS		Essex
Location 250	5.0	4.0	VTRANS		Essex
Location 251	5.3	4.0	VTRANS		Essex
Location 252	4.1	4.0	VTRANS		Essex
Location 253	4.0	4.0	VTRANS		Essex
Location 254	4.6	4.0	VTRANS		Essex
Location 255	5.3	4.0	VTRANS		Essex
Location 256	8.0	4.0	VTRANS		Essex
Location 257	7.9	4.0	VTRANS		Essex
Location 258	4.7	4.0	VTRANS		Essex
Location 259	5.5	4.0	VTRANS		Essex
Location 260	4.9	4.0	VTRANS		Essex
Location 261	4.1	4.0	VTRANS		Essex
Location 262	4.3	4.0	VTRANS		Essex
Location 263	4.0	4.0	VTRANS		Essex
Location 264	4.7	4.0	VTRANS		Essex
Location 265	5.8	4.0	VTRANS		Essex
Location 266	6.1	4.0	VTRANS		Essex
Location 267	4.9	4.0	VTRANS		Essex
Location 268	4.6	4.0	VTRANS		Essex
Location 269	5.8	4.0	VTRANS		Essex
Location 270	5.5	4.0	VTRANS		Essex
Location 271	4.1	4.0	VTRANS		Essex
Location 272	4.0	4.0	VTRANS		Essex
Location 273	4.0	4.0	VTRANS		Essex
Location 274	4.2	4.0	VTRANS		Essex
Location 275	5.4	4.0	VTRANS		Essex
Location 276	4.7	4.0	VTRANS		Essex
Location 277	4.3	4.0	VTRANS		Essex
Location 278	4.0	4.0	VTRANS		Essex
Location 279	4.1	4.0	VTRANS		Essex
Location 280	4.4	4.0	VTRANS		Essex
Location 281	4.1	4.0	VTRANS		Essex
Location 282	4.7	4.0	VTRANS		Essex
Location 283	4.1	4.0	VTRANS		Essex
Location 284	4.0	4.0	VTRANS		Essex
Location 285	4.0	4.0	VTRANS		Essex
Location 286	4.2	4.0	VTRANS		Essex
Location 287	4.5	4.0	VTRANS		Essex
Location 288	4.7	4.0	VTRANS		Essex
Location 289	4.6	4.0	VTRANS		Essex
Location 290	4.5	4.0	VTRANS		Essex
Location 291	4.3	4.0	VTRANS		Essex
Location 292	4.5	4.0	VTRANS		Essex
Location 293	4.3	4.0	VTRANS		Essex
Location 294	4.0	4.0	VTRANS		Essex
Location 295	6.0	4.0	VTRANS		Essex
Location 296	4.8	4.0	VTRANS		Essex
Location 297	5.0	4.0	VTRANS		Essex
Location 298	4.5	4.0	VTRANS		Essex
Location 299	4.2	4.0	VTRANS		Essex
Location 300	4.1	4.0	VTRANS		Essex
Location 301	4.3	4.0	VTRANS		Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 302	4.6	4.0	VTRANS		Essex
Location 303	4.3	4.0	VTRANS		Essex
Location 304	4.2	4.0	VTRANS		Essex
Location 305	4.1	4.0	VTRANS		Essex
Location 306	4.0	4.0	VTRANS		Essex
Location 307	4.3	4.0	VTRANS		Essex
Location 308	4.4	4.0	VTRANS		Essex
Location 309	4.3	4.0	VTRANS		Essex
Location 310	4.0	4.0	VTRANS		Essex
Location 311	4.1	4.0	VTRANS		Essex
Location 312	4.4	4.0	VTRANS		Essex
Location 313	4.8	4.0	VTRANS		Essex
Location 314	5.2	4.0	VTRANS		Essex
Location 315	5.5	4.0	VTRANS		Essex
Location 316	5.8	4.0	VTRANS		Essex
Location 317	6.4	4.0	VTRANS		Essex
Location 318	4.9	4.0	VTRANS		Essex
Location 319	4.9	4.0	VTRANS		Essex
Location 320	5.3	4.0	VTRANS		Essex
Location 321	5.2	4.0	VTRANS		Essex
Location 322	4.5	4.0	VTRANS		Essex
Location 323	5.8	4.0	VTRANS		Essex
Location 324	6.4	4.0	VTRANS		Essex
Location 325	4.5	4.0	VTRANS		Essex
Location 326	4.3	4.0	VTRANS		Essex
Location 327	4.9	4.0	VTRANS		Essex
Location 328	5.2	4.0	VTRANS		Essex
Location 329	4.8	4.0	VTRANS		Essex
Location 330	4.9	4.0	VTRANS		Essex
Location 331	4.5	4.0	VTRANS		Essex
Location 332	4.4	4.0	VTRANS		Essex
Location 333	5.4	4.0	VTRANS/VELCO		Essex
Location 334	5.7	4.0	VTRANS/VELCO		Essex
Location 335	5.9	4.0	VTRANS/VELCO		Essex
Location 336	6.0	4.0	VTRANS/VELCO		Essex
Location 337	4.4	4.0	VTRANS		Essex
Location 338	4.7	4.0	VTRANS		Essex
Location 339	4.7	4.0	VTRANS		Essex
Location 340	4.8	4.0	VTRANS		Essex
Location 341	4.7	4.0	VTRANS		Essex
Location 342	4.9	4.0	VTRANS		Essex
Location 343	5.7	4.0	VTRANS		Essex
Location 344	5.2	4.0	VTRANS		Essex
Location 345	4.7	4.0	VTRANS		Essex
Location 346	6.1	4.0	VTRANS		Essex
Location 347	6.2	4.0	VTRANS		Essex
Location 348	7.6	4.0	VTRANS		Essex
Location 349	7.8	4.0	VTRANS		Essex
Location 350	6.1	4.0	VTRANS		Essex
Location 351	6.9	4.0	VTRANS		Essex
Location 352	5.8	4.0	VTRANS		Essex
Location 353	5.5	4.0	VTRANS		Essex
Location 354	5.8	4.0	VTRANS		Essex
Location 355	5.8	4.0	VTRANS		Essex
Location 356	4.3	4.0	VTRANS		Essex
Location 357	5.7	4.0	VTRANS		Essex
Location 358	5.8	4.0	VTRANS		Essex
Location 359	4.3	4.0	VTRANS		Essex
Location 360	5.2	4.0	VTRANS		Essex
Location 361	4.1	4.0	VTRANS		Essex
Location 362	4.2	4.0	VTRANS		Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 363	5.0	4.0	VTRANS		Essex
Location 364	4.4	4.0	VTRANS		Essex
Location 365	4.8	4.0	VTRANS		Essex
Location 366	4.5	4.0	VTRANS		Essex
Location 367	4.1	4.0	VTRANS		Essex
Location 368	4.8	4.0	VTRANS		Essex
Location 369	4.1	4.0	VTRANS		Essex
Location 370	5.0	4.0	VTRANS		Essex
Location 371	4.3	4.0	VTRANS		Essex
Location 372	4.0	4.0	VTRANS		Essex
Location 373	4.0	4.0	VTRANS		Essex
Location 374	4.1	4.0	VTRANS		Essex
Location 375	4.0	4.0	VTRANS		Essex
Location 376	4.2	4.0	VTRANS		Essex
Location 377	4.4	4.0	VTRANS		Essex
Location 378	4.2	4.0	VTRANS		Essex
Location 379	4.1	4.0	VTRANS		Essex
Location 380	4.9	4.0	VTRANS		Essex
Location 381	4.6	4.0	VTRANS		Essex
Location 382	4.2	4.0	VTRANS		Essex
Location 383	4.0	4.0	VTRANS		Essex
Location 384	4.5	4.0	VTRANS		Essex
Location 385	4.2	4.0	VTRANS		Essex
Location 386	4.1	4.0	VTRANS		Essex
Location 387	4.4	4.0	VTRANS		Essex
Location 388	4.1	4.0	VTRANS		Essex
Location 389	4.7	4.0	VTRANS		Essex
Location 390	4.0	4.0	VTRANS		Essex
Location 391	4.0	4.0	VTRANS		Essex
Location 392	4.0	4.0	VTRANS		Essex
Location 393	4.9	4.0	VTRANS		Essex
Location 394	4.5	4.0	VTRANS		Essex
Location 395	4.0	4.0	VTRANS		Essex
Location 396	5.2	4.0	VTRANS		Essex
Location 397	8.7	4.0	VTRANS		Essex
Location 398	10.2	7.0	DEC Stream	Crossing ID #04, 2012-TB-IB-2 (P) (Indian Brook)	Essex
Location 399	8.8	7.0	DEC Stream	Crossing ID #04, 2012-TB-IB-2 (P) (Indian Brook)	Essex
Location 400	7.0	4.0	VTRANS		Essex
Location 401	5.2	4.0	VTRANS		Essex
Location 402	4.0	4.0	VTRANS		Essex
Location 403	4.5	4.0	VTRANS		Essex
Location 404	4.0	4.0	VTRANS		Essex
Location 405	4.1	4.0	VTRANS		Essex
Location 406	6.9	4.0	VTRANS		Essex
Location 407	6.4	4.0	VTRANS		Essex
Location 408	4.2	4.0	VTRANS		Essex
Location 409	4.4	4.0	VTRANS		Essex
Location 410	4.0	4.0	VTRANS		Essex
Location 411	4.0	4.0	VTRANS		Essex
Location 412	4.0	4.0	VTRANS		Essex
Location 413	4.0	4.0	VTRANS		Essex
Location 414	4.0	4.0	VTRANS		Essex
Location 415	4.0	4.0	VTRANS		Essex
Location 416	4.0	4.0	VTRANS		Essex
Location 417	4.0	4.0	VTRANS		Essex
Location 418	4.0	4.0	VTRANS		Essex
Location 419	4.0	4.0	VTRANS		Essex
Location 420	4.0	4.0	VTRANS		Essex
Location 421	4.0	4.0	VTRANS		Essex
Location 422	4.0	4.0	VTRANS		Essex
Location 423	4.0	4.0	VTRANS		Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 424	4.0	4.0	VTRANS		Essex
Location 425	4.0	4.0	VTRANS		Essex
Location 426	4.0	4.0	VTRANS		Essex
Location 427	4.0	4.0	VTRANS		Essex
Location 428	4.9	4.0	VTRANS		Essex
Location 429	4.0	4.0	VTRANS		Essex
Location 430	5.4	4.0	VTRANS		Essex
Location 431	5.7	4.0	VTRANS		Essex
Location 432	5.8	4.0	VTRANS		Essex
Location 433	4.4	4.0	VTRANS		Essex
Location 434	4.8	4.0	VTRANS		Essex
Location 435	4.8	4.0	VTRANS		Essex
Location 436	4.5	4.0	VTRANS		Essex
Location 437	4.5	4.0	VTRANS		Essex
Location 438	7.7	4.0	VTRANS		Essex
Location 439	HDD	5.0	Road Crossing	Route 15 (Upper Main Street), Based on HDD Profile, minimum depth is at least 5.0 feet.	Essex
Location 440	HDD	5.0	Road Crossing	Route 15 (Upper Main Street), Estimated location for Depth from HDD Profile (24.0 feet).	Essex
Location 441	HDD	5.0	Road Crossing	Route 15 (Upper Main Street), Based on HDD Profile, minimum depth is at least 5.0 feet.	Essex
Location 442	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 443	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Essex
Location 444	5.4	4.0	VTRANS		Essex
Location 445	4.0	4.0	VTRANS		Essex
Location 446	4.9	4.0	VTRANS		Essex
Location 447	5.5	4.0	VTRANS		Essex
Location 448	5.5	4.0	VTRANS		Essex
Location 449	4.2	4.0	VTRANS		Essex
Location 450	4.1	4.0	VTRANS		Essex
Location 451	4.4	4.0	VTRANS		Essex
Location 452	4.2	4.0	VTRANS		Essex
Location 453	4.3	4.0	VTRANS		Essex
Location 454	4.7	4.0	VTRANS		Essex
Location 455	5.0	4.0	VTRANS		Essex
Location 456	4.2	4.0	VTRANS		Essex
Location 457	4.3	4.0	VTRANS		Essex
Location 458	4.5	4.0	VTRANS		Essex
Location 459	4.5	4.0	VTRANS		Essex
Location 460	4.8	4.0	VTRANS		Essex
Location 461	5.2	4.0	VTRANS		Essex
Location 462	5.5	4.0	VTRANS		Essex
Location 463	4.7	4.0	VTRANS		Essex
Location 464	6.2	4.0	VTRANS		Essex
Location 465	8.6	4.0	VTRANS		Essex
Location 466	8.4	4.0	VTRANS		Essex
Location 467	6.1	4.0	VTRANS		Essex
Location 468	4.6	4.0	VTRANS		Essex
Location 469	4.7	4.0	VTRANS		Essex
Location 470	4.7	4.0	VTRANS		Essex
Location 471	4.7	4.0	VTRANS		Essex
Location 472	4.7	4.0	VTRANS		Essex
Location 473	4.6	4.0	VTRANS		Essex
Location 474	4.7	4.0	VTRANS		Essex
Location 475	4.3	4.0	VTRANS		Essex
Location 476	4.0	4.0	VTRANS		Essex
Location 477	4.5	4.0	VTRANS		Essex
Location 478	4.5	4.0	VTRANS		Essex
Location 479	4.1	4.0	VTRANS		Essex
Location 480	4.2	4.0	VTRANS		Essex
Location 481	5.0	4.0	VTRANS		Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 482	4.9	4.0	VTRANS		Essex
Location 483	4.8	4.0	VTRANS		Essex
Location 484	4.4	4.0	VTRANS		Essex
Location 485	4.1	4.0	VTRANS		Essex
Location 486	4.7	4.0	VTRANS		Essex
Location 487	4.3	4.0	VTRANS		Essex
Location 488	4.6	4.0	VTRANS		Essex
Location 489	4.6	4.0	VTRANS		Essex
Location 490	4.0	4.0	VTRANS		Essex
Location 491	4.0	4.0	VTRANS		Essex
Location 492	4.0	4.0	VTRANS		Essex
Location 493	4.6	4.0	VTRANS		Essex
Location 494	4.8	4.0	VTRANS		Essex
Location 495	8.4	4.0	VTRANS		Essex
Location 496	8.5	4.0	VTRANS		Essex
Location 497	8.6	4.0	VTRANS		Essex
Location 498	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Essex
Location 499	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Essex
Location 500	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Essex
Location 501	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Essex
Location 502	ROADBORE	5.0	Road Crossing	Essex Way, Pipeline locator indicated a depth of 7.8 feet in roadway.	Essex
Location 503	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Essex
Location 504	4.8	4.0	VTRANS		Essex
Location 505	5.2	4.0	VTRANS		Essex
Location 506	6.1	4.0	VTRANS		Essex
Location 507	6.7	4.0	VTRANS		Essex
Location 508	5.3	4.0	VTRANS		Essex
Location 509	4.5	4.0	VTRANS		Essex
Location 510	4.6	4.0	VTRANS		Essex
Location 511	4.4	4.0	VTRANS		Essex
Location 512	8.2	4.0	VTRANS		Essex
Location 513	6.3	4.0	VTRANS		Essex
Location 514	4.0	4.0	VTRANS		Essex
Location 515	4.0	4.0	VTRANS		Essex
Location 516	5.6	4.0	VTRANS		Essex
Location 517	5.5	4.0	VTRANS		Essex
Location 518	5.5	4.0	VTRANS		Essex
Location 519	5.0	4.0	VTRANS		Essex
Location 520	4.1	4.0	VTRANS		Essex
Location 521	4.7	4.0	VTRANS		Essex
Location 522	5.0	4.0	VTRANS		Essex
Location 523	5.4	4.0	VTRANS		Essex
Location 524	5.2	4.0	VTRANS		Essex
Location 525	6.2	4.0	VTRANS		Essex
Location 526	5.9	4.0	VTRANS		Essex
Location 527	4.2	4.0	VTRANS		Essex
Location 528	4.0	4.0	VTRANS		Essex
Location 529	4.4	4.0	VTRANS		Essex
Location 530	6.5	4.0	VTRANS		Essex
Location 531	4.4	4.0	VTRANS		Essex
Location 532	5.8	4.0	VTRANS		Essex
Location 533	6.3	4.0	VTRANS		Essex
Location 534	4.7	4.0	VTRANS		Essex
Location 535	4.8	4.0	VTRANS		Essex
Location 536	6.6	4.0	VTRANS		Essex
Location 537	8.0	4.0	VTRANS		Essex
Location 538	6.8	4.0	VTRANS		Essex
Location 539	6.0	4.0	VTRANS		Essex
Location 540	5.8	4.0	VTRANS	Crossing ID #05, 2012-SC-CM-16 (I), Stream runs parallel to the pipe.	Essex
Location 541	6.3	4.0	VTRANS	Crossing ID #05, 2012-SC-CM-16 (I), Stream runs parallel to the pipe.	Essex
Location 542	7.9	4.0	VTRANS	Crossing ID #05, 2012-SC-CM-16 (I), Stream runs parallel to the pipe.	Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 543	8.9	4.0	VTRANS	Crossing ID #05, 2012-SC-CM-16 (I), Stream runs parallel to the pipe.	Essex
Location 544	6.5	4.0	VTRANS		Essex
Location 545	7.2	4.0	VTRANS		Essex
Location 546	6.4	4.0	VTRANS		Essex
Location 547	7.4	4.0	VTRANS		Essex
Location 548	11.9	4.0	VTRANS		Essex
Location 549	9.5	4.0	VTRANS		Essex
Location 550	8.0	4.0	VTRANS		Essex
Location 551	7.1	4.0	VTRANS		Essex
Location 552	9.0	4.0	VTRANS		Essex
Location 553	9.9	4.0	VTRANS		Essex
Location 554	4.9	4.0	VTRANS		Essex
Location 555	4.8	4.0	VTRANS		Essex
Location 556	6.1	4.0	VTRANS		Essex
Location 557	7.0	4.0	VTRANS		Essex
Location 558	8.5	4.0	VTRANS		Essex
Location 559	7.4	4.0	VTRANS		Essex
Location 560	6.7	4.0	VTRANS	Crossing ID #6, 2012-TB-AB-1 (P), Pipe crosses at a culvert. No impact to stream channel. (Avoided, as noted in JAN-7)	Essex
Location 561	5.9	4.0	VTRANS	Crossing ID #6, 2012-TB-AB-1 (P), Pipe crosses at a culvert. No impact to stream channel. (Avoided, as noted in JAN-7)	Essex
Location 562	6.3	4.0	VTRANS		Essex
Location 563	6.4	4.0	VTRANS		Essex
Location 564	6.5	4.0	VTRANS		Essex
Location 565	6.9	4.0	VTRANS		Essex
Location 566	6.8	4.0	VTRANS		Essex
Location 567	5.3	4.0	VTRANS		Essex
Location 568	6.6	4.0	VTRANS		Essex
Location 569	10.7	4.0	VTRANS		Essex
Location 570	8.7	4.0	VTRANS		Essex
Location 571	6.7	4.0	VTRANS		Essex
Location 572	7.2	4.0	VTRANS		Essex
Location 573	7.0	4.0	VTRANS		Essex
Location 574	6.3	4.0	VTRANS		Essex
Location 575	6.0	4.0	VTRANS		Essex
Location 576	6.4	4.0	VTRANS		Essex
Location 577	6.3	4.0	VTRANS		Essex
Location 578	5.6	4.0	VTRANS		Essex
Location 579	5.7	4.0	VTRANS		Essex
Location 580	7.4	4.0	VTRANS		Essex
Location 581	5.5	4.0	VTRANS		Essex
Location 582	4.6	4.0	VTRANS		Essex
Location 583	7.0	4.0	VTRANS		Essex
Location 584	6.9	4.0	VTRANS		Essex
Location 585	6.3	4.0	VTRANS		Essex
Location 586	6.2	4.0	VTRANS		Essex
Location 587	6.9	4.0	VTRANS		Essex
Location 588	6.7	4.0	VTRANS		Essex
Location 589	7.0	4.0	VTRANS		Essex
Location 590	5.0	4.0	VTRANS		Essex
Location 591	4.0	4.0	VTRANS		Essex
Location 592	6.0	4.0	VTRANS		Essex
Location 593	4.5	4.0	VTRANS		Essex
Location 594	4.5	4.0	VTRANS		Essex
Location 595	6.9	4.0	VTRANS		Essex
Location 596	7.3	4.0	VTRANS		Essex
Location 597	7.1	4.0	VTRANS		Essex
Location 598	6.1	4.0	VTRANS	Crossing ID #7, 2012-SC-CM-22 (I), Pipe crosses at a culvert. No impact to stream channel.	Essex
Location 599	7.8	4.0	VTRANS		Essex
Location 600	8.7	4.0	VTRANS		Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 601	8.1	4.0	VTRANS		Essex
Location 602	6.7	4.0	VTRANS		Essex
Location 603	7.5	4.0	VTRANS		Essex
Location 604	6.5	4.0	VTRANS		Essex
Location 605	5.0	4.0	VTRANS		Essex
Location 606	5.9	4.0	VTRANS		Essex
Location 607	6.2	4.0	VTRANS		Essex
Location 608	6.2	4.0	VTRANS		Essex
Location 609	5.3	4.0	VTRANS		Essex
Location 610	5.1	4.0	VTRANS		Essex
Location 611	4.2	4.0	VTRANS		Essex
Location 612	4.4	4.0	VTRANS		Essex
Location 613	5.9	4.0	VTRANS		Essex
Location 614	6.4	4.0	VTRANS		Essex
Location 615	6.4	4.0	VTRANS		Essex
Location 616	6.1	4.0	VTRANS		Essex
Location 617	5.5	4.0	VTRANS		Essex
Location 618	6.1	4.0	VTRANS		Essex
Location 619	6.9	4.0	VTRANS		Essex
Location 620	5.9	4.0	VTRANS		Essex
Location 621	4.1	4.0	VTRANS		Essex
Location 622	4.2	4.0	VTRANS		Essex
Location 623	6.0	4.0	VTRANS		Essex
Location 624	7.4	4.0	VTRANS		Essex
Location 625	4.9	4.0	VTRANS		Essex
Location 626	7.0	4.0	VTRANS		Essex
Location 627	6.9	4.0	VTRANS		Essex
Location 628	6.3	4.0	VTRANS		Essex
Location 629	6.0	4.0	VTRANS		Essex
Location 630	7.0	4.0	VTRANS		Essex
Location 631	5.7	4.0	VTRANS		Essex
Location 632	5.9	4.0	VTRANS		Essex
Location 633	6.2	4.0	VTRANS		Essex
Location 634	5.4	4.0	VTRANS		Essex
Location 635	5.1	4.0	VTRANS		Essex
Location 636	5.3	4.0	VTRANS		Essex
Location 637	5.8	4.0	VTRANS		Essex
Location 638	6.9	4.0	VTRANS		Essex
Location 639	5.9	4.0	VTRANS		Essex
Location 640	5.3	4.0	VTRANS		Essex
Location 641	7.3	4.0	VTRANS		Essex
Location 642	5.5	4.0	VTRANS		Essex
Location 643	5.7	4.0	VTRANS		Essex
Location 644	5.7	4.0	VTRANS		Essex
Location 645	5.6	4.0	VTRANS		Essex
Location 646	5.0	4.0	VTRANS		Essex
Location 647	6.3	4.0	VTRANS		Essex
Location 648	5.3	4.0	VTRANS		Essex
Location 649	5.7	4.0	VTRANS		Essex
Location 650	10.0	4.0	VTRANS		Essex
Location 651	9.5	4.0	VTRANS		Essex
Location 652	8.0	4.0	VTRANS		Essex
Location 653	6.8	4.0	VTRANS		Essex
Location 654	6.0	4.0	VTRANS		Essex
Location 655	6.3	4.0	VTRANS		Essex
Location 656	7.0	4.0	VTRANS		Essex
Location 657	7.2	4.0	VTRANS		Essex
Location 658	7.5	4.0	VTRANS		Essex
Location 659	9.3	4.0	VTRANS		Essex
Location 660	9.3	4.0	VTRANS		Essex
Location 661	8.4	4.0	VTRANS		Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 662	7.8	4.0	VTRANS		Essex
Location 663	7.4	4.0	VTRANS		Essex
Location 664	7.4	4.0	VTRANS		Essex
Location 665	4.1	4.0	VTRANS		Essex
Location 666	4.7	4.0	VTRANS		Essex
Location 667	6.1	4.0	VTRANS		Essex
Location 668	12.7	4.0	VTRANS		Essex
Location 669	12.5	4.0	VTRANS		Essex
Location 670	5.6	4.0	VTRANS		Essex
Location 671	5.7	4.0	VTRANS		Essex
Location 672	5.8	4.0	VTRANS		Essex
Location 673	5.1	4.0	VTRANS		Essex
Location 674	5.3	4.0	VTRANS		Essex
Location 675	4.1	4.0	VTRANS		Essex
Location 676	4.2	4.0	VTRANS		Essex
Location 677	4.1	4.0	VTRANS		Essex
Location 678	4.0	4.0	VTRANS		Essex
Location 679	4.4	4.0	VTRANS	Crossing ID #08A, 2012-TB-AB (P), Pipe crosses at a culvert. No impact to stream channel. (Avoided, as noted in JAN-7)	Essex
Location 680	5.2	4.0	VTRANS		Essex
Location 681	6.0	4.0	VTRANS		Essex
Location 682	5.0	4.0	VTRANS		Essex
Location 683	4.1	4.0	VTRANS		Essex
Location 684	5.4	4.0	VTRANS		Essex
Location 685	4.8	4.0	VTRANS		Essex
Location 686	4.1	4.0	VTRANS		Essex
Location 687	4.3	4.0	VTRANS		Essex
Location 688	4.0	4.0	VTRANS		Essex
Location 689	4.2	4.0	VTRANS		Essex
Location 690	4.4	4.0	VTRANS		Essex
Location 691	4.0	4.0	VTRANS		Essex
Location 692	4.2	4.0	VTRANS		Essex
Location 693	4.4	4.0	VTRANS		Essex
Location 694	4.5	4.0	VTRANS		Essex
Location 695	4.5	4.0	VTRANS		Essex
Location 696	4.1	4.0	VTRANS		Essex
Location 697	4.6	4.0	VTRANS		Essex
Location 698	4.8	4.0	VTRANS		Essex
Location 699	4.9	4.0	VTRANS		Essex
Location 700	4.0	4.0	VTRANS		Essex
Location 701	4.8	4.0	VTRANS		Essex
Location 702	5.0	4.0	VTRANS		Essex
Location 703	4.8	4.0	VTRANS		Essex
Location 704	4.5	4.0	VTRANS		Essex
Location 705	4.0	4.0	VTRANS		Essex
Location 706	4.0	4.0	VTRANS		Essex
Location 707	4.4	4.0	VTRANS		Essex
Location 708	4.1	4.0	VTRANS		Essex
Location 709	4.3	4.0	VTRANS		Essex
Location 710	4.6	4.0	VTRANS		Essex
Location 711	5.5	4.0	VTRANS		Essex
Location 712	4.0	4.0	VTRANS		Essex
Location 713	4.6	4.0	VTRANS		Essex
Location 714	4.3	4.0	VTRANS		Essex
Location 715	4.3	4.0	VTRANS		Essex
Location 716	4.2	4.0	VTRANS		Essex
Location 717	5.1	4.0	VTRANS		Essex
Location 718	4.0	4.0	VTRANS		Essex
Location 719	4.0	4.0	VTRANS		Essex
Location 720	4.1	4.0	VTRANS		Essex
Location 721	4.0	4.0	VTRANS		Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 722	4.6	4.0	VTRANS		Essex
Location 723	4.0	4.0	VTRANS		Essex
Location 724	5.3	4.0	VTRANS		Essex
Location 725	6.7	4.0	VTRANS		Essex
Location 726	6.2	4.0	VTRANS		Essex
Location 727	4.2	4.0	VTRANS		Essex
Location 728	3.7	3.0	PHMSA		Essex
Location 729	5.2	3.0	PHMSA		Essex
Location 730	12.3	7.0	DEC Stream	Crossing ID #124, 2012-TB-AB-7 (P) (Alder Brook)	Essex
Location 731	14.0	7.0	DEC Stream	Crossing ID #124, 2012-TB-AB-7 (P) (Alder Brook)	Essex
Location 732	16.7	7.0	DEC Stream	Crossing ID #124, 2012-TB-AB-7 (P) (Alder Brook)	Essex
Location 733	15.6	7.0	DEC Stream	Crossing ID #124, 2012-TB-AB-7 (P) (Alder Brook)	Essex
Location 734	6.0	3.0	PHMSA		Essex
Location 735	5.4	3.0	PHMSA		Essex
Location 736	6.3	3.0	PHMSA		Essex
Location 737	6.3	3.0	PHMSA		Essex
Location 738	5.9	3.0	PHMSA		Essex
Location 739	6.2	3.0	PHMSA		Essex
Location 740	5.9	3.0	PHMSA		Essex
Location 741	6.2	3.0	PHMSA		Essex
Location 742	4.4	4.0	Agriculture		Essex
Location 743	4.0	4.0	Agriculture		Essex
Location 744	4.0	4.0	Agriculture		Essex
Location 745	4.3	4.0	Agriculture		Essex
Location 746	4.0	4.0	Agriculture		Essex
Location 747	4.0	4.0	Agriculture		Essex
Location 748	4.0	4.0	Agriculture		Essex
Location 749	4.0	4.0	Agriculture		Essex
Location 750	4.0	4.0	Agriculture		Essex
Location 751	4.0	4.0	Agriculture		Essex
Location 752	4.0	4.0	Agriculture		Essex
Location 753	4.0	4.0	Agriculture		Essex
Location 754	4.0	4.0	Agriculture		Essex
Location 755	4.4	4.0	Agriculture		Essex
Location 756	4.0	4.0	Agriculture		Essex
Location 757	4.4	4.0	Agriculture		Essex
Location 758	4.1	4.0	Agriculture		Essex
Location 759	4.1	4.0	Agriculture		Essex
Location 760	4.0	4.0	Agriculture		Essex
Location 761	4.0	4.0	Agriculture		Essex
Location 762	HDD	5.0	Road Crossing	Route 117 (River Road), Pipeline locator indicated a depth of 8.6 feet in roadway.	Essex
Location 763	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Essex
Location 764	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Essex
Location 765	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Essex
Location 766	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Essex
Location 767	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Essex
Location 768	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Essex
Location 769	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Essex
Location 770	HDD	7.0	DEC Stream	Crossing ID #09, 2012-TB-WR (P) (Winooski River), Estimated location for Depth from HDD profile (16.0 feet). Subject to USCAE as-built submittal. See Permit Modification (M1) issued by the USACE dated July 31, 2015.	Essex
Location 771	HDD	7.0	DEC Stream	Crossing ID #09, 2012-TB-WR (P) (Winooski River), Based on HDD Profile, minimum depth is at least 7.0 feet. Subject to USCAE as-built submittal. See Permit Modification (M1) issued by the USACE dated July 31, 2015.	Essex
Location 772	HDD	7.0	DEC Stream	Crossing ID #09, 2012-TB-WR (P) (Winooski River), Based on HDD Profile, minimum depth is at least 7.0 feet. Subject to USCAE as-built submittal. See Permit Modification (M1) issued by the USACE dated July 31, 2015.	Essex
Location 773	HDD	7.0	DEC Stream	Crossing ID #09, 2012-TB-WR (P) (Winooski River), Based on HDD Profile, minimum depth is at least 7.0 feet. Subject to USCAE as-built submittal. See Permit Modification (M1) issued by the USACE dated July 31, 2015.	Essex

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 774	HDD	7.0	DEC Stream	Crossing ID #09, 2012-TB-WR (P) (Winooski River), Based on HDD Profile, minimum depth is at least 7.0 feet. Subject to USCAE as-built submittal. See Permit Modification (M1) issued by the USACE dated July 31, 2015.	Essex
Location 775	HDD	7.0	DEC Stream	Crossing ID #09, 2012-TB-WR (P) (Winooski River), Based on HDD Profile, minimum depth is at least 7.0 feet. Subject to USCAE as-built submittal. See Permit Modification (M1) issued by the USACE dated July 31, 2015.	Williston
Location 776	HDD	7.0	DEC Stream	Crossing ID #09, 2012-TB-WR (P) (Winooski River), Based on HDD Profile, minimum depth is at least 7.0 feet. Subject to USCAE as-built submittal. See Permit Modification (M1) issued by the USACE dated July 31, 2015.	Williston
Location 777	HDD	7.0	DEC Stream	Crossing ID #09, 2012-TB-WR (P) (Winooski River), Estimated location for Depth from HDD Profile (20.0 feet). Subject to USCAE as-built submittal. See Permit Modification (M1) issued by the USACE dated July 31, 2015.	Williston
Location 778	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 779	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 780	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 781	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 782	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 783	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 784	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 785	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 786	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 787	4.2	4.0	Agriculture		Williston
Location 788	4.1	4.0	Agriculture		Williston
Location 789	4.1	4.0	Agriculture		Williston
Location 790	4.1	4.0	Agriculture		Williston
Location 791	4.0	4.0	Agriculture		Williston
Location 792	4.0	4.0	Agriculture		Williston
Location 793	4.6	4.0	Agriculture		Williston
Location 794	7.9	4.0	Agriculture		Williston
Location 795	9.3	4.0	Agriculture	Crossing ID #10, 2012-SC-CM-84 (I)	Williston
Location 796	8.8	4.0	Agriculture	Crossing ID #10, 2012-SC-CM-84 (I)	Williston
Location 797	7.4	4.0	Agriculture		Williston
Location 798	4.3	4.0	Agriculture		Williston
Location 799	4.2	4.0	Agriculture		Williston
Location 800	4.3	4.0	Agriculture		Williston
Location 801	4.1	4.0	Agriculture		Williston
Location 802	6.2	4.0	Agriculture		Williston
Location 803	4.3	4.0	Agriculture		Williston
Location 804	4.8	4.0	Agriculture		Williston
Location 805	4.6	4.0	Agriculture		Williston
Location 806	4.1	4.0	Agriculture		Williston
Location 807	4.9	4.0	Agriculture		Williston
Location 808	4.6	4.0	Agriculture		Williston
Location 809	4.0	4.0	Agriculture		Williston
Location 810	5.0	4.0	Agriculture		Williston
Location 811	6.3	4.0	Agriculture		Williston
Location 812	7.5	4.0	Agriculture		Williston
Location 813	8.4	4.0	Agriculture		Williston
Location 814	11.8	4.0	Agriculture		Williston
Location 815	19.3	4.0	Agriculture		Williston
Location 816	11.9	10.0	Railroad Crossing		Williston
Location 817	12.9	3.0	PHMSA		Williston
Location 818	14.8	3.0	PHMSA		Williston
Location 819	13.1	3.0	PHMSA		Williston
Location 820	8.6	3.0	PHMSA		Williston
Location 821	6.3	3.0	PHMSA		Williston
Location 822	4.2	3.0	PHMSA		Williston
Location 823	3.4	3.0	PHMSA		Williston
Location 824	3.0	3.0	PHMSA		Williston
Location 825	3.3	3.0	PHMSA		Williston
Location 826	3.2	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 827	3.0	3.0	PHMSA		Williston
Location 828	3.3	3.0	PHMSA		Williston
Location 829	3.0	3.0	PHMSA		Williston
Location 830	3.0	3.0	PHMSA		Williston
Location 831	3.0	3.0	PHMSA		Williston
Location 832	3.2	3.0	PHMSA		Williston
Location 833	5.7	3.0	PHMSA		Williston
Location 834	4.0	3.0	PHMSA		Williston
Location 835	3.0	4.0	VTRANS	Depth pending final inspection after review of as-builts per VTRANS permit.	Williston
Location 836	3.7	4.0	VTRANS	Depth pending final inspection after review of as-builts per VTRANS permit.	Williston
Location 837	3.8	4.0	VTRANS	Depth pending final inspection after review of as-builts per VTRANS permit.	Williston
Location 838	3.3	4.0	VTRANS	Depth pending final inspection after review of as-builts per VTRANS permit.	Williston
Location 839	3.0	4.0	VTRANS	Depth pending final inspection after review of as-builts per VTRANS permit.	Williston
Location 840	3.0	3.0	PHMSA		Williston
Location 841	3.4	3.0	PHMSA		Williston
Location 842	3.1	3.0	PHMSA		Williston
Location 843	3.0	3.0	PHMSA		Williston
Location 844	3.0	3.0	PHMSA		Williston
Location 845	3.0	3.0	PHMSA		Williston
Location 846	3.3	3.0	PHMSA		Williston
Location 847	5.3	3.0	PHMSA		Williston
Location 848	4.4	3.0	PHMSA		Williston
Location 849	3.3	3.0	PHMSA		Williston
Location 850	3.3	3.0	PHMSA		Williston
Location 851	3.3	3.0	PHMSA		Williston
Location 852	3.2	3.0	PHMSA	MLV #1	Williston
Location 853	3.3	3.0	PHMSA		Williston
Location 854	3.5	3.0	PHMSA		Williston
Location 855	3.3	3.0	PHMSA		Williston
Location 856	3.4	3.0	PHMSA		Williston
Location 857	4.2	3.0	PHMSA		Williston
Location 858	4.9	3.0	PHMSA		Williston
Location 859	5.2	3.0	PHMSA		Williston
Location 860	5.0	3.0	PHMSA		Williston
Location 861	4.1	3.0	PHMSA		Williston
Location 862	4.2	3.0	PHMSA		Williston
Location 863	4.8	3.0	PHMSA		Williston
Location 864	4.8	3.0	PHMSA		Williston
Location 865	4.9	3.0	PHMSA		Williston
Location 866	5.2	3.0	PHMSA		Williston
Location 867	5.1	3.0	PHMSA		Williston
Location 868	4.6	3.0	PHMSA		Williston
Location 869	5.6	3.0	PHMSA		Williston
Location 870	5.8	3.0	PHMSA		Williston
Location 871	9.4	3.0	PHMSA		Williston
Location 872	9.3	3.0	PHMSA		Williston
Location 873	6.4	3.0	PHMSA	Crossing ID #11, 2012-TB/SC-CM-54 (P)	Williston
Location 874	7.6	3.0	PHMSA	Crossing ID #11, 2012-TB/SC-CM-54 (P)	Williston
Location 875	7.8	3.0	PHMSA		Williston
Location 876	9.9	3.0	PHMSA		Williston
Location 877	10.1	3.0	PHMSA		Williston
Location 878	7.4	3.0	PHMSA		Williston
Location 879	7.2	3.0	PHMSA		Williston
Location 880	5.1	3.0	PHMSA		Williston
Location 881	4.5	3.0	PHMSA		Williston
Location 882	4.0	3.0	PHMSA		Williston
Location 883	4.5	3.0	PHMSA		Williston
Location 884	3.1	3.0	PHMSA		Williston
Location 885	3.6	3.0	PHMSA		Williston
Location 886	3.5	3.0	PHMSA		Williston
Location 887	3.6	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 888	3.6	3.0	PHMSA		Williston
Location 889	3.8	3.0	PHMSA		Williston
Location 890	3.2	3.0	PHMSA		Williston
Location 891	3.1	3.0	PHMSA		Williston
Location 892	3.5	3.0	PHMSA		Williston
Location 893	4.5	3.0	PHMSA		Williston
Location 894	4.0	3.0	PHMSA		Williston
Location 895	4.1	3.0	PHMSA		Williston
Location 896	3.6	3.0	PHMSA		Williston
Location 897	4.0	3.0	PHMSA		Williston
Location 898	3.3	3.0	PHMSA		Williston
Location 899	3.8	3.0	PHMSA/Landowner		Williston
Location 900	3.6	3.0	PHMSA/Landowner		Williston
Location 901	3.3	3.0	PHMSA/Landowner		Williston
Location 902	3.7	3.0	PHMSA/Landowner		Williston
Location 903	3.8	3.0	PHMSA/Landowner		Williston
Location 904	3.6	3.0	PHMSA/Landowner		Williston
Location 905	3.7	3.0	PHMSA/Landowner		Williston
Location 906	3.8	3.0	PHMSA/Landowner		Williston
Location 907	4.8	3.0	PHMSA/Landowner		Williston
Location 908	3.3	3.0	PHMSA/Landowner		Williston
Location 909	3.3	3.0	PHMSA/Landowner		Williston
Location 910	4.7	3.0	PHMSA/Landowner		Williston
Location 911	5.2	3.0	PHMSA/Landowner		Williston
Location 912	4.7	3.0	PHMSA/Landowner		Williston
Location 913	4.7	3.0	PHMSA/Landowner		Williston
Location 914	4.1	3.0	PHMSA/Landowner		Williston
Location 915	4.5	3.0	PHMSA/Landowner		Williston
Location 916	4.5	3.0	PHMSA/Landowner		Williston
Location 917	3.9	3.0	PHMSA/Landowner		Williston
Location 918	3.6	3.0	PHMSA/Landowner		Williston
Location 919	4.3	3.0	PHMSA/Landowner		Williston
Location 920	3.6	3.0	PHMSA/Landowner		Williston
Location 921	3.4	3.0	PHMSA/Landowner		Williston
Location 922	3.4	3.0	PHMSA/Landowner		Williston
Location 923	3.3	3.0	PHMSA/Landowner		Williston
Location 924	3.0	3.0	PHMSA/Landowner		Williston
Location 925	3.0	3.0	PHMSA/Landowner		Williston
Location 926	3.0	3.0	PHMSA/Landowner		Williston
Location 927	3.1	3.0	PHMSA/Landowner		Williston
Location 928	3.0	3.0	PHMSA/Landowner		Williston
Location 929	4.7	3.0	PHMSA		Williston
Location 930	3.4	3.0	PHMSA		Williston
Location 931	3.3	3.0	PHMSA		Williston
Location 932	3.7	3.0	PHMSA		Williston
Location 933	3.8	3.0	PHMSA		Williston
Location 934	3.3	3.0	PHMSA		Williston
Location 935	3.7	3.0	PHMSA		Williston
Location 936	3.0	3.0	PHMSA		Williston
Location 937	3.1	3.0	PHMSA		Williston
Location 938	3.2	3.0	PHMSA		Williston
Location 939	3.1	3.0	PHMSA		Williston
Location 940	3.5	3.0	PHMSA		Williston
Location 941	3.1	3.0	PHMSA/Landowner		Williston
Location 942	3.2	3.0	PHMSA/Landowner		Williston
Location 943	4.0	3.0	PHMSA/Landowner		Williston
Location 944	3.3	3.0	PHMSA		Williston
Location 945	3.0	3.0	PHMSA		Williston
Location 946	3.5	3.0	PHMSA		Williston
Location 947	3.0	3.0	PHMSA		Williston
Location 948	3.5	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 949	6.7	3.0	PHMSA		Williston
Location 950	7.0	3.0	PHMSA		Williston
Location 951	6.2	3.0	PHMSA		Williston
Location 952	4.5	3.0	PHMSA		Williston
Location 953	3.0	3.0	PHMSA		Williston
Location 954	3.1	3.0	PHMSA		Williston
Location 955	3.6	3.0	PHMSA		Williston
Location 956	5.3	3.0	PHMSA		Williston
Location 957	4.2	3.0	PHMSA		Williston
Location 958	4.4	3.0	PHMSA		Williston
Location 959	4.8	4.0	VELCO		Williston
Location 960	4.2	4.0	VELCO		Williston
Location 961	4.4	4.0	VELCO		Williston
Location 962	4.8	4.0	VELCO		Williston
Location 963	5.0	4.0	VELCO		Williston
Location 964	5.8	4.0	VELCO		Williston
Location 965	8.9	4.0	VELCO		Williston
Location 966	9.5	4.0	VELCO		Williston
Location 967	7.3	4.0	VELCO		Williston
Location 968	6.5	4.0	VELCO		Williston
Location 969	10.6	4.0	VELCO		Williston
Location 970	8.9	4.0	VELCO		Williston
Location 971	5.7	4.0	VELCO		Williston
Location 972	4.6	4.0	VELCO		Williston
Location 973	6.2	4.0	VELCO		Williston
Location 974	4.3	4.0	VELCO		Williston
Location 975	4.2	3.0	PHMSA		Williston
Location 976	4.4	3.0	PHMSA		Williston
Location 977	3.0	3.0	PHMSA		Williston
Location 978	4.2	3.0	PHMSA		Williston
Location 979	3.6	3.0	PHMSA		Williston
Location 980	3.6	3.0	PHMSA		Williston
Location 981	4.4	3.0	PHMSA		Williston
Location 982	4.6	3.0	PHMSA		Williston
Location 983	6.1	3.0	PHMSA		Williston
Location 984	6.6	3.0	PHMSA	Crossing ID #12, 2012-SC-CM-57 (I)	Williston
Location 985	6.7	3.0	PHMSA	Crossing ID #12, 2012-SC-CM-57 (I), Estimated location for Depth of 7.6 feet by locator on 7/28/2017 in stream channel.	Williston
Location 986	6.4	3.0	PHMSA		Williston
Location 987	4.1	3.0	PHMSA		Williston
Location 988	4.1	3.0	PHMSA		Williston
Location 989	3.0	3.0	PHMSA		Williston
Location 990	3.2	3.0	PHMSA		Williston
Location 991	3.7	3.0	PHMSA		Williston
Location 992	3.0	3.0	PHMSA		Williston
Location 993	3.7	3.0	PHMSA		Williston
Location 994	3.4	3.0	PHMSA		Williston
Location 995	3.0	3.0	PHMSA		Williston
Location 996	3.4	3.0	PHMSA		Williston
Location 997	3.5	3.0	PHMSA		Williston
Location 998	3.1	3.0	PHMSA		Williston
Location 999	3.6	3.0	PHMSA		Williston
Location 1000	3.0	3.0	PHMSA		Williston
Location 1001	4.1	3.0	PHMSA		Williston
Location 1002	4.2	3.0	PHMSA		Williston
Location 1003	4.0	3.0	PHMSA		Williston
Location 1004	3.6	3.0	PHMSA		Williston
Location 1005	3.8	3.0	PHMSA		Williston
Location 1006	3.5	3.0	PHMSA		Williston
Location 1007	3.5	3.0	PHMSA		Williston
Location 1008	3.4	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1009	3.7	3.0	PHMSA		Williston
Location 1010	3.7	3.0	PHMSA		Williston
Location 1011	3.7	3.0	PHMSA		Williston
Location 1012	3.8	3.0	PHMSA		Williston
Location 1013	3.3	3.0	PHMSA		Williston
Location 1014	3.0	3.0	PHMSA		Williston
Location 1015	3.9	3.0	PHMSA		Williston
Location 1016	4.4	3.0	PHMSA		Williston
Location 1017	4.3	3.0	PHMSA		Williston
Location 1018	4.2	3.0	PHMSA		Williston
Location 1019	5.0	3.0	PHMSA		Williston
Location 1020	5.1	4.0	VELCO		Williston
Location 1021	4.2	4.0	VELCO		Williston
Location 1022	4.9	4.0	VELCO		Williston
Location 1023	5.0	4.0	VELCO		Williston
Location 1024	4.9	4.0	VELCO		Williston
Location 1025	5.3	3.0	PHMSA		Williston
Location 1026	5.3	3.0	PHMSA		Williston
Location 1027	3.3	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1028	3.7	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1029	4.1	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1030	4.2	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1031	3.4	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1032	3.7	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1033	3.7	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1034	4.1	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1035	5.2	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1036	6.3	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1037	7.2	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1038	5.0	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1039	4.6	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1040	3.9	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1041	4.2	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1042	4.0	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1043	4.3	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1044	4.3	4.0	VTRANS	Depth accepted - VTRANS Cut Area # VTRANS-1, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1045	4.0	4.0	VTRANS		Williston
Location 1046	4.0	3.0	PHMSA		Williston
Location 1047	3.1	3.0	PHMSA		Williston
Location 1048	3.0	3.0	PHMSA		Williston
Location 1049	3.2	3.0	PHMSA		Williston
Location 1050	3.5	3.0	PHMSA		Williston
Location 1051	4.0	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1052	3.6	3.0	PHMSA		Williston
Location 1053	3.3	3.0	PHMSA		Williston
Location 1054	3.3	3.0	PHMSA		Williston
Location 1055	3.4	3.0	PHMSA		Williston
Location 1056	3.3	3.0	VTRANS	VTRANS Cut Area # VTRANS-2, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1057	3.2	3.0	VTRANS	VTRANS Cut Area # VTRANS-2, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1058	3.5	3.0	VTRANS	VTRANS Cut Area # VTRANS-2, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1059	3.2	3.0	VTRANS	VTRANS Cut Area # VTRANS-2, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1060	3.3	3.0	VTRANS	VTRANS Cut Area # VTRANS-2, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1061	3.5	3.0	VTRANS	VTRANS Cut Area # VTRANS-2, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1062	3.2	3.0	VTRANS	VTRANS Cut Area # VTRANS-2, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1063	3.0	3.0	VTRANS	VTRANS Cut Area # VTRANS-2, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1064	3.1	3.0	PHMSA		Williston
Location 1065	3.2	3.0	PHMSA		Williston
Location 1066	3.3	3.0	PHMSA		Williston
Location 1067	3.0	3.0	PHMSA		Williston
Location 1068	3.2	3.0	PHMSA		Williston
Location 1069	3.1	3.0	PHMSA		Williston
Location 1070	3.1	3.0	PHMSA		Williston
Location 1071	3.0	3.0	PHMSA		Williston
Location 1072	3.0	3.0	PHMSA		Williston
Location 1073	3.0	3.0	PHMSA		Williston
Location 1074	3.3	3.0	PHMSA		Williston
Location 1075	3.3	3.0	PHMSA		Williston
Location 1076	3.4	3.0	PHMSA		Williston
Location 1077	3.6	3.0	PHMSA		Williston
Location 1078	3.6	3.0	PHMSA		Williston
Location 1079	3.7	3.0	PHMSA		Williston
Location 1080	3.7	3.0	PHMSA		Williston
Location 1081	3.1	3.0	PHMSA		Williston
Location 1082	3.0	3.0	PHMSA		Williston
Location 1083	6.0	3.0	PHMSA		Williston
Location 1084	6.4	3.0	PHMSA		Williston
Location 1085	7.6	3.0	PHMSA		Williston
Location 1086	10.9	5.0	Road Crossing	Mountain View Drive	Williston
Location 1087	9.5	5.0	Road Crossing	Mountain View Drive	Williston
Location 1088	10.7	3.0	PHMSA		Williston
Location 1089	11.1	3.0	PHMSA		Williston
Location 1090	10.8	3.0	PHMSA		Williston
Location 1091	4.3	3.0	PHMSA		Williston
Location 1092	3.9	3.0	PHMSA		Williston
Location 1093	3.3	3.0	PHMSA		Williston
Location 1094	3.5	3.0	PHMSA		Williston
Location 1095	3.6	3.0	PHMSA		Williston
Location 1096	3.7	3.0	PHMSA		Williston
Location 1097	4.3	3.0	PHMSA		Williston
Location 1098	3.5	3.0	PHMSA		Williston
Location 1099	3.3	3.0	PHMSA		Williston
Location 1100	3.4	3.0	PHMSA		Williston
Location 1101	3.4	3.0	PHMSA		Williston
Location 1102	4.2	3.0	PHMSA		Williston
Location 1103	4.5	4.0	VTRANS		Williston
Location 1104	4.1	4.0	VTRANS		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1105	4.2	4.0	VTRANS	VTRANS Cut Area # VTRANS-3, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1106	4.1	4.0	VTRANS	VTRANS Cut Area # VTRANS-3, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1107	4.1	4.0	VTRANS	VTRANS Cut Area # VTRANS-3, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1108	4.1	4.0	VTRANS	VTRANS Cut Area # VTRANS-3, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1109	4.1	4.0	VTRANS	VTRANS Cut Area # VTRANS-3, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1110	4.4	4.0	VTRANS	VTRANS Cut Area # VTRANS-3, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1111	4.6	4.0	VTRANS	VTRANS Cut Area # VTRANS-3, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1112	4.3	4.0	VTRANS	VTRANS Cut Area # VTRANS-3, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1113	4.6	4.0	VTRANS		Williston
Location 1114	5.0	4.0	VTRANS		Williston
Location 1115	4.5	4.0	VTRANS		Williston
Location 1116	4.0	4.0	VTRANS		Williston
Location 1117	4.1	4.0	VTRANS		Williston
Location 1118	4.2	4.0	VTRANS		Williston
Location 1119	4.8	4.0	VTRANS	VTRANS Cut Area # VTRANS-4, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1120	4.3	4.0	VTRANS	VTRANS Cut Area # VTRANS-4, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1121	4.4	4.0	VTRANS	VTRANS Cut Area # VTRANS-4, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1122	4.3	4.0	VTRANS	VTRANS Cut Area # VTRANS-4, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1123	4.5	4.0	VTRANS		Williston
Location 1124	4.5	4.0	VTRANS		Williston
Location 1125	4.0	4.0	VTRANS		Williston
Location 1126	4.5	4.0	VTRANS		Williston
Location 1127	4.1	4.0	VTRANS		Williston
Location 1128	4.0	4.0	VTRANS		Williston
Location 1129	4.9	4.0	VTRANS		Williston
Location 1130	4.9	4.0	VTRANS		Williston
Location 1131	5.0	4.0	VTRANS		Williston
Location 1132	4.1	4.0	VTRANS		Williston
Location 1133	4.0	4.0	VTRANS		Williston
Location 1134	4.5	4.0	VTRANS		Williston
Location 1135	4.6	4.0	VTRANS		Williston
Location 1136	4.2	4.0	VTRANS		Williston
Location 1137	4.5	4.0	VTRANS		Williston
Location 1138	4.6	4.0	VTRANS		Williston
Location 1139	4.8	4.0	VTRANS		Williston
Location 1140	4.4	4.0	VTRANS		Williston
Location 1141	4.2	4.0	VTRANS		Williston
Location 1142	4.3	4.0	VTRANS		Williston
Location 1143	4.5	4.0	VTRANS		Williston
Location 1144	4.5	4.0	VTRANS		Williston
Location 1145	4.3	4.0	VTRANS		Williston
Location 1146	4.2	4.0	VTRANS		Williston
Location 1147	4.3	4.0	VTRANS		Williston
Location 1148	4.5	4.0	VTRANS		Williston
Location 1149	4.5	4.0	VTRANS		Williston
Location 1150	4.3	4.0	VTRANS		Williston
Location 1151	4.1	4.0	VTRANS		Williston
Location 1152	4.7	4.0	VTRANS		Williston
Location 1153	4.5	4.0	VTRANS		Williston
Location 1154	4.1	4.0	VTRANS		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1155	5.0	4.0	VTRANS		Williston
Location 1156	4.2	4.0	VTRANS		Williston
Location 1157	5.9	4.0	VTRANS	VTRANS Cut Area # VTRANS-5, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1158	5.1	4.0	VTRANS	VTRANS Cut Area # VTRANS-5, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1159	4.0	4.0	VTRANS		Williston
Location 1160	5.0	4.0	VTRANS		Williston
Location 1161	5.9	4.0	VTRANS		Williston
Location 1162	5.7	4.0	VTRANS		Williston
Location 1163	5.7	4.0	VTRANS		Williston
Location 1164	5.7	4.0	VTRANS		Williston
Location 1165	5.4	4.0	VTRANS		Williston
Location 1166	4.1	4.0	VTRANS	VTRANS Cut Area # VTRANS-6, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1167	5.3	4.0	VTRANS	VTRANS Cut Area # VTRANS-6, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1168	5.3	4.0	VTRANS	VTRANS Cut Area # VTRANS-6, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1169	4.2	4.0	VTRANS		Williston
Location 1170	4.2	4.0	VTRANS		Williston
Location 1171	4.3	4.0	VTRANS		Williston
Location 1172	4.0	4.0	VTRANS		Williston
Location 1173	4.7	4.0	VTRANS		Williston
Location 1174	4.8	4.0	VTRANS		Williston
Location 1175	4.3	4.0	VTRANS		Williston
Location 1176	4.4	4.0	VTRANS		Williston
Location 1177	4.3	4.0	VTRANS		Williston
Location 1178	5.0	4.0	VTRANS		Williston
Location 1179	4.7	4.0	VTRANS		Williston
Location 1180	5.0	4.0	VTRANS		Williston
Location 1181	4.7	4.0	VTRANS		Williston
Location 1182	4.3	4.0	VTRANS		Williston
Location 1183	4.6	4.0	VTRANS	VTRANS Cut Area # VTRANS-7, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1184	4.1	4.0	VTRANS	VTRANS Cut Area # VTRANS-7, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1185	5.4	4.0	VTRANS	VTRANS Cut Area # VTRANS-7, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1186	5.6	4.0	VTRANS	VTRANS Cut Area # VTRANS-7, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1187	5.4	4.0	VTRANS	VTRANS Cut Area # VTRANS-7, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1188	5.1	4.0	VTRANS	VTRANS Cut Area # VTRANS-7, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1189	4.9	4.0	VTRANS	VTRANS Cut Area # VTRANS-7, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1190	4.9	4.0	VTRANS	VTRANS Cut Area # VTRANS-8, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1191	4.4	4.0	VTRANS	VTRANS Cut Area # VTRANS-8, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1192	4.2	4.0	VTRANS	VTRANS Cut Area # VTRANS-8, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1193	5.4	4.0	VTRANS		Williston
Location 1194	4.4	4.0	VTRANS		Williston
Location 1195	4.6	4.0	VTRANS		Williston
Location 1196	4.5	4.0	VTRANS		Williston
Location 1197	4.1	4.0	VTRANS		Williston
Location 1198	4.5	4.0	VTRANS		Williston
Location 1199	4.3	4.0	VTRANS		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1200	5.9	4.0	VTRANS		Williston
Location 1201	4.5	4.0	VTRANS	VTRANS Cut Area # VTRANS-9, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1202	4.1	4.0	VTRANS	VTRANS Cut Area # VTRANS-9, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1203	4.3	4.0	VTRANS	VTRANS Cut Area # VTRANS-9, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1204	4.0	4.0	VTRANS	VTRANS Cut Area # VTRANS-9, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1205	4.5	4.0	VTRANS	VTRANS Cut Area # VTRANS-9, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1206	5.0	4.0	VTRANS	VTRANS Cut Area # VTRANS-9, See Permit Amendment #6 (dated 10/7/2015) for information.	Williston
Location 1207	5.0	4.0	VTRANS		Williston
Location 1208	4.1	4.0	VTRANS		Williston
Location 1209	4.4	4.0	VTRANS		Williston
Location 1210	5.0	4.0	VTRANS		Williston
Location 1211	4.1	4.0	VTRANS		Williston
Location 1212	4.0	4.0	VTRANS		Williston
Location 1213	4.3	4.0	VTRANS		Williston
Location 1214	5.2	4.0	VTRANS		Williston
Location 1215	6.3	4.0	VTRANS		Williston
Location 1216	6.2	4.0	VTRANS		Williston
Location 1217	4.6	4.0	VTRANS		Williston
Location 1218	4.5	4.0	VTRANS		Williston
Location 1219	5.3	4.0	VTRANS		Williston
Location 1220	5.6	4.0	VTRANS		Williston
Location 1221	7.0	4.0	VTRANS		Williston
Location 1222	5.8	4.0	VTRANS		Williston
Location 1223	4.8	4.0	VTRANS		Williston
Location 1224	6.4	4.0	VTRANS		Williston
Location 1225	9.1	7.0	DEC Stream	Crossing ID #116, 2012-TB-ALB-1 (P) (Allen Brook)	Williston
Location 1226	10.8	7.0	DEC Stream	Crossing ID #116, 2012-TB-ALB-1 (P) (Allen Brook)	Williston
Location 1227	10.3	7.0	DEC Stream	Crossing ID #116, 2012-TB-ALB-1 (P) (Allen Brook)	Williston
Location 1228	8.8	7.0	DEC Stream	Crossing ID #116, 2012-TB-ALB-1 (P) (Allen Brook)	Williston
Location 1229	10.4	4.0	VTRANS		Williston
Location 1230	5.0	4.0	VTRANS		Williston
Location 1231	4.7	4.0	VTRANS		Williston
Location 1232	4.6	4.0	VTRANS		Williston
Location 1233	4.8	4.0	VTRANS		Williston
Location 1234	6.5	4.0	VTRANS		Williston
Location 1235	9.7	5.0	Road Crossing	Route 2 (Williston Road)	Williston
Location 1236	9.1	5.0	Road Crossing	Route 2 (Williston Road)	Williston
Location 1237	6.4	3.0	PHMSA		Williston
Location 1238	5.8	3.0	PHMSA		Williston
Location 1239	4.1	3.0	PHMSA		Williston
Location 1240	4.2	3.0	PHMSA		Williston
Location 1241	4.6	3.0	PHMSA		Williston
Location 1242	7.1	3.0	PHMSA		Williston
Location 1243	6.4	3.0	PHMSA		Williston
Location 1244	4.2	3.0	PHMSA		Williston
Location 1245	4.3	3.0	PHMSA		Williston
Location 1246	4.2	3.0	PHMSA		Williston
Location 1247	4.8	3.0	PHMSA		Williston
Location 1248	5.5	3.0	PHMSA		Williston
Location 1249	5.5	3.0	PHMSA		Williston
Location 1250	4.6	3.0	PHMSA		Williston
Location 1251	4.2	4.0	Agriculture		Williston
Location 1252	4.8	4.0	Agriculture		Williston
Location 1253	4.6	4.0	Agriculture		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1254	5.7	4.0	Agriculture		Williston
Location 1255	5.3	4.0	Agriculture		Williston
Location 1256	5.9	4.0	Agriculture		Williston
Location 1257	5.0	4.0	Agriculture		Williston
Location 1258	4.6	4.0	Agriculture		Williston
Location 1259	4.6	4.0	Agriculture		Williston
Location 1260	4.8	4.0	Agriculture		Williston
Location 1261	4.5	4.0	Agriculture		Williston
Location 1262	4.5	4.0	Agriculture		Williston
Location 1263	4.5	4.0	Agriculture		Williston
Location 1264	4.1	4.0	Agriculture		Williston
Location 1265	4.0	4.0	Agriculture		Williston
Location 1266	5.4	4.0	Agriculture		Williston
Location 1267	4.5	4.0	Agriculture		Williston
Location 1268	4.4	4.0	Agriculture		Williston
Location 1269	4.0	4.0	Agriculture		Williston
Location 1270	4.0	4.0	Agriculture		Williston
Location 1271	4.0	4.0	Agriculture		Williston
Location 1272	4.6	4.0	Agriculture		Williston
Location 1273	4.4	4.0	Agriculture		Williston
Location 1274	5.4	4.0	Agriculture		Williston
Location 1275	5.6	4.0	Agriculture		Williston
Location 1276	5.2	4.0	Agriculture		Williston
Location 1277	5.2	4.0	Agriculture		Williston
Location 1278	4.7	4.0	Agriculture		Williston
Location 1279	4.3	4.0	Agriculture		Williston
Location 1280	4.6	4.0	Agriculture		Williston
Location 1281	4.4	3.0	PHMSA		Williston
Location 1282	4.4	3.0	PHMSA		Williston
Location 1283	4.2	3.0	PHMSA		Williston
Location 1284	4.0	3.0	PHMSA		Williston
Location 1285	4.3	3.0	PHMSA		Williston
Location 1286	4.0	3.0	PHMSA		Williston
Location 1287	4.0	3.0	PHMSA		Williston
Location 1288	4.1	3.0	PHMSA		Williston
Location 1289	4.6	3.0	PHMSA		Williston
Location 1290	4.6	3.0	PHMSA		Williston
Location 1291	4.8	3.0	PHMSA		Williston
Location 1292	6.4	3.0	PHMSA	Crossing ID #117, 2012-SC-CM-34 (I)	Williston
Location 1293	6.7	3.0	PHMSA	Crossing ID #117, 2012-SC-CM-34 (I)	Williston
Location 1294	4.8	3.0	PHMSA		Williston
Location 1295	5.1	3.0	PHMSA		Williston
Location 1296	4.4	3.0	PHMSA		Williston
Location 1297	4.0	3.0	PHMSA		Williston
Location 1298	6.2	3.0	PHMSA	Crossing ID #15, 2012-TB-CM-35 (P)	Williston
Location 1299	5.7	3.0	PHMSA	Crossing ID #15, 2012-TB-CM-35 (P)	Williston
Location 1300	4.9	3.0	PHMSA		Williston
Location 1301	5.2	3.0	PHMSA		Williston
Location 1302	5.4	3.0	PHMSA	Crossing ID #16, 2012-TB/SC-CM-36 (P)	Williston
Location 1303	5.4	3.0	PHMSA	Crossing ID #16, 2012-TB/SC-CM-36 (P)	Williston
Location 1304	4.8	3.0	PHMSA		Williston
Location 1305	5.5	3.0	PHMSA		Williston
Location 1306	5.5	3.0	PHMSA		Williston
Location 1307	4.4	3.0	PHMSA		Williston
Location 1308	4.1	3.0	PHMSA		Williston
Location 1309	4.1	3.0	PHMSA		Williston
Location 1310	4.0	3.0	PHMSA		Williston
Location 1311	4.4	3.0	PHMSA		Williston
Location 1312	4.0	3.0	PHMSA		Williston
Location 1313	4.3	3.0	PHMSA		Williston
Location 1314	4.0	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1315	4.3	3.0	PHMSA		Williston
Location 1316	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 1317	HDD	22.0	Road Crossing	I89 Northbound, Estimated location for Depth from HDD Profile (23.0 feet).	Williston
Location 1318	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 1319	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 1320	HDD	25.0	Road Crossing	I89 Southbound, Estimated location for Depth from HDD Profile (27.0 feet).	Williston
Location 1321	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	Williston
Location 1322	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1323	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1324	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1325	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1326	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1327	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1328	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1329	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1330	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1331	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1332	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1333	7.3	5.0	Road Crossing	Hurricane Lane	Williston
Location 1334	6.3	5.0	Road Crossing	Hurricane Lane	Williston
Location 1335	5.1	3.0	PHMSA		Williston
Location 1336	4.5	3.0	PHMSA		Williston
Location 1337	4.2	3.0	PHMSA		Williston
Location 1338	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1339	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1340	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1341	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1342	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1343	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1344	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1345	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1346	HDD	3.0	PHMSA	Estimated location for Depth from HDD Profile (19.0 feet).	Williston
Location 1347	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1348	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1349	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1350	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1351	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1352	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1353	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1354	HDD	3.0	PHMSA	Based on HDD Profile, minimum depth is at least 3.0 feet.	Williston
Location 1355	5.1	4.0	VELCO		Williston
Location 1356	6.3	4.0	VELCO		Williston
Location 1357	6.1	4.0	VELCO		Williston
Location 1358	4.8	4.0	VELCO		Williston
Location 1359	4.8	3.0	PHMSA		Williston
Location 1360	5.1	3.0	PHMSA		Williston
Location 1361	4.9	3.0	PHMSA		Williston
Location 1362	4.9	3.0	PHMSA		Williston
Location 1363	5.1	3.0	PHMSA		Williston
Location 1364	5.9	3.0	PHMSA		Williston
Location 1365	5.3	3.0	PHMSA		Williston
Location 1366	4.7	3.0	PHMSA		Williston
Location 1367	5.0	3.0	PHMSA		Williston
Location 1368	4.4	3.0	PHMSA		Williston
Location 1369	4.6	3.0	PHMSA		Williston
Location 1370	4.5	3.0	PHMSA		Williston
Location 1371	5.2	3.0	PHMSA		Williston
Location 1372	4.7	3.0	PHMSA		Williston
Location 1373	4.8	3.0	PHMSA		Williston
Location 1374	4.8	3.0	PHMSA		Williston
Location 1375	5.8	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1376	5.8	3.0	PHMSA		Williston
Location 1377	5.1	3.0	PHMSA		Williston
Location 1378	5.2	3.0	PHMSA		Williston
Location 1379	5.7	3.0	PHMSA		Williston
Location 1380	6.0	3.0	PHMSA		Williston
Location 1381	6.1	3.0	PHMSA		Williston
Location 1382	6.2	3.0	PHMSA		Williston
Location 1383	5.6	4.0	VELCO		Williston
Location 1384	5.6	4.0	VELCO		Williston
Location 1385	5.7	4.0	VELCO		Williston
Location 1386	5.7	4.0	VELCO		Williston
Location 1387	5.2	4.0	VELCO		Williston
Location 1388	5.6	4.0	VELCO		Williston
Location 1389	5.5	4.0	VELCO		Williston
Location 1390	5.5	4.0	VELCO		Williston
Location 1391	8.3	4.0	VELCO		Williston
Location 1392	5.9	4.0	VELCO		Williston
Location 1393	4.0	4.0	VELCO		Williston
Location 1394	4.0	4.0	VELCO		Williston
Location 1395	4.0	4.0	VELCO		Williston
Location 1396	4.5	4.0	VELCO		Williston
Location 1397	5.0	4.0	VELCO		Williston
Location 1398	5.4	4.0	VELCO		Williston
Location 1399	4.4	4.0	VELCO		Williston
Location 1400	4.8	4.0	VELCO		Williston
Location 1401	4.8	4.0	VELCO		Williston
Location 1402	4.0	4.0	VELCO		Williston
Location 1403	4.6	4.0	VELCO		Williston
Location 1404	4.5	4.0	VELCO		Williston
Location 1405	4.7	4.0	VELCO		Williston
Location 1406	4.7	4.0	VELCO		Williston
Location 1407	4.1	4.0	VELCO		Williston
Location 1408	4.0	4.0	VELCO		Williston
Location 1409	4.1	4.0	VELCO		Williston
Location 1410	4.1	4.0	VELCO		Williston
Location 1411	4.3	4.0	VELCO		Williston
Location 1412	4.0	4.0	VELCO		Williston
Location 1413	4.1	4.0	VELCO		Williston
Location 1414	4.1	4.0	VELCO		Williston
Location 1415	5.3	4.0	VELCO		Williston
Location 1416	4.3	4.0	VELCO		Williston
Location 1417	5.0	4.0	VELCO		Williston
Location 1418	4.0	4.0	VELCO		Williston
Location 1419	4.2	4.0	VELCO		Williston
Location 1420	4.3	4.0	VELCO		Williston
Location 1421	4.6	4.0	VELCO		Williston
Location 1422	4.6	4.0	VELCO		Williston
Location 1423	4.6	3.0	PHMSA		Williston
Location 1424	4.1	3.0	PHMSA		Williston
Location 1425	4.2	3.0	PHMSA		Williston
Location 1426	4.5	3.0	PHMSA		Williston
Location 1427	4.3	3.0	PHMSA		Williston
Location 1428	4.2	3.0	PHMSA		Williston
Location 1429	4.1	3.0	PHMSA		Williston
Location 1430	4.0	3.0	PHMSA		Williston
Location 1431	4.0	3.0	PHMSA		Williston
Location 1432	4.0	3.0	PHMSA		Williston
Location 1433	4.5	3.0	PHMSA		Williston
Location 1434	4.0	3.0	PHMSA		Williston
Location 1435	4.0	4.0	VELCO		Williston
Location 1436	4.1	4.0	VELCO		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1437	4.1	4.0	VELCO		Williston
Location 1438	4.2	4.0	VELCO		Williston
Location 1439	4.4	4.0	Agriculture		Williston
Location 1440	4.4	4.0	Agriculture		Williston
Location 1441	4.4	4.0	Agriculture		Williston
Location 1442	4.5	4.0	Agriculture		Williston
Location 1443	4.3	4.0	Agriculture		Williston
Location 1444	4.0	4.0	Agriculture		Williston
Location 1445	5.0	4.0	Agriculture		Williston
Location 1446	6.3	5.0	Road Crossing	Route 2A	Williston
Location 1447	7.7	3.0	PHMSA		Williston
Location 1448	7.8	3.0	PHMSA		Williston
Location 1449	7.7	3.0	PHMSA		Williston
Location 1450	7.3	3.0	PHMSA		Williston
Location 1451	5.0	3.0	PHMSA		Williston
Location 1452	4.2	3.0	PHMSA		Williston
Location 1453	4.5	3.0	PHMSA		Williston
Location 1454	4.7	3.0	PHMSA		Williston
Location 1455	4.5	3.0	PHMSA		Williston
Location 1456	4.1	3.0	PHMSA		Williston
Location 1457	4.2	4.0	VELCO		Williston
Location 1458	4.7	4.0	VELCO		Williston
Location 1459	4.9	4.0	VELCO		Williston
Location 1460	4.1	4.0	VELCO		Williston
Location 1461	4.2	4.0	VELCO		Williston
Location 1462	5.0	3.0	PHMSA		Williston
Location 1463	4.1	3.0	PHMSA		Williston
Location 1464	4.0	3.0	PHMSA		Williston
Location 1465	4.0	3.0	PHMSA		Williston
Location 1466	5.0	3.0	PHMSA		Williston
Location 1467	5.0	3.0	PHMSA		Williston
Location 1468	5.1	3.0	PHMSA		Williston
Location 1469	5.3	3.0	PHMSA		Williston
Location 1470	4.8	3.0	PHMSA		Williston
Location 1471	4.5	3.0	PHMSA		Williston
Location 1472	4.7	3.0	PHMSA		Williston
Location 1473	4.6	3.0	PHMSA		Williston
Location 1474	4.8	3.0	PHMSA		Williston
Location 1475	4.5	3.0	PHMSA		Williston
Location 1476	4.5	3.0	PHMSA		Williston
Location 1477	4.8	3.0	PHMSA		Williston
Location 1478	4.5	3.0	PHMSA		Williston
Location 1479	4.5	3.0	PHMSA		Williston
Location 1480	4.8	3.0	PHMSA		Williston
Location 1481	4.0	3.0	PHMSA		Williston
Location 1482	4.2	3.0	PHMSA		Williston
Location 1483	4.2	3.0	PHMSA		Williston
Location 1484	4.1	3.0	PHMSA		Williston
Location 1485	4.3	3.0	PHMSA		Williston
Location 1486	4.4	3.0	PHMSA		Williston
Location 1487	4.3	3.0	PHMSA		Williston
Location 1488	4.5	3.0	PHMSA		Williston
Location 1489	4.8	3.0	PHMSA		Williston
Location 1490	4.0	3.0	PHMSA		Williston
Location 1491	4.2	3.0	PHMSA		Williston
Location 1492	4.0	3.0	PHMSA		Williston
Location 1493	4.3	3.0	PHMSA		Williston
Location 1494	4.3	3.0	PHMSA		Williston
Location 1495	4.4	3.0	PHMSA		Williston
Location 1496	4.5	3.0	PHMSA		Williston
Location 1497	4.6	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1498	4.7	3.0	PHMSA		Williston
Location 1499	5.0	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1500	4.0	3.0	PHMSA		Williston
Location 1501	4.2	3.0	PHMSA		Williston
Location 1502	4.2	3.0	PHMSA		Williston
Location 1503	4.0	3.0	PHMSA		Williston
Location 1504	4.7	3.0	PHMSA		Williston
Location 1505	4.2	3.0	PHMSA		Williston
Location 1506	4.2	3.0	PHMSA		Williston
Location 1507	4.0	3.0	PHMSA		Williston
Location 1508	4.0	3.0	PHMSA		Williston
Location 1509	4.2	3.0	PHMSA		Williston
Location 1510	4.4	3.0	PHMSA		Williston
Location 1511	4.7	3.0	PHMSA		Williston
Location 1512	5.3	3.0	PHMSA		Williston
Location 1513	5.6	3.0	PHMSA		Williston
Location 1514	5.3	3.0	PHMSA		Williston
Location 1515	5.8	3.0	PHMSA		Williston
Location 1516	5.9	4.0	VELCO		Williston
Location 1517	5.9	4.0	VELCO		Williston
Location 1518	5.3	4.0	VELCO		Williston
Location 1519	4.1	4.0	VELCO		Williston
Location 1520	4.0	4.0	VELCO		Williston
Location 1521	4.9	4.0	VELCO		Williston
Location 1522	5.2	4.0	VELCO		Williston
Location 1523	4.5	4.0	VELCO		Williston
Location 1524	4.8	4.0	VELCO		Williston
Location 1525	4.2	4.0	VELCO		Williston
Location 1526	4.1	4.0	VELCO		Williston
Location 1527	4.3	4.0	VELCO		Williston
Location 1528	4.0	4.0	VELCO		Williston
Location 1529	4.1	4.0	VELCO		Williston
Location 1530	4.1	4.0	VELCO		Williston
Location 1531	4.1	4.0	VELCO		Williston
Location 1532	5.4	4.0	VELCO		Williston
Location 1533	4.4	4.0	VELCO		Williston
Location 1534	4.2	4.0	VELCO		Williston
Location 1535	4.3	4.0	VELCO		Williston
Location 1536	4.2	4.0	VELCO		Williston
Location 1537	4.2	4.0	VELCO		Williston
Location 1538	4.1	4.0	VELCO		Williston
Location 1539	4.1	4.0	VELCO		Williston
Location 1540	4.3	4.0	VELCO		Williston
Location 1541	4.1	4.0	VELCO		Williston
Location 1542	4.9	4.0	VELCO		Williston
Location 1543	5.3	4.0	VELCO		Williston
Location 1544	5.5	4.0	VELCO		Williston
Location 1545	5.0	4.0	VELCO		Williston
Location 1546	4.9	4.0	VELCO		Williston
Location 1547	4.3	4.0	VELCO		Williston
Location 1548	4.3	4.0	VELCO		Williston
Location 1549	6.0	4.0	VELCO		Williston
Location 1550	6.1	4.0	VELCO		Williston
Location 1551	6.9	4.0	VELCO		Williston
Location 1552	4.9	4.0	VELCO		Williston
Location 1553	4.8	3.0	PHMSA		Williston
Location 1554	4.7	3.0	PHMSA		Williston
Location 1555	5.1	3.0	PHMSA		Williston
Location 1556	5.2	3.0	PHMSA		Williston
Location 1557	5.1	3.0	PHMSA		Williston
Location 1558	5.7	3.0	PHMSA		Williston
Location 1559	5.5	3.0	PHMSA		Williston
Location 1560	5.5	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1561	5.6	3.0	PHMSA		Williston
Location 1562	5.0	3.0	PHMSA		Williston
Location 1563	4.9	3.0	PHMSA		Williston
Location 1564	4.9	3.0	PHMSA		Williston
Location 1565	5.2	3.0	PHMSA		Williston
Location 1566	5.9	3.0	PHMSA		Williston
Location 1567	4.0	4.0	VELCO		Williston
Location 1568	4.8	4.0	VELCO		Williston
Location 1569	6.6	4.0	Agriculture		Williston
Location 1570	6.2	4.0	Agriculture		Williston
Location 1571	5.1	4.0	Agriculture		Williston
Location 1572	5.9	4.0	Agriculture		Williston
Location 1573	6.1	4.0	Agriculture		Williston
Location 1574	6.0	4.0	Agriculture		Williston
Location 1575	6.1	4.0	Agriculture		Williston
Location 1576	5.1	4.0	Agriculture		Williston
Location 1577	5.1	4.0	Agriculture		Williston
Location 1578	4.6	4.0	Agriculture		Williston
Location 1579	6.3	4.0	Agriculture		Williston
Location 1580	6.7	4.0	Agriculture		Williston
Location 1581	7.8	4.0	Agriculture		Williston
Location 1582	7.2	4.0	Agriculture		Williston
Location 1583	7.6	7.0	DEC Stream	Crossing ID #17, 2012-TB-SB-1 (P) (Sucker Brook)	Williston
Location 1584	9.0	7.0	DEC Stream	Crossing ID #17, 2012-TB-SB-1 (P) (Sucker Brook)	Williston
Location 1585	9.4	7.0	DEC Stream	Crossing ID #17, 2012-TB-SB-1 (P) (Sucker Brook)	Williston
Location 1586	9.7	7.0	DEC Stream	Crossing ID #17, 2012-TB-SB-1 (P) (Sucker Brook)	Williston
Location 1587	5.6	4.0	VELCO/Agriculture		Williston
Location 1588	5.5	4.0	VELCO/Agriculture		Williston
Location 1589	4.5	4.0	VELCO/Agriculture		Williston
Location 1590	4.1	4.0	VELCO/Agriculture		Williston
Location 1591	4.1	4.0	VELCO/Agriculture		Williston
Location 1592	4.3	4.0	VELCO/Agriculture		Williston
Location 1593	4.2	3.0	PHMSA		Williston
Location 1594	4.9	3.0	PHMSA		Williston
Location 1595	4.8	3.0	PHMSA		Williston
Location 1596	4.8	3.0	PHMSA		Williston
Location 1597	4.3	3.0	PHMSA		Williston
Location 1598	4.4	3.0	PHMSA		Williston
Location 1599	4.7	3.0	PHMSA		Williston
Location 1600	5.0	3.0	PHMSA		Williston
Location 1601	5.4	3.0	PHMSA		Williston
Location 1602	4.6	3.0	PHMSA		Williston
Location 1603	5.0	3.0	PHMSA		Williston
Location 1604	5.1	3.0	PHMSA		Williston
Location 1605	4.7	3.0	PHMSA		Williston
Location 1606	4.3	3.0	PHMSA		Williston
Location 1607	5.1	3.0	PHMSA		Williston
Location 1608	5.1	3.0	PHMSA		Williston
Location 1609	5.2	3.0	PHMSA		Williston
Location 1610	4.6	3.0	PHMSA		Williston
Location 1611	4.4	3.0	PHMSA		Williston
Location 1612	4.8	3.0	PHMSA		Williston
Location 1613	4.7	3.0	PHMSA		Williston
Location 1614	4.4	3.0	PHMSA		Williston
Location 1615	4.3	3.0	PHMSA		Williston
Location 1616	4.5	3.0	PHMSA		Williston
Location 1617	4.9	3.0	PHMSA		Williston
Location 1618	4.3	3.0	PHMSA		Williston
Location 1619	4.4	3.0	PHMSA		Williston
Location 1620	4.9	3.0	PHMSA		Williston
Location 1621	4.6	3.0	PHMSA		Williston

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1622	4.4	3.0	PHMSA		Williston
Location 1623	4.4	3.0	PHMSA		Williston
Location 1624	4.9	3.0	PHMSA		Williston
Location 1625	4.5	3.0	PHMSA		Williston
Location 1626	4.2	3.0	PHMSA		Williston
Location 1627	4.5	3.0	PHMSA		Williston
Location 1628	4.5	3.0	PHMSA		Williston
Location 1629	4.7	3.0	PHMSA		Williston
Location 1630	5.1	3.0	PHMSA		Williston
Location 1631	4.0	3.0	PHMSA		Williston
Location 1632	4.5	3.0	PHMSA		Williston
Location 1633	4.5	3.0	PHMSA		Williston
Location 1634	4.2	3.0	PHMSA		Williston
Location 1635	4.9	3.0	PHMSA		Williston
Location 1636	4.0	3.0	PHMSA		Williston
Location 1637	4.0	3.0	PHMSA	Lincoln Road - Road Crossing nearby this weld, Pipeline locator indicated a depth of 6.0 feet in roadway. 5-foot minimum required under road.	Williston
Location 1638	5.2	3.0	PHMSA	MLV #2	Williston
Location 1639	5.0	3.0	PHMSA		Williston
Location 1640	4.1	3.0	PHMSA		Williston
Location 1641	5.2	3.0	PHMSA		Williston
Location 1642	4.7	3.0	PHMSA		Williston
Location 1643	4.0	3.0	PHMSA		Williston
Location 1644	4.0	3.0	PHMSA		Williston
Location 1645	4.0	3.0	PHMSA		Williston
Location 1646	4.5	3.0	PHMSA		Williston
Location 1647	4.0	3.0	PHMSA		Williston
Location 1648	4.4	3.0	PHMSA		Williston
Location 1649	4.2	3.0	PHMSA		Williston
Location 1650	4.3	3.0	PHMSA		Williston
Location 1651	4.5	3.0	PHMSA		Williston
Location 1652	4.3	3.0	PHMSA		Williston
Location 1653	4.0	3.0	PHMSA		Williston
Location 1654	4.2	3.0	PHMSA		Williston
Location 1655	4.2	3.0	PHMSA		Williston
Location 1656	4.0	3.0	PHMSA		Williston
Location 1657	4.0	3.0	PHMSA		Williston
Location 1658	4.0	3.0	PHMSA		Williston
Location 1659	4.0	3.0	PHMSA		Williston
Location 1660	4.3	3.0	PHMSA		Williston
Location 1661	4.1	3.0	PHMSA		Williston
Location 1662	4.8	4.0	VTRANS/Agriculture		Williston
Location 1663	5.3	4.0	VTRANS/Agriculture		Williston
Location 1664	5.4	4.0	VTRANS/Agriculture		Williston
Location 1665	4.9	4.0	VTRANS/Agriculture		Williston
Location 1666	4.3	4.0	VTRANS/Agriculture		Williston
Location 1667	4.6	4.0	VTRANS/Agriculture		Williston
Location 1668	5.1	4.0	VTRANS/Agriculture		Williston
Location 1669	4.4	4.0	VTRANS/Agriculture		Williston
Location 1670	5.2	4.0	VTRANS/Agriculture		Williston
Location 1671	4.5	4.0	VTRANS/Agriculture		Williston
Location 1672	4.4	4.0	VTRANS/Agriculture		Williston
Location 1673	4.5	4.0	VTRANS/Agriculture		Williston
Location 1674	4.0	4.0	VTRANS/Agriculture		Williston
Location 1675	4.1	4.0	VTRANS/Agriculture		Williston
Location 1676	4.9	4.0	VTRANS/Agriculture		Williston
Location 1677	5.1	4.0	VTRANS/Agriculture		Williston
Location 1678	7.3	4.0	VTRANS/Agriculture		Williston
Location 1679	9.6	4.0	VTRANS/Agriculture		Williston
Location 1680	5.8	4.0	VTRANS/Agriculture		Williston
Location 1681	4.8	4.0	VTRANS/Agriculture		St. George

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1682	4.5	4.0	Agriculture		St. George
Location 1683	4.3	4.0	Agriculture		St. George
Location 1684	4.8	4.0	Agriculture		St. George
Location 1685	4.5	4.0	Agriculture		St. George
Location 1686	4.5	4.0	Agriculture		St. George
Location 1687	4.6	4.0	Agriculture		St. George
Location 1688	4.5	4.0	Agriculture		St. George
Location 1689	4.0	4.0	Agriculture		St. George
Location 1690	4.6	4.0	Agriculture		St. George
Location 1691	5.1	4.0	Agriculture		St. George
Location 1692	4.7	4.0	Agriculture		St. George
Location 1693	4.1	4.0	Agriculture		St. George
Location 1694	4.5	4.0	Agriculture		St. George
Location 1695	4.4	4.0	Agriculture		St. George
Location 1696	4.0	4.0	Agriculture		St. George
Location 1697	4.3	4.0	Agriculture		St. George
Location 1698	4.0	4.0	Agriculture		St. George
Location 1699	4.3	4.0	Agriculture		St. George
Location 1700	4.6	4.0	Agriculture		St. George
Location 1701	4.4	4.0	Agriculture		St. George
Location 1702	4.5	4.0	Agriculture		St. George
Location 1703	4.8	4.0	Agriculture		St. George
Location 1704	7.1	4.0	Agriculture	Breezy Valley Lane - Road Crossing nearby this weld, Pipeline locator indicated a depth of 8.5 feet in roadway. 5-foot minimum required under road.	St. George
Location 1705	7.7	4.0	Agriculture		St. George
Location 1706	4.4	4.0	Agriculture		St. George
Location 1707	5.5	4.0	Agriculture		St. George
Location 1708	4.9	4.0	Agriculture		St. George
Location 1709	5.1	4.0	Agriculture		St. George
Location 1710	5.7	4.0	Agriculture		St. George
Location 1711	5.6	4.0	Agriculture		St. George
Location 1712	5.4	4.0	Agriculture		St. George
Location 1713	5.4	4.0	Agriculture		St. George
Location 1714	6.6	4.0	Agriculture		St. George
Location 1715	6.2	4.0	VTRANS		St. George
Location 1716	6.1	4.0	VTRANS		St. George
Location 1717	5.6	4.0	VTRANS		St. George
Location 1718	5.9	4.0	VTRANS		St. George
Location 1719	4.9	4.0	VTRANS		St. George
Location 1720	4.2	4.0	VTRANS		St. George
Location 1721	5.9	4.0	VTRANS		St. George
Location 1722	4.2	4.0	VTRANS		St. George
Location 1723	4.1	3.0	PHMSA		St. George
Location 1724	4.2	3.0	PHMSA		St. George
Location 1725	4.3	3.0	PHMSA		St. George
Location 1726	4.2	3.0	PHMSA		St. George
Location 1727	4.1	3.0	PHMSA		St. George
Location 1728	4.6	3.0	PHMSA		St. George
Location 1729	4.7	4.0	Agriculture		St. George
Location 1730	4.1	4.0	Agriculture		St. George
Location 1731	4.7	4.0	Agriculture		St. George
Location 1732	4.2	4.0	Agriculture		St. George
Location 1733	4.1	4.0	Agriculture		St. George
Location 1734	4.4	4.0	Agriculture		St. George
Location 1735	5.1	4.0	Agriculture		St. George
Location 1736	5.3	4.0	Agriculture		St. George
Location 1737	9.4	4.0	VELCO/Agriculture		St. George
Location 1738	6.5	4.0	VELCO/Agriculture		St. George
Location 1739	6.3	4.0	VELCO/Agriculture		St. George
Location 1740	7.2	4.0	VELCO/Agriculture		St. George

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1741	11.9	4.0	Agriculture		St. George
Location 1742	12.6	4.0	Agriculture		St. George
Location 1743	11.8	4.0	Agriculture		St. George
Location 1744	7.9	4.0	Agriculture		St. George
Location 1745	4.5	4.0	Agriculture		St. George
Location 1746	4.3	4.0	Agriculture		St. George
Location 1747	4.0	4.0	Agriculture		St. George
Location 1748	4.8	4.0	Agriculture		St. George
Location 1749	4.6	4.0	Agriculture		St. George
Location 1750	4.3	4.0	Agriculture		St. George
Location 1751	4.0	4.0	Agriculture		St. George
Location 1752	4.2	4.0	Agriculture		St. George
Location 1753	4.1	4.0	Agriculture		St. George
Location 1754	4.3	4.0	Agriculture		St. George
Location 1755	4.2	4.0	Agriculture		St. George
Location 1756	4.1	4.0	Agriculture		St. George
Location 1757	4.3	4.0	VELCO/Agriculture		St. George
Location 1758	4.0	4.0	VELCO/Agriculture		St. George
Location 1759	5.1	4.0	VELCO/Agriculture		St. George
Location 1760	4.1	4.0	VELCO/Agriculture		St. George
Location 1761	4.2	4.0	VELCO/Agriculture		St. George
Location 1762	4.3	4.0	VELCO/Agriculture		St. George
Location 1763	4.3	4.0	VELCO/Agriculture		St. George
Location 1764	4.1	4.0	VELCO/Agriculture		St. George
Location 1765	4.3	4.0	VELCO/Agriculture		St. George
Location 1766	5.8	4.0	VELCO/Agriculture		St. George
Location 1767	6.1	4.0	VELCO/Agriculture		St. George
Location 1768	4.6	4.0	VELCO/Agriculture		St. George
Location 1769	4.0	4.0	VELCO/Agriculture		St. George
Location 1770	4.3	4.0	VELCO/Agriculture		St. George
Location 1771	4.3	4.0	VELCO/Agriculture		St. George
Location 1772	4.1	4.0	VELCO/Agriculture		St. George
Location 1773	4.0	4.0	VELCO/Agriculture		St. George
Location 1774	4.0	4.0	VELCO/Agriculture		St. George
Location 1775	4.2	4.0	VELCO/Agriculture		St. George
Location 1776	4.0	4.0	VELCO/Agriculture		St. George
Location 1777	4.1	4.0	VELCO/Agriculture		St. George
Location 1778	4.1	4.0	VELCO/Agriculture		St. George
Location 1779	4.5	4.0	VELCO/Agriculture		St. George
Location 1780	3.5	4.0	VELCO/Agriculture	New Drainage ditch constructed over pipe by Landowner after installation, but before final depth measurement. Remediation in process.	St. George
Location 1781	4.4	4.0	VELCO/Agriculture		St. George
Location 1782	4.1	4.0	VELCO/Agriculture		St. George
Location 1783	4.0	4.0	VELCO/Agriculture		St. George
Location 1784	4.7	4.0	VELCO/Agriculture		St. George
Location 1785	5.5	4.0	VELCO/Agriculture		St. George
Location 1786	4.8	4.0	VELCO/Agriculture		St. George
Location 1787	4.2	4.0	VELCO/Agriculture		St. George
Location 1788	4.5	4.0	VELCO/Agriculture		St. George
Location 1789	4.4	4.0	VELCO/Agriculture		St. George
Location 1790	4.3	4.0	VELCO/Agriculture		St. George
Location 1791	4.8	4.0	VELCO/Agriculture		St. George
Location 1792	4.4	4.0	VELCO/Agriculture		St. George
Location 1793	4.7	4.0	VELCO/Agriculture		St. George
Location 1794	6.3	4.0	VELCO/Agriculture		St. George
Location 1795	4.8	4.0	VELCO/Agriculture		St. George
Location 1796	4.5	4.0	VELCO/Agriculture		St. George
Location 1797	4.8	4.0	VELCO/Agriculture		St. George
Location 1798	4.7	4.0	VELCO/Agriculture		St. George
Location 1799	5.0	4.0	VELCO/Agriculture		St. George
Location 1800	4.3	4.0	VELCO/Agriculture		St. George

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1801	4.3	4.0	VELCO/Agriculture		St. George
Location 1802	4.4	4.0	VELCO/Agriculture		St. George
Location 1803	4.4	4.0	VELCO/Agriculture		St. George
Location 1804	4.9	4.0	VELCO/Agriculture		St. George
Location 1805	4.4	3.0	PHMSA		St. George
Location 1806	5.0	3.0	PHMSA		St. George
Location 1807	4.2	3.0	PHMSA		St. George
Location 1808	4.1	3.0	PHMSA		St. George
Location 1809	4.2	3.0	PHMSA		St. George
Location 1810	4.2	3.0	PHMSA		St. George
Location 1811	4.0	3.0	PHMSA		St. George
Location 1812	4.1	3.0	PHMSA		St. George
Location 1813	4.0	3.0	PHMSA		St. George
Location 1814	4.3	3.0	PHMSA		St. George
Location 1815	4.5	3.0	PHMSA		St. George
Location 1816	4.6	3.0	PHMSA		St. George
Location 1817	4.6	3.0	PHMSA		St. George
Location 1818	5.0	3.0	PHMSA		St. George
Location 1819	4.5	3.0	PHMSA		St. George
Location 1820	4.4	3.0	PHMSA		St. George
Location 1821	4.2	3.0	PHMSA		St. George
Location 1822	4.8	3.0	PHMSA		St. George
Location 1823	4.5	3.0	PHMSA		St. George
Location 1824	4.6	3.0	PHMSA		St. George
Location 1825	5.6	3.0	PHMSA		St. George
Location 1826	6.3	3.0	PHMSA		St. George
Location 1827	4.7	3.0	PHMSA		St. George
Location 1828	4.5	3.0	PHMSA		St. George
Location 1829	4.4	3.0	PHMSA		St. George
Location 1830	4.8	3.0	PHMSA		St. George
Location 1831	4.5	3.0	PHMSA		St. George
Location 1832	4.5	3.0	PHMSA		St. George
Location 1833	5.1	3.0	PHMSA		St. George
Location 1834	4.0	3.0	PHMSA		St. George
Location 1835	4.6	3.0	PHMSA		St. George
Location 1836	5.0	3.0	PHMSA		St. George
Location 1837	5.7	3.0	PHMSA		St. George
Location 1838	5.0	4.0	VELCO		St. George
Location 1839	4.2	4.0	VELCO		St. George
Location 1840	4.3	4.0	VELCO		St. George
Location 1841	4.1	4.0	VELCO		St. George
Location 1842	4.8	3.0	PHMSA		St. George
Location 1843	4.1	3.0	PHMSA		St. George
Location 1844	4.4	3.0	PHMSA		St. George
Location 1845	4.0	3.0	PHMSA		St. George
Location 1846	4.1	3.0	PHMSA		St. George
Location 1847	4.6	3.0	PHMSA		St. George
Location 1848	4.9	3.0	PHMSA		St. George
Location 1849	6.1	3.0	PHMSA		St. George
Location 1850	4.6	3.0	PHMSA		St. George
Location 1851	4.8	3.0	PHMSA		St. George
Location 1852	4.7	3.0	PHMSA		St. George
Location 1853	4.0	3.0	PHMSA		St. George
Location 1854	4.0	3.0	PHMSA		St. George
Location 1855	5.2	3.0	PHMSA		St. George
Location 1856	6.5	3.0	PHMSA		St. George
Location 1857	6.2	3.0	PHMSA		St. George
Location 1858	5.4	3.0	PHMSA		St. George
Location 1859	5.5	4.0	VELCO		St. George
Location 1860	5.0	4.0	VELCO		St. George
Location 1861	4.6	4.0	VELCO		St. George

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1862	4.5	4.0	VELCO		St. George
Location 1863	4.4	4.0	VELCO		St. George
Location 1864	5.2	4.0	VELCO		St. George
Location 1865	6.0	4.0	VELCO		St. George
Location 1866	5.0	4.0	VELCO		St. George
Location 1867	5.3	4.0	VELCO		St. George
Location 1868	7.1	4.0	VELCO		St. George
Location 1869	7.4	4.0	VELCO		St. George
Location 1870	9.0	4.0	VTRANS		St. George
Location 1871	8.7	4.0	VTRANS		St. George
Location 1872	4.5	4.0	VTRANS		St. George
Location 1873	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	St. George
Location 1874	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	St. George
Location 1875	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	St. George
Location 1876	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	St. George
Location 1877	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	St. George
Location 1878	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	St. George
Location 1879	HDD	4.0	VTRANS	Estimated location for Depth from HDD profile (8.0 feet).	St. George
Location 1880	HDD	4.0	VTRANS	Based on HDD Profile, minimum depth is at least 4.0 feet.	St. George
Location 1881	5.0	4.0	VTRANS		St. George
Location 1882	4.2	4.0	VTRANS		St. George
Location 1883	4.1	4.0	VTRANS		St. George
Location 1884	4.5	4.0	VTRANS		St. George
Location 1885	6.1	4.0	VTRANS		St. George
Location 1886	5.5	4.0	VTRANS		St. George
Location 1887	5.1	4.0	VTRANS		St. George
Location 1888	5.1	4.0	VTRANS		St. George
Location 1889	5.8	4.0	VTRANS		St. George
Location 1890	5.6	4.0	VTRANS		St. George
Location 1891	5.0	4.0	VTRANS		St. George
Location 1892	4.3	4.0	VTRANS		St. George
Location 1893	4.6	4.0	VTRANS		St. George
Location 1894	4.7	4.0	VTRANS		St. George
Location 1895	4.9	4.0	VTRANS		St. George
Location 1896	4.1	4.0	VTRANS		St. George
Location 1897	4.1	4.0	VTRANS		St. George
Location 1898	4.0	4.0	VTRANS		St. George
Location 1899	4.0	4.0	VTRANS		St. George
Location 1900	4.1	4.0	VTRANS		St. George
Location 1901	4.2	4.0	VTRANS		St. George
Location 1902	4.2	4.0	VTRANS		St. George
Location 1903	5.2	4.0	VTRANS		St. George
Location 1904	6.1	4.0	VTRANS		St. George
Location 1905	5.8	4.0	VTRANS		St. George
Location 1906	ROADBORE	5.0	Road Crossing	Route 2A, Pipeline locator indicated a depth of 6.4 feet in roadway.	St. George
Location 1907	5.4	4.0	Agriculture		St. George
Location 1908	5.6	4.0	Agriculture		St. George
Location 1909	5.8	4.0	Agriculture		St. George
Location 1910	6.2	4.0	Agriculture		St. George
Location 1911	5.4	4.0	Agriculture		St. George
Location 1912	4.9	4.0	Agriculture		St. George
Location 1913	4.8	4.0	Agriculture		St. George
Location 1914	5.2	4.0	Agriculture		St. George
Location 1915	4.9	4.0	Agriculture		St. George
Location 1916	4.9	4.0	Agriculture		St. George
Location 1917	6.8	4.0	Agriculture		St. George
Location 1918	7.0	4.0	Agriculture		St. George
Location 1919	6.7	4.0	Agriculture		St. George
Location 1920	8.9	5.0	Road Crossing	Route 116 (Hinesburg Road)	St. George
Location 1921	7.0	3.0	PHMSA		St. George
Location 1922	7.4	3.0	PHMSA		St. George

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1923	6.9	3.0	PHMSA		St. George
Location 1924	5.3	3.0	PHMSA		St. George
Location 1925	5.7	3.0	PHMSA		St. George
Location 1926	4.6	3.0	PHMSA		St. George
Location 1927	4.3	3.0	PHMSA		St. George
Location 1928	4.5	3.0	PHMSA		St. George
Location 1929	4.6	3.0	PHMSA		St. George
Location 1930	4.5	3.0	PHMSA		St. George
Location 1931	4.4	3.0	PHMSA		St. George
Location 1932	4.4	3.0	PHMSA		St. George
Location 1933	4.6	3.0	PHMSA		St. George
Location 1934	4.1	3.0	PHMSA		St. George
Location 1935	4.9	3.0	PHMSA		St. George
Location 1936	5.1	3.0	PHMSA		St. George
Location 1937	4.4	3.0	PHMSA		St. George
Location 1938	4.6	3.0	PHMSA		St. George
Location 1939	6.6	4.0	VELCO		St. George
Location 1940	6.3	4.0	VELCO		St. George
Location 1941	5.8	4.0	VELCO		St. George
Location 1942	4.2	3.0	PHMSA		St. George
Location 1943	4.0	3.0	PHMSA		St. George
Location 1944	4.2	3.0	PHMSA		St. George
Location 1945	5.6	3.0	PHMSA		St. George
Location 1946	5.6	3.0	PHMSA		St. George
Location 1947	5.2	3.0	PHMSA		St. George
Location 1948	5.2	3.0	PHMSA		St. George
Location 1949	4.9	3.0	PHMSA		St. George
Location 1950	8.3	3.0	PHMSA	Crossing ID #19, 2012-SC-PW-42 (P)	St. George
Location 1951	8.3	3.0	PHMSA	Crossing ID #19, 2012-SC-PW-42 (P)	St. George
Location 1952	8.1	3.0	PHMSA	Crossing ID #19, 2012-SC-PW-42 (P)	St. George
Location 1953	5.0	3.0	PHMSA		St. George
Location 1954	5.5	3.0	PHMSA		St. George
Location 1955	5.0	3.0	PHMSA		St. George
Location 1956	5.4	3.0	PHMSA		St. George
Location 1957	5.1	3.0	PHMSA		St. George
Location 1958	4.7	3.0	PHMSA		St. George
Location 1959	4.4	3.0	PHMSA		St. George
Location 1960	4.6	3.0	PHMSA		St. George
Location 1961	4.6	3.0	PHMSA		St. George
Location 1962	5.4	3.0	PHMSA		St. George
Location 1963	5.1	3.0	PHMSA		Hinesburg
Location 1964	4.9	4.0	Agriculture/Landowner		Hinesburg
Location 1965	4.2	4.0	Agriculture/Landowner		Hinesburg
Location 1966	4.8	4.0	Agriculture/Landowner		Hinesburg
Location 1967	4.9	4.0	Agriculture/Landowner		Hinesburg
Location 1968	4.1	4.0	Agriculture/Landowner		Hinesburg
Location 1969	4.2	4.0	Agriculture/Landowner		Hinesburg
Location 1970	4.4	4.0	Agriculture/Landowner		Hinesburg
Location 1971	4.1	4.0	Agriculture/Landowner		Hinesburg
Location 1972	4.2	4.0	Agriculture/Landowner		Hinesburg
Location 1973	4.6	4.0	Agriculture/Landowner		Hinesburg
Location 1974	4.3	4.0	Agriculture/Landowner		Hinesburg
Location 1975	4.0	4.0	Agriculture/Landowner		Hinesburg
Location 1976	4.3	4.0	Agriculture/Landowner		Hinesburg
Location 1977	4.3	4.0	Agriculture/Landowner		Hinesburg
Location 1978	4.7	4.0	Agriculture/Landowner		Hinesburg
Location 1979	4.1	4.0	Agriculture/Landowner		Hinesburg
Location 1980	4.3	4.0	Agriculture/Landowner		Hinesburg
Location 1981	4.2	4.0	Agriculture/Landowner		Hinesburg
Location 1982	4.7	4.0	Agriculture/Landowner		Hinesburg
Location 1983	4.0	4.0	Agriculture/Landowner		Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 1984	4.1	4.0	Agriculture/Landowner		Hinesburg
Location 1985	4.0	4.0	Agriculture/Landowner		Hinesburg
Location 1986	5.3	4.0	Agriculture/Landowner		Hinesburg
Location 1987	5.7	4.0	Agriculture/Landowner		Hinesburg
Location 1988	5.5	4.0	Agriculture/Landowner		Hinesburg
Location 1989	5.5	4.0	Agriculture/Landowner		Hinesburg
Location 1990	5.4	4.0	Agriculture/Landowner		Hinesburg
Location 1991	5.0	4.0	Agriculture/Landowner		Hinesburg
Location 1992	4.0	4.0	Agriculture/Landowner		Hinesburg
Location 1993	4.4	4.0	Agriculture/Landowner		Hinesburg
Location 1994	4.3	4.0	Agriculture/Landowner		Hinesburg
Location 1995	4.9	4.0	Agriculture		Hinesburg
Location 1996	5.0	4.0	Agriculture		Hinesburg
Location 1997	5.0	4.0	Agriculture		Hinesburg
Location 1998	5.2	4.0	VELCO/Agriculture		Hinesburg
Location 1999	5.2	4.0	VELCO/Agriculture		Hinesburg
Location 2000	4.5	4.0	VELCO/Agriculture		Hinesburg
Location 2001	4.5	4.0	VELCO/Agriculture		Hinesburg
Location 2002	5.2	4.0	VELCO/Agriculture		Hinesburg
Location 2003	4.5	4.0	VELCO/Agriculture		Hinesburg
Location 2004	4.3	4.0	VELCO/Agriculture		Hinesburg
Location 2005	4.4	4.0	VELCO/Agriculture		Hinesburg
Location 2006	4.6	4.0	VELCO/Agriculture		Hinesburg
Location 2007	4.7	4.0	VELCO/Agriculture		Hinesburg
Location 2008	4.4	4.0	VELCO/Agriculture		Hinesburg
Location 2009	4.1	4.0	VELCO/Agriculture		Hinesburg
Location 2010	4.2	4.0	VELCO/Agriculture		Hinesburg
Location 2011	4.1	4.0	VELCO/Agriculture		Hinesburg
Location 2012	4.6	4.0	VELCO/Agriculture		Hinesburg
Location 2013	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2014	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2015	4.2	4.0	VELCO/Agriculture		Hinesburg
Location 2016	4.3	4.0	VELCO/Agriculture		Hinesburg
Location 2017	4.6	4.0	VELCO/Agriculture		Hinesburg
Location 2018	4.3	4.0	VELCO/Agriculture		Hinesburg
Location 2019	4.1	4.0	VELCO/Agriculture		Hinesburg
Location 2020	4.1	4.0	VELCO/Agriculture		Hinesburg
Location 2021	4.3	4.0	VELCO/Agriculture		Hinesburg
Location 2022	4.4	4.0	VELCO/Agriculture		Hinesburg
Location 2023	4.2	4.0	VELCO/Agriculture		Hinesburg
Location 2024	5.2	4.0	VELCO/Agriculture		Hinesburg
Location 2025	4.2	4.0	VELCO/Agriculture		Hinesburg
Location 2026	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2027	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2028	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2029	6.4	3.0	PHMSA		Hinesburg
Location 2030	6.5	3.0	PHMSA		Hinesburg
Location 2031	6.0	3.0	PHMSA		Hinesburg
Location 2032	5.2	3.0	PHMSA		Hinesburg
Location 2033	5.1	3.0	PHMSA		Hinesburg
Location 2034	4.8	3.0	PHMSA		Hinesburg
Location 2035	4.0	3.0	PHMSA		Hinesburg
Location 2036	4.0	3.0	PHMSA		Hinesburg
Location 2037	4.4	3.0	PHMSA		Hinesburg
Location 2038	5.2	3.0	PHMSA		Hinesburg
Location 2039	7.8	3.0	PHMSA	Hickory Place - Road Crossing nearby this weld, Pipeline locator indicated a depth of 7.3 feet in roadway. 5-foot minimum required under road.	Hinesburg
Location 2040	5.6	3.0	PHMSA		Hinesburg
Location 2041	4.0	3.0	PHMSA		Hinesburg
Location 2042	4.0	3.0	PHMSA		Hinesburg
Location 2043	4.3	3.0	PHMSA		Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2044	4.0	3.0	PHMSA		Hinesburg
Location 2045	4.1	3.0	PHMSA		Hinesburg
Location 2046	4.0	3.0	PHMSA		Hinesburg
Location 2047	4.5	3.0	PHMSA		Hinesburg
Location 2048	5.2	3.0	PHMSA		Hinesburg
Location 2049	4.0	3.0	PHMSA		Hinesburg
Location 2050	5.1	3.0	PHMSA		Hinesburg
Location 2051	4.0	3.0	PHMSA		Hinesburg
Location 2052	4.0	3.0	PHMSA		Hinesburg
Location 2053	5.2	3.0	PHMSA		Hinesburg
Location 2054	6.2	3.0	PHMSA		Hinesburg
Location 2055	5.3	3.0	PHMSA		Hinesburg
Location 2056	4.0	3.0	PHMSA		Hinesburg
Location 2057	4.3	4.0	Agriculture		Hinesburg
Location 2058	7.5	4.0	Agriculture		Hinesburg
Location 2059	7.1	4.0	Agriculture		Hinesburg
Location 2060	6.1	4.0	Agriculture		Hinesburg
Location 2061	6.2	4.0	Agriculture		Hinesburg
Location 2062	5.8	4.0	Agriculture		Hinesburg
Location 2063	4.4	4.0	Agriculture		Hinesburg
Location 2064	6.0	4.0	Agriculture		Hinesburg
Location 2065	5.8	4.0	Agriculture		Hinesburg
Location 2066	8.1	4.0	Agriculture		Hinesburg
Location 2067	6.0	4.0	Agriculture		Hinesburg
Location 2068	4.9	4.0	Agriculture		Hinesburg
Location 2069	5.0	4.0	Agriculture		Hinesburg
Location 2070	4.5	4.0	Agriculture		Hinesburg
Location 2071	4.4	4.0	Agriculture		Hinesburg
Location 2072	4.2	4.0	Agriculture		Hinesburg
Location 2073	4.2	4.0	Agriculture		Hinesburg
Location 2074	4.2	4.0	Agriculture		Hinesburg
Location 2075	4.0	4.0	Agriculture		Hinesburg
Location 2076	4.0	4.0	Agriculture		Hinesburg
Location 2077	4.0	4.0	Agriculture		Hinesburg
Location 2078	4.3	4.0	Agriculture		Hinesburg
Location 2079	4.0	4.0	Agriculture		Hinesburg
Location 2080	4.1	4.0	Agriculture		Hinesburg
Location 2081	4.0	4.0	Agriculture		Hinesburg
Location 2082	4.1	4.0	Agriculture		Hinesburg
Location 2083	4.3	4.0	Agriculture		Hinesburg
Location 2084	4.0	4.0	Agriculture		Hinesburg
Location 2085	4.3	4.0	Agriculture		Hinesburg
Location 2086	4.0	4.0	Agriculture		Hinesburg
Location 2087	4.6	4.0	Agriculture		Hinesburg
Location 2088	4.1	4.0	Agriculture		Hinesburg
Location 2089	4.6	4.0	Agriculture		Hinesburg
Location 2090	4.9	4.0	Agriculture		Hinesburg
Location 2091	5.4	4.0	Agriculture		Hinesburg
Location 2092	5.3	4.0	Agriculture		Hinesburg
Location 2093	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2094	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2095	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2096	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2097	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2098	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2099	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2100	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2101	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2102	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2103	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2104	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2105	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2106	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2107	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2108	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2109	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2110	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2111	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2112	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2113	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2114	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2115	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2116	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2117	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2118	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2119	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2120	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2121	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2122	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2123	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2124	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2125	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2126	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2127	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2128	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2129	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2130	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2131	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2132	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2133	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2134	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2135	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2136	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2137	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2138	HDD	30.0	Geprags Park Property	Crossing ID #20, 2012-SC-JB-10 (P), FEH Stream Crossing, Geprags depth requirement is greater. Estimated location for Depth from HDD Profile (38.0 feet).	Hinesburg
Location 2139	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2140	HDD	30.0	Geprags Park Property	Based on HDD Profile, minimum depth is at least 30.0 feet.	Hinesburg
Location 2141	HDD	5.0	Road Crossing	Shelburne Falls Road, Estimated location for Depth from HDD Profile (32.0 feet).	Hinesburg
Location 2142	HDD	4.0	Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2143	HDD	4.0	Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2144	HDD	4.0	Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2145	HDD	4.0	Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2146	6.6	4.0	Landowner		Hinesburg
Location 2147	6.0	4.0	Landowner		Hinesburg
Location 2148	4.9	4.0	Landowner		Hinesburg
Location 2149	5.2	4.0	Landowner		Hinesburg
Location 2150	5.1	4.0	Landowner		Hinesburg
Location 2151	4.8	4.0	Landowner		Hinesburg
Location 2152	4.8	4.0	Landowner		Hinesburg
Location 2153	5.1	4.0	Landowner		Hinesburg
Location 2154	4.7	4.0	Landowner		Hinesburg
Location 2155	4.6	4.0	Landowner		Hinesburg
Location 2156	4.4	4.0	Landowner		Hinesburg
Location 2157	4.8	4.0	Landowner		Hinesburg
Location 2158	4.6	4.0	Landowner		Hinesburg
Location 2159	5.5	4.0	Landowner		Hinesburg
Location 2160	5.3	4.0	Landowner		Hinesburg
Location 2161	4.7	4.0	Landowner		Hinesburg
Location 2162	4.5	4.0	Landowner		Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2163	4.6	4.0	Landowner		Hinesburg
Location 2164	5.1	4.0	Landowner		Hinesburg
Location 2165	5.1	4.0	Landowner		Hinesburg
Location 2166	5.0	4.0	Landowner		Hinesburg
Location 2167	4.9	4.0	Landowner		Hinesburg
Location 2168	5.0	4.0	Landowner		Hinesburg
Location 2169	5.1	4.0	Landowner		Hinesburg
Location 2170	5.2	4.0	Landowner		Hinesburg
Location 2171	5.2	4.0	Landowner		Hinesburg
Location 2172	4.8	4.0	Landowner		Hinesburg
Location 2173	4.7	4.0	VELCO/Landowner		Hinesburg
Location 2174	4.7	4.0	VELCO/Landowner		Hinesburg
Location 2175	4.2	4.0	VELCO/Landowner		Hinesburg
Location 2176	4.5	4.0	VELCO/Landowner		Hinesburg
Location 2177	4.5	4.0	VELCO/Landowner		Hinesburg
Location 2178	4.6	4.0	VELCO/Agriculture		Hinesburg
Location 2179	5.2	4.0	VELCO/Agriculture		Hinesburg
Location 2180	4.8	4.0	VELCO/Agriculture		Hinesburg
Location 2181	4.4	4.0	VELCO/Agriculture		Hinesburg
Location 2182	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2183	4.1	4.0	VELCO/Agriculture		Hinesburg
Location 2184	4.4	4.0	VELCO/Agriculture		Hinesburg
Location 2185	4.8	4.0	VELCO/Agriculture		Hinesburg
Location 2186	4.2	4.0	VELCO/Agriculture		Hinesburg
Location 2187	4.5	4.0	VELCO/Agriculture		Hinesburg
Location 2188	4.1	4.0	VELCO/Agriculture		Hinesburg
Location 2189	5.5	4.0	VELCO/Agriculture		Hinesburg
Location 2190	6.0	4.0	VELCO/Agriculture		Hinesburg
Location 2191	5.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2192	4.8	4.0	Agriculture/Landowner		Hinesburg
Location 2193	4.5	4.0	Agriculture/Landowner		Hinesburg
Location 2194	4.7	4.0	Agriculture/Landowner		Hinesburg
Location 2195	4.7	4.0	Agriculture/Landowner		Hinesburg
Location 2196	4.1	4.0	Agriculture/Landowner		Hinesburg
Location 2197	5.1	4.0	Agriculture/Landowner		Hinesburg
Location 2198	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2199	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2200	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2201	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2202	HDD	7.0	DEC Stream	Crossing ID #21, 2012-TB-LPR-1 (P) (LaPlatte River), Estimated location for Depth from HDD Profile (25.0 feet).	Hinesburg
Location 2203	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2204	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2205	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2206	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2207	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2208	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2209	5.4	4.0	Agriculture/Landowner		Hinesburg
Location 2210	4.4	4.0	Agriculture/Landowner		Hinesburg
Location 2211	4.4	4.0	Agriculture/Landowner		Hinesburg
Location 2212	4.0	4.0	Agriculture/Landowner		Hinesburg
Location 2213	4.9	4.0	Agriculture/Landowner		Hinesburg
Location 2214	4.5	4.0	Agriculture/Landowner		Hinesburg
Location 2215	4.4	4.0	Agriculture/Landowner		Hinesburg
Location 2216	4.7	4.0	Agriculture/Landowner		Hinesburg
Location 2217	4.8	4.0	Agriculture/Landowner		Hinesburg
Location 2218	4.5	4.0	Agriculture/Landowner		Hinesburg
Location 2219	4.0	4.0	Agriculture/Landowner		Hinesburg
Location 2220	4.3	4.0	Agriculture/Landowner		Hinesburg
Location 2221	4.1	4.0	Agriculture/Landowner		Hinesburg
Location 2222	4.2	4.0	Agriculture/Landowner		Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2223	4.5	4.0	Agriculture/Landowner		Hinesburg
Location 2224	4.6	4.0	Agriculture/Landowner		Hinesburg
Location 2225	4.0	4.0	Agriculture/Landowner		Hinesburg
Location 2226	4.0	4.0	Agriculture/Landowner		Hinesburg
Location 2227	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2228	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2229	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2230	4.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2231	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2232	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2233	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2234	4.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2235	4.3	4.0	Agriculture/Landowner		Hinesburg
Location 2236	4.8	4.0	Agriculture/Landowner		Hinesburg
Location 2237	4.5	4.0	Agriculture/Landowner		Hinesburg
Location 2238	4.5	4.0	Agriculture/Landowner		Hinesburg
Location 2239	4.3	4.0	Agriculture/Landowner		Hinesburg
Location 2240	4.1	4.0	Agriculture/Landowner		Hinesburg
Location 2241	4.7	4.0	Agriculture/Landowner		Hinesburg
Location 2242	5.4	4.0	Agriculture/Landowner		Hinesburg
Location 2243	7.5	4.0	Agriculture/Landowner		Hinesburg
Location 2244	6.2	4.0	Agriculture/Landowner	Charlotte Road - Road Crossing nearby this weld, Pipeline locator indicated a depth of 8.4 feet in roadway. 5-foot minimum required under road.	Hinesburg
Location 2245	6.4	4.0	Agriculture		Hinesburg
Location 2246	6.1	4.0	Agriculture		Hinesburg
Location 2247	5.7	4.0	Agriculture		Hinesburg
Location 2248	5.0	4.0	Agriculture		Hinesburg
Location 2249	4.7	4.0	Agriculture		Hinesburg
Location 2250	4.4	4.0	Agriculture		Hinesburg
Location 2251	4.0	4.0	Agriculture		Hinesburg
Location 2252	4.2	4.0	Agriculture		Hinesburg
Location 2253	4.0	4.0	Agriculture		Hinesburg
Location 2254	5.9	4.0	Agriculture		Hinesburg
Location 2255	6.8	4.0	Agriculture		Hinesburg
Location 2256	6.2	4.0	Agriculture		Hinesburg
Location 2257	6.2	4.0	Agriculture		Hinesburg
Location 2258	5.6	4.0	Agriculture		Hinesburg
Location 2259	7.0	4.0	Agriculture		Hinesburg
Location 2260	6.6	4.0	Agriculture		Hinesburg
Location 2261	5.0	4.0	Agriculture		Hinesburg
Location 2262	5.4	4.0	Agriculture		Hinesburg
Location 2263	6.6	4.0	Agriculture		Hinesburg
Location 2264	5.9	4.0	Agriculture		Hinesburg
Location 2265	6.2	4.0	Agriculture		Hinesburg
Location 2266	7.0	4.0	Agriculture		Hinesburg
Location 2267	4.4	4.0	Agriculture		Hinesburg
Location 2268	4.6	4.0	Agriculture		Hinesburg
Location 2269	4.8	4.0	Agriculture		Hinesburg
Location 2270	4.9	4.0	Agriculture		Hinesburg
Location 2271	4.1	4.0	Agriculture		Hinesburg
Location 2272	4.1	4.0	Agriculture		Hinesburg
Location 2273	4.2	4.0	Agriculture		Hinesburg
Location 2274	4.2	4.0	Agriculture		Hinesburg
Location 2275	4.5	4.0	Agriculture		Hinesburg
Location 2276	4.0	4.0	Agriculture		Hinesburg
Location 2277	4.0	4.0	Agriculture		Hinesburg
Location 2278	4.6	4.0	Agriculture		Hinesburg
Location 2279	4.1	4.0	Agriculture		Hinesburg
Location 2280	4.2	4.0	Agriculture		Hinesburg
Location 2281	4.5	4.0	Agriculture		Hinesburg
Location 2282	4.2	4.0	Agriculture		Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2283	4.6	4.0	Agriculture		Hinesburg
Location 2284	4.5	4.0	Agriculture		Hinesburg
Location 2285	4.6	4.0	Agriculture		Hinesburg
Location 2286	4.1	4.0	Agriculture		Hinesburg
Location 2287	4.7	4.0	Agriculture		Hinesburg
Location 2288	4.4	4.0	Agriculture		Hinesburg
Location 2289	4.4	4.0	Agriculture		Hinesburg
Location 2290	4.4	4.0	Agriculture		Hinesburg
Location 2291	4.5	4.0	Agriculture		Hinesburg
Location 2292	4.7	4.0	Agriculture		Hinesburg
Location 2293	4.0	4.0	Agriculture		Hinesburg
Location 2294	4.3	4.0	Agriculture		Hinesburg
Location 2295	4.3	4.0	Agriculture		Hinesburg
Location 2296	4.5	4.0	Agriculture		Hinesburg
Location 2297	5.6	4.0	Agriculture		Hinesburg
Location 2298	5.4	4.0	VELCO/Agriculture		Hinesburg
Location 2299	4.7	4.0	VELCO/Agriculture		Hinesburg
Location 2300	4.5	4.0	VELCO/Agriculture		Hinesburg
Location 2301	4.2	4.0	VELCO/Agriculture		Hinesburg
Location 2302	8.8	7.0	DEC Stream	Crossing ID #123, 2015-SC-1 (P) (Tributary to LaPlatte River, previously 2012-AS-CM-3)	Hinesburg
Location 2303	9.1	7.0	DEC Stream	Crossing ID #123, 2015-SC-1 (P) (Tributary to LaPlatte River, previously 2012-AS-CM-3)	Hinesburg
Location 2304	9.4	7.0	DEC Stream	Crossing ID #123, 2015-SC-1 (P) (Tributary to LaPlatte River, previously 2012-AS-CM-3)	Hinesburg
Location 2305	9.7	7.0	DEC Stream	Crossing ID #123, 2015-SC-1 (P) (Tributary to LaPlatte River, previously 2012-AS-CM-3)	Hinesburg
Location 2306	6.9	4.0	Agriculture		Hinesburg
Location 2307	6.4	4.0	Agriculture		Hinesburg
Location 2308	5.1	4.0	Agriculture		Hinesburg
Location 2309	4.9	4.0	Agriculture		Hinesburg
Location 2310	4.0	4.0	Agriculture		Hinesburg
Location 2311	4.1	4.0	Agriculture		Hinesburg
Location 2312	4.2	4.0	Agriculture		Hinesburg
Location 2313	4.0	4.0	Agriculture		Hinesburg
Location 2314	4.1	4.0	Agriculture		Hinesburg
Location 2315	4.9	4.0	Agriculture		Hinesburg
Location 2316	5.0	4.0	Agriculture		Hinesburg
Location 2317	5.3	4.0	Agriculture		Hinesburg
Location 2318	4.7	4.0	Agriculture		Hinesburg
Location 2319	4.6	4.0	Agriculture		Hinesburg
Location 2320	4.9	4.0	Agriculture		Hinesburg
Location 2321	5.1	4.0	Agriculture		Hinesburg
Location 2322	7.8	4.0	Agriculture		Hinesburg
Location 2323	7.2	4.0	Agriculture		Hinesburg
Location 2324	5.7	4.0	Agriculture		Hinesburg
Location 2325	5.2	4.0	Agriculture		Hinesburg
Location 2326	5.0	4.0	Agriculture		Hinesburg
Location 2327	4.2	4.0	Agriculture		Hinesburg
Location 2328	4.3	4.0	Agriculture		Hinesburg
Location 2329	4.7	4.0	Agriculture		Hinesburg
Location 2330	4.7	4.0	Agriculture		Hinesburg
Location 2331	4.7	4.0	Agriculture		Hinesburg
Location 2332	4.8	4.0	Agriculture		Hinesburg
Location 2333	4.8	4.0	Agriculture		Hinesburg
Location 2334	4.7	4.0	Agriculture		Hinesburg
Location 2335	5.0	4.0	Agriculture		Hinesburg
Location 2336	4.0	4.0	Agriculture		Hinesburg
Location 2337	4.0	4.0	Agriculture		Hinesburg
Location 2338	4.0	4.0	Agriculture		Hinesburg
Location 2339	4.1	4.0	Agriculture		Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2340	4.1	4.0	Agriculture		Hinesburg
Location 2341	4.1	4.0	Agriculture		Hinesburg
Location 2342	4.4	4.0	Agriculture		Hinesburg
Location 2343	5.0	4.0	Agriculture		Hinesburg
Location 2344	4.6	4.0	Agriculture		Hinesburg
Location 2345	4.9	4.0	Agriculture		Hinesburg
Location 2346	4.7	4.0	Agriculture		Hinesburg
Location 2347	4.1	4.0	Agriculture		Hinesburg
Location 2348	4.4	4.0	Agriculture		Hinesburg
Location 2349	5.8	4.0	Agriculture		Hinesburg
Location 2350	6.7	4.0	Agriculture		Hinesburg
Location 2351	4.8	4.0	Agriculture		Hinesburg
Location 2352	5.4	4.0	Agriculture		Hinesburg
Location 2353	5.7	4.0	Agriculture		Hinesburg
Location 2354	5.1	4.0	Agriculture		Hinesburg
Location 2355	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2356	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2357	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2358	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2359	5.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2360	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2361	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2362	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2363	5.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2364	4.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2365	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2366	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2367	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2368	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2369	4.4	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2370	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2371	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2372	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2373	5.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2374	5.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2375	5.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2376	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2377	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2378	7.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2379	9.6	4.0	Agriculture/Landowner		Hinesburg
Location 2380	4.0	4.0	Agriculture/Landowner		Hinesburg
Location 2381	10.5	4.0	Agriculture/Landowner		Hinesburg
Location 2382	10.0	4.0	Agriculture/Landowner		Hinesburg
Location 2383	6.3	4.0	Landowner	Baldwin Road - Road Crossing nearby this weld, Pipeline locator indicated a depth of 8.6 feet in roadway. 5-foot minimum required under road.	Hinesburg
Location 2384	5.7	4.0	Landowner		Hinesburg
Location 2385	5.5	4.0	Landowner		Hinesburg
Location 2386	5.5	4.0	Landowner		Hinesburg
Location 2387	4.7	4.0	Landowner		Hinesburg
Location 2388	4.2	4.0	Landowner		Hinesburg
Location 2389	4.4	4.0	Landowner		Hinesburg
Location 2390	4.1	4.0	Landowner		Hinesburg
Location 2391	5.2	4.0	Landowner		Hinesburg
Location 2392	4.8	4.0	Landowner		Hinesburg
Location 2393	5.2	4.0	VELCO/Landowner		Hinesburg
Location 2394	5.2	4.0	VELCO/Landowner		Hinesburg
Location 2395	5.2	4.0	VELCO/Landowner		Hinesburg
Location 2396	4.8	4.0	VELCO/Landowner		Hinesburg
Location 2397	4.6	4.0	VELCO/Landowner		Hinesburg
Location 2398	4.2	4.0	VELCO/Landowner		Hinesburg
Location 2399	6.4	4.0	VELCO/Landowner		Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2400	4.1	4.0	VELCO/Landowner		Hinesburg
Location 2401	4.0	4.0	VELCO/Landowner		Hinesburg
Location 2402	4.7	4.0	VELCO/Landowner		Hinesburg
Location 2403	4.7	4.0	VELCO/Landowner		Hinesburg
Location 2404	5.1	4.0	VELCO/Landowner		Hinesburg
Location 2405	5.0	4.0	VELCO/Landowner		Hinesburg
Location 2406	4.8	4.0	VELCO/Landowner		Hinesburg
Location 2407	4.8	4.0	VELCO/Landowner		Hinesburg
Location 2408	4.0	4.0	VELCO/Landowner		Hinesburg
Location 2409	4.0	4.0	VELCO/Landowner		Hinesburg
Location 2410	4.1	4.0	VELCO/Landowner		Hinesburg
Location 2411	5.0	4.0	Landowner		Hinesburg
Location 2412	4.0	4.0	Landowner		Hinesburg
Location 2413	6.1	4.0	Landowner		Hinesburg
Location 2414	4.5	4.0	Landowner		Hinesburg
Location 2415	4.9	4.0	Landowner		Hinesburg
Location 2416	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2417	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2418	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2419	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2420	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2421	4.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2422	5.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2423	6.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2424	5.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2425	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2426	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2427	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2428	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2429	5.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2430	5.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2431	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2432	5.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2433	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2434	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2435	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2436	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2437	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2438	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2439	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2440	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2441	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2442	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2443	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2444	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2445	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2446	4.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2447	4.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2448	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2449	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2450	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2451	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2452	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2453	4.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2454	4.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2455	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2456	5.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2457	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2458	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2459	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2460	5.6	4.0	VELCO/Agriculture/Landowner		Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2461	5.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2462	5.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2463	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2464	4.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2465	4.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2466	5.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2467	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2468	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2469	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2470	4.4	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2471	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2472	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2473	5.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2474	5.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2475	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2476	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2477	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2478	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2479	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2480	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2481	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2482	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2483	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2484	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2485	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2486	5.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2487	6.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2488	4.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2489	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2490	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2491	4.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2492	5.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2493	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2494	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2495	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2496	5.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2497	5.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2498	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2499	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2500	4.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2501	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2502	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2503	4.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2504	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2505	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2506	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2507	7.4	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2508	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2509	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2510	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2511	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2512	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2513	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2514	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2515	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2516	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2517	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2518	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2519	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2520	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2521	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2522	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2523	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2524	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2525	HDD	5.0	Road Crossing	Drinkwater Road, Estimated location for Depth from HDD Profile (55.0 feet).	Hinesburg
Location 2526	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2527	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2528	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2529	4.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2530	4.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2531	6.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2532	6.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2533	7.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2534	6.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2535	7.8	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2536	6.4	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2537	6.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2538	5.1	4.0	VELCO/Agriculture/Landowner	Crossing ID # 118, 2012-SC-PW-38 (P)	Hinesburg
Location 2539	5.0	4.0	VELCO/Agriculture/Landowner	Crossing ID # 118, 2012-SC-PW-38 (P)	Hinesburg
Location 2540	5.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2541	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2542	5.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2543	4.4	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2544	4.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2545	5.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2546	4.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2547	5.2	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2548	5.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2549	6.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2550	5.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2551	5.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2552	5.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2553	5.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2554	9.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2555	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2556	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2557	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2558	HDD	4.0	VELCO/Agriculture/Landowner	Estimated location for Depth from HDD Profile (45.0 feet).	Hinesburg
Location 2559	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2560	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2561	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2562	HDD	4.0	VELCO/Agriculture/Landowner	Estimated location for Depth from HDD Profile (105.0 feet).	Hinesburg
Location 2563	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2564	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2565	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2566	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2567	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2568	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2569	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2570	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2571	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2572	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2573	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2574	HDD	7.0	DEC Stream	Crossing ID #122, 2012-TB-LC-1 (P) (Lewis Creek), Estimated location for Depth from HDD Profile (60.0 feet).	Hinesburg
Location 2575	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2576	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2577	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2578	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2579	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2580	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2581	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2582	HDD	4.0	VELCO/Agriculture/Landowner	Crossing ID #104, 2012-SC-PW-36 (I), Estimated location for Depth from HDD Profile (140.0 feet).	Hinesburg
Location 2583	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2584	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2585	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2586	HDD	4.0	VELCO	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2587	HDD	4.0	VELCO	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2588	HDD	4.0	VELCO	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2589	HDD	4.0	VELCO	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2590	HDD	4.0	VELCO	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2591	HDD	4.0	VELCO	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2592	HDD	4.0	VELCO	Crossing ID #120, 2012-SC-PW-33 (I) (North Crossing), Estimated location for Depth from HDD Profile (75.0 feet).	Hinesburg
Location 2593	HDD	4.0	VELCO	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2594	HDD	4.0	VELCO	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2595	HDD	4.0	VELCO	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2596	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2597	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2598	HDD	4.0	VELCO/Agriculture/Landowner	Crossing ID #120, 2012-SC-PW-33 (I) (South Crossing), Estimated location for Depth from HDD Profile (30.0 feet).	Hinesburg
Location 2599	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2600	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Hinesburg
Location 2601	7.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2602	5.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2603	6.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2604	7.0	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2605	7.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2606	5.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2607	5.7	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2608	5.4	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2609	5.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2610	5.3	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2611	5.9	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2612	6.1	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2613	6.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2614	6.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2615	6.6	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2616	4.5	4.0	VELCO/Agriculture/Landowner		Hinesburg
Location 2617	5.3	4.0	VELCO/Agriculture		Hinesburg
Location 2618	5.6	4.0	VELCO/Agriculture		Hinesburg
Location 2619	5.7	4.0	VELCO/Agriculture		Hinesburg
Location 2620	5.3	4.0	VELCO/Agriculture		Hinesburg
Location 2621	5.3	4.0	VELCO/Agriculture		Hinesburg
Location 2622	4.6	4.0	VELCO/Agriculture		Hinesburg
Location 2623	4.4	4.0	VELCO/Agriculture		Hinesburg
Location 2624	4.7	4.0	VELCO/Agriculture		Hinesburg
Location 2625	5.0	4.0	VELCO/Agriculture		Hinesburg
Location 2626	5.3	4.0	VELCO/Agriculture		Hinesburg
Location 2627	5.6	4.0	VELCO/Agriculture		Hinesburg
Location 2628	5.4	4.0	VELCO/Agriculture		Hinesburg
Location 2629	4.7	4.0	VELCO/Agriculture		Hinesburg
Location 2630	4.5	4.0	VELCO/Agriculture		Hinesburg
Location 2631	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2632	4.8	4.0	VELCO/Agriculture		Hinesburg
Location 2633	4.8	4.0	VELCO/Agriculture		Hinesburg
Location 2634	4.7	4.0	VELCO/Agriculture		Hinesburg
Location 2635	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2636	4.2	4.0	VELCO/Agriculture		Hinesburg
Location 2637	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2638	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2639	4.8	4.0	VELCO/Agriculture		Hinesburg

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2640	5.2	4.0	VELCO/Agriculture		Hinesburg
Location 2641	5.1	4.0	VELCO/Agriculture		Hinesburg
Location 2642	5.1	4.0	VELCO/Agriculture		Hinesburg
Location 2643	4.9	4.0	VELCO/Agriculture		Hinesburg
Location 2644	4.7	4.0	VELCO/Agriculture		Hinesburg
Location 2645	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2646	4.3	4.0	VELCO/Agriculture		Hinesburg
Location 2647	4.4	4.0	VELCO/Agriculture		Hinesburg
Location 2648	4.2	4.0	VELCO/Agriculture		Hinesburg
Location 2649	4.0	4.0	VELCO/Agriculture		Hinesburg
Location 2650	4.9	4.0	VELCO/Agriculture		Hinesburg
Location 2651	4.1	4.0	VELCO/Agriculture		Hinesburg
Location 2652	4.1	4.0	VELCO/Agriculture		Hinesburg
Location 2653	4.5	4.0	VELCO/Agriculture		Monkton
Location 2654	4.8	4.0	VELCO/Agriculture		Monkton
Location 2655	4.8	4.0	VELCO/Agriculture		Monkton
Location 2656	4.5	4.0	VELCO/Agriculture		Monkton
Location 2657	4.8	4.0	VELCO/Agriculture		Monkton
Location 2658	4.0	4.0	VELCO/Agriculture		Monkton
Location 2659	4.3	4.0	VELCO/Agriculture		Monkton
Location 2660	4.5	4.0	VELCO/Agriculture		Monkton
Location 2661	4.4	4.0	VELCO/Agriculture		Monkton
Location 2662	5.1	4.0	VELCO/Agriculture		Monkton
Location 2663	4.6	4.0	VELCO/Agriculture		Monkton
Location 2664	4.4	4.0	VELCO/Agriculture		Monkton
Location 2665	4.3	4.0	VELCO/Agriculture		Monkton
Location 2666	5.1	4.0	VELCO/Agriculture		Monkton
Location 2667	4.4	4.0	VELCO/Agriculture		Monkton
Location 2668	5.0	4.0	VELCO/Agriculture		Monkton
Location 2669	4.9	4.0	VELCO/Agriculture		Monkton
Location 2670	4.6	4.0	VELCO/Agriculture		Monkton
Location 2671	4.2	4.0	VELCO/Agriculture		Monkton
Location 2672	4.1	4.0	VELCO/Agriculture		Monkton
Location 2673	4.5	4.0	VELCO/Agriculture		Monkton
Location 2674	4.4	4.0	VELCO/Agriculture		Monkton
Location 2675	4.3	4.0	VELCO/Agriculture		Monkton
Location 2676	5.1	4.0	VELCO/Agriculture		Monkton
Location 2677	4.0	4.0	VELCO/Agriculture		Monkton
Location 2678	5.0	4.0	VELCO/Agriculture		Monkton
Location 2679	4.7	4.0	VELCO/Agriculture		Monkton
Location 2680	4.1	4.0	VELCO/Agriculture		Monkton
Location 2681	4.7	4.0	VELCO/Agriculture		Monkton
Location 2682	4.1	4.0	VELCO/Agriculture		Monkton
Location 2683	4.7	4.0	VELCO/Agriculture		Monkton
Location 2684	4.2	4.0	VELCO/Agriculture		Monkton
Location 2685	4.0	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2686	4.2	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2687	4.3	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2688	5.6	4.0	Agriculture/Landowner		Monkton
Location 2689	4.8	4.0	Agriculture/Landowner		Monkton
Location 2690	5.2	4.0	Agriculture/Landowner		Monkton
Location 2691	5.4	4.0	Agriculture/Landowner		Monkton
Location 2692	5.9	4.0	Agriculture/Landowner		Monkton
Location 2693	6.0	4.0	Agriculture/Landowner		Monkton
Location 2694	5.7	4.0	Agriculture/Landowner		Monkton
Location 2695	5.6	4.0	Agriculture/Landowner		Monkton
Location 2696	5.9	4.0	Agriculture/Landowner		Monkton
Location 2697	5.9	4.0	Agriculture/Landowner		Monkton
Location 2698	6.8	4.0	Agriculture/Landowner	Crossing ID #106, 2012-SC-PW-29 (I)	Monkton
Location 2699	4.5	4.0	Agriculture/Landowner		Monkton
Location 2700	4.4	4.0	Agriculture/Landowner		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2701	5.1	4.0	Agriculture/Landowner		Monkton
Location 2702	5.4	4.0	Agriculture/Landowner		Monkton
Location 2703	4.7	4.0	Agriculture/Landowner		Monkton
Location 2704	4.4	4.0	Agriculture/Landowner		Monkton
Location 2705	4.1	4.0	Agriculture/Landowner		Monkton
Location 2706	4.2	4.0	Agriculture/Landowner		Monkton
Location 2707	4.4	4.0	Agriculture/Landowner		Monkton
Location 2708	4.0	4.0	Agriculture/Landowner		Monkton
Location 2709	4.1	4.0	Agriculture/Landowner		Monkton
Location 2710	4.5	4.0	Agriculture/Landowner		Monkton
Location 2711	4.3	4.0	Agriculture/Landowner		Monkton
Location 2712	4.2	4.0	Agriculture/Landowner		Monkton
Location 2713	4.3	4.0	Agriculture/Landowner		Monkton
Location 2714	4.2	4.0	Agriculture/Landowner		Monkton
Location 2715	4.2	4.0	Agriculture/Landowner		Monkton
Location 2716	5.3	4.0	Agriculture/Landowner		Monkton
Location 2717	4.3	4.0	Agriculture/Landowner		Monkton
Location 2718	4.5	4.0	Agriculture/Landowner		Monkton
Location 2719	4.5	4.0	Agriculture/Landowner		Monkton
Location 2720	5.1	4.0	Agriculture/Landowner		Monkton
Location 2721	4.9	4.0	Agriculture/Landowner		Monkton
Location 2722	5.0	4.0	Agriculture/Landowner		Monkton
Location 2723	4.8	4.0	Agriculture/Landowner		Monkton
Location 2724	4.7	4.0	Agriculture/Landowner		Monkton
Location 2725	5.9	4.0	Agriculture/Landowner		Monkton
Location 2726	5.4	4.0	Agriculture/Landowner		Monkton
Location 2727	8.6	4.0	Agriculture		Monkton
Location 2728	11.4	7.0	DEC Stream	Crossing ID #107, 2012/2015-TB/SC-PW-28 (P) (Tributary to Lewis Creek, previously 2013-AS-CM-6)	Monkton
Location 2729	11.9	7.0	DEC Stream	Crossing ID #107, 2012/2015-TB/SC-PW-28 (P) (Tributary to Lewis Creek, previously 2013-AS-CM-6)	Monkton
Location 2730	11.2	7.0	DEC Stream	Crossing ID #107, 2012/2015-TB/SC-PW-28 (P) (Tributary to Lewis Creek, previously 2013-AS-CM-6)	Monkton
Location 2731	8.2	4.0	Agriculture		Monkton
Location 2732	5.9	4.0	Agriculture		Monkton
Location 2733	4.9	4.0	Agriculture		Monkton
Location 2734	5.2	4.0	Agriculture		Monkton
Location 2735	4.7	4.0	Agriculture/Landowner		Monkton
Location 2736	4.5	4.0	Agriculture/Landowner		Monkton
Location 2737	4.2	4.0	Agriculture/Landowner		Monkton
Location 2738	4.7	4.0	Agriculture/Landowner		Monkton
Location 2739	8.5	4.0	Agriculture/Landowner	Rotax Road - Road Crossing nearby this weld, Pipeline locator indicated a depth of 11.3 feet in roadway. 5-foot minimum required under road.	Monkton
Location 2740	7.2	4.0	Agriculture/Landowner		Monkton
Location 2741	5.8	4.0	Agriculture/Landowner		Monkton
Location 2742	5.9	4.0	Agriculture/Landowner		Monkton
Location 2743	5.8	4.0	Agriculture/Landowner		Monkton
Location 2744	5.6	4.0	Agriculture/Landowner		Monkton
Location 2745	5.3	4.0	Agriculture/Landowner		Monkton
Location 2746	5.2	4.0	Agriculture/Landowner		Monkton
Location 2747	5.5	4.0	Agriculture/Landowner		Monkton
Location 2748	5.2	4.0	Agriculture/Landowner		Monkton
Location 2749	4.7	4.0	Agriculture/Landowner		Monkton
Location 2750	4.0	4.0	Agriculture/Landowner		Monkton
Location 2751	4.3	4.0	Agriculture/Landowner		Monkton
Location 2752	4.2	4.0	Agriculture/Landowner		Monkton
Location 2753	4.0	4.0	Agriculture/Landowner		Monkton
Location 2754	4.9	4.0	Agriculture/Landowner		Monkton
Location 2755	4.9	4.0	Agriculture/Landowner		Monkton
Location 2756	5.1	4.0	Agriculture/Landowner		Monkton
Location 2757	4.6	4.0	Agriculture/Landowner		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2758	4.2	4.0	Agriculture/Landowner		Monkton
Location 2759	4.1	4.0	Agriculture/Landowner		Monkton
Location 2760	4.2	4.0	Agriculture/Landowner		Monkton
Location 2761	4.5	4.0	Agriculture/Landowner		Monkton
Location 2762	4.6	4.0	Agriculture		Monkton
Location 2763	4.5	4.0	Agriculture		Monkton
Location 2764	4.1	4.0	Agriculture		Monkton
Location 2765	4.3	4.0	Agriculture		Monkton
Location 2766	4.0	4.0	Agriculture		Monkton
Location 2767	4.3	4.0	Agriculture		Monkton
Location 2768	6.3	4.0	Agriculture		Monkton
Location 2769	4.2	4.0	Agriculture		Monkton
Location 2770	4.1	4.0	Agriculture		Monkton
Location 2771	4.6	4.0	Agriculture		Monkton
Location 2772	4.3	4.0	Agriculture		Monkton
Location 2773	4.4	4.0	Agriculture		Monkton
Location 2774	4.0	4.0	Agriculture		Monkton
Location 2775	4.4	4.0	Agriculture		Monkton
Location 2776	4.1	4.0	Agriculture		Monkton
Location 2777	4.4	4.0	Agriculture		Monkton
Location 2778	4.4	4.0	Agriculture		Monkton
Location 2779	5.7	4.0	Agriculture		Monkton
Location 2780	6.3	4.0	Agriculture		Monkton
Location 2781	5.0	4.0	Agriculture		Monkton
Location 2782	5.0	4.0	Agriculture		Monkton
Location 2783	5.2	4.0	Agriculture		Monkton
Location 2784	5.5	4.0	Agriculture		Monkton
Location 2785	4.9	4.0	Agriculture		Monkton
Location 2786	5.4	4.0	Agriculture		Monkton
Location 2787	5.6	4.0	Agriculture		Monkton
Location 2788	5.1	4.0	Agriculture		Monkton
Location 2789	5.1	3.0	PHMSA		Monkton
Location 2790	5.7	3.0	PHMSA		Monkton
Location 2791	5.4	3.0	PHMSA		Monkton
Location 2792	5.6	3.0	PHMSA		Monkton
Location 2793	5.6	3.0	PHMSA		Monkton
Location 2794	6.1	3.0	PHMSA		Monkton
Location 2795	6.2	3.0	PHMSA		Monkton
Location 2796	5.9	3.0	PHMSA		Monkton
Location 2797	6.4	3.0	PHMSA		Monkton
Location 2798	6.0	3.0	PHMSA		Monkton
Location 2799	5.9	3.0	PHMSA		Monkton
Location 2800	5.5	3.0	PHMSA		Monkton
Location 2801	5.4	3.0	PHMSA		Monkton
Location 2802	6.2	3.0	PHMSA		Monkton
Location 2803	4.9	3.0	PHMSA		Monkton
Location 2804	4.5	3.0	PHMSA		Monkton
Location 2805	5.5	4.0	Agriculture		Monkton
Location 2806	6.3	4.0	Agriculture		Monkton
Location 2807	5.7	4.0	Agriculture		Monkton
Location 2808	4.8	4.0	Agriculture		Monkton
Location 2809	5.3	4.0	Agriculture		Monkton
Location 2810	4.9	4.0	Agriculture		Monkton
Location 2811	5.6	4.0	Agriculture		Monkton
Location 2812	5.6	4.0	Agriculture		Monkton
Location 2813	5.7	4.0	Agriculture		Monkton
Location 2814	5.6	4.0	Agriculture		Monkton
Location 2815	5.4	4.0	Agriculture		Monkton
Location 2816	5.8	4.0	Agriculture		Monkton
Location 2817	5.5	4.0	Agriculture		Monkton
Location 2818	5.3	4.0	Agriculture		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2819	4.6	4.0	Agriculture		Monkton
Location 2820	4.8	4.0	Agriculture		Monkton
Location 2821	5.1	4.0	Agriculture		Monkton
Location 2822	5.0	4.0	Agriculture		Monkton
Location 2823	4.5	4.0	Agriculture		Monkton
Location 2824	4.5	4.0	Agriculture		Monkton
Location 2825	5.2	3.0	PHMSA		Monkton
Location 2826	6.0	3.0	PHMSA		Monkton
Location 2827	5.2	3.0	PHMSA		Monkton
Location 2828	5.2	3.0	PHMSA		Monkton
Location 2829	5.0	3.0	PHMSA		Monkton
Location 2830	5.3	4.0	VELCO/Agriculture		Monkton
Location 2831	5.1	4.0	VELCO/Agriculture		Monkton
Location 2832	4.2	4.0	VELCO/Agriculture		Monkton
Location 2833	4.8	4.0	VELCO/Agriculture		Monkton
Location 2834	4.9	4.0	VELCO/Agriculture		Monkton
Location 2835	4.5	4.0	VELCO/Agriculture		Monkton
Location 2836	4.6	4.0	VELCO/Agriculture		Monkton
Location 2837	4.4	4.0	VELCO/Agriculture		Monkton
Location 2838	5.0	4.0	VELCO/Agriculture		Monkton
Location 2839	5.5	4.0	VELCO/Agriculture		Monkton
Location 2840	5.4	4.0	VELCO/Agriculture		Monkton
Location 2841	5.7	4.0	VELCO/Agriculture		Monkton
Location 2842	5.1	4.0	VELCO/Agriculture		Monkton
Location 2843	5.6	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2844	4.7	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2845	4.6	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2846	4.7	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2847	4.0	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2848	4.1	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2849	4.3	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2850	4.1	4.0	VELCO/Agriculture		Monkton
Location 2851	5.1	4.0	VELCO/Agriculture		Monkton
Location 2852	5.3	4.0	VELCO/Agriculture		Monkton
Location 2853	4.7	4.0	VELCO/Agriculture		Monkton
Location 2854	5.6	4.0	VELCO/Agriculture		Monkton
Location 2855	4.8	4.0	VELCO/Agriculture		Monkton
Location 2856	5.1	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2857	4.5	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2858	4.4	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2859	5.4	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2860	5.6	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2861	4.5	4.0	VELCO/Agriculture/Landowner		Monkton
Location 2862	4.2	4.0	VELCO/Agriculture		Monkton
Location 2863	4.0	4.0	VELCO/Agriculture		Monkton
Location 2864	4.2	4.0	VELCO/Agriculture		Monkton
Location 2865	4.0	4.0	VELCO/Agriculture		Monkton
Location 2866	4.8	4.0	VELCO/Agriculture		Monkton
Location 2867	4.3	4.0	VELCO/Agriculture		Monkton
Location 2868	4.1	4.0	VELCO/Agriculture		Monkton
Location 2869	4.0	4.0	VELCO/Agriculture		Monkton
Location 2870	4.1	4.0	VELCO/Agriculture		Monkton
Location 2871	4.2	4.0	VELCO/Agriculture		Monkton
Location 2872	4.2	4.0	VELCO/Agriculture		Monkton
Location 2873	4.0	4.0	VELCO/Agriculture		Monkton
Location 2874	4.0	4.0	VELCO/Agriculture		Monkton
Location 2875	4.3	4.0	VELCO/Agriculture		Monkton
Location 2876	4.6	4.0	VELCO/Agriculture		Monkton
Location 2877	4.3	4.0	VELCO/Agriculture		Monkton
Location 2878	4.7	4.0	VELCO/Agriculture		Monkton
Location 2879	4.7	4.0	VELCO/Agriculture		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2880	4.5	4.0	VELCO/Agriculture		Monkton
Location 2881	4.3	4.0	VELCO/Agriculture		Monkton
Location 2882	4.9	4.0	VELCO/Agriculture		Monkton
Location 2883	4.5	4.0	VELCO/Agriculture		Monkton
Location 2884	4.6	4.0	VELCO/Agriculture		Monkton
Location 2885	4.8	4.0	VELCO/Agriculture		Monkton
Location 2886	4.8	4.0	VELCO/Agriculture		Monkton
Location 2887	4.5	4.0	VELCO/Agriculture		Monkton
Location 2888	4.9	4.0	VELCO/Agriculture		Monkton
Location 2889	5.1	4.0	VELCO/Agriculture		Monkton
Location 2890	4.6	4.0	VELCO/Agriculture		Monkton
Location 2891	4.7	4.0	VELCO/Agriculture		Monkton
Location 2892	5.7	4.0	VELCO/Agriculture		Monkton
Location 2893	5.8	5.0	Road Crossing	Stillson Road	Monkton
Location 2894	5.6	4.0	VELCO/Agriculture		Monkton
Location 2895	4.8	4.0	VELCO/Agriculture		Monkton
Location 2896	6.4	4.0	VELCO/Agriculture		Monkton
Location 2897	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2898	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2899	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2900	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2901	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2902	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2903	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2904	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2905	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2906	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2907	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2908	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2909	HDD	4.0	VELCO/Agriculture	Estimated location for Depth from HDD Profile (85.0 feet).	Monkton
Location 2910	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2911	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2912	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2913	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2914	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2915	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2916	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2917	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2918	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2919	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 2920	8.0	4.0	VELCO/Agriculture		Monkton
Location 2921	4.9	4.0	VELCO/Agriculture		Monkton
Location 2922	5.2	4.0	VELCO/Agriculture		Monkton
Location 2923	4.8	4.0	VELCO/Agriculture		Monkton
Location 2924	5.2	4.0	VELCO/Agriculture		Monkton
Location 2925	5.2	4.0	VELCO/Agriculture		Monkton
Location 2926	5.0	4.0	VELCO/Agriculture		Monkton
Location 2927	4.7	4.0	VELCO/Agriculture		Monkton
Location 2928	4.4	4.0	VELCO/Agriculture		Monkton
Location 2929	5.0	4.0	VELCO/Agriculture		Monkton
Location 2930	ROADBORE	4.0	VELCO/Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	Monkton
Location 2931	ROADBORE	4.0	VELCO/Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	Monkton
Location 2932	ROADBORE	4.0	VELCO/Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	Monkton
Location 2933	ROADBORE	4.0	VELCO/Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	Monkton
Location 2934	ROADBORE	5.0	Road Crossing	Hollow Road, Pipeline locator indicated a depth of 22.3 feet in roadway.	Monkton
Location 2935	6.0	4.0	VELCO/Agriculture		Monkton
Location 2936	4.9	4.0	VELCO/Agriculture		Monkton
Location 2937	8.0	4.0	VELCO/Agriculture		Monkton
Location 2938	8.0	4.0	VELCO/Agriculture		Monkton
Location 2939	6.7	4.0	VELCO/Agriculture		Monkton
Location 2940	6.3	4.0	VELCO/Agriculture		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 2941	4.5	4.0	VELCO/Agriculture		Monkton
Location 2942	6.5	4.0	VELCO/Agriculture		Monkton
Location 2943	7.2	4.0	VELCO/Agriculture		Monkton
Location 2944	4.4	4.0	VELCO/Agriculture		Monkton
Location 2945	5.7	4.0	VELCO/Agriculture		Monkton
Location 2946	4.4	4.0	VELCO/Agriculture		Monkton
Location 2947	4.9	4.0	VELCO/Agriculture		Monkton
Location 2948	4.1	4.0	VELCO/Agriculture		Monkton
Location 2949	5.9	4.0	VELCO/Agriculture	Crossing ID #108, 2012-TB/SC-RS-3 (P)	Monkton
Location 2950	8.4	4.0	VELCO/Agriculture	Crossing ID #108, 2012-TB/SC-RS-3 (P)	Monkton
Location 2951	7.6	4.0	VELCO/Agriculture	Crossing ID #108, 2012-TB/SC-RS-3 (P)	Monkton
Location 2952	4.3	4.0	VELCO/Agriculture		Monkton
Location 2953	4.8	4.0	VELCO/Agriculture		Monkton
Location 2954	4.2	4.0	VELCO/Agriculture		Monkton
Location 2955	4.8	4.0	VELCO/Agriculture		Monkton
Location 2956	4.7	4.0	VELCO/Agriculture		Monkton
Location 2957	5.3	4.0	VELCO/Agriculture		Monkton
Location 2958	4.1	4.0	VELCO/Agriculture		Monkton
Location 2959	5.3	4.0	VELCO/Agriculture		Monkton
Location 2960	4.8	4.0	VELCO/Agriculture		Monkton
Location 2961	4.3	4.0	VELCO/Agriculture		Monkton
Location 2962	4.2	4.0	VELCO/Agriculture		Monkton
Location 2963	4.6	4.0	VELCO/Agriculture		Monkton
Location 2964	7.2	4.0	Agriculture		Monkton
Location 2965	7.0	4.0	Agriculture		Monkton
Location 2966	7.3	4.0	Agriculture		Monkton
Location 2967	7.3	4.0	Agriculture		Monkton
Location 2968	6.7	4.0	VELCO/Agriculture		Monkton
Location 2969	6.5	4.0	VELCO/Agriculture		Monkton
Location 2970	6.9	4.0	VELCO/Agriculture		Monkton
Location 2971	6.0	4.0	VELCO/Agriculture		Monkton
Location 2972	4.4	4.0	VELCO/Agriculture		Monkton
Location 2973	4.3	4.0	VELCO/Agriculture		Monkton
Location 2974	4.3	4.0	VELCO/Agriculture		Monkton
Location 2975	4.1	4.0	VELCO/Agriculture		Monkton
Location 2976	4.8	4.0	VELCO/Agriculture		Monkton
Location 2977	5.4	4.0	VELCO/Agriculture		Monkton
Location 2978	5.4	4.0	VELCO/Agriculture		Monkton
Location 2979	4.3	4.0	VELCO/Agriculture		Monkton
Location 2980	4.6	4.0	VELCO/Agriculture		Monkton
Location 2981	6.4	4.0	VELCO/Agriculture		Monkton
Location 2982	4.2	4.0	VELCO/Agriculture		Monkton
Location 2983	4.3	4.0	VELCO/Agriculture		Monkton
Location 2984	6.8	4.0	VELCO/Agriculture		Monkton
Location 2985	8.2	4.0	VELCO/Agriculture		Monkton
Location 2986	7.9	5.0	Road Crossing	Post Road	Monkton
Location 2987	11.1	4.0	VELCO/Agriculture		Monkton
Location 2988	4.5	4.0	VELCO/Agriculture		Monkton
Location 2989	4.7	4.0	VELCO/Agriculture		Monkton
Location 2990	5.3	4.0	VELCO/Agriculture		Monkton
Location 2991	4.0	4.0	VELCO/Agriculture		Monkton
Location 2992	4.9	4.0	VELCO/Agriculture		Monkton
Location 2993	5.4	4.0	VELCO/Agriculture		Monkton
Location 2994	4.1	4.0	VELCO/Agriculture		Monkton
Location 2995	4.2	4.0	VELCO/Agriculture		Monkton
Location 2996	5.7	4.0	VELCO/Agriculture		Monkton
Location 2997	6.1	4.0	VELCO/Agriculture		Monkton
Location 2998	5.1	4.0	VELCO/Agriculture		Monkton
Location 2999	4.3	4.0	VELCO/Agriculture		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3000	4.5	4.0	VELCO/Agriculture		Monkton
Location 3001	4.5	4.0	VELCO/Agriculture		Monkton
Location 3002	4.5	4.0	VELCO/Agriculture		Monkton
Location 3003	5.4	4.0	VELCO/Agriculture	Crossing ID #109, 2012-TB/SC-RS-1 (P)	Monkton
Location 3004	6.1	4.0	VELCO/Agriculture	Crossing ID #109, 2012-TB/SC-RS-1 (P)	Monkton
Location 3005	4.1	4.0	VELCO/Agriculture		Monkton
Location 3006	4.5	4.0	VELCO/Agriculture		Monkton
Location 3007	4.6	4.0	VELCO/Agriculture		Monkton
Location 3008	5.9	4.0	VELCO/Agriculture		Monkton
Location 3009	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3010	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3011	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3012	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3013	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3014	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3015	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3016	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3017	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3018	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3019	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3020	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3021	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3022	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3023	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3024	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3025	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3026	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3027	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3028	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3029	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3030	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3031	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3032	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3033	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3034	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3035	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3036	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3037	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3038	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3039	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3040	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3041	HDD	39.0	Monkton Swamp	Estimated location for Depth from HDD Profile (40.0 feet)	Monkton
Location 3042	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3043	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3044	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3045	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3046	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3047	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3048	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3049	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3050	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3051	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3052	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3053	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3054	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3055	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3056	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3057	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3058	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3059	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3060	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3061	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3062	HDD	39.0	Monkton Swamp	Based on HDD Profile, minimum depth is at least 39.0 feet.	Monkton
Location 3063	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3064	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3065	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3066	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3067	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3068	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3069	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3070	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3071	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3072	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3073	5.6	4.0	Agriculture/Landowner		Monkton
Location 3074	4.9	4.0	Agriculture/Landowner		Monkton
Location 3075	5.0	4.0	Agriculture/Landowner		Monkton
Location 3076	5.5	4.0	Agriculture/Landowner		Monkton
Location 3077	5.4	4.0	Agriculture/Landowner		Monkton
Location 3078	4.1	4.0	Agriculture/Landowner		Monkton
Location 3079	4.3	4.0	Agriculture/Landowner		Monkton
Location 3080	4.4	4.0	Agriculture/Landowner		Monkton
Location 3081	4.9	4.0	Agriculture/Landowner		Monkton
Location 3082	4.8	4.0	Agriculture/Landowner		Monkton
Location 3083	4.7	4.0	Agriculture/Landowner		Monkton
Location 3084	4.6	4.0	Agriculture/Landowner		Monkton
Location 3085	5.3	4.0	Agriculture/Landowner		Monkton
Location 3086	4.4	4.0	Agriculture/Landowner		Monkton
Location 3087	5.1	4.0	Agriculture/Landowner		Monkton
Location 3088	5.1	4.0	Agriculture/Landowner		Monkton
Location 3089	4.6	4.0	Agriculture/Landowner		Monkton
Location 3090	4.8	4.0	Agriculture/Landowner		Monkton
Location 3091	5.0	4.0	Agriculture/Landowner		Monkton
Location 3092	4.8	4.0	Agriculture/Landowner		Monkton
Location 3093	5.4	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3094	4.4	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3095	4.2	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3096	4.3	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3097	4.9	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3098	5.5	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3099	6.2	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3100	4.3	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3101	5.5	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3102	7.0	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3103	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3104	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3105	HDD	5.0	Road Crossing	Monkton Road, Estimated location for Depth from HDD Profile (35.0).	Monkton
Location 3106	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3107	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3108	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3109	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3110	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3111	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3112	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3113	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3114	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3115	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3116	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3117	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3118	6.3	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3119	5.1	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3120	5.5	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3121	5.8	4.0	VELCO/Agriculture/Landowner		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3122	5.2	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3123	5.4	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3124	5.0	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3125	4.8	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3126	5.0	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3127	5.6	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3128	7.0	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3129	4.6	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3130	4.2	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3131	4.3	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3132	4.1	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3133	4.2	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3134	4.0	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3135	4.1	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3136	5.0	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3137	5.3	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3138	5.8	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3139	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3140	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3141	HDD	4.0	VELCO/Agriculture/Landowner	Estimated location for Depth from HDD Profile (20.0 feet).	Monkton
Location 3142	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3143	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3144	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3145	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	Monkton
Location 3146	6.7	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3147	6.2	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3148	5.7	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3149	5.1	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3150	5.9	4.0	VELCO/Agriculture/Landowner		Monkton
Location 3151	6.4	5.0	Landowner		Monkton
Location 3152	5.4	5.0	Landowner		Monkton
Location 3153	5.4	5.0	Landowner		Monkton
Location 3154	5.4	5.0	Landowner		Monkton
Location 3155	5.9	5.0	Landowner		Monkton
Location 3156	6.1	5.0	Landowner		Monkton
Location 3157	5.6	5.0	Landowner		Monkton
Location 3158	7.0	5.0	Landowner		Monkton
Location 3159	6.8	5.0	Landowner		Monkton
Location 3160	6.7	5.0	Landowner		Monkton
Location 3161	5.0	5.0	Landowner		Monkton
Location 3162	5.3	5.0	Landowner		Monkton
Location 3163	5.5	5.0	Landowner		Monkton
Location 3164	6.6	5.0	Landowner		Monkton
Location 3165	6.3	5.0	Landowner		Monkton
Location 3166	5.7	5.0	Landowner		Monkton
Location 3167	6.3	5.0	Landowner		Monkton
Location 3168	6.6	5.0	Landowner		Monkton
Location 3169	6.9	5.0	Landowner		Monkton
Location 3170	6.6	5.0	Landowner		Monkton
Location 3171	6.5	5.0	Landowner		Monkton
Location 3172	6.8	5.0	Landowner		Monkton
Location 3173	6.4	5.0	Landowner		Monkton
Location 3174	6.1	5.0	Landowner		Monkton
Location 3175	6.2	5.0	Landowner		Monkton
Location 3176	7.1	5.0	Landowner		Monkton
Location 3177	7.1	5.0	Landowner		Monkton
Location 3178	7.0	5.0	Landowner		Monkton
Location 3179	7.3	5.0	Landowner		Monkton
Location 3180	6.6	5.0	Landowner		Monkton
Location 3181	6.1	5.0	Landowner		Monkton
Location 3182	5.6	5.0	Landowner		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3183	5.3	5.0	Landowner		Monkton
Location 3184	5.0	5.0	Landowner		Monkton
Location 3185	5.0	5.0	Landowner		Monkton
Location 3186	5.4	5.0	Landowner		Monkton
Location 3187	5.6	5.0	Landowner		Monkton
Location 3188	8.0	5.0	Landowner		Monkton
Location 3189	6.0	5.0	Landowner		Monkton
Location 3190	6.2	5.0	Landowner		Monkton
Location 3191	7.6	7.0	DEC Stream	Crossing ID #32, 2012-TB-JB-7 (P) (Tributary to Little Otter Creek)	Monkton
Location 3192	6.3	5.0	Landowner		Monkton
Location 3193	8.7	5.0	Landowner		Monkton
Location 3194	8.2	5.0	Landowner		Monkton
Location 3195	6.6	5.0	Landowner		Monkton
Location 3196	6.2	5.0	Landowner		Monkton
Location 3197	6.3	5.0	Landowner		Monkton
Location 3198	6.2	5.0	Landowner		Monkton
Location 3199	6.1	5.0	Landowner		Monkton
Location 3200	5.8	5.0	Landowner		Monkton
Location 3201	5.0	5.0	Landowner		Monkton
Location 3202	5.0	5.0	Landowner		Monkton
Location 3203	6.5	5.0	Landowner		Monkton
Location 3204	6.7	5.0	Landowner		Monkton
Location 3205	6.7	5.0	Landowner		Monkton
Location 3206	6.4	5.0	Landowner		Monkton
Location 3207	6.3	5.0	Landowner		Monkton
Location 3208	6.3	5.0	Landowner		Monkton
Location 3209	6.1	5.0	Landowner		Monkton
Location 3210	6.5	5.0	Landowner		Monkton
Location 3211	6.5	5.0	Landowner		Monkton
Location 3212	6.5	5.0	Landowner		Monkton
Location 3213	6.3	5.0	Landowner		Monkton
Location 3214	5.0	5.0	Road Crossing	Old Stage Road	Monkton
Location 3215	5.5	3.0	PHMSA		Monkton
Location 3216	4.3	3.0	PHMSA		Monkton
Location 3217	5.0	3.0	PHMSA		Monkton
Location 3218	6.3	3.0	PHMSA		Monkton
Location 3219	7.3	3.0	PHMSA		Monkton
Location 3220	7.0	3.0	PHMSA		Monkton
Location 3221	6.8	3.0	PHMSA		Monkton
Location 3222	6.0	3.0	PHMSA		Monkton
Location 3223	6.1	3.0	PHMSA		Monkton
Location 3224	6.0	3.0	PHMSA		Monkton
Location 3225	6.2	3.0	PHMSA		Monkton
Location 3226	4.2	3.0	PHMSA		Monkton
Location 3227	4.6	3.0	PHMSA		Monkton
Location 3228	7.4	3.0	PHMSA		Monkton
Location 3229	10.3	3.0	PHMSA		Monkton
Location 3230	10.8	3.0	PHMSA		Monkton
Location 3231	9.2	3.0	PHMSA		Monkton
Location 3232	5.7	5.0	Road Crossing	Old Stage Road	Monkton
Location 3233	8.9	5.0	Landowner		Monkton
Location 3234	8.7	5.0	Landowner		Monkton
Location 3235	8.9	5.0	Landowner		Monkton
Location 3236	7.6	5.0	Landowner		Monkton
Location 3237	6.7	5.0	Landowner		Monkton
Location 3238	5.1	5.0	Landowner		Monkton
Location 3239	6.6	5.0	Landowner		Monkton
Location 3240	6.4	5.0	Landowner		Monkton
Location 3241	7.7	5.0	Landowner		Monkton
Location 3242	7.3	5.0	Landowner		Monkton
Location 3243	7.0	5.0	Landowner		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3244	7.9	5.0	Landowner		Monkton
Location 3245	7.3	5.0	Landowner		Monkton
Location 3246	7.2	5.0	Landowner		Monkton
Location 3247	7.3	5.0	Landowner		Monkton
Location 3248	6.4	5.0	Landowner		Monkton
Location 3249	6.8	5.0	Landowner		Monkton
Location 3250	6.0	5.0	Landowner		Monkton
Location 3251	7.0	5.0	Landowner		Monkton
Location 3252	7.2	5.0	Landowner		Monkton
Location 3253	8.3	5.0	Landowner		Monkton
Location 3254	5.7	5.0	Landowner		Monkton
Location 3255	5.3	5.0	Landowner		Monkton
Location 3256	6.1	5.0	Landowner		Monkton
Location 3257	6.4	5.0	Landowner		Monkton
Location 3258	6.3	5.0	Landowner		Monkton
Location 3259	7.7	5.0	Landowner	Old Stage Road - Road Crossing nearby this weld, Pipeline locator indicated a depth of 10.2 feet in roadway. 5-foot minimum required under road.	Monkton
Location 3260	5.0	5.0	Landowner		Monkton
Location 3261	5.7	5.0	Landowner		Monkton
Location 3262	5.8	5.0	Landowner		Monkton
Location 3263	5.5	5.0	Landowner		Monkton
Location 3264	6.3	5.0	Landowner		Monkton
Location 3265	6.3	5.0	Landowner		Monkton
Location 3266	5.5	5.0	Landowner		Monkton
Location 3267	6.5	5.0	Landowner		Monkton
Location 3268	6.3	5.0	Landowner		Monkton
Location 3269	6.1	5.0	Landowner		Monkton
Location 3270	5.5	5.0	Landowner		Monkton
Location 3271	5.9	5.0	Landowner		Monkton
Location 3272	6.2	5.0	Landowner		Monkton
Location 3273	5.6	5.0	Landowner		Monkton
Location 3274	5.2	5.0	Landowner		Monkton
Location 3275	6.0	5.0	Landowner		Monkton
Location 3276	6.5	5.0	Landowner		Monkton
Location 3277	6.5	5.0	Landowner		Monkton
Location 3278	6.9	5.0	Landowner		Monkton
Location 3279	6.4	5.0	Landowner		Monkton
Location 3280	5.9	5.0	Landowner		Monkton
Location 3281	5.9	5.0	Landowner		Monkton
Location 3282	5.3	5.0	Landowner		Monkton
Location 3283	5.8	5.0	Landowner		Monkton
Location 3284	6.5	5.0	Landowner		Monkton
Location 3285	6.4	5.0	Landowner		Monkton
Location 3286	6.0	5.0	Landowner		Monkton
Location 3287	6.1	5.0	Landowner		Monkton
Location 3288	6.5	5.0	Landowner		Monkton
Location 3289	5.8	5.0	Landowner		Monkton
Location 3290	6.2	5.0	Landowner		Monkton
Location 3291	7.6	5.0	Landowner		Monkton
Location 3292	7.2	5.0	Landowner		Monkton
Location 3293	6.2	5.0	Landowner		Monkton
Location 3294	5.8	5.0	Landowner		Monkton
Location 3295	5.8	5.0	Landowner		Monkton
Location 3296	5.9	5.0	Landowner		Monkton
Location 3297	5.9	5.0	Landowner		Monkton
Location 3298	6.4	5.0	Landowner		Monkton
Location 3299	6.6	5.0	Landowner		Monkton
Location 3300	6.9	5.0	Landowner		Monkton
Location 3301	7.0	5.0	Landowner		Monkton
Location 3302	6.9	5.0	Landowner		Monkton
Location 3303	5.8	5.0	Landowner		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3304	10.0	5.0	Landowner	Parks-Hurlburt Road - Road Crossing nearby this weld, Pipeline locator indicated a depth of 9.1 feet in roadway. 5-foot minimum required under road.	Monkton
Location 3305	9.0	5.0	Landowner		Monkton
Location 3306	5.6	5.0	Landowner		Monkton
Location 3307	5.3	5.0	Landowner		Monkton
Location 3308	5.9	5.0	Landowner		Monkton
Location 3309	5.8	5.0	Landowner		Monkton
Location 3310	5.7	5.0	Landowner		Monkton
Location 3311	5.8	5.0	Landowner		Monkton
Location 3312	5.7	5.0	Landowner		Monkton
Location 3313	5.4	5.0	Landowner		Monkton
Location 3314	5.1	5.0	Landowner		Monkton
Location 3315	6.2	5.0	Landowner		Monkton
Location 3316	5.9	5.0	Landowner		Monkton
Location 3317	5.9	5.0	Landowner		Monkton
Location 3318	5.7	5.0	Landowner		Monkton
Location 3319	6.1	5.0	Landowner		Monkton
Location 3320	6.2	5.0	Landowner		Monkton
Location 3321	5.4	5.0	Landowner		Monkton
Location 3322	5.0	5.0	Landowner		Monkton
Location 3323	5.2	5.0	Landowner		Monkton
Location 3324	5.2	5.0	Landowner		Monkton
Location 3325	5.0	5.0	Landowner		Monkton
Location 3326	5.3	5.0	Landowner		Monkton
Location 3327	5.4	5.0	Landowner		Monkton
Location 3328	5.2	5.0	Landowner		Monkton
Location 3329	6.3	5.0	Landowner		Monkton
Location 3330	5.8	5.0	Landowner		Monkton
Location 3331	5.0	5.0	Landowner		Monkton
Location 3332	5.0	5.0	Landowner		Monkton
Location 3333	5.1	5.0	Landowner		Monkton
Location 3334	5.0	5.0	Landowner		Monkton
Location 3335	5.2	5.0	Landowner		Monkton
Location 3336	5.3	5.0	Landowner		Monkton
Location 3337	5.3	5.0	Landowner		Monkton
Location 3338	5.0	5.0	Landowner		Monkton
Location 3339	5.2	5.0	Landowner		Monkton
Location 3340	5.2	5.0	Landowner		Monkton
Location 3341	5.4	5.0	Landowner		Monkton
Location 3342	5.7	5.0	Landowner		Monkton
Location 3343	5.7	5.0	Landowner		Monkton
Location 3344	5.8	5.0	Landowner		Monkton
Location 3345	5.4	5.0	Landowner		Monkton
Location 3346	5.5	5.0	Landowner		Monkton
Location 3347	5.5	5.0	Landowner		Monkton
Location 3348	6.1	5.0	Landowner		Monkton
Location 3349	6.4	5.0	Landowner		Monkton
Location 3350	5.0	5.0	Landowner		Monkton
Location 3351	5.8	5.0	Landowner		Monkton
Location 3352	5.5	5.0	Landowner		Monkton
Location 3353	6.0	5.0	Landowner		Monkton
Location 3354	5.9	5.0	Landowner		Monkton
Location 3355	6.1	5.0	Landowner		Monkton
Location 3356	6.2	5.0	Landowner		Monkton
Location 3357	5.1	5.0	Landowner		Monkton
Location 3358	5.0	5.0	Landowner		Monkton
Location 3359	5.5	5.0	Landowner		Monkton
Location 3360	5.5	5.0	Landowner		Monkton
Location 3361	6.3	5.0	Landowner		Monkton
Location 3362	6.0	5.0	Landowner		Monkton

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3363	6.2	5.0	Landowner		Monkton
Location 3364	6.4	5.0	Landowner		Monkton
Location 3365	6.2	5.0	Landowner		Monkton
Location 3366	6.1	5.0	Landowner		Monkton
Location 3367	5.8	5.0	Landowner		Monkton
Location 3368	7.1	5.0	Landowner		Monkton
Location 3369	6.8	5.0	Landowner		Monkton
Location 3370	6.1	5.0	Landowner		Monkton
Location 3371	6.6	5.0	Landowner		Monkton
Location 3372	6.9	5.0	Landowner		Monkton
Location 3373	6.8	5.0	Landowner		Monkton
Location 3374	6.8	5.0	Landowner		Monkton
Location 3375	6.0	5.0	Landowner		Monkton
Location 3376	6.0	5.0	Landowner		Monkton
Location 3377	6.4	5.0	Landowner		Monkton
Location 3378	6.7	5.0	Landowner		Monkton
Location 3379	6.1	5.0	Landowner		Monkton
Location 3380	6.2	5.0	Landowner		Monkton
Location 3381	5.9	5.0	Landowner		Monkton
Location 3382	6.4	5.0	Landowner		Monkton
Location 3383	6.1	5.0	Landowner		Monkton
Location 3384	6.3	5.0	Landowner		Monkton
Location 3385	5.6	5.0	Landowner		Monkton
Location 3386	5.9	5.0	Landowner		Monkton
Location 3387	5.8	5.0	Landowner		Monkton
Location 3388	5.1	5.0	Landowner		Monkton
Location 3389	5.4	5.0	Landowner		Monkton
Location 3390	5.4	5.0	Landowner		Monkton
Location 3391	5.5	5.0	Landowner		Monkton
Location 3392	6.3	5.0	Landowner		Monkton
Location 3393	6.2	5.0	Landowner		Monkton
Location 3394	9.1	7.0	DEC Stream	Crossing ID #111, 2012-SC-RS-5a (P) (Tributary to Little Otter Creek)	Monkton
Location 3395	6.4	5.0	Landowner		Monkton
Location 3396	8.0	5.0	Landowner	Crossing ID #112, 2012-SC-RS-5 (P)	Monkton
Location 3397	7.2	5.0	Landowner		Monkton
Location 3398	6.4	5.0	Landowner		Monkton
Location 3399	5.7	5.0	Landowner		Monkton
Location 3400	5.9	5.0	Landowner		Monkton
Location 3401	5.5	5.0	Landowner		Monkton
Location 3402	5.2	5.0	Landowner		Monkton
Location 3403	5.2	5.0	Landowner		Monkton
Location 3404	5.6	5.0	Landowner		Monkton
Location 3405	5.5	5.0	Landowner		Monkton
Location 3406	5.4	5.0	Landowner		Monkton
Location 3407	5.3	5.0	Landowner		Monkton
Location 3408	5.1	5.0	Landowner		Monkton
Location 3409	5.0	5.0	Landowner		Monkton
Location 3410	5.2	4.0	VELCO		New Haven
Location 3411	4.9	4.0	VELCO		New Haven
Location 3412	4.4	4.0	VELCO		New Haven
Location 3413	4.4	4.0	VELCO		New Haven
Location 3414	3.5	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3415	3.1	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3416	3.3	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3417	3.1	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3418	3.0	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3419	3.1	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3420	3.1	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3421	3.4	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3422	3.4	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3423	3.2	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3424	3.6	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3425	3.8	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3426	3.6	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3427	4.1	4.0	VELCO		New Haven
Location 3428	4.4	4.0	VELCO		New Haven
Location 3429	4.3	4.0	VELCO		New Haven
Location 3430	4.1	4.0	VELCO		New Haven
Location 3431	4.1	4.0	VELCO		New Haven
Location 3432	4.5	4.0	VELCO		New Haven
Location 3433	4.3	4.0	VELCO		New Haven
Location 3434	4.1	4.0	VELCO		New Haven
Location 3435	4.1	4.0	VELCO		New Haven
Location 3436	4.0	4.0	VELCO		New Haven
Location 3437	4.3	4.0	VELCO		New Haven
Location 3438	4.4	4.0	VELCO		New Haven
Location 3439	4.1	4.0	VELCO		New Haven
Location 3440	4.5	4.0	VELCO		New Haven
Location 3441	4.1	4.0	VELCO		New Haven
Location 3442	4.1	4.0	VELCO		New Haven
Location 3443	4.3	4.0	VELCO		New Haven
Location 3444	4.0	4.0	VELCO		New Haven
Location 3445	4.2	4.0	VELCO		New Haven
Location 3446	4.0	4.0	VELCO		New Haven
Location 3447	4.0	4.0	VELCO		New Haven
Location 3448	3.7	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3449	4.2	4.0	VELCO		New Haven
Location 3450	3.4	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3451	3.1	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3452	3.5	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3453	3.5	4.0	VELCO	Red/Silver Maple Green Ash Swamp	New Haven
Location 3454	4.4	4.0	VELCO/Landowner		New Haven
Location 3455	5.3	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3456	5.3	4.0	Agriculture/Landowner		New Haven
Location 3457	4.9	4.0	Agriculture/Landowner		New Haven
Location 3458	4.9	4.0	Agriculture/Landowner		New Haven
Location 3459	4.8	4.0	Agriculture/Landowner		New Haven
Location 3460	4.1	4.0	Agriculture/Landowner		New Haven
Location 3461	4.4	4.0	Agriculture/Landowner		New Haven
Location 3462	4.7	4.0	Agriculture/Landowner		New Haven
Location 3463	4.0	4.0	Agriculture/Landowner		New Haven
Location 3464	4.8	4.0	Agriculture/Landowner		New Haven
Location 3465	4.4	4.0	Agriculture/Landowner		New Haven
Location 3466	4.7	4.0	Agriculture/Landowner		New Haven
Location 3467	4.1	4.0	Agriculture/Landowner		New Haven
Location 3468	4.2	4.0	Agriculture/Landowner		New Haven
Location 3469	4.4	4.0	Agriculture/Landowner		New Haven
Location 3470	4.7	4.0	Agriculture/Landowner		New Haven
Location 3471	4.4	4.0	Agriculture/Landowner		New Haven
Location 3472	4.5	4.0	Agriculture/Landowner		New Haven
Location 3473	4.2	4.0	Agriculture/Landowner		New Haven
Location 3474	4.7	4.0	Agriculture/Landowner		New Haven
Location 3475	5.1	4.0	Agriculture/Landowner		New Haven
Location 3476	4.8	4.0	Agriculture/Landowner		New Haven
Location 3477	5.3	4.0	Agriculture/Landowner		New Haven
Location 3478	5.8	4.0	Agriculture/Landowner		New Haven
Location 3479	5.6	4.0	Agriculture/Landowner		New Haven
Location 3480	5.3	4.0	Agriculture/Landowner		New Haven
Location 3481	5.6	4.0	Agriculture/Landowner		New Haven
Location 3482	5.7	4.0	Agriculture/Landowner		New Haven
Location 3483	5.5	4.0	Agriculture/Landowner		New Haven
Location 3484	5.2	4.0	Agriculture/Landowner		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3485	5.6	4.0	Agriculture/Landowner		New Haven
Location 3486	5.9	4.0	Agriculture/Landowner		New Haven
Location 3487	5.5	4.0	Agriculture/Landowner		New Haven
Location 3488	5.8	4.0	Agriculture/Landowner		New Haven
Location 3489	6.1	4.0	Agriculture/Landowner		New Haven
Location 3490	4.1	4.0	Agriculture		New Haven
Location 3491	5.6	4.0	Agriculture		New Haven
Location 3492	6.0	4.0	Agriculture		New Haven
Location 3493	6.2	4.0	Agriculture		New Haven
Location 3494	6.2	4.0	Agriculture		New Haven
Location 3495	6.3	4.0	Agriculture		New Haven
Location 3496	6.3	4.0	Agriculture		New Haven
Location 3497	5.5	4.0	Agriculture		New Haven
Location 3498	5.6	4.0	Agriculture		New Haven
Location 3499	5.3	4.0	Agriculture		New Haven
Location 3500	6.9	4.0	Agriculture		New Haven
Location 3501	7.0	4.0	Agriculture		New Haven
Location 3502	4.9	4.0	Agriculture		New Haven
Location 3503	5.7	4.0	Agriculture		New Haven
Location 3504	5.8	4.0	Agriculture		New Haven
Location 3505	6.0	4.0	Agriculture		New Haven
Location 3506	5.8	4.0	Agriculture		New Haven
Location 3507	6.0	4.0	Agriculture		New Haven
Location 3508	5.9	4.0	Agriculture		New Haven
Location 3509	6.3	4.0	Agriculture		New Haven
Location 3510	4.5	4.0	Agriculture		New Haven
Location 3511	4.0	4.0	Agriculture		New Haven
Location 3512	4.0	4.0	Agriculture		New Haven
Location 3513	5.0	4.0	Agriculture		New Haven
Location 3514	5.1	4.0	Agriculture		New Haven
Location 3515	5.0	4.0	Agriculture		New Haven
Location 3516	5.0	4.0	Agriculture		New Haven
Location 3517	5.3	4.0	Agriculture		New Haven
Location 3518	5.3	4.0	Agriculture		New Haven
Location 3519	5.3	4.0	Agriculture		New Haven
Location 3520	4.6	4.0	Agriculture		New Haven
Location 3521	4.8	4.0	Agriculture		New Haven
Location 3522	4.9	4.0	Agriculture		New Haven
Location 3523	4.9	4.0	Agriculture		New Haven
Location 3524	4.4	4.0	VELCO/Agriculture		New Haven
Location 3525	4.7	4.0	VELCO/Agriculture		New Haven
Location 3526	5.4	4.0	VELCO/Agriculture		New Haven
Location 3527	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3528	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3529	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3530	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3531	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3532	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3533	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3534	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3535	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3536	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3537	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3538	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3539	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3540	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3541	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3542	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3543	HDD	7.0	DEC Stream	Crossing ID #113, 2012-TB-LOC-4 (P) (Little Otter Creek), Estimated location for Depth from HDD Profile (45.0 feet).	New Haven
Location 3544	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3545	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3546	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3547	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3548	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3549	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3550	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3551	HDD	4.0	VELCO/Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3552	HDD	5.0	Road Crossing	Plank Road. Estimated location for Depth from HDD Profile (35.0 feet).	New Haven
Location 3553	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3554	HDD	4.0	VELCO/Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3555	6.7	4.0	VELCO/Agriculture		New Haven
Location 3556	4.7	4.0	VELCO/Agriculture		New Haven
Location 3557	4.1	4.0	VELCO/Agriculture		New Haven
Location 3558	4.3	4.0	Agriculture		New Haven
Location 3559	4.2	4.0	Agriculture		New Haven
Location 3560	4.5	4.0	Agriculture		New Haven
Location 3561	4.8	4.0	Agriculture		New Haven
Location 3562	4.7	4.0	Agriculture		New Haven
Location 3563	4.7	4.0	Agriculture		New Haven
Location 3564	4.3	4.0	Agriculture		New Haven
Location 3565	4.2	4.0	Agriculture		New Haven
Location 3566	4.4	4.0	Agriculture		New Haven
Location 3567	4.2	4.0	Agriculture		New Haven
Location 3568	4.3	4.0	Agriculture		New Haven
Location 3569	4.4	4.0	Agriculture		New Haven
Location 3570	4.6	4.0	Agriculture		New Haven
Location 3571	5.3	3.0	PHMSA		New Haven
Location 3572	5.0	3.0	PHMSA		New Haven
Location 3573	5.0	3.0	PHMSA		New Haven
Location 3574	4.0	3.0	PHMSA		New Haven
Location 3575	4.3	3.0	PHMSA		New Haven
Location 3576	4.2	3.0	PHMSA		New Haven
Location 3577	4.0	3.0	PHMSA		New Haven
Location 3578	4.0	3.0	PHMSA		New Haven
Location 3579	4.4	3.0	PHMSA		New Haven
Location 3580	4.0	3.0	PHMSA		New Haven
Location 3581	4.0	3.0	PHMSA		New Haven
Location 3582	4.2	3.0	PHMSA		New Haven
Location 3583	4.2	3.0	PHMSA		New Haven
Location 3584	4.1	4.0	Agriculture		New Haven
Location 3585	4.3	4.0	Agriculture		New Haven
Location 3586	4.0	4.0	Agriculture		New Haven
Location 3587	4.6	4.0	Agriculture		New Haven
Location 3588	7.0	4.0	Agriculture		New Haven
Location 3589	5.7	4.0	Agriculture		New Haven
Location 3590	5.4	4.0	Agriculture		New Haven
Location 3591	6.4	4.0	Agriculture		New Haven
Location 3592	5.3	4.0	Agriculture		New Haven
Location 3593	5.0	4.0	Agriculture		New Haven
Location 3594	5.3	4.0	Agriculture		New Haven
Location 3595	5.6	4.0	Agriculture		New Haven
Location 3596	5.0	4.0	Agriculture		New Haven
Location 3597	5.1	4.0	Agriculture		New Haven
Location 3598	4.7	4.0	Agriculture		New Haven
Location 3599	4.5	4.0	Agriculture		New Haven
Location 3600	5.0	4.0	Agriculture		New Haven
Location 3601	4.4	4.0	Agriculture		New Haven
Location 3602	4.3	4.0	Agriculture		New Haven
Location 3603	4.6	4.0	Agriculture		New Haven
Location 3604	4.5	4.0	Agriculture		New Haven
Location 3605	4.6	4.0	Agriculture		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3606	5.0	4.0	Agriculture		New Haven
Location 3607	4.5	4.0	Agriculture		New Haven
Location 3608	5.1	4.0	Agriculture		New Haven
Location 3609	5.0	4.0	Agriculture		New Haven
Location 3610	4.5	4.0	Agriculture		New Haven
Location 3611	4.0	4.0	Agriculture		New Haven
Location 3612	4.3	4.0	Agriculture		New Haven
Location 3613	4.1	4.0	Agriculture		New Haven
Location 3614	4.0	4.0	Agriculture		New Haven
Location 3615	4.1	4.0	Agriculture		New Haven
Location 3616	4.0	4.0	Agriculture		New Haven
Location 3617	4.3	4.0	Agriculture		New Haven
Location 3618	4.2	4.0	Agriculture		New Haven
Location 3619	4.1	4.0	Agriculture		New Haven
Location 3620	4.0	4.0	Agriculture		New Haven
Location 3621	4.1	4.0	Agriculture		New Haven
Location 3622	4.2	4.0	Agriculture		New Haven
Location 3623	4.1	4.0	Agriculture		New Haven
Location 3624	4.4	4.0	Agriculture		New Haven
Location 3625	4.2	4.0	Agriculture		New Haven
Location 3626	4.0	4.0	Agriculture		New Haven
Location 3627	4.1	4.0	Agriculture		New Haven
Location 3628	4.0	4.0	Agriculture		New Haven
Location 3629	4.1	4.0	Agriculture		New Haven
Location 3630	4.2	4.0	Agriculture		New Haven
Location 3631	4.2	4.0	Agriculture		New Haven
Location 3632	5.4	4.0	Agriculture		New Haven
Location 3633	5.6	4.0	Agriculture		New Haven
Location 3634	4.6	4.0	Agriculture		New Haven
Location 3635	5.0	4.0	Agriculture		New Haven
Location 3636	4.9	4.0	Agriculture		New Haven
Location 3637	5.1	4.0	Agriculture		New Haven
Location 3638	5.4	4.0	Agriculture		New Haven
Location 3639	5.3	4.0	Agriculture		New Haven
Location 3640	5.1	4.0	Agriculture		New Haven
Location 3641	5.2	4.0	Agriculture		New Haven
Location 3642	5.0	4.0	Agriculture		New Haven
Location 3643	5.1	4.0	Agriculture		New Haven
Location 3644	4.6	4.0	Agriculture		New Haven
Location 3645	5.0	4.0	Agriculture		New Haven
Location 3646	4.8	4.0	Agriculture		New Haven
Location 3647	4.7	4.0	Agriculture		New Haven
Location 3648	4.6	4.0	Agriculture		New Haven
Location 3649	4.5	4.0	Agriculture		New Haven
Location 3650	4.7	4.0	Agriculture		New Haven
Location 3651	4.7	4.0	Agriculture		New Haven
Location 3652	4.6	4.0	Agriculture		New Haven
Location 3653	4.8	4.0	Agriculture		New Haven
Location 3654	5.1	4.0	Agriculture		New Haven
Location 3655	4.4	4.0	Agriculture		New Haven
Location 3656	4.8	4.0	Agriculture		New Haven
Location 3657	4.2	4.0	Agriculture		New Haven
Location 3658	5.0	4.0	Agriculture		New Haven
Location 3659	5.7	4.0	Agriculture		New Haven
Location 3660	5.9	4.0	Agriculture		New Haven
Location 3661	5.0	4.0	Agriculture		New Haven
Location 3662	4.6	4.0	Agriculture		New Haven
Location 3663	5.2	4.0	Agriculture		New Haven
Location 3664	5.3	4.0	Agriculture		New Haven
Location 3665	4.8	4.0	Agriculture		New Haven
Location 3666	5.2	4.0	Agriculture		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3667	5.0	4.0	Agriculture		New Haven
Location 3668	4.7	4.0	Agriculture		New Haven
Location 3669	7.0	4.0	Agriculture	Quarry Road - Road Crossing nearby this weld, Pipeline locator indicated a depth of 5.5 feet in roadway. 5-foot minimum required under road.	New Haven
Location 3670	5.2	4.0	Agriculture		New Haven
Location 3671	5.2	4.0	Agriculture		New Haven
Location 3672	5.1	4.0	Agriculture		New Haven
Location 3673	5.1	4.0	Agriculture		New Haven
Location 3674	5.6	4.0	Agriculture		New Haven
Location 3675	4.6	4.0	Agriculture		New Haven
Location 3676	4.7	4.0	Agriculture		New Haven
Location 3677	5.5	4.0	Agriculture		New Haven
Location 3678	5.2	4.0	Agriculture		New Haven
Location 3679	5.6	4.0	Agriculture		New Haven
Location 3680	5.2	4.0	Agriculture		New Haven
Location 3681	4.7	3.0	PHMSA		New Haven
Location 3682	4.3	3.0	PHMSA		New Haven
Location 3683	4.6	3.0	PHMSA		New Haven
Location 3684	6.1	3.0	PHMSA		New Haven
Location 3685	6.1	3.0	PHMSA		New Haven
Location 3686	5.1	3.0	PHMSA		New Haven
Location 3687	4.7	3.0	PHMSA		New Haven
Location 3688	5.8	3.0	PHMSA		New Haven
Location 3689	6.0	4.0	Landowner		New Haven
Location 3690	5.8	4.0	Landowner		New Haven
Location 3691	4.8	4.0	Landowner		New Haven
Location 3692	5.4	4.0	Landowner		New Haven
Location 3693	5.0	4.0	Landowner		New Haven
Location 3694	4.6	4.0	Landowner		New Haven
Location 3695	4.8	4.0	Landowner		New Haven
Location 3696	6.0	4.0	Landowner		New Haven
Location 3697	5.7	4.0	Landowner		New Haven
Location 3698	5.2	4.0	Agriculture/Landowner		New Haven
Location 3699	5.2	4.0	Agriculture/Landowner		New Haven
Location 3700	5.1	4.0	Agriculture/Landowner		New Haven
Location 3701	4.8	4.0	Agriculture/Landowner		New Haven
Location 3702	4.4	4.0	Agriculture/Landowner		New Haven
Location 3703	4.7	4.0	Agriculture/Landowner		New Haven
Location 3704	4.0	4.0	Agriculture/Landowner		New Haven
Location 3705	4.2	4.0	Landowner		New Haven
Location 3706	4.0	4.0	Landowner		New Haven
Location 3707	4.1	4.0	Agriculture/Landowner		New Haven
Location 3708	4.9	4.0	Agriculture/Landowner		New Haven
Location 3709	4.0	4.0	Agriculture/Landowner		New Haven
Location 3710	4.0	4.0	Agriculture/Landowner		New Haven
Location 3711	4.1	4.0	Agriculture/Landowner		New Haven
Location 3712	4.5	4.0	Agriculture/Landowner		New Haven
Location 3713	4.5	4.0	Agriculture/Landowner		New Haven
Location 3714	4.0	4.0	Agriculture/Landowner		New Haven
Location 3715	4.1	4.0	Agriculture/Landowner		New Haven
Location 3716	4.6	4.0	Agriculture/Landowner		New Haven
Location 3717	4.8	4.0	Agriculture/Landowner		New Haven
Location 3718	4.4	4.0	Agriculture/Landowner		New Haven
Location 3719	4.6	4.0	Agriculture/Landowner		New Haven
Location 3720	4.2	4.0	Landowner		New Haven
Location 3721	4.6	4.0	Landowner		New Haven
Location 3722	4.6	4.0	Agriculture/Landowner		New Haven
Location 3723	4.6	4.0	Agriculture/Landowner		New Haven
Location 3724	4.6	4.0	Agriculture/Landowner		New Haven
Location 3725	4.7	4.0	Agriculture/Landowner		New Haven
Location 3726	4.6	4.0	Agriculture/Landowner		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3727	4.6	4.0	Agriculture/Landowner		New Haven
Location 3728	5.0	4.0	Agriculture/Landowner		New Haven
Location 3729	5.7	4.0	Landowner		New Haven
Location 3730	5.4	4.0	Landowner		New Haven
Location 3731	4.2	4.0	Agriculture/Landowner		New Haven
Location 3732	4.2	4.0	Agriculture/Landowner		New Haven
Location 3733	4.4	4.0	Agriculture/Landowner		New Haven
Location 3734	4.6	4.0	Agriculture/Landowner		New Haven
Location 3735	4.8	4.0	Agriculture/Landowner		New Haven
Location 3736	4.7	4.0	Agriculture/Landowner		New Haven
Location 3737	4.3	4.0	Agriculture/Landowner		New Haven
Location 3738	4.4	4.0	Agriculture/Landowner		New Haven
Location 3739	4.6	4.0	Agriculture/Landowner		New Haven
Location 3740	4.6	4.0	Agriculture/Landowner		New Haven
Location 3741	4.4	4.0	Agriculture/Landowner		New Haven
Location 3742	4.1	4.0	Agriculture/Landowner		New Haven
Location 3743	4.3	4.0	Agriculture/Landowner		New Haven
Location 3744	4.4	4.0	Agriculture/Landowner		New Haven
Location 3745	4.8	4.0	Agriculture/Landowner		New Haven
Location 3746	4.9	4.0	Agriculture/Landowner		New Haven
Location 3747	5.0	4.0	Agriculture/Landowner		New Haven
Location 3748	5.1	4.0	Agriculture/Landowner		New Haven
Location 3749	4.6	4.0	Agriculture/Landowner		New Haven
Location 3750	4.0	4.0	Agriculture/Landowner		New Haven
Location 3751	4.3	4.0	Agriculture/Landowner		New Haven
Location 3752	4.9	4.0	Agriculture/Landowner		New Haven
Location 3753	5.0	4.0	Agriculture/Landowner		New Haven
Location 3754	4.9	4.0	Agriculture/Landowner		New Haven
Location 3755	5.2	4.0	Agriculture/Landowner		New Haven
Location 3756	5.6	4.0	Agriculture/Landowner		New Haven
Location 3757	5.3	4.0	Agriculture/Landowner		New Haven
Location 3758	5.6	4.0	Agriculture/Landowner		New Haven
Location 3759	9.4	4.0	Agriculture/Landowner		New Haven
Location 3760	6.0	4.0	Agriculture/Landowner		New Haven
Location 3761	5.7	4.0	Agriculture/Landowner		New Haven
Location 3762	5.9	4.0	Agriculture/Landowner		New Haven
Location 3763	6.1	4.0	Agriculture/Landowner		New Haven
Location 3764	6.4	4.0	Agriculture/Landowner		New Haven
Location 3765	5.6	4.0	Agriculture/Landowner		New Haven
Location 3766	5.2	4.0	Agriculture/Landowner		New Haven
Location 3767	5.3	4.0	Agriculture/Landowner		New Haven
Location 3768	5.4	4.0	Agriculture/Landowner		New Haven
Location 3769	5.4	4.0	Agriculture/Landowner		New Haven
Location 3770	4.9	4.0	Agriculture/Landowner		New Haven
Location 3771	4.9	4.0	Agriculture/Landowner		New Haven
Location 3772	4.3	4.0	Agriculture/Landowner		New Haven
Location 3773	5.0	4.0	Agriculture/Landowner		New Haven
Location 3774	5.3	4.0	Agriculture/Landowner		New Haven
Location 3775	5.6	4.0	Agriculture/Landowner		New Haven
Location 3776	5.8	4.0	Agriculture/Landowner		New Haven
Location 3777	5.8	4.0	Agriculture/Landowner		New Haven
Location 3778	5.7	4.0	Agriculture/Landowner		New Haven
Location 3779	5.6	4.0	Agriculture/Landowner		New Haven
Location 3780	5.1	4.0	Agriculture/Landowner		New Haven
Location 3781	4.3	4.0	Agriculture/Landowner		New Haven
Location 3782	4.1	4.0	Agriculture/Landowner		New Haven
Location 3783	4.4	4.0	Agriculture/Landowner		New Haven
Location 3784	4.8	4.0	Agriculture/Landowner		New Haven
Location 3785	4.6	4.0	Agriculture/Landowner		New Haven
Location 3786	4.5	4.0	Agriculture/Landowner		New Haven
Location 3787	4.9	4.0	Agriculture/Landowner		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3788	5.1	4.0	Agriculture/Landowner		New Haven
Location 3789	5.1	4.0	Agriculture/Landowner		New Haven
Location 3790	5.0	4.0	Agriculture/Landowner		New Haven
Location 3791	5.0	4.0	Agriculture/Landowner		New Haven
Location 3792	5.0	4.0	Agriculture/Landowner		New Haven
Location 3793	4.9	4.0	Agriculture/Landowner		New Haven
Location 3794	4.9	4.0	Agriculture/Landowner		New Haven
Location 3795	4.8	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3796	4.5	4.0	VELCO/Agriculture		New Haven
Location 3797	4.2	4.0	VELCO/Agriculture		New Haven
Location 3798	4.6	4.0	Agriculture		New Haven
Location 3799	5.3	4.0	Agriculture		New Haven
Location 3800	5.8	4.0	Agriculture		New Haven
Location 3801	5.5	4.0	Agriculture		New Haven
Location 3802	4.8	4.0	Agriculture		New Haven
Location 3803	4.5	4.0	Agriculture		New Haven
Location 3804	5.1	4.0	Agriculture		New Haven
Location 3805	4.8	4.0	Agriculture		New Haven
Location 3806	4.6	4.0	Agriculture		New Haven
Location 3807	4.4	4.0	Agriculture		New Haven
Location 3808	4.0	4.0	Agriculture		New Haven
Location 3809	4.3	4.0	Agriculture		New Haven
Location 3810	5.4	4.0	Agriculture		New Haven
Location 3811	5.5	4.0	Agriculture		New Haven
Location 3812	6.0	4.0	Agriculture		New Haven
Location 3813	6.0	4.0	Agriculture		New Haven
Location 3814	6.1	4.0	Agriculture		New Haven
Location 3815	5.1	4.0	Agriculture		New Haven
Location 3816	5.4	4.0	Agriculture		New Haven
Location 3817	4.8	4.0	Agriculture		New Haven
Location 3818	4.9	4.0	Agriculture		New Haven
Location 3819	5.1	4.0	Agriculture		New Haven
Location 3820	6.0	4.0	Agriculture		New Haven
Location 3821	5.9	4.0	Agriculture		New Haven
Location 3822	5.4	4.0	Agriculture		New Haven
Location 3823	ROADBORE	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 3824	ROADBORE	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 3825	ROADBORE	5.0	Road Crossing	Route 17 (Main Street), Pipeline locator indicated a depth of 16.1 feet in roadway.	New Haven
Location 3826	ROADBORE	4.0	Agriculture/Landowner	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 3827	5.3	4.0	VELCO/Agriculture		New Haven
Location 3828	5.4	4.0	VELCO/Agriculture		New Haven
Location 3829	5.4	4.0	VELCO/Agriculture		New Haven
Location 3830	5.4	4.0	VELCO/Agriculture		New Haven
Location 3831	5.9	4.0	VELCO/Agriculture		New Haven
Location 3832	5.1	4.0	VELCO/Agriculture		New Haven
Location 3833	5.4	4.0	VELCO/Agriculture		New Haven
Location 3834	5.4	4.0	VELCO/Agriculture		New Haven
Location 3835	4.4	4.0	VELCO/Agriculture		New Haven
Location 3836	4.3	4.0	VELCO/Agriculture		New Haven
Location 3837	4.4	4.0	VELCO/Agriculture		New Haven
Location 3838	4.7	4.0	VELCO/Agriculture		New Haven
Location 3839	5.9	4.0	VELCO/Agriculture		New Haven
Location 3840	5.0	4.0	VELCO/Agriculture		New Haven
Location 3841	5.4	4.0	VELCO/Agriculture		New Haven
Location 3842	5.9	4.0	VELCO/Agriculture		New Haven
Location 3843	5.3	4.0	VELCO/Agriculture		New Haven
Location 3844	5.1	4.0	VELCO/Agriculture		New Haven
Location 3845	4.5	4.0	VELCO/Agriculture		New Haven
Location 3846	5.0	4.0	VELCO/Agriculture		New Haven
Location 3847	4.5	4.0	VELCO/Agriculture		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3848	5.1	4.0	VELCO/Agriculture		New Haven
Location 3849	5.4	4.0	VELCO/Agriculture		New Haven
Location 3850	5.1	4.0	VELCO/Agriculture		New Haven
Location 3851	5.1	4.0	VELCO/Agriculture		New Haven
Location 3852	4.7	4.0	VELCO/Agriculture		New Haven
Location 3853	4.1	4.0	VELCO/Agriculture		New Haven
Location 3854	5.3	4.0	VELCO/Agriculture		New Haven
Location 3855	4.4	4.0	VELCO/Agriculture		New Haven
Location 3856	5.5	4.0	VELCO/Agriculture		New Haven
Location 3857	6.3	4.0	VELCO/Agriculture		New Haven
Location 3858	4.5	4.0	VELCO/Agriculture		New Haven
Location 3859	4.2	4.0	VELCO/Agriculture		New Haven
Location 3860	4.1	4.0	VELCO/Agriculture		New Haven
Location 3861	4.1	4.0	VELCO/Agriculture		New Haven
Location 3862	6.5	4.0	VELCO/Agriculture		New Haven
Location 3863	6.9	4.0	VELCO/Agriculture		New Haven
Location 3864	4.9	4.0	VELCO/Agriculture		New Haven
Location 3865	5.8	4.0	VELCO/Agriculture		New Haven
Location 3866	5.8	4.0	VELCO/Agriculture		New Haven
Location 3867	6.0	4.0	VELCO/Agriculture		New Haven
Location 3868	5.3	4.0	VELCO/Agriculture		New Haven
Location 3869	7.6	4.0	VELCO/Agriculture		New Haven
Location 3870	9.7	4.0	VELCO/Agriculture	Crossing ID #39, 2012-SC-CM-63 (I)	New Haven
Location 3871	7.4	4.0	VELCO/Agriculture	Crossing ID #39, 2012-SC-CM-63 (I)	New Haven
Location 3872	6.9	4.0	VELCO/Agriculture		New Haven
Location 3873	5.3	4.0	VELCO/Agriculture		New Haven
Location 3874	6.7	4.0	VELCO/Agriculture		New Haven
Location 3875	4.6	4.0	VELCO/Agriculture		New Haven
Location 3876	4.9	4.0	VELCO/Agriculture		New Haven
Location 3877	5.2	4.0	VELCO/Agriculture		New Haven
Location 3878	5.7	4.0	VELCO/Agriculture		New Haven
Location 3879	5.4	4.0	VELCO/Agriculture		New Haven
Location 3880	6.5	4.0	VELCO/Agriculture		New Haven
Location 3881	4.7	4.0	VELCO/Agriculture		New Haven
Location 3882	4.7	4.0	VELCO/Agriculture		New Haven
Location 3883	4.6	4.0	VELCO/Agriculture		New Haven
Location 3884	4.2	4.0	VELCO/Agriculture		New Haven
Location 3885	4.4	4.0	VELCO/Agriculture		New Haven
Location 3886	4.9	4.0	VELCO/Agriculture		New Haven
Location 3887	4.9	4.0	VELCO/Agriculture		New Haven
Location 3888	4.7	4.0	VELCO/Agriculture		New Haven
Location 3889	4.7	4.0	VELCO/Agriculture		New Haven
Location 3890	4.5	4.0	VELCO/Agriculture		New Haven
Location 3891	4.7	4.0	VELCO/Agriculture		New Haven
Location 3892	5.2	4.0	VELCO/Agriculture		New Haven
Location 3893	5.2	4.0	VELCO/Agriculture		New Haven
Location 3894	4.9	4.0	Agriculture		New Haven
Location 3895	5.0	4.0	Agriculture		New Haven
Location 3896	4.7	4.0	Agriculture		New Haven
Location 3897	4.2	4.0	Agriculture		New Haven
Location 3898	4.9	4.0	Agriculture		New Haven
Location 3899	5.3	4.0	VELCO/Agriculture		New Haven
Location 3900	5.6	4.0	VELCO/Agriculture		New Haven
Location 3901	5.9	4.0	VELCO/Agriculture		New Haven
Location 3902	6.2	4.0	VELCO/Agriculture		New Haven
Location 3903	5.5	4.0	VELCO/Agriculture		New Haven
Location 3904	4.6	4.0	VELCO/Agriculture		New Haven
Location 3905	4.2	4.0	VELCO/Agriculture		New Haven
Location 3906	4.0	4.0	VELCO/Agriculture		New Haven
Location 3907	6.2	4.0	VELCO/Agriculture		New Haven
Location 3908	ROADBORE	4.0	VELCO/Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3909	ROADBORE	5.0	Road Crossing	Town Hill Road, Pipeline locator indicated a depth of 6.7 feet in roadway.	New Haven
Location 3910	ROADBORE	4.0	VELCO/Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 3911	ROADBORE	4.0	VELCO/Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 3912	5.9	4.0	VELCO/Agriculture		New Haven
Location 3913	5.8	4.0	VELCO/Agriculture		New Haven
Location 3914	5.0	4.0	VELCO/Agriculture		New Haven
Location 3915	4.7	4.0	VELCO/Agriculture		New Haven
Location 3916	5.0	4.0	VELCO/Agriculture		New Haven
Location 3917	4.6	4.0	Agriculture		New Haven
Location 3918	4.9	4.0	Agriculture		New Haven
Location 3919	5.8	4.0	Agriculture		New Haven
Location 3920	6.8	4.0	Agriculture		New Haven
Location 3921	7.2	4.0	Agriculture		New Haven
Location 3922	7.7	4.0	Agriculture		New Haven
Location 3923	7.6	4.0	Agriculture		New Haven
Location 3924	7.3	4.0	Agriculture		New Haven
Location 3925	6.8	4.0	Agriculture		New Haven
Location 3926	5.5	4.0	Agriculture		New Haven
Location 3927	6.3	4.0	Agriculture		New Haven
Location 3928	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3929	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3930	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3931	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3932	HDD	4.0	Agriculture	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3933	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3934	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3935	HDD	7.0	DEC Stream	Crossing ID #40, 2012-TB-CM-62 (P) (Tributary to Little Otter Creek), Estimated location for Depth from HDD Profile (20.0 feet).	New Haven
Location 3936	HDD	7.0	DEC Stream	Crossing ID #40, 2012-TB-CM-62 (P) (Tributary to Little Otter Creek), Estimated location for Depth from HDD Profile (20.0 feet).	New Haven
Location 3937	HDD	7.0	DEC Stream	Crossing ID#41, 2012-TB-CM-62a (P) (Tributary to Little Otter Creek), Estimated location for Depth from HDD Profile (20.0 feet).	New Haven
Location 3938	HDD	7.0	DEC Stream	Crossing ID#42, 2012-TB-CM-62a (P) (Tributary to Little Otter Creek, Estimated location for Depth from HDD Profile (20.0 feet).	New Haven
Location 3939	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3940	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3941	HDD	7.0	DEC Stream	Crossing ID#43, 2012-TB-CM-62a (P) (Tributary to Little Otter Creek), Estimated location for Depth from HDD Profile (20.0 feet).	New Haven
Location 3942	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3943	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3944	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3945	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3946	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 3947	7.2	4.0	Agriculture/Landowner		New Haven
Location 3948	5.2	4.0	Agriculture/Landowner		New Haven
Location 3949	6.3	4.0	Agriculture/Landowner		New Haven
Location 3950	6.3	4.0	Agriculture/Landowner		New Haven
Location 3951	6.2	4.0	Agriculture/Landowner		New Haven
Location 3952	7.9	4.0	Agriculture/Landowner		New Haven
Location 3953	6.3	4.0	Agriculture/Landowner		New Haven
Location 3954	5.1	4.0	Agriculture/Landowner		New Haven
Location 3955	5.1	4.0	Agriculture/Landowner		New Haven
Location 3956	4.7	4.0	Agriculture/Landowner		New Haven
Location 3957	5.1	4.0	Agriculture/Landowner		New Haven
Location 3958	4.6	4.0	Agriculture/Landowner		New Haven
Location 3959	5.5	4.0	Agriculture/Landowner		New Haven
Location 3960	4.1	4.0	Agriculture/Landowner		New Haven
Location 3961	4.1	4.0	Agriculture/Landowner		New Haven
Location 3962	4.1	4.0	Agriculture/Landowner		New Haven
Location 3963	4.5	4.0	Agriculture/Landowner		New Haven
Location 3964	5.6	4.0	Agriculture/Landowner		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 3965	5.0	4.0	Agriculture/Landowner		New Haven
Location 3966	4.8	4.0	Agriculture/Landowner		New Haven
Location 3967	5.3	4.0	Agriculture/Landowner		New Haven
Location 3968	5.4	4.0	Agriculture/Landowner		New Haven
Location 3969	5.7	4.0	Agriculture/Landowner		New Haven
Location 3970	5.7	4.0	Agriculture/Landowner		New Haven
Location 3971	5.4	4.0	Agriculture/Landowner		New Haven
Location 3972	5.5	4.0	Agriculture/Landowner		New Haven
Location 3973	5.3	4.0	Agriculture/Landowner		New Haven
Location 3974	5.1	4.0	Agriculture/Landowner		New Haven
Location 3975	5.5	4.0	Agriculture/Landowner		New Haven
Location 3976	5.4	4.0	Agriculture/Landowner		New Haven
Location 3977	5.9	4.0	Agriculture/Landowner		New Haven
Location 3978	5.7	4.0	Agriculture/Landowner		New Haven
Location 3979	4.5	4.0	Agriculture/Landowner		New Haven
Location 3980	4.6	4.0	Agriculture/Landowner		New Haven
Location 3981	4.4	4.0	Agriculture/Landowner		New Haven
Location 3982	4.1	4.0	Agriculture/Landowner		New Haven
Location 3983	4.5	4.0	Agriculture/Landowner		New Haven
Location 3984	4.6	4.0	Agriculture/Landowner		New Haven
Location 3985	4.6	4.0	Agriculture/Landowner		New Haven
Location 3986	4.5	4.0	Agriculture/Landowner		New Haven
Location 3987	5.0	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3988	5.6	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3989	5.8	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3990	5.4	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3991	5.1	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3992	4.5	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3993	4.5	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3994	4.5	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3995	4.1	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3996	4.1	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3997	4.1	4.0	VELCO/Agriculture/Landowner		New Haven
Location 3998	4.0	4.0	Agriculture/Landowner		New Haven
Location 3999	4.4	4.0	Agriculture/Landowner		New Haven
Location 4000	4.5	4.0	Agriculture/Landowner		New Haven
Location 4001	5.3	4.0	Agriculture/Landowner		New Haven
Location 4002	4.9	4.0	Agriculture/Landowner		New Haven
Location 4003	4.8	4.0	Agriculture/Landowner		New Haven
Location 4004	4.5	4.0	Agriculture/Landowner		New Haven
Location 4005	5.0	4.0	Agriculture/Landowner		New Haven
Location 4006	4.8	4.0	Agriculture/Landowner		New Haven
Location 4007	5.3	4.0	Agriculture/Landowner		New Haven
Location 4008	5.0	4.0	Agriculture/Landowner		New Haven
Location 4009	5.1	4.0	Agriculture/Landowner		New Haven
Location 4010	4.6	4.0	Agriculture/Landowner		New Haven
Location 4011	4.6	4.0	Landowner		New Haven
Location 4012	4.9	4.0	Landowner		New Haven
Location 4013	4.7	4.0	Landowner		New Haven
Location 4014	4.1	4.0	Landowner		New Haven
Location 4015	4.7	4.0	Landowner		New Haven
Location 4016	4.7	4.0	Landowner		New Haven
Location 4017	4.4	4.0	Landowner		New Haven
Location 4018	4.6	4.0	Landowner		New Haven
Location 4019	4.8	4.0	Landowner		New Haven
Location 4020	4.4	4.0	Landowner		New Haven
Location 4021	4.5	4.0	Landowner		New Haven
Location 4022	4.9	4.0	Landowner		New Haven
Location 4023	5.1	4.0	Landowner		New Haven
Location 4024	5.1	4.0	Landowner		New Haven
Location 4025	5.1	4.0	Landowner		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 4026	4.8	4.0	Landowner		New Haven
Location 4027	4.1	4.0	Landowner		New Haven
Location 4028	4.1	4.0	Landowner		New Haven
Location 4029	3.5	3.0	PHMSA		New Haven
Location 4030	4.2	3.0	PHMSA		New Haven
Location 4031	4.1	3.0	PHMSA		New Haven
Location 4032	4.2	3.0	PHMSA		New Haven
Location 4033	4.0	3.0	PHMSA		New Haven
Location 4034	4.1	3.0	PHMSA		New Haven
Location 4035	4.1	3.0	PHMSA		New Haven
Location 4036	4.4	3.0	PHMSA		New Haven
Location 4037	4.9	3.0	PHMSA		New Haven
Location 4038	4.3	3.0	PHMSA		New Haven
Location 4039	4.2	3.0	PHMSA		New Haven
Location 4040	3.3	3.0	PHMSA		New Haven
Location 4041	3.1	3.0	PHMSA		New Haven
Location 4042	3.4	3.0	PHMSA		New Haven
Location 4043	4.0	3.0	PHMSA		New Haven
Location 4044	3.7	3.0	PHMSA		New Haven
Location 4045	4.1	3.0	PHMSA		New Haven
Location 4046	4.2	3.0	PHMSA		New Haven
Location 4047	4.0	3.0	PHMSA		New Haven
Location 4048	5.1	3.0	PHMSA		New Haven
Location 4049	4.0	3.0	PHMSA		New Haven
Location 4050	3.9	3.0	PHMSA		New Haven
Location 4051	4.8	3.0	PHMSA		New Haven
Location 4052	4.5	3.0	PHMSA		New Haven
Location 4053	4.3	3.0	PHMSA		New Haven
Location 4054	4.2	3.0	PHMSA		New Haven
Location 4055	4.7	3.0	PHMSA		New Haven
Location 4056	4.3	3.0	PHMSA		New Haven
Location 4057	3.5	3.0	PHMSA		New Haven
Location 4058	3.2	3.0	PHMSA		New Haven
Location 4059	3.5	3.0	PHMSA		New Haven
Location 4060	3.1	3.0	PHMSA		New Haven
Location 4061	3.0	3.0	PHMSA		New Haven
Location 4062	3.3	3.0	PHMSA		New Haven
Location 4063	3.5	3.0	PHMSA		New Haven
Location 4064	3.0	3.0	PHMSA		New Haven
Location 4065	3.3	3.0	PHMSA		New Haven
Location 4066	4.1	3.0	PHMSA		New Haven
Location 4067	3.6	3.0	PHMSA		New Haven
Location 4068	4.1	3.0	PHMSA		New Haven
Location 4069	4.1	3.0	PHMSA		New Haven
Location 4070	4.2	3.0	PHMSA		New Haven
Location 4071	4.5	3.0	PHMSA		New Haven
Location 4072	4.8	3.0	PHMSA		New Haven
Location 4073	4.8	3.0	PHMSA		New Haven
Location 4074	4.5	3.0	PHMSA		New Haven
Location 4075	4.7	4.0	Agriculture		New Haven
Location 4076	4.5	4.0	Agriculture		New Haven
Location 4077	4.6	4.0	Agriculture		New Haven
Location 4078	4.6	4.0	Agriculture		New Haven
Location 4079	4.8	4.0	Agriculture		New Haven
Location 4080	5.0	4.0	Agriculture		New Haven
Location 4081	4.9	4.0	Agriculture		New Haven
Location 4082	4.9	4.0	Agriculture		New Haven
Location 4083	4.7	4.0	Agriculture		New Haven
Location 4084	4.6	4.0	Agriculture		New Haven
Location 4085	4.7	4.0	Agriculture		New Haven
Location 4086	5.2	4.0	Agriculture		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 4087	5.1	4.0	Agriculture		New Haven
Location 4088	5.1	4.0	Agriculture		New Haven
Location 4089	4.9	4.0	Agriculture		New Haven
Location 4090	5.0	4.0	Agriculture		New Haven
Location 4091	4.4	4.0	Agriculture		New Haven
Location 4092	4.2	4.0	Agriculture		New Haven
Location 4093	4.1	4.0	Agriculture		New Haven
Location 4094	4.5	4.0	Agriculture		New Haven
Location 4095	4.2	4.0	Agriculture		New Haven
Location 4096	4.2	4.0	Agriculture		New Haven
Location 4097	4.1	4.0	Agriculture		New Haven
Location 4098	4.7	4.0	Agriculture		New Haven
Location 4099	4.2	4.0	Agriculture		New Haven
Location 4100	4.2	4.0	Agriculture		New Haven
Location 4101	4.4	4.0	Agriculture		New Haven
Location 4102	5.2	4.0	Agriculture		New Haven
Location 4103	5.1	4.0	Agriculture		New Haven
Location 4104	4.9	4.0	Agriculture		New Haven
Location 4105	5.5	4.0	Agriculture		New Haven
Location 4106	4.8	4.0	Agriculture		New Haven
Location 4107	4.5	4.0	Agriculture		New Haven
Location 4108	4.4	4.0	Agriculture		New Haven
Location 4109	5.6	4.0	Agriculture		New Haven
Location 4110	5.2	4.0	Agriculture		New Haven
Location 4111	4.7	4.0	Agriculture		New Haven
Location 4112	5.0	4.0	Agriculture		New Haven
Location 4113	4.9	4.0	Agriculture		New Haven
Location 4114	6.0	4.0	Agriculture		New Haven
Location 4115	6.0	4.0	Agriculture		New Haven
Location 4116	6.6	4.0	Agriculture		New Haven
Location 4117	7.0	4.0	Agriculture		New Haven
Location 4118	6.5	4.0	Agriculture		New Haven
Location 4119	5.8	4.0	Agriculture		New Haven
Location 4120	5.3	4.0	Agriculture		New Haven
Location 4121	5.5	4.0	Agriculture		New Haven
Location 4122	5.6	4.0	Agriculture		New Haven
Location 4123	5.8	4.0	Agriculture		New Haven
Location 4124	6.0	4.0	Agriculture		New Haven
Location 4125	6.0	4.0	Agriculture		New Haven
Location 4126	6.3	4.0	Agriculture		New Haven
Location 4127	5.9	4.0	Agriculture		New Haven
Location 4128	5.2	4.0	Agriculture		New Haven
Location 4129	5.7	4.0	Agriculture		New Haven
Location 4130	6.1	4.0	Agriculture		New Haven
Location 4131	6.5	4.0	Agriculture		New Haven
Location 4132	5.7	4.0	Agriculture		New Haven
Location 4133	4.9	4.0	Agriculture		New Haven
Location 4134	4.8	4.0	Agriculture		New Haven
Location 4135	4.8	4.0	Agriculture		New Haven
Location 4136	4.9	4.0	Agriculture		New Haven
Location 4137	5.6	4.0	Agriculture		New Haven
Location 4138	5.6	4.0	Agriculture		New Haven
Location 4139	5.0	4.0	Agriculture		New Haven
Location 4140	4.7	4.0	Agriculture		New Haven
Location 4141	4.6	4.0	Agriculture		New Haven
Location 4142	4.3	4.0	Agriculture		New Haven
Location 4143	4.9	4.0	Agriculture		New Haven
Location 4144	5.5	4.0	Agriculture		New Haven
Location 4145	5.3	4.0	Agriculture		New Haven
Location 4146	5.3	4.0	Agriculture		New Haven
Location 4147	4.8	4.0	Agriculture		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 4148	4.8	4.0	Agriculture		New Haven
Location 4149	4.7	4.0	Agriculture		New Haven
Location 4150	4.9	4.0	Agriculture		New Haven
Location 4151	4.5	4.0	Agriculture		New Haven
Location 4152	4.2	4.0	Agriculture		New Haven
Location 4153	5.1	4.0	Agriculture		New Haven
Location 4154	5.1	4.0	Agriculture		New Haven
Location 4155	4.9	4.0	Agriculture		New Haven
Location 4156	4.7	4.0	Agriculture		New Haven
Location 4157	4.5	4.0	Agriculture		New Haven
Location 4158	4.9	4.0	Agriculture		New Haven
Location 4159	5.1	4.0	Agriculture		New Haven
Location 4160	5.3	4.0	Agriculture		New Haven
Location 4161	4.9	4.0	Agriculture		New Haven
Location 4162	4.7	4.0	Agriculture		New Haven
Location 4163	4.5	4.0	Agriculture		New Haven
Location 4164	4.1	4.0	Agriculture		New Haven
Location 4165	4.3	4.0	Agriculture		New Haven
Location 4166	5.2	4.0	Agriculture		New Haven
Location 4167	4.6	4.0	Agriculture		New Haven
Location 4168	4.7	4.0	Agriculture		New Haven
Location 4169	4.6	4.0	Agriculture		New Haven
Location 4170	4.8	4.0	Agriculture		New Haven
Location 4171	5.2	4.0	Agriculture		New Haven
Location 4172	5.8	4.0	Agriculture		New Haven
Location 4173	4.3	4.0	Agriculture		New Haven
Location 4174	6.3	4.0	Agriculture		New Haven
Location 4175	5.9	4.0	Agriculture		New Haven
Location 4176	6.0	4.0	Agriculture		New Haven
Location 4177	6.1	4.0	Agriculture		New Haven
Location 4178	5.1	4.0	Agriculture		New Haven
Location 4179	4.6	4.0	Agriculture		New Haven
Location 4180	4.8	4.0	Agriculture		New Haven
Location 4181	4.8	4.0	Agriculture		New Haven
Location 4182	5.4	4.0	Agriculture		New Haven
Location 4183	5.3	4.0	Agriculture		New Haven
Location 4184	5.3	4.0	Agriculture		New Haven
Location 4185	5.1	4.0	Agriculture		New Haven
Location 4186	5.3	4.0	Agriculture		New Haven
Location 4187	5.2	4.0	Agriculture		New Haven
Location 4188	5.3	4.0	Agriculture		New Haven
Location 4189	5.1	4.0	Agriculture		New Haven
Location 4190	5.9	4.0	Agriculture		New Haven
Location 4191	4.9	4.0	Agriculture		New Haven
Location 4192	5.0	4.0	Agriculture		New Haven
Location 4193	5.2	4.0	Agriculture		New Haven
Location 4194	5.6	5.0	Road Crossing	Hunt Road	New Haven
Location 4195	5.9	5.0	Road Crossing	Hunt Road	New Haven
Location 4196	6.3	5.0	Road Crossing	Hunt Road	New Haven
Location 4197	7.1	5.0	Road Crossing	Hunt Road	New Haven
Location 4198	5.4	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4199	6.5	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4200	6.0	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4201	6.1	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4202	6.1	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4203	6.3	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4204	6.0	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4205	5.6	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4206	5.0	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4207	5.1	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4208	5.3	4.0	VELCO/Agriculture/Landowner		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 4209	6.2	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4210	6.1	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4211	5.9	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4212	5.5	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4213	5.7	4.0	VELCO/Agriculture/Landowner		New Haven
Location 4214	5.7	4.0	Landowner		New Haven
Location 4215	5.4	4.0	Landowner		New Haven
Location 4216	5.2	4.0	Landowner		New Haven
Location 4217	6.2	4.0	Landowner		New Haven
Location 4218	5.9	4.0	Landowner		New Haven
Location 4219	6.1	4.0	Landowner		New Haven
Location 4220	5.8	4.0	Landowner		New Haven
Location 4221	5.4	4.0	Landowner		New Haven
Location 4222	5.8	4.0	Landowner		New Haven
Location 4223	6.2	4.0	Landowner		New Haven
Location 4224	6.1	4.0	Landowner		New Haven
Location 4225	5.6	4.0	Landowner		New Haven
Location 4226	5.6	4.0	Landowner		New Haven
Location 4227	5.6	4.0	Landowner		New Haven
Location 4228	5.9	4.0	Landowner		New Haven
Location 4229	5.8	4.0	Landowner		New Haven
Location 4230	5.3	4.0	Landowner		New Haven
Location 4231	5.5	4.0	Landowner		New Haven
Location 4232	5.2	4.0	Landowner		New Haven
Location 4233	5.2	4.0	Landowner		New Haven
Location 4234	6.1	4.0	Landowner		New Haven
Location 4235	6.2	4.0	Landowner		New Haven
Location 4236	6.7	4.0	Landowner		New Haven
Location 4237	6.5	4.0	Landowner		New Haven
Location 4238	6.4	4.0	Landowner		New Haven
Location 4239	6.0	4.0	Landowner		New Haven
Location 4240	5.9	4.0	Landowner		New Haven
Location 4241	6.2	4.0	Landowner		New Haven
Location 4242	6.0	4.0	Landowner		New Haven
Location 4243	6.1	4.0	Landowner		New Haven
Location 4244	5.9	4.0	Landowner		New Haven
Location 4245	5.5	4.0	Landowner		New Haven
Location 4246	6.1	4.0	Landowner		New Haven
Location 4247	6.7	4.0	Landowner		New Haven
Location 4248	6.7	4.0	Landowner		New Haven
Location 4249	6.9	4.0	Landowner		New Haven
Location 4250	6.6	4.0	Landowner		New Haven
Location 4251	6.8	4.0	Landowner		New Haven
Location 4252	7.2	4.0	Landowner		New Haven
Location 4253	6.6	4.0	Landowner		New Haven
Location 4254	6.4	4.0	Landowner		New Haven
Location 4255	6.5	4.0	Landowner		New Haven
Location 4256	6.3	4.0	Landowner		New Haven
Location 4257	6.1	4.0	Landowner		New Haven
Location 4258	6.2	4.0	Landowner		New Haven
Location 4259	6.2	4.0	Landowner		New Haven
Location 4260	5.7	4.0	Landowner		New Haven
Location 4261	5.2	4.0	Landowner		New Haven
Location 4262	7.2	4.0	Landowner		New Haven
Location 4263	6.6	4.0	Landowner		New Haven
Location 4264	6.1	4.0	Landowner		New Haven
Location 4265	6.2	4.0	Landowner		New Haven
Location 4266	6.3	4.0	Landowner		New Haven
Location 4267	5.8	4.0	Landowner		New Haven
Location 4268	5.8	4.0	VELCO/Agriculture		New Haven
Location 4269	5.8	4.0	VELCO/Agriculture		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 4270	5.8	4.0	VELCO/Agriculture		New Haven
Location 4271	5.3	4.0	VELCO/Agriculture		New Haven
Location 4272	5.9	4.0	VELCO/Agriculture		New Haven
Location 4273	6.0	4.0	VELCO/Agriculture		New Haven
Location 4274	6.3	4.0	VELCO/Agriculture		New Haven
Location 4275	5.7	4.0	VELCO/Agriculture		New Haven
Location 4276	5.6	4.0	VELCO/Agriculture		New Haven
Location 4277	6.1	4.0	VELCO/Agriculture		New Haven
Location 4278	6.2	4.0	VELCO/Agriculture		New Haven
Location 4279	6.0	4.0	VELCO/Agriculture		New Haven
Location 4280	5.9	4.0	VELCO/Agriculture		New Haven
Location 4281	4.9	4.0	VELCO/Agriculture		New Haven
Location 4282	4.6	4.0	VELCO/Agriculture		New Haven
Location 4283	4.8	4.0	VELCO/Agriculture		New Haven
Location 4284	4.9	4.0	VELCO/Agriculture		New Haven
Location 4285	5.4	4.0	VELCO/Agriculture		New Haven
Location 4286	5.5	4.0	VELCO/Agriculture		New Haven
Location 4287	6.3	4.0	VELCO/Agriculture		New Haven
Location 4288	6.7	4.0	VELCO/Agriculture		New Haven
Location 4289	5.7	4.0	VELCO/Agriculture		New Haven
Location 4290	5.7	4.0	VELCO/Agriculture		New Haven
Location 4291	5.8	4.0	VELCO/Agriculture		New Haven
Location 4292	5.7	4.0	VELCO/Agriculture		New Haven
Location 4293	5.8	4.0	VELCO/Agriculture		New Haven
Location 4294	5.7	4.0	Landowner		New Haven
Location 4295	5.7	4.0	Landowner		New Haven
Location 4296	5.8	4.0	Landowner		New Haven
Location 4297	6.4	4.0	Agriculture/Landowner		New Haven
Location 4298	5.6	4.0	Agriculture/Landowner		New Haven
Location 4299	5.9	4.0	Agriculture/Landowner		New Haven
Location 4300	6.6	4.0	Agriculture/Landowner		New Haven
Location 4301	6.8	4.0	Agriculture/Landowner		New Haven
Location 4302	6.3	4.0	Agriculture/Landowner		New Haven
Location 4303	7.0	4.0	Agriculture/Landowner		New Haven
Location 4304	7.0	4.0	Agriculture/Landowner		New Haven
Location 4305	6.9	4.0	Agriculture/Landowner		New Haven
Location 4306	7.1	4.0	Agriculture/Landowner		New Haven
Location 4307	7.0	4.0	Agriculture/Landowner		New Haven
Location 4308	6.9	4.0	Agriculture/Landowner		New Haven
Location 4309	6.2	4.0	Agriculture/Landowner		New Haven
Location 4310	6.3	4.0	Agriculture/Landowner		New Haven
Location 4311	8.0	4.0	Agriculture/Landowner		New Haven
Location 4312	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4313	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4314	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4315	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4316	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4317	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4318	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4319	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4320	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4321	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4322	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4323	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4324	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4325	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4326	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4327	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4328	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4329	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4330	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 4331	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4332	HDD	7.0	DEC Stream	Crossing ID #44, 2012-TB-NH-1 (P) (New Haven River), Estimated location for Depth from HDD Profile (32.0 feet).	New Haven
Location 4333	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4334	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4335	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4336	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4337	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4338	HDD	4.0	Agriculture/Landowner	Based on HDD Profile, minimum depth is at least 4.0 feet.	New Haven
Location 4339	7.3	4.0	Agriculture/Landowner		New Haven
Location 4340	6.2	4.0	Agriculture/Landowner		New Haven
Location 4341	6.0	4.0	Agriculture/Landowner		New Haven
Location 4342	6.3	4.0	Agriculture/Landowner		New Haven
Location 4343	6.1	4.0	Agriculture/Landowner		New Haven
Location 4344	6.2	4.0	Agriculture/Landowner		New Haven
Location 4345	5.7	4.0	Agriculture/Landowner		New Haven
Location 4346	5.4	4.0	Agriculture/Landowner		New Haven
Location 4347	5.4	4.0	Agriculture/Landowner		New Haven
Location 4348	5.8	4.0	Agriculture/Landowner		New Haven
Location 4349	6.0	4.0	Agriculture/Landowner		New Haven
Location 4350	6.1	4.0	Agriculture/Landowner		New Haven
Location 4351	6.0	4.0	Agriculture/Landowner		New Haven
Location 4352	6.2	4.0	Agriculture/Landowner		New Haven
Location 4353	6.2	4.0	Agriculture/Landowner		New Haven
Location 4354	4.9	4.0	Agriculture/Landowner		New Haven
Location 4355	4.8	4.0	Agriculture/Landowner		New Haven
Location 4356	4.5	4.0	Agriculture/Landowner		New Haven
Location 4357	4.3	4.0	Agriculture/Landowner		New Haven
Location 4358	4.3	4.0	Agriculture/Landowner		New Haven
Location 4359	4.4	4.0	Agriculture/Landowner		New Haven
Location 4360	4.5	4.0	Agriculture/Landowner		New Haven
Location 4361	5.1	4.0	Agriculture/Landowner		New Haven
Location 4362	4.9	4.0	Agriculture/Landowner		New Haven
Location 4363	4.8	4.0	Agriculture/Landowner		New Haven
Location 4364	4.5	4.0	Agriculture/Landowner		New Haven
Location 4365	4.4	4.0	Agriculture/Landowner		New Haven
Location 4366	4.9	4.0	Agriculture/Landowner		New Haven
Location 4367	5.0	4.0	Agriculture/Landowner	Crossing ID #45, 2012-TB/SC-PW-7 (P)	New Haven
Location 4368	5.6	4.0	Agriculture/Landowner	Crossing ID #45, 2012-TB/SC-PW-7 (P)	New Haven
Location 4369	6.3	4.0	Agriculture/Landowner		New Haven
Location 4370	7.2	4.0	Agriculture/Landowner		New Haven
Location 4371	5.9	4.0	Agriculture/Landowner		New Haven
Location 4372	5.0	4.0	Agriculture/Landowner		New Haven
Location 4373	5.2	4.0	Agriculture/Landowner		New Haven
Location 4374	5.3	4.0	Agriculture/Landowner		New Haven
Location 4375	6.8	4.0	Agriculture/Landowner		New Haven
Location 4376	6.8	4.0	Agriculture/Landowner	Crossing ID #46, 2012-TB/SC-PW-6 (P)	New Haven
Location 4377	7.7	4.0	Agriculture/Landowner	Crossing ID #46, 2012-TB/SC-PW-6 (P)	New Haven
Location 4378	7.6	4.0	Landowner		New Haven
Location 4379	6.6	4.0	Landowner		New Haven
Location 4380	6.5	4.0	Landowner		New Haven
Location 4381	7.3	4.0	Landowner		New Haven
Location 4382	6.9	4.0	Landowner		New Haven
Location 4383	6.5	4.0	Landowner		New Haven
Location 4384	5.8	4.0	Landowner		New Haven
Location 4385	5.5	4.0	Landowner		New Haven
Location 4386	6.3	4.0	Landowner		New Haven
Location 4387	6.4	4.0	Landowner		New Haven
Location 4388	5.9	4.0	Landowner		New Haven
Location 4389	6.0	4.0	Landowner		New Haven
Location 4390	5.1	4.0	Landowner		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 4391	4.8	4.0	Landowner		New Haven
Location 4392	4.8	4.0	Landowner		New Haven
Location 4393	6.4	4.0	Landowner		New Haven
Location 4394	7.0	4.0	Landowner		New Haven
Location 4395	5.7	4.0	Landowner		New Haven
Location 4396	6.6	3.0	PHMSA		New Haven
Location 4397	6.2	3.0	PHMSA		New Haven
Location 4398	6.4	3.0	PHMSA		New Haven
Location 4399	7.6	3.0	PHMSA		New Haven
Location 4400	8.2	3.0	PHMSA		New Haven
Location 4401	8.0	3.0	PHMSA		New Haven
Location 4402	7.0	3.0	PHMSA		New Haven
Location 4403	4.9	3.0	PHMSA		New Haven
Location 4404	4.6	3.0	PHMSA		New Haven
Location 4405	4.7	3.0	PHMSA		New Haven
Location 4406	4.8	3.0	PHMSA		New Haven
Location 4407	5.7	4.0	Landowner	Crossing ID #47, 2012-SC-PW-5 (I)	New Haven
Location 4408	6.1	4.0	Landowner	Crossing ID #47, 2012-SC-PW-5 (I)	New Haven
Location 4409	5.8	4.0	Landowner		New Haven
Location 4410	5.7	4.0	Landowner		New Haven
Location 4411	5.8	4.0	Landowner		New Haven
Location 4412	5.8	4.0	Landowner		New Haven
Location 4413	5.2	4.0	Landowner		New Haven
Location 4414	5.5	4.0	Landowner		New Haven
Location 4415	6.0	4.0	Landowner		New Haven
Location 4416	5.7	4.0	Landowner		New Haven
Location 4417	6.8	4.0	Landowner	Crossing ID #48, 2012-TB-PW-4 (I)	New Haven
Location 4418	6.0	4.0	Landowner	Crossing ID #48, 2012-TB-PW-4 (I)	New Haven
Location 4419	6.0	3.0	PHMSA		New Haven
Location 4420	5.6	3.0	PHMSA		New Haven
Location 4421	5.0	3.0	PHMSA		New Haven
Location 4422	5.5	3.0	PHMSA		New Haven
Location 4423	5.7	3.0	PHMSA		New Haven
Location 4424	5.9	3.0	PHMSA		New Haven
Location 4425	5.0	3.0	PHMSA		New Haven
Location 4426	5.6	3.0	PHMSA		New Haven
Location 4427	5.2	3.0	PHMSA		New Haven
Location 4428	6.6	3.0	PHMSA		New Haven
Location 4429	5.8	3.0	PHMSA		New Haven
Location 4430	6.1	3.0	PHMSA		New Haven
Location 4431	6.1	3.0	PHMSA		New Haven
Location 4432	5.5	3.0	PHMSA		New Haven
Location 4433	5.8	3.0	PHMSA		New Haven
Location 4434	5.4	3.0	PHMSA		New Haven
Location 4435	5.4	3.0	PHMSA		New Haven
Location 4436	5.7	3.0	PHMSA		New Haven
Location 4437	5.6	3.0	PHMSA		New Haven
Location 4438	5.3	3.0	PHMSA		New Haven
Location 4439	4.3	3.0	PHMSA		New Haven
Location 4440	4.4	3.0	PHMSA		New Haven
Location 4441	4.9	3.0	PHMSA		New Haven
Location 4442	4.6	3.0	PHMSA		New Haven
Location 4443	ROADBORE	3.0	PHMSA	Based on adjacent measurements, the depth is at least 3.0 feet.	New Haven
Location 4444	ROADBORE	3.0	PHMSA	Based on adjacent measurements, the depth is at least 3.0 feet.	New Haven
Location 4445	ROADBORE	3.0	PHMSA	Based on adjacent measurements, the depth is at least 3.0 feet.	New Haven
Location 4446	ROADBORE	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4447	ROADBORE	5.0	Road Crossing	Route 7, Based on adjacent measurements, the depth is at least 5.0 feet.	New Haven
Location 4448	ROADBORE	5.0	Road Crossing	Route 7, Pipeline locator indicated a depth of 16.2 feet in roadway.	New Haven
Location 4449	6.3	4.0	VTRANS		New Haven
Location 4450	5.2	4.0	VTRANS		New Haven
Location 4451	5.2	4.0	VTRANS		New Haven

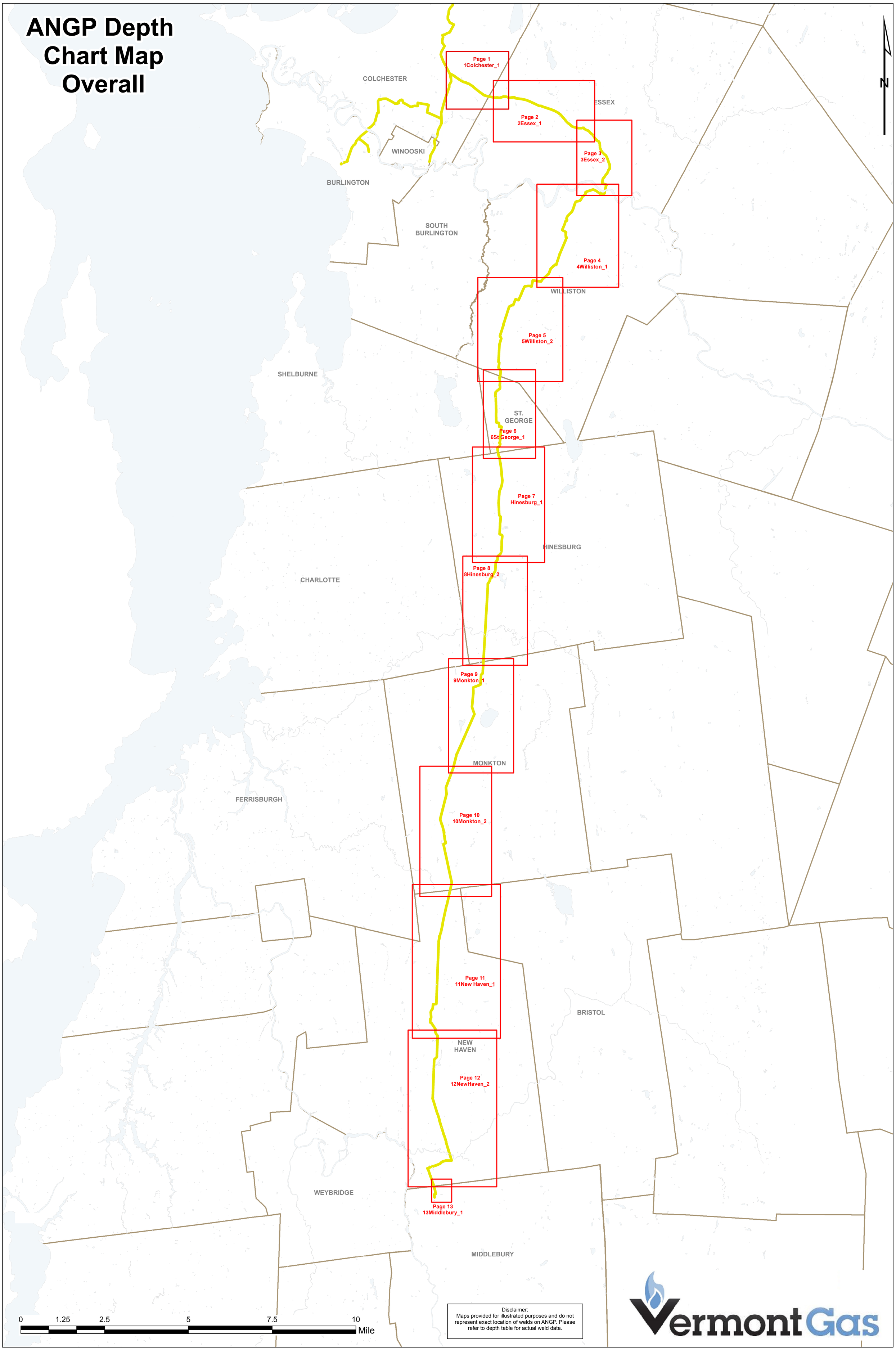
ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 4452	5.5	4.0	VTRANS	Belden Falls Road - Road Crossing nearby this weld, Pipeline locator indicated a depth of 8.9 feet in roadway. 5-foot minimum required under road.	New Haven
Location 4453	6.3	4.0	VTRANS		New Haven
Location 4454	6.7	4.0	VTRANS		New Haven
Location 4455	5.7	4.0	VTRANS		New Haven
Location 4456	5.9	4.0	Agriculture		New Haven
Location 4457	6.1	4.0	Agriculture		New Haven
Location 4458	6.1	4.0	Agriculture		New Haven
Location 4459	7.0	4.0	Agriculture		New Haven
Location 4460	7.1	4.0	Agriculture		New Haven
Location 4461	7.8	4.0	Agriculture		New Haven
Location 4462	7.7	4.0	Agriculture		New Haven
Location 4463	6.4	4.0	Agriculture		New Haven
Location 4464	5.8	4.0	Agriculture		New Haven
Location 4465	5.8	4.0	Agriculture		New Haven
Location 4466	5.7	4.0	Agriculture		New Haven
Location 4467	5.7	4.0	Agriculture		New Haven
Location 4468	5.1	4.0	Agriculture		New Haven
Location 4469	5.0	4.0	Agriculture		New Haven
Location 4470	4.8	4.0	Agriculture		New Haven
Location 4471	5.0	4.0	Agriculture		New Haven
Location 4472	5.1	4.0	Agriculture		New Haven
Location 4473	5.3	4.0	Agriculture		New Haven
Location 4474	5.3	4.0	Agriculture		New Haven
Location 4475	5.2	4.0	Agriculture		New Haven
Location 4476	5.8	4.0	Agriculture		New Haven
Location 4477	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4478	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4479	HDD	4.0	Agriculture	Estimated location for Depth of 10.4 feet by locator on 8/2/2017.	New Haven
Location 4480	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4481	HDD	4.0	Agriculture	Estimated location for Depth of 7.5 feet by locator on 8/2/2017.	New Haven
Location 4482	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4483	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4484	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4485	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4486	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4487	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4488	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4489	HDD	4.0	Agriculture	Based on adjacent measurements, the depth is at least 4.0 feet.	New Haven
Location 4490	6.3	4.0	Agriculture		New Haven
Location 4491	4.8	4.0	Agriculture		New Haven
Location 4492	5.1	4.0	Agriculture		New Haven
Location 4493	5.1	4.0	Agriculture		New Haven
Location 4494	5.7	4.0	Agriculture		New Haven
Location 4495	5.2	4.0	Agriculture		New Haven
Location 4496	5.3	4.0	Agriculture		New Haven
Location 4497	5.4	4.0	Agriculture		New Haven
Location 4498	4.7	4.0	Agriculture		New Haven
Location 4499	4.9	4.0	Agriculture		New Haven
Location 4500	4.9	4.0	Agriculture		New Haven
Location 4501	5.0	4.0	Agriculture		New Haven
Location 4502	5.5	4.0	Agriculture		New Haven
Location 4503	5.7	4.0	Agriculture		New Haven
Location 4504	5.7	4.0	Agriculture		New Haven
Location 4505	5.4	4.0	Agriculture		New Haven
Location 4506	5.6	4.0	Agriculture		New Haven
Location 4507	5.8	4.0	Agriculture		New Haven
Location 4508	5.9	4.0	Agriculture		New Haven
Location 4509	5.0	4.0	Agriculture		New Haven
Location 4510	5.5	4.0	Agriculture		New Haven
Location 4511	5.6	4.0	Agriculture		New Haven

ANGP Depth Table

Generic Location Identifier #	Actual Depth	Required Depth	Reason for Depth	Notes	Town
Location 4512	6.2	4.0	Agriculture		New Haven
Location 4513	5.8	4.0	Agriculture		New Haven
Location 4514	5.3	4.0	Agriculture		New Haven
Location 4515	4.8	4.0	Agriculture		New Haven
Location 4516	5.9	4.0	Agriculture		New Haven
Location 4517	6.2	4.0	Agriculture		Middebury
Location 4518	5.6	4.0	Agriculture		Middebury
Location 4519	5.7	4.0	Agriculture		Middebury
Location 4520	5.8	4.0	Agriculture		Middebury
Location 4521	6.0	4.0	Agriculture		Middebury
Location 4522	4.8	4.0	Agriculture		Middebury
Location 4523	5.4	4.0	Agriculture	Crossing ID #121, 2012-SC-PW-3 (P)	Middebury
Location 4524	5.8	4.0	Agriculture		Middebury
Location 4525	6.6	4.0	Agriculture		Middebury
Location 4526	6.7	4.0	Agriculture		Middebury
Location 4527	6.2	4.0	VTRANS		Middebury
Location 4528	6.4	4.0	VTRANS		Middebury
Location 4529	6.8	4.0	VTRANS		Middebury
Location 4530	HDD	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Middebury
Location 4531	HDD	4.0	VTRANS	Estimated location for Depth of 21.7 feet by locator on 8/2/2017.	Middebury
Location 4532	HDD	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Middebury
Location 4533	HDD	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Middebury
Location 4534	HDD	4.0	VTRANS	Estimated location for Depth of 20.5 feet by locator on 8/2/2017.	Middebury
Location 4535	HDD	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Middebury
Location 4536	HDD	4.0	VTRANS	Based on adjacent measurements, the depth is at least 4.0 feet.	Middebury
Location 4537	6.5	4.0	VTRANS		Middebury
Location 4538	6.4	4.0	VTRANS		Middebury
Location 4539	6.4	4.0	VTRANS		Middebury
Location 4540	6.2	4.0	VTRANS		Middebury
Location 4541	5.7	3.0	PHMSA		Middebury
Location 4542	5.3	3.0	PHMSA		Middebury
Location 4543	5.0	3.0	PHMSA		Middebury
Location 4544	4.7	3.0	PHMSA		Middebury
Location 4545	5.0	3.0	PHMSA		Middebury
Location 4546	6.1	3.0	PHMSA		Middebury
Location 4547	5.7	3.0	PHMSA		Middebury
Location 4548	5.3	3.0	PHMSA		Middebury
Location 4549	5.2	3.0	PHMSA		Middebury
Location 4550	5.6	3.0	PHMSA		Middebury
Location 4551	6.7	3.0	PHMSA		Middebury
Location 4552	6.7	3.0	PHMSA		Middebury
Location 4553	6.6	3.0	PHMSA		Middebury
Location 4554	5.9	3.0	PHMSA		Middebury
Location 4555	5.6	3.0	PHMSA		Middebury
Location 4556	5.5	3.0	PHMSA		Middebury
Location 4557	5.8	3.0	PHMSA		Middebury
Location 4558	6.8	3.0	PHMSA		Middebury
Location 4559	5.8	3.0	PHMSA		Middebury
Location 4560	6.0	3.0	PHMSA		Middebury
Location 4561	5.8	3.0	PHMSA		Middebury
Location 4562	5.9	3.0	PHMSA		Middebury
Location 4563	5.7	3.0	PHMSA		Middebury
Location 4564	5.8	3.0	PHMSA		Middebury
Location 4565	7.4	3.0	PHMSA		Middebury
Location 4566	7.4	3.0	PHMSA		Middebury
Location 4567	6.7	4.0	Agriculture		Middebury
Location 4568	5.5	4.0	Agriculture		Middebury
Location 4569	4.4	4.0	Agriculture		Middebury
Location 4570	4.3	4.0	Agriculture		Middebury
Location 4571	3.4	3.0	PHMSA		Middebury
Location 4572	3.5	3.0	PHMSA	Middlebury Gate Station, MLV #7	Middebury

ANGP Depth Chart Map Overall



Disclaimer:
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Vermont Gas

FOR ILLUSTRATIVE PURPOSES ONLY

ANGP Depth Chart Map Colchester

COLCHESTER

ESSEX

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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Drawn By: James Cunningham
Date: 8/9/2017

FOR ILLUSTRATIVE PURPOSES ONLY

ANGP Depth Chart Map Essex 1

COLCHESTER

ESSEX

GENTES RD
LANDFILL LN
HIGH VIEW DR
LANDRE RD
LECLERC WOODS
INDIAN BROOK RD
WALDEN WOODS
LOST NATION RD
I-95 OFF RAMP STATE HWY
I-95
I-95 MERRITT PKWY
GABDENSIDE LN
SUSIE WILSON BYP
COLCHESTER RD
ANDREW AVE
CAUTHER DR
BUSHEY LN
TURCOTTE RD
PRESCOTT ST
ABARE AVE
COLBERT ST
DAMON DR
ISLAND RD
PIONEER ST
BUTTON DR
JACKSON HTS
STEARNS AVE
IRA ALLEN DR
PINECREST DR
KIMBERLY DR
DEVON HILL CT
SUFFOLK LN
SOUTHDOWN CT
HAMPSHIRE CT
DARTMOOR CT
WARNER AVE
EDGEWOOD DR
OLD COLCHESTER RD
LINCOLN ST
AUTUMN POND WAY
ATHENS DR
BELVE BUTLER DR
MICHAEL ST
UPPER MAIN ST
TURNBERRY RDG

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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Drawn By: James Cunningham

Date: 8/9/2017

ANGP Depth Chart Map Essex 2

FOR ILLUSTRATIVE PURPOSES ONLY

N

ESSEX

WILLISTON

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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Drawn By: James Cunningham
Date: 8/9/2017

ANGP Depth Chart Map Williston 1

FOR ILLUSTRATIVE PURPOSES ONLY

ESSEX

ESSEX

WILLISTON

N

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

0 0.125 0.25 0.5 0.75 1 Mile

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Drawn By: James Cunningham
Date: 8/9/2017

ANGP Depth Chart Map Williston 2

FOR ILLUSTRATIVE PURPOSES ONLY

N

BURLINGTON

SOUTH BURLINGTON

WILLISTON

ST. GEORGE

MEADOWLAND DR
U TURN
INTERSTATE 89 N
INTERSTATE 89 S
INTERSTATE 89 N ENTRANCE/EXIT
INTERSTATE 89 S ENTRANCE/EXIT
U TURN
WILLISTON RD
HURRICANE LN
NORA PETE DR
CALLAWAY DR
BOULDER DR
WALKER HILL RD
RICKY VIS
BLACKBERRY RDG
LACASSE LN
DOUGLAS RD
VAN SICKLEN RD
BLUE HERON DR
OVERLAKE VW
HIGHLANDS DR
OAK KNOLL RD
EVERGREEN DR
RABBITS RUN
NOB HL
LAWES DR
SNOWDRIFT LN
FORTIER DR
PORTERWOOD DR
VINE ST
FARMVIEW LN
OLD CREAMERY RD
SAINT GEORGE RD
LYMAN DR
MCJAY DR
HASSETT LN
DESARNO DR
GUN CLUB RD
S BROWNELL RD
JOHNS RD
CHARLES RD
CHERRYWOOD LN
SUNSET HILL RD
TREE HILL RD
SUTTON FARM DR
LACLAIR LN
PEBBLE LN
CHALOUX LN
RIDGE RD
SHAGBARK DR
GREENWOOD LN
LINCOLN RD
MOSS LEDGE
VT ROUTE 2A
BREEZY VALLEY RD
BUTTERNUT RD

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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Drawn By: James Cunningham
Date: 8/9/2017

ANGP Depth Chart Map St George

FOR ILLUSTRATIVE PURPOSES ONLY

N

WILLISTON

SAINT MO

BREEZY VALLEY RD

GOOSE CREEK RD

BELIVEAU RD

AYER RD

WILLOW BROOK LN

ACADIA LN

VT ROUTE 2A

ST. GEORGE

VT ROUTE 116

BARBER RD

BIRCH RD

WILD ROSE LN

POND RD

SHELBURNE

CHESTNUT ST

HEMLOCK RD

WINTERBOTTOM RD

FOREST RD

LOST RD

CHAMBERS PARK RD

NULTY RD

ROCKY RIDGE CIR

ROCKY RIDGE CIR

PEET RD

EMMAYS RD

SAINT GEORGE BLVD

LEEWAY CIR

SHADY NOOK LN

HINESBURG

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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Drawn By: James Cunningham

Date: 8/9/2017

ANGP Depth Chart Map Hinesburg 1

N

ST. GEORGE

HINESBURG

WEED RD
ROCKY MOUNTAIN LN
HICKORY PL
BILLINGS FARM RD
SUGAR HOUSE LN
PLACE RD E
PLACE RD W
TOWN HWY 18
POND RD
ONEIL RD
VT ROUTE 116
RICHMOND RD
PARTRIDGE HL
TOWN HWY 32
CVU RD
MILL RD
BITTER SWEET HL
SHELBURNE FALLS RD
PLEASANT VIEW LN
BALLARDS CORNER RD
HAYSTACK RD
RIGGS RD
MECHANICSVILLE RD
HAWK LN
MULBERRY LN
COMMERCE ST
KAILEY'S WAY
LILAC LN
BARBERRY LN
ELDERBERRY LN
THISTLE HILL DR
THORN BUSH RD
FREDRIC WAY
FARMALL DR
VILLAGE HEIGHTS RD
KELLEY'S FIELD RD
LEAVENSWORTH RD
LAGOON RD
STELLA RD
LYMAN MDW
LYMAN PARK RD
GREEN ST
ORCHARD HL
FRIENDSHIP LN
CHARLOTTE RD
BALDWIN RD
FLETCHER FARM RD
SILVER ST
TIMBER POND RD

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

FOR ILLUSTRATIVE PURPOSES ONLY

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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Drawn By: James Cunningham
Date: 8/9/2017

ANGP Depth Chart Map Hinesburg 2

HINESBURG

MONKTON

CHARLOTTE RD
FLETCHER FARM RD
TIMBER POND RD
COYOTE RIDGE RD
SILVER ST
BLACK DOG LN
RED TRUCK LN
BURRITT RD
GAREN RD
WINDROW LN
MALLARD POND RD
BALDWIN RD
MEAD FARM RD
MAGIC HILL RD
DRINKWATER RD
CATCHAPAW RD
PRINDLE RD
TOWN HWY 27
ISHAM RD
ROSCOE RD
DEER RUN LN

N

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

FOR ILLUSTRATIVE PURPOSES ONLY

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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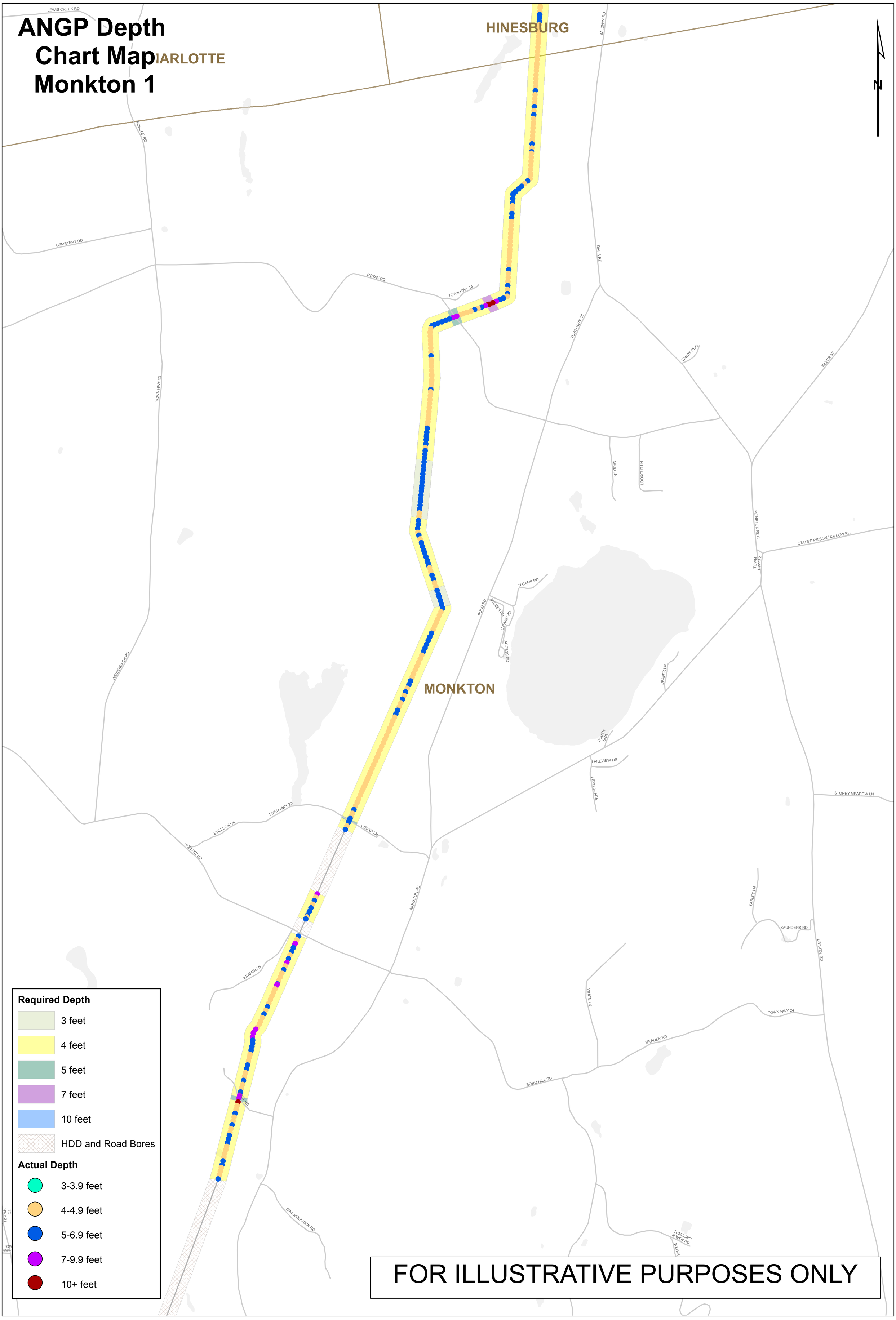
Drawn By: James Cunningham
Date: 8/9/2017

ANGP Depth Chart Map
Monkton 1



Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

FOR ILLUSTRATIVE PURPOSES ONLY

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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Drawn By: James Cunningham
Date: 8/9/2017

ANGP Depth Chart Map Monkton 2

SPLIT ROCK RD
TOWN HWY 21
TOWN HWY 26
NICHOLS RD
OWL MOUNTAIN RD
WENDLAND RD
TUNNELING RAVINE RD
N
MAPLE LN
BORO HILL RD
TOWN HWY 39
TOWN HWY 33
MONKTON RD
PARKER LN
TIMBER LN
COACH RD
DEER RUN RD
RKS HURLBURT RD
COON CLUB RD
BARNUM RD
PINEY WOODS RD

MONKTON

NEW HAVEN

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

FOR ILLUSTRATIVE PURPOSES ONLY

0 0.125 0.25 0.5 0.75 1 Mile

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Drawn By: James Cunningham
Date: 8/9/2017

ANGP Depth Chart Map New Haven 1

MONKTON

FERRISBURGH

BRISTOL

NEW HAVEN

CLARK WOODS RD

CLARK'S WOODS RD

PEA RIDGE RD

LIME KILN RD

LEDUC RD

MEADOW LN

KING FARM RD

PLANK RD

NORTH ST

QUARRY RD

LAFFIN RD

CHOINIERE RD

FOREST DR

MAIN ST

LEGEND LN

TOWN HILL RD

SOUTH ST

IRONHORSE RD

N

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

FOR ILLUSTRATIVE PURPOSES ONLY

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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Drawn By: James Cunningham
Date: 8/9/2017

ANGP Depth Chart Map New Haven 2

N

NEW HAVEN

RIDGE

TOWN HILL RD
SOUTH ST
SOUTHWICK RD
CAMPGROUND RD
DOG TEAM RD ACCESS
DALLINGER RD
ETHAN ALLEN HWY
PEARSON RD
TWITCHELL HILL RD
HUNT RD
SARGENT CROSS RD
KELTON DR
WILLOW LN
PINE RIDGE LN
DOG TEAM RD
RIVERS BEND RD
RIVER RD
BELDEN FALLS RD
HALPIN RD
HALPIN COVERED BRIDGE RD
US ROUTE

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

FOR ILLUSTRATIVE PURPOSES ONLY

0 0.125 0.25 0.5 0.75 1 Mile

Disclaimer:
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Drawn By: James Cunningham
Date: 8/9/2017

ANGP Depth Chart Map Middlebury

FOR ILLUSTRATIVE PURPOSES ONLY

N

NEW HAVEN

ETHAN ALLEN HWY

MIDDLEBURY

US ROUTE 7 N

Middlebury Gate Station

Required Depth

- 3 feet
- 4 feet
- 5 feet
- 7 feet
- 10 feet
- HDD and Road Bores

Actual Depth

- 3-3.9 feet
- 4-4.9 feet
- 5-6.9 feet
- 7-9.9 feet
- 10+ feet

0 62.5 125 250 375 500 Feet

Disclaimer:
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Drawn By: James Cunningham
Date: 8/9/2017

MEMORANDUM OF AGREEMENT
BETWEEN VERMONT TRANSCO LLC/VERMONT ELECTRIC POWER COMPANY, INC. ("VELCO") and VERMONT GAS SYSTEMS, INC.
REGARDING THE SHARED USE OF VELCO'S RIGHTS OF WAY, VELCO'S ACCESS ROUTES, and VELCO'S OTHER PROPERTY INTERESTS

This Agreement ("Agreement") is made as of and shall be deemed effective the ___ day of June, 2013, regardless of the signature dates, between Vermont Transco LLC and Vermont Electric Power Company, Inc., the managing partner of Vermont Transco LLC, (collectively referred to as "VELCO") and Vermont Gas Systems, Inc. ("VGS", and with VELCO, the "Parties," and each, a "Party").

PRELIMINARY STATEMENT

WHEREAS, on December 20, 2012, VGS filed with the Vermont Public Service Board ("Board") in Docket No. 7970 a petition for a Certificate of Public Good ("CPG") for expansion of VGS's existing natural gas pipeline system into Addison County, Vermont (the "Project");

WHEREAS, parts of the Project may, subject to Board approval, temporarily and/or permanently be co-located within portions of VELCO's fee property, VELCO's K21/K22/K24/K27/K43/K63/K64 and 370 bulk electric transmission line rights-of-way and associated VELCO access routes (the "VELCO ROW") in Chittenden and Addison County;

WHEREAS, the Parties have negotiated and will continue to negotiate in good faith the terms of an easement or license agreement regarding VGS' right to construct, operate, and maintain the Project within VELCO's ROW;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

1. Co-Location Easement. The Parties agree and approve of VGS' plans to co-locate approximately 10.2 miles of longitudinal occupancy of the Project pipeline within the VELCO ROW, together with 0.81 miles of occupancy where the Project pipeline crosses the VELCO ROW, as set forth in the updated plans to be submitted by VGS with the Board on June 28, 2013, which are in substance identical to the plans concerning VELCO's ROW provided to VELCO on June 5, 2013 (the "Project Plans"). Other than where the Project Plans reflect the Project crossing the VELCO ROW, VELCO agrees to provide to VGS, subject to terms and conditions (including price) to be negotiated between the parties in good faith, an easement and/or other instrument from VELCO for (a) a 20' wide permanent easement beginning at the edge of the VELCO ROW and extending inward 20', and (b) an additional adjacent 20' wide area for ongoing access and maintenance (the "Co-Location Easement")[1]. VGS will install the Project pipeline 10' inside of the edge of the VELCO ROW (i.e., centered in 1(a)). Where the Project

[1] The parties are still evaluating the merits of using an easement or license. For ease of reference only, the term Co-Location Easement is used herein. VGS acknowledges and understands that VGS may need to obtain additional rights from the owners of the land underlying VELCO's easements.

crosses the VELCO ROW, the Parties agree to a 40' wide Co-Location Easement (20 feet permanent easement/license with 10 feet of access on either side) subject to terms and conditions (including price) to be negotiated between the parties in good faith. The Parties acknowledge and agree that VGS' Project Plans place the Project pipeline on the west side of the VELCO ROW where possible and, that in those locations where the Project plans propose placement of the pipeline on the east side of the VELCO ROW, such placement is acceptable to VELCO subject to an acceptable cathodic protection, AC mitigation, and grounding (collectively referred to herein as "CP") design. The Parties understand and agree that VELCO's installation of a future 345 kV or other electric transmission line within or adjacent to the existing VELCO ROW may limit access areas to ensure a 20 foot horizontal clearance between VELCO's facilities and VGS equipment and access vehicles.

The Parties agree to work in good faith to develop a mutually acceptable Co-Location Easement document. The Parties have targeted August 1, 2013 as the target date to finalize the Co-Location Easement language, and anticipate resolving price, and finalizing and executing the Co-Location Easement shortly after CPG issuance in Docket No. 7970.

Nothing in this MOU shall be deemed as VELCO's approval or consent to any modification of the Project Plans concerning the VELCO ROW made after the date this Agreement is executed.

2. Operating Agreement. The Parties agree to work in good faith to develop a mutually acceptable Operating Agreement to govern terms and conditions for each of the Party's ongoing maintenance and operating activities within the Co-Location Easement area. The Parties have targeted December 31, 2013 as the target date to finalize the Operating Agreement.

3. VGS Design to Account for Potential VELCO 345 kV Build- Out. The VGS Project Plans account for a potential 345 kV future build-out of the VELCO electric transmission system. The Parties are engaging in an iterative process of informational exchanges and design review to develop a mutually acceptable design for CP. The Parties have targeted June 30, 2013 as a completion date for the CP design, but acknowledge that the CP design may require more time and agree to continue to work in good faith towards finalizing the CP design. Further, the Parties mutually agree that while VGS will design the Project Plans to incorporate CP for a potential future 345 kV build-out, the initial Project build may not, in VGS' sole discretion, include this additional CP at the time the Project is constructed, provided however that: VGS will install CP associated with a future 345 kV build-out if/when such VELCO build-out occurs; said CP will be permitted by and paid for by VGS; and further provided that VGS will install said CP in a timeframe and manner that does not materially delay, hinder, or interrupt construction of the 345 kV build out and which does not increase VELCO's 345 kV build-out costs.

4. Project Plans. Excepting issues of easement compensation, finalization of an Operating Agreement, VELCO acknowledges and agrees that, in the Project Plans provided to VELCO prior to the execution of this Agreement and through the commitments made in this MOU, VGS has adequately addressed VELCO's concerns regarding the Project raised in the 30 V.S.A. § 248 proceeding and further agrees that the Project does not unduly adversely impact VELCO's system reliability and stability, provided that VGS designs, installs (subject to the

limitations in this Agreement), and maintains acceptable CP. VELCO reserves all its rights with respect to any proposed changes to the Project Plans concerning the VELCO ROW.

5. Loading. VGS will design the Project in VELCO's ROW and access roads into VELCO's ROW to meet an HS-20+15% standard which VGS plans to meet by using Class 3 pipe interred at a depth of 4 feet.

6. Line Clearances During Construction. VGS will follow and comply with the applicable provisions of VELCO'S manual for Accident Prevention Rules for Contractors, the National Electric Safety Code ("NESC") and Occupational Safety and Health Administration ("OSHA") clearances during all Project pre-construction, construction and maintenance activities within the VELCO ROW. VELCO is in the process of conducting a hot conductor sag clearance study of the locations where the VGS pipeline crosses the VELCO electric transmission system. If energized conductor clearances are not adequate to meet OSHA, VELCO-required, and NESC clearances, VGS will pay VELCO (or hire at its own cost a VELCO-approved contractor) to temporarily raise the height of its conductors, if practicable and feasible, or take other reasonable measures to resolve clearance issues, during construction at crossings with the VELCO line, all at no cost to VELCO and without, in VELCO's sole opinion, jeopardizing electric system reliability. VELCO will make reasonable efforts to provide advance notice to VGS of any planned system transmission line outages so that VGS can take advantage of such outages in planning the schedule for Project construction at locations where the Project crosses the VELCO ROW. VGS will not alter the topography of nor stockpile materials in the VELCO ROW in a manner that violate NESC clearances.

7. Temporary Work Areas in Proximity to the VELCO Lines. VELCO acknowledges and agrees that the Project Plans have satisfactorily moved temporary work spaces away from VELCO structures. Nothing in this section shall be deemed as approval of any new Temporary Work Areas near VELCO lines, if any, proposed to the Project Plans.

8. Clearing. VGS plans to brush hog their Project's ROW, including the area within the Co-Location Easement, approximately every three years. The Parties plan to address their respective vegetation maintenance activities in the Operating Agreement.

9. Project Construction Review and Oversight Work. VGS will coordinate with VELCO personnel regarding any work conducted within the VELCO ROW, including providing sufficient advanced notice to VELCO Senior Project Manager (Peter W. Lind) as to the timing and location of any field work, pre-construction, survey work, clearing, or construction work to be performed by VGS or its consultants within the VELCO ROW. VELCO may accompany VGS and its contractors performing such work within the VELCO ROW.

VGS' Project construction, installation, operation and maintenance activities taking place within the VELCO ROW or VELCO access routes shall not interfere with or interrupt VELCO's operation and maintenance of or access to its transmission lines, facilities, and ROW corridor, or compliance with any condition or obligation contained in any Certificate of Public Good or other permit issued to VELCO to date, or in violation of any future condition or standard imposed by

any state, regional, or federal regulatory agency, including FERC and NERC. The conditions of this MOU, the Operating Agreement and the Co-Location Easement shall be considered and incorporated into any future VELCO projects, permits and Certificates of Public Good that may impact the Project.

In the case of an emergency related to VELCO's electric transmission line(s), VELCO shall immediately notify VGS at 802-863-4511 and VGS shall suspend all work until VELCO notifies VGS that the emergency has been resolved.

VGS shall reimburse all reasonable costs that VELCO would not have incurred but for its obligations to perform under this MOU ("Costs") which Costs shall include VELCO personnel time and consultant costs incurred in performing its obligations under the MOU including but not limited to performing engineering design reviews, NESC conductor sag analyses, and construction coordination/field oversight. VELCO shall use reasonable best efforts to minimize time and expense charged to VGS. VELCO shall not charge VGS for legal or other expenses directly associated with VELCO's participation in Docket No. 7970 (e.g., witness time/expense, legal expense). VELCO shall invoice VGS monthly for any Costs. VGS shall pay such invoices on a net 30 basis.

10. VGS Personnel and Agents. All VGS personnel or agents entering the VELCO ROW (including access routes) shall have received VELCO-certified safety and environmental training appropriate for working in electric transmission corridors (provided by VELCO or by a VELCO qualified contractor), and shall notify VELCO System Operators each time they enter and leave the VELCO ROW by calling VELCO's Control Center at (802) 770-6261.

11. Limitation of Liability. Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages. This provision shall not apply to causes of action for gross negligence or intentional misconduct.

12. Indemnification. Each Party shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties (collectively "Claims"), arising out of or resulting from the indemnifying Party's action or failure to meet its obligations under this Agreement on behalf of the indemnified Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party. For purposes of clarity, VGS agrees to indemnify, defend, and hold harmless VELCO and VT Transco LLC (and their directors, managers, employees, and agents) for any Claims caused by the by the Project, and its pre-construction, construction, operation, and maintenance, except to the extent that the Claims are caused by the negligence of VELCO.

13. Insurance. During the duration of this Agreement, VGS shall maintain in force liability coverage in the following amounts: $3,000,000 for general liability, combined single limit for bodily injury, property damage, personal injury, to include blanket contractual

coverage; $3,000,000 combined single limit – excess of primary limits umbrella liability coverage per occurrence and in the aggregate. Such coverage shall be sufficient to cover all VGS contractors and subcontractors. Such amount of liability coverage will be reviewed annually by VELCO and if the coverage amount is not adequate to cover the risks, VELCO shall provide notice to VGS of the amount of the increased liability coverage. VGS shall have sixty (60) days from the notice to adjust liability coverage. VGS shall provide a certificate(s) of insurance, which names Vermont Transco LLC and Vermont Electric Power Company, Inc. as additional insureds on a *primary and non-contributory basis*, and which shall specify the description of operations being covered or other appropriate language. The insurance coverage described above shall be primary to any other coverage available to VELCO or to affiliates and shall not be deemed to limit VGS's liability under this Agreement. Should VGS fail to provide the insurance required pursuant hereto, nothing herein shall release VGS of the obligation to pay any claims that arise hereunder.

14. Notices. All notices, requests, and statements shall be in writing and shall be sent to the recipients and addresses set out below, as the same may be modified by the parties from time to time:

VELCO:	Peter W. Lind, Senior Project Manager Vermont Electric Power Company, Inc. 366 Pinnacle Ridge Road Rutland, Vermont 05701 Tel: (802) 770-6292 Cell: (802) 353-0418 plind@velco.com
VGS:	Marc Teixeira, Vice President Vermont Gas Systems, Inc PO Box 467 Burlington, VT 05402 Phone: 802-951-0387 mteixeira@vermontgas.com

15. Confidentiality.

(a) Confidential Information. The Parties agree to treat all Confidential Information ("Confidential Information" or "CI"), as defined below, according to the terms of this Paragraph 13. "Confidential Information" includes: (i) Critical Energy Infrastructure Information or CEII (which is defined as: (1) all information designated as such by VELCO, whether furnished before or after the date hereof, whether oral, written or recorded/electronic, and regardless of the manner in which it is furnished; and (2) all reports, summaries, compilations, analyses, notes or other information which contain such information); and (2) all information marked "Confidential" or otherwise clearly marked in a manner to reasonable suggest that it is confidential.

The receiving Party shall receive all CI in strict confidence, shall exercise reasonable care to maintain the confidentiality and secrecy of the information, and shall not divulge CI to any third party without the prior written consent of the disclosing Party. The foregoing notwithstanding, the receiving Party may disclose CI to its duly authorized agents to the extent each such agents have a need to know such CI for the purpose contemplated by this Agreement and agrees to observe and comply with the obligations of the receiving Party under this Agreement with regard to such CI. The receiving Party shall be responsible hereunder for any breach of the terms of this Agreement to the extent caused by its duly authorized agents. All CI shall be maintained by the receiving Party in a secure place. The receiving Party may make notes of CI, which shall be treated as CI if they contain CI. The receiving Party and each of its duly authorized agents shall use CI disclosed by the disclosing Party solely in connection with the purpose of the Agreement and the furtherance of their respective business purposes and shall not use, directly or indirectly, any CI for any other purpose without the disclosing Party's prior written consent. The receiving Party shall not knowingly use and CI directly or indirectly for any illegal or non-legitimate purpose. In the event that the receiving Party is required to disclose CI by subpoena, law or other directive of a court, administrative agency or arbitration panel, the receiving Party hereby agrees to provide the disclosing Party with prompt notice of such request or requirement in order to enable the receiving Party to (i) seek an appropriate protective order or other remedy, (ii) consult with the receiving Party with respect to taking steps to resist or narrow the scope of such request or legal process, or (iii) waive compliance, in whole or in part, with the terms of this Agreement. The CI is provided "as is" with all faults. In no event shall the disclosing Party be liable for the accuracy or completeness of the CI. The disclosing Party shall not have liability to the receiving Party, or any other person or entity, for the receiving Party's use of any CI disclosed pursuant to this Agreement. In the event that such protective order or other remedy is not obtained, or the disclosing Party waives compliance with the provisions hereof, the receiving Party hereby agrees to furnish only that portion of the CI which the receiving Party's counsel advises is legally required and to exercise best efforts to obtain assurance that confidential treatment will be accorded such CI. The receiving Party agrees that any breach of this Agreement may cause the disclosing Party substantial and irreparable damages and, therefore, in the event of any such breach or threatened breach, in addition to other remedies which may be available, the disclosing Party shall have the right to specific performance and other injunctive and equitable relief, it being acknowledged that legal remedies are inadequate. The disclosing Party may audit the receiving Party's compliance with this Agreement. Notwithstanding Paragraph 3, this paragraph shall survive the termination of this Agreement.

This Agreement shall not be deemed confidential.

(b) Critical Energy Infrastructure Information. In the event that VELCO, in its sole discretion as informed by standard definitions of CEII, so requests, VGS shall promptly deliver to VELCO all CEII, including all copies, reproductions, summaries, compilations, analyses or extracts thereof. If there is a change in status of any duly authorized agent of the receiving Party or to the receiving Party, the agent or receiving Party must inform VELCO immediately in writing at the address given above (Attention: Kimberly Pritchard), and promptly return the CEII to VELCO or destroy the CEII. VELCO may require the return or destruction of the CEII. CEII provided pursuant to this Agreement is deemed to be on loan and must be returned to

VELCO upon request. VGS shall remain bound by this Section 13 unless VELCO rescinds the CEII designation.

16. No Duty to Third Parties. This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest, and, where permitted, their assigns.

17. Assignment. This Agreement shall be binding upon and inure to the benefit of the successors, assigns, personal representatives, and heirs of the respective Parties hereto. No assignment of this Agreement, in whole or in part, will be made without the prior written consent of the non-assigning Party (and shall not relieve the assigning Party from liability hereunder), which consent will not be unreasonably withheld, conditioned, or delayed and any assignment without such consent shall be void. Upon any such assignment, transfer and assumption, the transferor shall remain principally liable for and shall not be relieved of or discharged from any obligations hereunder.

18. No Partnership. This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

19. Public Announcements. Neither Party shall create, publish, or distribute any written material related to this Agreement or the Project that references the other Party without first submitting to the other Party such material and receiving the prior written consent of such Party, which will not be unreasonably withheld, conditioned, or delayed. Neither Party will make announcements or statements to the public or any third-party concerning the relationship between them or the transactions described in this Agreement without the prior written consent of the other, which will not be unreasonably withheld, conditioned, or delayed. The preceding two sentences shall not apply to materials, announcements, or statements that are not inconsistent with the basic talking points agreed to by the parties. Within a reasonable timeframe following the execution of this Agreement, and prior to any public announcement, the Parties shall agree on basic talking points to use when discussing this Agreement with third-parties. If the parties fail to agree on talking points within three weeks of the execution of this Agreement, this section may be nullified upon notice by either party. If, in discussing this Agreement or the Project with third-parties, either Party becomes aware of any issues of concern regarding the other Party raised by those third-parties, that Party shall inform the other Party about those issues as soon as is reasonably practical. Notwithstanding the foregoing, either Party may acknowledge the existence of this MOU and disclose its terms without first notifying and obtaining the approval of the other Party.

20. Dispute Resolution. For all disputes arising under or in connection with this Agreement, the Parties shall first attempt to resolve the dispute in a meeting of the contacts listed in Paragraph 14 (Notices) and any other mid-level management that the Parties assign to the

meeting. If such a meeting does not resolve the dispute, the Parties shall attempt to resolve the dispute through a meeting of senior management.

21. Regulatory Conditions. The terms of this MOU shall be subject to any conditions or limitations imposed by the Board or any other regulatory body or tribunal having jurisdiction over the Project.

IN WITNESS WHEREOF the Parties hereto have caused their representatives to execute and deliver this Agreement as of the date hereinabove set forth.

Dated at Burlington, Vermont this ___day of June, 2013.

Vermont Gas Systems, Inc.

By: _____
Eileen Simollardes, Vice President for Supply and Regulatory Affairs

Dated at Rutland, Vermont this ___day of June, 2013.

Vermont Electric Power Company, Inc.

By: _____
Karen K. O'Neill, Vice President and General Counsel

meeting. If such a meeting does not resolve the dispute, the Parties shall attempt to resolve the dispute through a meeting of senior management.

21. Regulatory Conditions. The terms of this MOU shall be subject to any conditions or limitations imposed by the Board or any other regulatory body or tribunal having jurisdiction over the Project.

IN WITNESS WHEREOF the Parties hereto have caused their representatives to execute and deliver this Agreement as of the date hereinabove set forth.

Dated at Burlington, Vermont this ___day of June, 2013.

Vermont Gas Systems, Inc.

By: _____
Eileen Simollardes, Vice President for Supply and Regulatory Affairs

Dated at Rutland, Vermont this 13th day of June, 2013.

Vermont Electric Power Company, Inc.

By: _____
Karen K. O'Neill, Vice President and General Counsel

meeting. If such a meeting does not resolve the dispute, the Parties shall attempt to resolve the dispute through a meeting of senior management.

21. Regulatory Conditions. The terms of this MOU shall be subject to any conditions or limitations imposed by the Board or any other regulatory body or tribunal having jurisdiction over the Project.

IN WITNESS WHEREOF the Parties hereto have caused their representatives to execute and deliver this Agreement as of the date hereinabove set forth.

Dated at Burlington, Vermont this 12 day of June, 2013.

Vermont Gas Systems, Inc.

By: _____
Eileen Simollardes, Vice President for Supply and Regulatory Affairs

~~Dated at Rutland, Vermont this ___ day of June __, 2013.~~

~~Vermont Electric Power Company, Inc.~~

~~By:~~ _____
~~Thomas Dunn, Chief Operating Officer~~

ROOT CAUSE ANALYSIS
ADDISON NATURAL GAS PIPELINE

CLAY PLAINS CONSTRUCTION
DEPTH OF COVER – SEPTEMBER 6 TO NOVEMBER 9, 2016

VERMONT GAS SYSTEMS, INC.
85 SWIFT STREET
SOUTH BURLINGTON, VT 05403

PREPARED BY: JOHN ST. HILAIRE
AUGUST 11, 2017

INTRODUCTION

The purpose of this Root Cause Analysis ("RCA") is to examine the events that occurred and determine the causes that contributed to the installation of the Addison Natural Gas Pipeline ("ANGP") within the Red/Silver Maple Green Ash Swamp (also referred to as Clay Plains) at a depth of less than 4 feet at 18 locations.

As described below, after notification of the achieved depths from its survey contractor, VGS pursued an agreed remediation plan with the ROW owner, VELCO, and sought the Department of Public Service's ("Department") input. Those efforts led to a request to the Public Utility Commission ("PUC") on June 2, 2017 for a determination of a Non-Substantial Change ("NSC") related to the remediation plan.

EVENT DESCRIPTION AND TIMELINE

VGS entered into a Memorandum of Agreement with VELCO ("VELCO MOA") regarding the installation of the ANGP within its ROW, including in the Clay Plains Swamp, approved by the PUC in its Final Order granting a CPG for the project. The VELCO MOA stated: "5. Loading. VGS will design the Project in VELCO's ROW to meet an HS-20+15% standard which VGS plans to meet by using Class 3 pipe interred at a depth of 4 feet." The PUC's Final Order required compliance with the VELCO MOA.

Vermont Gas contracted with Michels to undertake mainline construction in 2015 and 2016, including approximately 30 miles of the ANGP in 2016. As the contractor, Michels was responsible for construction means and methods. Michels was provided contractor specifications, including for the VELCO ROW, for the 2016 season.

Michels began construction work for the season on approximately May 23, 2016 and completed construction activities on December 12, 2016. During construction, Michels met with VGS personnel frequently, including weekly construction management meetings to discuss the current status of pipeline construction and plans for upcoming work.

In early September 2016, Michels began the process of installing the pipeline in the Clay Plains Swamp. Consistent with VGS' plan to meet the VELCO loading standard as set forth in the VELCO MOA, VGS' construction specifications called for a 4-foot depth of cover in this area. Given the wet soil conditions in this location, Michels began its work by constructing a mat road to access and install the pipeline, using 8' wooden mats. In the Clay Plains Swamp area, the ROW and work space was narrow, compared to other areas of the ANGP. As a result, Michels initially placed the pipe in a staging trench as the field team prepared for actual trenching and pipe lowering at a later date.

On September 15, Michels began the process of excavating to lower the pipe and was unable to achieve depth within the planned working hours.

On September 16, Michels continued efforts to lower the pipe, using longer wooden mats placed along the wall of the dug trench along with multiple excavators to help hold wet soil and aid in lowering the pipe. The work proceeded slowly, extending into the following work week on September 19 and 20. Michels reported progress, but noted that great care had to be taken to protect equipment and workers using the wooden mats for stability. At one point, a piece of equipment slipped off its mat and became stuck temporarily in mud.

On September 19, VGS informed VELCO of the challenges Michels was experiencing installing the pipeline within the Clay Plains Swamp ROW. Concerned that Michels may not achieve the planned 4-foot depth specified, VGS discussed with VELCO whether its loading standards could be achieved with a shallower burial at this location. VGS shared with VELCO an engineering analysis performed in May 2016 that showed VELCO's loading standard would be met with depths at 3 feet. VGS also informed VELCO that its contractor would continue to work to reach a 4-foot depth and complete installation in this area. Michels finished installation on September 20, 2016.

Following the protocol for the pipeline installed through open trenching, during initial installation, VGS' survey contractor CHA took a measurement at the top of the pipe at each weld in the Clay Plains Swamp, so that final interred depth could be determined after fill, contouring and clean-up.

On September 21, VELCO told VGS that it agreed that its loading standard could be met at a shallower depth than 4 feet, so long as other protective measures were put in place, such as additional markers, and the companies memorialized in writing any modified methods employed.

Michels then finished contour and clean-up of the site. Michels spent 8 days on this work. This distance would normally take approximately 3 days for these activities in typical open field conditions.

Due to the wet, muddy soil, CHA was unable to reenter the Clay Plains swamp until November 4 and 6 to take final grade depth of cover measurements.

On November 9, 2016, CHA reported to VGS that, for the entire 2016 season, 290 welds were not to depth, including 18 in Clay Plains Swamp. All other measurements in the Clay Plains Swamp met the 4-foot specification.

On November 11, 2016, VGS informed Michels of the depth deficiencies for the 2016 season identified by the surveyor, and Michels proceeded to remediate these locations.

By December 12, 2016, Michels had remediated all of these depth of cover issues except the 18 locations in the Clay Plains Swamp.

Michels informed VGS that it lacked confidence that an attempt to remediate depths in the Clay Plains Swamp locations would be any more successful than it had been during initial installation due to the challenging site conditions. As well, Michels informed VGS that this areas could not be remediated through cover or further contouring due to the environmentally-sensitive area.

Given the practical challenges of working in the Swamp and the environmental concerns, VGS management determined that it would pursue leaving the pipeline interred at installed depth at those locations since VELCO loading standards were achieved at those depths, and by seeking party and regulatory approval for that plan.

Timeline of Post-Installation Communications with VELCO and Department:

- During remediation work in mid-November, VGS informed VELCO that certain locations within the Clay Plains Swamp did not meet 4-foot planned installation depth according to survey measurements.
- On December 1, 2016, VGS updated the Department's gas engineer regarding its depth of cover survey results and remediation, including the locations in the Clay Plains Swamp.
- During the week of December 28, VGS discussed the "leave in place" option with the Department's public advocacy staff.
- On January 3, 2017, VGS spoke in detail with the Department engineer regarding all the 18 locations in the Clay Plains Swamp, the work involved in installing the pipeline, and the decision to pursue leaving the pipeline as is with Department support if VELCO agrees.
- January through April 25, 2017: VGS works with VELCO to determine whether it agrees to leaving pipe as installed given loading satisfaction. VELCO provides letter of approval to leave in place on April 25, 2017. Letter is provided to Department on April 26, 2017.
- This letter and the engineering analysis performed in May 2016 that showed VELCO's loading standard would be met with depths at 3 feet was provided to the Department on April 26, 2017 for review by the Department gas engineer and Dave Berger, the Department independent engineering consultant.
- June 2, 2017, VGS files NSC with Commission to seek confirmation that leaving the pipe in place as installed while meeting loading factor is a non-substantial change to the CPG.

FINDINGS AND ROOT CAUSE

Contributing Factors:

- Muddy soil conditions in Clay Plains Swamp, wetter and deeper than had been expected
- Apparent settling of the wet soils after construction

Root Cause:

- The soils in the Clay Plains Swamp were deep and wet, resulting in the inability to maintain trench stability while installing the pipeline along its entire length

Root Cause Summary:

- Contractor encountered deep wet muddy conditions during pipeline installation that resulted in the inability to maintain trench stability allowing for 4-foot depth

along entire stretch of Clay Plains Swamp. These conditions contributed to the pipeline not being at 4 feet in 18 locations within the Clay Plains Swamp.

FOLLOW-UP ACTION

See above description of communication and analysis regarding loading factor with VELCO during and after installation, and communications with Department. VGS will adhere to additional protocols as reflected in VELCO's letter of April 25, 2016 and the Department's June 23, 2016 filing regarding these locations.

Pending PUC approval of the NSC, no additional follow up is required at this time.

From: Peter W. Lind [mailto:PLIND@velco.com]
Sent: Wednesday, September 21, 2016 5:21 AM
To: John St.Hilaire <jsthilaire@vermontgas.com>
Cc: John Stamatov (US - Advisory) (john.r.stamatov@pwc.com) <john.r.stamatov@pwc.com>; Reagan, Michael J (Michael.Reagan@mottmac.com) <Michael.Reagan@mottmac.com>; Brian Connaughton <BCONNAUGHTON@velco.com>; Mike Fiske <MFISKE@velco.com>; Mark Sciarrotta <MSCIARROTTA@velco.com>; Eric Frazer (efrazer@ececnh.com) <efrazer@ececnh.com>
Subject: Vermont Gas Project - Clay Plains Issue - VELCO K43 Structures 262 - 263

Good morning John.

Thank you for the follow-up responses and information on the issues you are having in obtaining the 4' foot burial depth of the gas pipeline in the Clay Plains area along VELCO's K43 transmission line between structures 262 and 263. Based upon this information and our discussions yesterday afternoon; VELCO agrees for you to move forward with the installation of the gas pipeline at less than the agreed upon 4' depth in this area with the following conditions as we discussed:

- VGS to document the specific area where the pipe is not going to be installed at the agreed upon 4' depth (Survey, pictures, as-built drawings, etc.).
- VGS will use all reasonable measures to maximize and maintain the loading factor to the HS-20 &15% as possible with concrete coatings and other measures, etc.
- VGS to confirm with PE engineering analysis that the HS-20 & 15% loading factor will be obtained and maintained at this location with the diminished burial depth.
- Additional VGS standard yellow location markers will be installed over the pipeline every 50 feet at this Clay Plains area for the estimated 300 feet section such that it is visibly marked.
- VELCO and VGS will memorialize this specific variance from our established agreement for the standard installation of the gas pipeline at four feet along the VELCO ROW and access roads.

I trust that this correctly represents the issues we addressed and agreed to in our discussion. Please review and confirm. Thanks John.

Best regards,

Peter

Peter W. Lind
Senior Project Manager
Vermont Electric Power Company
366 Pinnacle Ridge Road
Rutland, VT 05701

Tel: (802) 770-6292

Mobile: (802) 353-0418
Fax: (802) 770-6449
plind@velco.com
www.velco.com

From: John St.Hilaire [mailto:jsthilaire@vermontgas.com]
Sent: Tuesday, September 20, 2016 12:26 PM
To: Peter W. Lind
Cc: Brian Connaughton; john.r.stamatov@pwc.com; Reagan, Michael J (Michael.Reagan@mottmac.com)
Subject: FW: Draft VELCO compaction reply

Hi Peter.

Thanks for the call today. We appreciate your team working expeditiously to review this issue for us. You asked for documentation on compaction for this line. I am attaching a compaction report from Mott McDonald that indicates the compaction of HS20+15% can be met with our 12" pipe specifications with all soils at a depth of 3' or greater. The pipe in the affected area is concrete coated which will only increase the loading capacity of the pipe.

The details of the field conditions were conveyed by Mike Reagan via e-mail on 9/19/16.

We will plan to install line markers every 50'in the affected area if the 3' of cover is approved.

Should you have further questions, please let us know.

John St.Hilaire

Project Name: Vermont Gas Systems 5/25/2016

Location: Burlington, VT Rev. 1

Prepared for: Vermont Gas Systems

Prepared by: Mott MacDonald

Purpose:

Mott MacDonald has prepared the stress calculations included herein for Vermont Gas Systems, to ensure the pipeline's integrity under loading without compaction of backfill. The stress calculations were performed per API 1102, using various combinations of soil type and depth of cover to confirm that 90% compaction will not be necessary.

Knowns:

- Class 3 Location, Design Factor of 0.5
- 12.75 inch OD
- 0.312 inch WT
- API-5L Electric Resistance Welded
- Grade X-65
- MAOP of 1440 psi
- Design Wheel Load HS-20 + 15%

Results:

A summary table has been provided below. The stress calculations show that under all soil types, paired with 3', 4', and 5' of cover, the pipeline passes all stress checks (Hoop, Effective, Girth Weld, and Longitudinal Weld). In conclusion, Mott MacDonald recommends a minimum depth of cover of 4 feet. Although 3 feet of cover is sufficient under the given loading, a one foot buffer would help ensure that even if settlement were to occur, the pipeline would remain safe and operational.

API 1102 STRESS CALCULATION RESULTS			
	Calculated Effective Stress (psi)		
Soil type	3' Cover	4' Cover	5' Cover
Soft to medium clays and silts with high plasticities	31,239	31,437	31,234
Soft to medium clays and silts with low/medium plasticities	31,180	31,370	31,159
Loose sands and gravels	30,360	30,550	30,427
Stiff to very stiff clays and silts	30,216	30,366	30,193
Medium dense sands and gravels	30,278	30,453	30,318
Dense to very dense sands and gravels	29,422	29,554	29,437
ALLOWABLE EFFECTIVE STRESS (psi)	**32,500**		
Note: 1. Calculated girth weld and longitudinal weld stress values were less than the allowable (Girth: 6,000 psi & Long. Welds: 11,500 psi).			

Mott MacDonald

Calculation cover sheet

Project Title:	VERMONT GAS SYSTEMS	**Project No:**	351481KK01
File No:		**No. of Sheets:**	18
Section:		**Subject:**	
Calc No:			
Project Manager:		**Designer:**	
Design Phase:	**A** - Concept or preliminary	**C** - Design verification	
	B - Analysis and detailed design	**D** - Other (specify)	

Computer Applications Used:	
Title:	Version Date:
PIPELINE TOOLBOX	2013

Scopes for Checking Manual and Computer Generated Calculations:

> Back check project information
> Back check individual calculations to verify results

Sheets Checked: *	**Calculations by:**			**Checked By:**		
	Name:	Signature:	Date:	Name:	Signature:	Date:
18/18	K. KIBBE	Kelsey Kibbe	5/25/16	J. WOJNAS	JW	5/25/16

**If an Excel spreadsheet or other computer file has been checked and has not been attached, enter the name, date and full file path or PiMS location of the file that was checked. (PiMS nickname or short link from Properties – General could also be useful.)*

a) Basic Design Information or Source and Reference:

> Design Info. per Mike Reagan's discussions with client
> API 1102 for design factors and procedure

b) Identify documents/technical records where output will be used:

> calculations summary provided to client

Approved by Project Manager:	**Signature:** ..... **Print name:** Joseph WOJNAS	**Date:** 5/25/16

Distribution: Original to project file

Step

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type:	Soft to medium clays and silts with high plasticities
E' - Modulus of Soil Reaction [ksi]	0.2
Er - Resilient Modulus [ksi]	5.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	3
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	2,196
Burial Factor for Earth Load Circumferential Stress	0.83
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,331
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	16.60
Highway Geometry Factor for Cyclic Circumferential	1.22
Cyclic Circumferential Stress [psi]	4,271
Highway Stiffness Factor for Cyclic Longitudinal Stress	13.20
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16
Cyclic Longitudinal Stress [psi]	3,229

Maximum Circumferential Stress [psi]	34,305
Maximum Longitudinal Stress [psi]	12,239
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	31,239
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	31,239	32,500	PASS
Girth Welds	3,229	6,000	PASS
Long. Welds	4,271	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type:	Soft to medium clays and silts with high plasticities
E' - Modulus of Soil Reaction [ksi]	0.2
Er - Resilient Modulus [ksi]	5.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	4
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423	Maximum Circumferential Stress [psi]	34,529
Allowable Hoop Stress [psi]	32,500	Maximum Longitudinal Stress [psi]	12,306
Stiffness Factor for Earth Load Circumferential Stress	2,196	Maximum Radial Stress [psi]	-1,440
Burial Factor for Earth Load Circumferential Stress	0.97	Total Effective Stress [psi]	31,437
Excavation Factor for Earth Load Circumferential Stress	0.83	Allowable Effective Stress [psi]	32,500
Circumferential Stress from Earth Load [psi]	1,555		
Impact Factor	1.50		
Highway Stiffness Factor for Cyclic Circumferential	16.60		
Highway Geometry Factor for Cyclic Circumferential	1.22		
Cyclic Circumferential Stress [psi]	4,271		
Highway Stiffness Factor for Cyclic Longitudinal Stress	13.20		
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16		
Cyclic Longitudinal Stress [psi]	3,229		

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	31,437	32,500	PASS
Girth Welds	3,229	6,000	PASS
Long. Welds	4,271	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type:	Soft to medium clays and silts with high plasticities
E' - Modulus of Soil Reaction [ksi]	0.2
Er - Resilient Modulus [ksi]	5.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	5
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	2,196
Burial Factor for Earth Load Circumferential Stress	1.08
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,732
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	16.60
Highway Geometry Factor for Cyclic Circumferential	1.10
Cyclic Circumferential Stress [psi]	3,850
Highway Stiffness Factor for Cyclic Longitudinal Stress	13.20
Highway Geometry Factor for Cyclic Longitudinal Stress	1.08
Cyclic Longitudinal Stress [psi]	3,006

Maximum Circumferential Stress [psi]	34,285
Maximum Longitudinal Stress [psi]	12,136
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	31,234
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	31,234	32,500	PASS
Girth Welds	3,006	6,000	PASS
Long. Welds	3,850	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type:	Soft to medium clays and silts with low/medium plasticities
E' - Modulus of Soil Reaction [ksi]	0.5
Er - Resilient Modulus [ksi]	5.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	3
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	2,088
Burial Factor for Earth Load Circumferential Stress	0.83
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,265
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	16.60
Highway Geometry Factor for Cyclic Circumferential	1.22
Cyclic Circumferential Stress [psi]	4,271
Highway Stiffness Factor for Cyclic Longitudinal Stress	13.20
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16
Cyclic Longitudinal Stress [psi]	3,229

Maximum Circumferential Stress [psi]	34,239
Maximum Longitudinal Stress [psi]	12,219
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	31,180
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	31,180	32,500	PASS
Girth Welds	3,229	6,000	PASS
Long. Welds	4,271	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type:	Soft to medium clays and silts with low/medium plasticities
E' - Modulus of Soil Reaction [ksi]	0.5
Er - Resilient Modulus [ksi]	5.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	4
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	2,088
Burial Factor for Earth Load Circumferential Stress	0.97
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,479
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	16.60
Highway Geometry Factor for Cyclic Circumferential	1.22
Cyclic Circumferential Stress [psi]	4,271
Highway Stiffness Factor for Cyclic Longitudinal Stress	13.20
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16
Cyclic Longitudinal Stress [psi]	3,229

Maximum Circumferential Stress [psi]	34,453
Maximum Longitudinal Stress [psi]	12,284
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	31,370
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	31,370	32,500	PASS
Girth Welds	3,229	6,000	PASS
Long. Welds	4,271	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type:	Soft to medium clays and silts with low/medium plasticities
E' - Modulus of Soil Reaction [ksi]	0.5
Er - Resilient Modulus [ksi]	5.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	5
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423	Maximum Circumferential Stress [psi]	34,200
Allowable Hoop Stress [psi]	32,500	Maximum Longitudinal Stress [psi]	12,111
Stiffness Factor for Earth Load Circumferential Stress	2,088	Maximum Radial Stress [psi]	-1,440
Burial Factor for Earth Load Circumferential Stress	1.08	Total Effective Stress [psi]	31,159
Excavation Factor for Earth Load Circumferential Stress	0.83	Allowable Effective Stress [psi]	32,500
Circumferential Stress from Earth Load [psi]	1,647		
Impact Factor	1.50		
Highway Stiffness Factor for Cyclic Circumferential	16.60		
Highway Geometry Factor for Cyclic Circumferential	1.10		
Cyclic Circumferential Stress [psi]	3,850		
Highway Stiffness Factor for Cyclic Longitudinal Stress	13.20		
Highway Geometry Factor for Cyclic Longitudinal Stress	1.08		
Cyclic Longitudinal Stress [psi]	3,006		

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	31,159	32,500	PASS
Girth Welds	3,006	6,000	PASS
Long. Welds	3,850	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Loose sands and gravels

E' - Modulus of Soil Reaction [ksi]	0.5
Er - Resilient Modulus [ksi]	10.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	3
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423	Maximum Circumferential Stress [psi]	33,209
Allowable Hoop Stress [psi]	32,500	Maximum Longitudinal Stress [psi]	11,265
Stiffness Factor for Earth Load Circumferential Stress	2,088	Maximum Radial Stress [psi]	-1,440
Burial Factor for Earth Load Circumferential Stress	0.83	Total Effective Stress [psi]	30,360
Excavation Factor for Earth Load Circumferential Stress	0.83	Allowable Effective Stress [psi]	32,500
Circumferential Stress from Earth Load [psi]	1,265		
Impact Factor	1.50		
Highway Stiffness Factor for Cyclic Circumferential	12.60		
Highway Geometry Factor for Cyclic Circumferential	1.22		
Cyclic Circumferential Stress [psi]	3,241		
Highway Stiffness Factor for Cyclic Longitudinal Stress	9.30		
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16		
Cyclic Longitudinal Stress [psi]	2,275		

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	30,360	32,500	PASS
Girth Welds	2,275	6,000	PASS
Long. Welds	3,241	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Loose sands and gravels

E' - Modulus of Soil Reaction [ksi]	0.5
Er - Resilient Modulus [ksi]	10.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	4
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	2,088
Burial Factor for Earth Load Circumferential Stress	0.97
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,479
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	12.60
Highway Geometry Factor for Cyclic Circumferential	1.22
Cyclic Circumferential Stress [psi]	3,241
Highway Stiffness Factor for Cyclic Longitudinal Stress	9.30
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16
Cyclic Longitudinal Stress [psi]	2,275

Maximum Circumferential Stress [psi]	33,423
Maximum Longitudinal Stress [psi]	11,330
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	30,550
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	30,550	32,500	PASS
Girth Welds	2,275	6,000	PASS
Long. Welds	3,241	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Loose sands and gravels

E' - Modulus of Soil Reaction [ksi]	0.5
Er - Resilient Modulus [ksi]	10.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	5
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	2,088
Burial Factor for Earth Load Circumferential Stress	1.08
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,647
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	12.60
Highway Geometry Factor for Cyclic Circumferential	1.10
Cyclic Circumferential Stress [psi]	2,923
Highway Stiffness Factor for Cyclic Longitudinal Stress	9.30
Highway Geometry Factor for Cyclic Longitudinal Stress	1.08
Cyclic Longitudinal Stress [psi]	2,118

Maximum Circumferential Stress [psi]	33,273
Maximum Longitudinal Stress [psi]	11,223
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	30,427
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	30,427	32,500	PASS
Girth Welds	2,118	6,000	PASS
Long. Welds	2,923	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factqr	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Stiff to very stiff clays and silts

E' - Modulus of Soil Reaction [ksi]	1.0
Er - Resilient Modulus [ksi]	10.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	3
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	1,934
Burial Factor for Earth Load Circumferential Stress	0.78
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,102
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	12.60
Highway Geometry Factor for Cyclic Circumferential	1.22
Cyclic Circumferential Stress [psi]	3,241
Highway Stiffness Factor for Cyclic Longitudinal Stress	9.30
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16
Cyclic Longitudinal Stress [psi]	2,275

Maximum Circumferential Stress [psi]	33,046
Maximum Longitudinal Stress [psi]	11,216
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	30,216
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	30,216	32,500	PASS
Girth Welds	2,275	6,000	PASS
Long. Welds	3,241	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Stiff to very stiff clays and silts

E' - Modulus of Soil Reaction [ksi]	1.0
Er - Resilient Modulus [ksi]	10.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	4
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423	Maximum Circumferential Stress [psi]	33,215
Allowable Hoop Stress [psi]	32,500	Maximum Longitudinal Stress [psi]	11,267
Stiffness Factor for Earth Load Circumferential Stress	1,934	Maximum Radial Stress [psi]	-1,440
Burial Factor for Earth Load Circumferential Stress	0.90	Total Effective Stress [psi]	30,366
Excavation Factor for Earth Load Circumferential Stress	0.83	Allowable Effective Stress [psi]	32,500
Circumferential Stress from Earth Load [psi]	1,271		
Impact Factor	1.50		
Highway Stiffness Factor for Cyclic Circumferential	12.60		
Highway Geometry Factor for Cyclic Circumferential	1.22		
Cyclic Circumferential Stress [psi]	3,241		
Highway Stiffness Factor for Cyclic Longitudinal Stress	9.30		
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16		
Cyclic Longitudinal Stress [psi]	2,275		

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	30,366	32,500	PASS
Girth Welds	2,275	6,000	PASS
Long. Welds	3,241	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Stiff to very stiff clays and silts

E' - Modulus of Soil Reaction [ksi]	1.0
Er - Resilient Modulus [ksi]	10.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	5
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	1,934
Burial Factor for Earth Load Circumferential Stress	0.98
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,384
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	12.60
Highway Geometry Factor for Cyclic Circumferential	1.10
Cyclic Circumferential Stress [psi]	2,923
Highway Stiffness Factor for Cyclic Longitudinal Stress	9.30
Highway Geometry Factor for Cyclic Longitudinal Stress	1.08
Cyclic Longitudinal Stress [psi]	2,118

Maximum Circumferential Stress [psi]	33,010
Maximum Longitudinal Stress [psi]	11,144
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	30,193
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	30,193	32,500	PASS
Girth Welds	2,118	6,000	PASS
Long. Welds	2,923	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Medium dense sands and gravels

E' - Modulus of Soil Reaction [ksi]	1.0
Er - Resilient Modulus [ksi]	10.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	3
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	1,934
Burial Factor for Earth Load Circumferential Stress	0.83
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,172
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	12.60
Highway Geometry Factor for Cyclic Circumferential	1.22
Cyclic Circumferential Stress [psi]	3,241
Highway Stiffness Factor for Cyclic Longitudinal Stress	9.30
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16
Cyclic Longitudinal Stress [psi]	2,275

Maximum Circumferential Stress [psi]	33,116
Maximum Longitudinal Stress [psi]	11,238
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	30,278
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	30,278	32,500	PASS
Girth Welds	2,275	6,000	PASS
Long. Welds	3,241	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Medium dense sands and gravels

E' - Modulus of Soil Reaction [ksi]	1.0
Er - Resilient Modulus [ksi]	10.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	4
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423	Maximum Circumferential Stress [psi]	33,314
Allowable Hoop Stress [psi]	32,500	Maximum Longitudinal Stress [psi]	11,297
Stiffness Factor for Earth Load Circumferential Stress	1,934	Maximum Radial Stress [psi]	-1,440
Burial Factor for Earth Load Circumferential Stress	0.97	Total Effective Stress [psi]	30,453
Excavation Factor for Earth Load Circumferential Stress	0.83	Allowable Effective Stress [psi]	32,500
Circumferential Stress from Earth Load [psi]	1,370		
Impact Factor	1.50		
Highway Stiffness Factor for Cyclic Circumferential	12.60		
Highway Geometry Factor for Cyclic Circumferential	1.22		
Cyclic Circumferential Stress [psi]	3,241		
Highway Stiffness Factor for Cyclic Longitudinal Stress	9.30		
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16		
Cyclic Longitudinal Stress [psi]	2,275		

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	30,453	32,500	PASS
Girth Welds	2,275	6,000	PASS
Long. Welds	3,241	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Medium dense sands and gravels

E' - Modulus of Soil Reaction [ksi]	1.0
Er - Resilient Modulus [ksi]	10.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	5
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423	Maximum Circumferential Stress [psi]	33,151
Allowable Hoop Stress [psi]	32,500	Maximum Longitudinal Stress [psi]	11,186
Stiffness Factor for Earth Load Circumferential Stress	1,934	Maximum Radial Stress [psi]	-1,440
Burial Factor for Earth Load Circumferential Stress	1.08	Total Effective Stress [psi]	30,318
Excavation Factor for Earth Load Circumferential Stress	0.83	Allowable Effective Stress [psi]	32,500
Circumferential Stress from Earth Load [psi]	1,525		
Impact Factor	1.50		
Highway Stiffness Factor for Cyclic Circumferential	12.60		
Highway Geometry Factor for Cyclic Circumferential	1.10		
Cyclic Circumferential Stress [psi]	2,923		
Highway Stiffness Factor for Cyclic Longitudinal Stress	9.30		
Highway Geometry Factor for Cyclic Longitudinal Stress	1.08		
Cyclic Longitudinal Stress [psi]	2,118		

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	30,318	32,500	PASS
Girth Welds	2,118	6,000	PASS
Long. Welds	2,923	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Dense to very dense sands and gravels

E' - Modulus of Soil Reaction [ksi]	2.0
Er - Resilient Modulus [ksi]	20.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	3
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	1,693
Burial Factor for Earth Load Circumferential Stress	0.78
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	964
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	9.30
Highway Geometry Factor for Cyclic Circumferential	1.22
Cyclic Circumferential Stress [psi]	2,393
Highway Stiffness Factor for Cyclic Longitudinal Stress	6.20
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16
Cyclic Longitudinal Stress [psi]	1,517

Maximum Circumferential Stress [psi]	32,060
Maximum Longitudinal Stress [psi]	10,417
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	29,422
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	29,422	32,500	PASS
Girth Welds	1,517	6,000	PASS
Long. Welds	2,393	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Dense to very dense sands and gravels

E' - Modulus of Soil Reaction [ksi]	2.0
Er - Resilient Modulus [ksi]	20.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	4
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	1,693
Burial Factor for Earth Load Circumferential Stress	0.90
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,113
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	9.30
Highway Geometry Factor for Cyclic Circumferential	1.22
Cyclic Circumferential Stress [psi]	2,393
Highway Stiffness Factor for Cyclic Longitudinal Stress	6.20
Highway Geometry Factor for Cyclic Longitudinal Stress	1.16
Cyclic Longitudinal Stress [psi]	1,517

Maximum Circumferential Stress [psi]	32,209
Maximum Longitudinal Stress [psi]	10,462
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	29,554
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	29,554	32,500	PASS
Girth Welds	1,517	6,000	PASS
Long. Welds	2,393	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

Project	
Vermont Gas Systems	
Location	Date
Burlington, VT	5/24/2016

API 1102 - Gas Pipeline Crossing Highway

PIPE AND OPERATIONAL DATA:

Operating Pressure [psi]	1440
Location Class:	3
Operating Temperature [°F]	60.0
Pipe Outside Diameter [in]	12.75
Pipe Wall Thickness [in]	0.312
Pipe Grade: X65	
Specified Minimum Yield Stress	65,000
Design Factor	0.50
Longitudinal Joint Factor	1.0
Temperature Derating Factor	1.000
Pipe Class: API 5L Electric Resistance Welded	
Young's Modulus for Steel [ksi]	30,000
Poisson's Ratio for Steel	0.30
Coefficient of Thermal Expansion [per°F]	0.0000065

SITE AND INSTALLATION DATA:

Soil Type: Dense to very dense sands and gravels

E' - Modulus of Soil Reaction [ksi]	2.0
Er - Resilient Modulus [ksi]	20.0
Average Unit Weight of Soil [lb/ft³]	120.00
Pipe Depth [ft]	5
Bored Diameter [in]	12.75
InstallationTemperature [°F]	60.0
Design Wheel Load from Single Axle [kips]	18.4
Design Wheel Load from Tandem Axles [kips]	18.4

Pavement Type: None

Impact Factor Method: ASCE - Highway

Safety Factor Applied: API 1102 Procedure

RESULTS

Hoop Stress [psi]	29,423
Allowable Hoop Stress [psi]	32,500
Stiffness Factor for Earth Load Circumferential Stress	1,693
Burial Factor for Earth Load Circumferential Stress	0.98
Excavation Factor for Earth Load Circumferential Stress	0.83
Circumferential Stress from Earth Load [psi]	1,211
Impact Factor	1.50
Highway Stiffness Factor for Cyclic Circumferential	9.30
Highway Geometry Factor for Cyclic Circumferential	1.10
Cyclic Circumferential Stress [psi]	2,157
Highway Stiffness Factor for Cyclic Longitudinal Stress	6.20
Highway Geometry Factor for Cyclic Longitudinal Stress	1.08
Cyclic Longitudinal Stress [psi]	1,412

Maximum Circumferential Stress [psi]	32,071
Maximum Longitudinal Stress [psi]	10,386
Maximum Radial Stress [psi]	-1,440
Total Effective Stress [psi]	29,437
Allowable Effective Stress [psi]	32,500

Stress [psi]	Calculated	Allowable	PASS/FAIL
Hoop	29,423	32,500	PASS
Effective	29,437	32,500	PASS
Girth Welds	1,412	6,000	PASS
Long. Welds	2,157	11,500	PASS

Notes: Open cut construction, calculations run using HS-20 loading + 15%

Reference: API RP 1102 "Steel Pipelines Crossing Railroads and Highways"

Prepared By Kelsey Kibbe	Approved By	Revision: 13.0.1

vermont electric power company
VELCO

366 Pinnacle Ridge Road
Rutland, Vermont 05701
802.773.9161 ▪ velco.com

April 25, 2017

John St. Hilaire

Vice President of Operations

Vermont Gas Systems, Inc.

85 Swift Street

South Burlington, VT 05403

Dear John:

The purpose of this letter is to respond to the Addison Natural Gas Pipeline (ANGP) Project information that Vermont Gas Systems (VGS) provided to VELCO regarding the construction issues that were experienced in not obtaining the planned 4' (foot) burial depth to meet the loading of HS20+15% for the natural gas pipeline in the Clay Plains swamp area in the town of New Haven, VT. It is our understanding that the installed gas pipeline varies in burial depth between 3.0' and slightly less than 4.0' in approximately 18 locations in this swamp area along VELCO's K43 transmission line, primarily between structures 261 and 267.

Based upon the detailed field information and engineering analyses that have been provided to VELCO, along with our discussions and correspondence over the past few months; VELCO understands that the loading of HS20+15% can be met at a less-than 4' burial depth with the thicker-walled pipe. Additionally, VELCO agrees with VGS to the installation of the pipe in these limited areas with less than 4' coverage based upon the following:

- VGS confirmed in writing to VELCO, with a May 25, 2016 Mott McDonald (Mott) engineering analysis, that the HS20 +15% loading requirement for the pipe, referenced in the joint VELCO/VGS Operations & Maintenance Agreement dated July 24, 2015, will be obtained and maintained at all locations with the less-than 4' installed burial depth.
    - We also understand that Mott's engineering review will be provided to the Vermont Department of Public Service (DPS) for additional review.

- VGS has identified and documented for their as-built drawings, the limited areas where the pipe is not going to be installed at the 4' depth and they have installed additional yellow location markers in the VELCO K43 transmission line corridor.

- VGS will inspect these pipeline locations, on an annual basis for two years, to ensure that settling of the backfilled-material has not occurred, which may reduce the buried depth of the pipeline. VELCO understands that the addition of replacement material may be performed as part of VGS' routine maintenance program.

This VELCO letter will serve to memorialize our joint agreement of how the agreed-upon HS rating will be achieved and maintained in these areas for which the anticipated burial depth was not realized.

Sincerely,

Peter W. Lind

Peter W. Lind

Senior Project Manager

PWL/

04/25/2017

ROOT CAUSE ANALYSIS
ADDISON NATURAL GAS PIPELINE

HARSH SUNFLOWER
INCIDENT – JULY 18, 2016

VERMONT GAS SYSTEMS, INC.
85 SWIFT STREET
SOUTH BURLINGTON, VT 05403

PREPARED BY: JOHN ST. HILAIRE
AUGUST 11, 2017

INTRODUCTION

The purpose of this Root Cause Analysis ("RCA") is to determine the causes that contributed to the taking of Harsh Sunflowers in Monkton on LL#155 while constructing the Addison Natural Gas Pipeline ("ANGP"). This RCA will determine what happened during the event, how it happened, and why it happened. This RCA incorporates the RCA performed by Michels with the support of the VGS construction management team immediately following the incident. This RCA will outline the remedial steps taken by Michels and VGS to prevent future occurrences.

PRE-PLANNING

In preparation for work on LL#155, VGS construction personnel consulted with Michels on working around the Harsh Sunflower including at least one field visit to LL#155. After discussing various options, the teams decided the best course of action was to undertake Horizontal Directional Drilling to install the pipeline through the Harsh Sunflower area to avoid surface disturbance and plant takings. HDD work was scheduled to start after the completion of the Town Hill HDD.

ROOT CAUSE ANALYSIS

See Michels Root Cause Analysis attached and incorporated herein. VGS reviewed this RCA and ensured that the remedial action noted was taken. VGS also worked with the State and other stakeholders to implement the remedial action and other required follow up as noted below.

FOLLOW-UP ACTIONS

Prior to resuming work activities on LL#155, VGS agreed to implement or support several added conditions established by the Agency of Natural Resources ("ANR") including:

1) Avoidance plan –prepared by VHB and reviewed by ANR
2) Additional field protection/barriers for harsh sunflower communities
3) ANR site visit
4) Compliance monitoring and daily reporting to ANR

On July 29, 2016, ANR granted approval to resume work activities in the area of the Harsh Sunflowers with the added conditions in place. VGS and Michels worked closely with ANR for the duration of the time Michels was on LL#155 and no further takings of the Harsh Sunflower occurred through the end of construction.

On October 26, 2016, Vermont Gas executed an Assurance of Discontinuance with ANR that required, among other things, the payment of a $22,859.50 penalty and a $10,828 contribution to a Supplemental Environmental Project ("SEP"). The SEP VGS subsequently contributed to was the New England Wild Flower Society.

On May 25, 2017, the PUC issued a final order resolving this matter in Docket No. 8791. Pursuant to the Order, the Company paid a $19,000 civil penalty and made an additional $6000 contribution to the New England Wild Flower Society.

Harsh Sunflower Damage Incident
July 19, 2016

Root Cause Analysis (RCA)
Incident Investigation

Date: July 19, 2016 **Job #:** 61103

Investigation Team:
Nick Pfundheller – MPL
Ted Foltz – MDC

CC:
Carl Bubolz
Danny Vincent
Matt Westphal
Mark Franz
Jim Gorski

Revised 2/1/15

Root Cause Analysis (RCA)
Incident Investigation

Incident Description:

On Monday July 18th, 2016 a Michels Direction Crossings surveyor cleared a path for the wireline tracking system outside of the LOD. While clearing the path, the employee utilized a weed wacker to remove brush in order to provide a clear line of site for the wireline. During the clearing activities, the surveyor unknowingly damaged a threatened resource, the Harsh Sunflower. A VGS Environmental Inspector saw this activity as it was being completed, and immediately notified the VGS Construction Management Team, who in turn notified Michels.

Observations:

Events leading up to day of incident:

- Drilling crew ahead of schedule.
- Scheduled to begin moving to Sunflower HDD Wednesday July 20th, 2016

Sequence of events and observations on day of incident:

- Drilling crew directed onsite Surveyor to begin layout of the Harsh Sunflower HDD.
    - Monday July 18th, 2016 around 12:00pm.
- Surveyor utilized parallel utility easement (VELCO) to layout the wireline.
- During wireline clearing, the Surveyor damaged Harsh Sunflower. This damage included cutting and trampling of plants.

Post Incident Immediate Actions:

- Michels ceased all work activity at the Peyser location.
- Michels has removed Surveyor from the project.
- Michels has conducted a Root Cause Investigation, and the recommendations

Incident Pictures:

Root Cause Analysis (RCA) Incident Investigation

Contributing Factors/Root Cause(s):

Contributing Factors:

- Environmentally sensitive areas, and applicable rules, requirements and work practices for working in the vicinity of these areas were not communicated to the HDD Crew**.**
- From an environmental perspective, the HDD Crew did not conduct a high-level planning session to review general requirements and plan the work.
- JSA / Morning Tailgate did not include a review of environmentally sensitive areas and appropriate procedures.

Root Cause:

- Failure to plan the work in consideration of the environmentally sensitive environment and the many restrictions associated with this area, and failure to communicate the Plan with the HDD Crew.

Root Cause Summary:

- Michels failure to plan prior to executing work in environmentally sensitive areas decreased the flow of communication furthering the gap between management and field crews. Future work plans will be developed prior to mobilization which include identification of LOD and sensitive areas, layout of project ground rules (no work outside of LOD, no work within cordoned-off areas), and review of applicable environmental check list and work plan.
    - o

Michels Corporation Immediate Response(s):

- Immediate response includes identifying key information and the proper channel for communicating to the appropriate parties. Michels will identify future HDD work areas, and potential for damages with the HDD crew prior to every HDD commencement.
- Stan down
- Investigation
- Root Cause Investigation

Recommendations for Action(s):

In considering all immediate causes, root causes and the activities leading up to and subsequent to the incident, the investigation team recommends the following actions be completed:

Root Cause Analysis (RCA)
Incident Investigation

Action Item:	Responsible Party:	Date Completed:
HDD Crew Environmental Stand down	Michels	**7-20-16**
HSE Memo discussed with all field crews	Michels	**7-20-16**
Discuss Environmental awareness in detail at all hands HSE Stand down. More specifically, new project expectations.	Michels	**7-23-16**
Establish project communication protocol between Michels Management and Field Employees.	Michels	**7-20-16**
Identify future work locations and associated concerns.	Michels	**7-20-16**
Establish weekly reminder to reiterate concerns with crew leaders.	Michels	**7-20-16**

Memorandum

To: Vermont Gas Systems / Addison Natural Gas Project ("ANGP") Phase 1 Project File

Date: July 28, 2016

Project #: 57563.00

From: Joshua Sky, Senior Scientist

Re: ANGP Phase 1 – Parcel LLN 155 Harsh Sunflower Avoidance Plan

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Introduction

At the request of Vermont Gas Systems, Inc. ("VGS") VHB has prepared the following Harsh Sunflower Avoidance Plan for the Addison Natural Gas Project – Phase 1 ("Project"). This plan provides a detailed process for avoiding further impacts to the Harsh Sunflower (*Helianthus strumosus*, State Rank S2, Threatened) plants located on the Parcel LLN 155, currently owned by VGS. On Monday July 18, 2016 VGS contractor (Michels) cut existing vegetation in an approximately 2- to 3-foot wide path along the eastern edge of the mainline corridor, outside of the Project corridor, during some survey work to support the planned horizontal directional drill ("HDD") to avoid the Harsh Sunflower on LLN 155. Although this action did not cause earth disturbance, it resulted in the inadvertent cutting and trampling of a number of Harsh Sunflower plants.

EPSC inspectors discovered this cutting on the afternoon of July 18 and reported these observations to VGS. Upon learning of the impact to the sunflower, VGS immediately suspended construction on the site, reported the incident to the Vermont Department of Fish & Wildlife ("DFW") on July 19, and implemented a series of measures outlined in Mr. John St. Hilaire's email (See the Attachment) to Jon Kart on the morning of July 21. Mr. Kart responded on the evening July 21 with specific additional measures to be taken by VGS before resuming construction activities as follows:

1. Develop and submit a Harsh Sunflower Avoidance Plan to ANR/FWD;
2. Coordinate with ANR/FWD on review and approval of the Harsh Sunflower Avoidance Plan;
3. ANR/FWD Site Inspection to review Harsh Sunflower plant locations; and
4. Ongoing compliance monitoring and daily reporting with a pre-approved qualified environmental compliance monitor for the duration of work on LLN 155.

The natural resource information contained in this plan is based on natural resource inventory data collected on LLN 155 during VHB's initial inspection in 2012 and subsequent inspections by VHB and Gilman and Briggs Environmental during the summer of 2016. Project details and the description of the wireline placement process are based on a HDD concept plan and email communication as provided by Michels.

Wireline Placement

Since the initial intrusion into the harsh sunflower was initiated by the placement of the HDD wireline outside of the LOD, Michels has developed a specific wireline construction sequence that details the installation, operation and removal process for the off corridor wireline:

- Wireline route reviewed for harsh sunflower by qualified botanist (completed 7/22/16)

40 IDX Drive, Building 100
Suite 200
South Burlington, VT 05403
P 802.497.6100

- Wireline route staked and flagged for review by ANR/DFW site visits (completed 7/22/16)
- Wireline route captured by GPS for inclusion on Sunflower Avoidance Plan (completed 7/22/16)
- No clearing / weed whacking will be necessary for layout of wireline
- 2-3 people required for layout of wireline for the drill. Foot traffic only – no vehicle traffic necessary
    - A pre-approved qualified environmental compliance monitor will accompany Michels during the wireline installation
    - When line is laid out, another surveyor will walk the line and obtain GPS information of wireline layout
    - No further traffic or inspection of wireline is necessary during construction unless there is damage to the wireline that need to be repaired.
- 2-3 people will remove line and stakes after HDD Is complete.
    - A pre-approved qualified environmental compliance monitor will accompany Michels during the wireline removal

The wireline that is placed above the pipe within the project corridor will largely be placed on ground outside of the harsh sunflower populations that is cleared and stripped. However, there are two locations of harsh sunflower population (shown as 2016-RTE-HS-01a and 2016-RTE-HS-02 on the attached plan) that the wireline must pass through. Each of these locations is currently fenced off and there will be no foot or vehicular traffic allowed during construction, including pre- and post-construction activities. The wireline will be suspended over these areas from the construction fencing or from adjacent staking outside of the sunflower areas thus preventing any potential impacts.

Harsh Sunflower Avoidance Plan

The purpose of the Harsh Sunflower Avoidance Plan is to prevent impacts to the sunflower while HDD construction work, including pre- and post-construction activities, is occurring on the property. No pedestrian, vehicular or any other access is allowed with the areas of harsh sunflower within or outside of the Project corridor. Through the measures described below, any risk of cutting, trampling, removing or otherwise foreseeable harm to the sunflower will be prevented.

The sunflower avoidance plan contains the following elements:

A. Harsh Sunflower avoidance site plan

This plan (see Attachment) depicts the locations of the Harsh Sunflower populations in relation to Project limits of disturbance ("LOD") in relation to all of the elements of the planned work. This includes the demarcation and protective measures for the Harsh Sunflowers, the location of the HDD components including the drill location,

pullback area and temporary wire line[1] placement required to conduct the drill. It also shows the location of the construction access over the proposed HDD.

B. Demarcation of all Harsh Sunflower populations in the field

A qualified VHB botanist has reviewed the previous Harsh Sunflower delineations conducted during June and early July 2016 and field investigated remaining areas in proximity to planned construction work associated with the planned HDD, including wire line locations. As of July 25, these locations have been field identified within the project corridor with signage and have been protected with a double barrier of orange construction fencing installed in May 2016 and a green barrier fence installed on July 25, 2016. Before construction resumes the green barrier fence will be inspected and where necessary it will be moved to allow for a minimum 5-foot buffer between the sunflower population and LOD within the Project Corridor. Harsh sunflowers located outside of the Project corridor are demarcated with pink flagging strung between wooden stakes to provide a continuous barrier to avoid inadvertent intrusion by foot traffic as shown on the Harsh Sunflower Avoidance Plan. In combination, the pink flagging and construction fencing completely enclose the sunflower populations in order to prevent accidental intrusion. Photographs of the sunflower demarcation are provided in the Attachment.

Protective demarcation measures installed for the harsh sunflower will not be removed until construction in the area is completed and the sunflowers have entered their fall/winter dormant phase and not before October 15. During demarcation removal foot traffic through the sunflower population will still be avoided and vehicle traffic will be prohibited, but any inadvertent intrusion necessary to remove the demarcation would not harm or impact the dormant plants. Removal of the demarcation fencing, staking and ribbon will be conducted by hand under the supervision of a pre-approved qualified environmental compliance monitor. Materials removed will be carried to the nearest project access point and loaded into a vehicle for proper reuse or disposal.

C. Training of all work crews, current and future, on Harsh Sunflower demarcation and avoidance

All contractors that conduct work, including pre-and post-HDD activities, on site will be required to review the Harsh Sunflower Avoidance Plan and will be briefed on the location and description of filed demarcation of the Harsh Sunflower. Beginning on the day of resumption of construction on the subject parcel, construction crews will participate in a daily tailboard meeting that will include a sunflower briefing for the duration of the HDD. All vehicular traffic on the construction access above the HDD in proximity to the Harsh Sunflower will be kept to a minimum by blocking off the access with flagging and fencing and will only be allowed at the direction of the site supervisor and under the direct supervision of a pre-approved qualified Environmental Compliance Monitor (see below). The July 22, 2016 survey of the of the HDD wire line outside the LOD has been conducted with the review

[1] The wire line is used so that the drill operator can steer the drill bit. Two wires (standard 10 gauge electric wire) are placed on the ground surface: one of the wires is placed within the LOD atop the alignment. The second wire is offset from the first wire (potentially outside the LOD), paralleling the drill path. A third wire is installed within the drill itself. This system sends a signal back to the operator, providing the necessary information for proper steering.

and approval of a qualified botanist capable of identifying the Harsh Sunflower and or other protected plants and reviewed by ANR/DFW staff during on July 25, 2016.

It should be noted that within the past several days, Michels has conducted refresher training in the wake of this event including refresher environmental training for all foreman; and refresher training for the entire Peyser HDD, which touched upon all of the items discussed above, including locations of Harsh Sunflower, requirements to work within the LOD, and general environmental requirements and awareness.

All contractors that conduct construction work on site will receive a copy of the sunflower avoidance plan. This includes current contractors and any additional contractors that may perform other duties such as inspections, site stabilization and removal of the sunflower demarcation (see above) following the completion of work.

D. An approved full time Environmental Compliance Monitor ("ECM") to be present on site at all times that workers are present

A trained VHB staff person will serve as the ECM for this work. This person will have the authority to advise the VGS construction team regarding the need to stop work on site in the event any Harsh Sunflower plants are observed to be at risk of being harmed. The ECM will be present at all times work is being performed in the vicinity of the Harsh Sunflower populations on Parcel LLN 155. This includes all remaining construction activities on the parcel, including pre-HDD work to final site stabilization. The ECM will monitor activity on site for the purpose of avoiding impacts to the Harsh Sunflower and will provide daily reports to ANR/FWD. In addition the ECM will conduct the sunflower avoidance training detailed above and will monitor the condition of and Harsh Sunflower demarcation and make recommendation for immediate repairs if needed. The ECM will be responsible for notifying ANR/DFW if any additional impacts to the sunflower were to occur. Notification, if needed, would occur during the same day that the impact occurred.

The following staff members (Resumes attached) from VHB will conduct the environmental monitoring:

Field Support: One or more pre-approved ECM will be present on site at all times during construction to conduct monitoring and reporting and compliance with the Sunflower Avoidance Plan. Staff have been divided in to two groups based on the type of activity and relative risk to the sunflower. An individual listed in Group 1 will be required to be on site when contractor activity is required outside of the Project corridor (depicted as LOD on Harsh Sunflower Avoidance Site Plan) or within the sunflower populations within the Project corridor. At this time this activity is only anticipated to include the placement and removal of the wireline and the removal of the demarcation following construction. At all other times an individual from Group 2 will be present on site. The ECM will also complete the daily monitoring and reporting. It is anticipated that Michles will infrequently need foot or vehicle access on the portion of the Project corridor over the HDD that is already cleared, and Group 2 ECMs will accompany the contractors during this activity. Group 2 ECMs have been trained in the identification of the harsh sunflower and the Harsh Sunflower Avoidance Plan. Both Group 1 and Group 2 ECMs will immediately advise VGS and its contractors to cease activity and notify DFW if any sunflower plants are at risk of harm. ANR/DFW pre-

approval is required for any additional environmental compliance monitoring staff that VGS desires to add or substitute for the individuals identified below.

Group 1 ECM List:

Joshua Sky, Senior Scientist

Adam Crary, Senior Wetland Scientist

Carla Fenner, Environmental Scientist

Mike Ingram, Environmental Specialist

Group 2 ECM List:

Max Forbes, Environmental Services Intern

Jenna Nash, Environmental Services Intern

Conclusion

VHB has developed this plan at the request of ANR and VGS to prevent further impacts to the Harsh Sunflower on the subject parcel. With the diligent implementation of the protective steps described herein, we are confident that this Harsh Sunflower Avoidance Plan will be successful in achieving this objective.

Attachment

1. John St. Hilaire email to Jon Kart dated July 21, 2016
2. Sunflower Avoidance Plan Sheet
3. Sunflower Demarcation Photographs
4. ECM Resumes

ATTACHMENT

Sky, Josh

From: John St.Hilaire <jsthilaire@vermontgas.com>
Sent: Thursday, July 21, 2016 7:46 AM
To: Jon.kart@vermont.gov
Subject: Vermont Gas update on inadvertent taking

Hi Jon

My name is John St. Hilaire and I am the executive sponsor of the Addison Natural Gas Project. I'm writing this email to update you on the status of Vermont Gas activities as they relate to the sunflower.

As you know, late Monday afternoon our contractor (Michels) cut a path along the eastern edge of our mainline corridor during some survey work to support the planned HDD for the Peyser site. This action resulted in the inadvertent taking of a number of Harsh Sunflower plants. [We met with Bob Popp yesterday to review the impacts and determine an accurate count of plant impacts.] Upon learning of this event, we instructed the contractor to immediately stop all work at this location and notified the Agency, as well as the DPS and the PSB.

Over the course of the last two days, we have worked collaboratively with Michels to conduct a root cause analysis of this event to understand what occurred, the root causes that lead to the event, and the necessary actions to be taken to prevent something like this from happening again. While the root cause analysis identified several contributing factors, we have identified the primary cause of this event as a failure in Michels internal procedures regarding HDD work planning and communication of critical environmental risks between management staff and the field crews. To correct this procedural gap, Michels has implemented the following corrective actions:

Action Item:	**Responsible Party:**	**Status:**
HDD Crew Stand down (2 days)	Michels	**Completed**
Additional training - review environmental memo/guidelines with all HDD crews. Additional training will be held 7/21 with all crew foremen.	Michels	**Completed**
Broaden weekly All-Hands Safety Meeting (each Saturday) to cover environmental protection and safeguards.	Michels	**Ongoing – Will commence 7-23-16**
Confirm proper LOD and protective resource demarcation on ROW.	Michels	**Completed**
Conduct daily environmental checklist (this is similar to the safety JSA that is done by each crew prior to commencing work)	Michels	**Ongoing – Will commence 7-21-16**
Establish project communication protocol between Michels Management and Field Employees.	Michels	**7-20-16**
Conduct Daily Environmental Briefing with crew leaders (0600 hours)	Michels	**Ongoing – Will commence 7-20-16**
Hold formal planning meeting with HDD Crew prior to mobilization of future HDDs, including Peyser.	Michels	**Ongoing**

We have spent considerable time and effort to ensure that Michels' leadership and field crews have received refresher training, particularly in regards to protection of critical resources and requirements that all work is to be within the LOD. Moreover, the corrective actions Michels has now implemented, most notably a daily environmental checklist, as well as additional work planning, will help ensure that an incident like this does not occur again.

Given development and implementation of these corrective actions over the course of the two-day stand down, we are allowing the Michels HDD crew to resume work tomorrow at the Peyser location. As Michels returns to work, the following should be noted:

- The HDD crews will set up on both ends of the span to be drilled, well outside the areas where the sunflower has been identified and flagged
- Any travel within the corridor is on a well established path, and the flower areas remain well marked, as well as the LOD along both sides of the corridor
- Activity for tomorrow only includes mobilization. We will evaluate field activities tomorrow, and if work proceeds smoothly the corrective actions are successfully implemented, then we intend on allowing Michels to proceed with drilling activities on Friday.
- We will have an environmental monitor at Peyser during all mobilization activities and pre-drill work to provide the evaluation discussed in the bullet point above.
- Wire does have to be run along the edge of the corridor to enable the HDD crew to "steer" the drill, but this will be done under the supervision of our VHB Ecologist to ensure that the path remains well outside any of the plant areas

In closing, we understand the serious nature of this inadvertent taking, and we believe we have responded decisively and quickly to investigate the incident and implement comprehensive corrective actions to prevent a reoccurrence of this type of event.

John St.Hilaire
VP Operations and Executive Sponsor ANGP
Vermont Gas Systems, Inc

Notes: While work is being conducted on site an Envinromental Compliance Monitor will be responsible for implementing the Harsh Sunflower Avoidance Plan

Outside of the LOD the harsh sunflower is demarcated with pink flagging and an additional protective buffer has been applied to avoid inadvertent intrusion by foot traffic.

Limited Access Over HDD Install Barrier Fencing

HDD Wire Line 2 Offset From HDD

HDD Pullback

HDD Entry

2016-RTE-HS-01 S2/S3/Threatened

2016-RTE-HS-01a S2/S3/Threatened

2016-RTE-HS-03 S2/S3/Threatened

Limited Access Over HDD Install Barrier Fencing

2012-PW-68 (Class III)

Within the LOD the harsh sunflower populations are demarcated by orange construction fencing and signage to prevent intrusion by foot or vehicular traffic.

HDD Exit

Over HDD access

2016-RTE-HS-01 S2/S3/Threatened

2016-RTE-HS-02 S2/S3/Threatened

Potential Bat Tree Flagged for Avoidance No Impact

HDD Wire Line 1 Over HDD

LLN: 153.03
LLN: 153.01
LLN: 153
LLN: 154
LLN: 155
LLN: 156.01
LLN: 154.02
LLN: 159
LLN: 156
LLN: 160
LLN: 154.01
LLN: 161.02
CEDAR LN
HOLLOW RD
K43

Sources: Background Imagery from VCGI (2013)
ANR (Agency of Natural Resources - Various Dates);
CHA (Clough Harbour and Associates - 2012-2015);
FWD (VT Fish and Wildlife Deptartment - 2015);
G&B (Gilman and Briggs Environmental - 2012-2015);
Michels (2016);
VCGI (Vermont Center for Geographic Information - Various Dates);
VELCO (Vermont Electric Power Company - 2012);
VHB (Vanasse Hangen Brustlin - 2012-2016);
VTrans (Vermont Agency of Transportation - 2015).

- HDD Wire Line (VHB)
- Over HDD Access (VHB)
- HDD Pullback Area (Michels)
- Harsh Sunflower Demarcation Limits (VHB)
- Study Area (VHB)
- Proposed Transmission Mainline (CHA)
- Wetland (VHB)
- Stream Centerline (VHB)
- Stream Top of Bank or Slope (VHB)
- Ditch (VHB)
- Potential Bat Tree (VHB)
- 50 ft. Class II Wetland Buffer (VHB)
- RTE Plant Area (G&B)
- VELCO Structure Location (VELCO)
- Transmission Lines (VELCO)
- VSWI Wetland (ANR)
- RTE Species/Communities (VT FWD)
- Stream (VHD)
- 2 ft. Contour (VCGI)
- 10 ft. Contour (VCGI)
- Limits of Disturbance (CHA)

150 75 0 150 Feet

Vermont Gas - ANGP Phase I
Parcel LLN 155
Harsh Sunflower Avoidance Site Plan
Monkton, Vermont

DRAFT: July 22, 2016

\\vtnfdata\projects\57563.00 VGS Addison Expansion\GIS\Project\VT Takings\LLN 155 Harsh Sunflower Avoidance Plan.mxd Prepared by: jtherrien

Photograph 1: Harsh sunflower area within Project corridor marked by high visibility green fencing with "Protected Area" lettering.

Photograph 2: Harsh sunflower areas outside of Project corridor marked with double row of pink tape.

MAXWELL A. FORBES

53 North Willard Street
Burlington VT, 05401
781-640-7630
Maxwell.a.forbes@gmail.com

EDUCATION

Bachelors of Science in Environmental Science: Specialization: Mountain Systems Science
University of Vermont, Burlington, Vermont - Expected Graduation: 2017

WORK EXPERIENCE

Experience
VHB Environmental Services Intern, June 2016-present

- Regularly assists in the field performing wetland and water delineations, wildlife and vegetation surveys, invasive species monitoring, and other environmental assessments
- Performs data entry and analysis to assist in the completion of project deliverables including ArcGIS mapping, United States Army Corps of Engineers wetland determination data forms, floristic inventories, and delineated waters summary tables

Customer Service Specialist - Outdoor Gear Exchange/Gearx.com, Burlington VT, March 2015 – Present

- Responsible for meeting the needs of customers, managing the register station and register staff, opening and closing the store and assisting managers with operations

Marketing Intern – College Outside, May 2015 – Present

- Manage marketing and communications for College Outside including website publications, social media, Email marketing, and events
- Coordinate marketing campaigns with vendors
- Manage a team of 8 part-time website content publication contributors

LEADERSHIP & VOLUNTEER POSITIONS

University of Vermont Outing Club

- Rock and ice climbing trip leader, 2013 – Present
- Ice Climbing Site Management and Anchor Construction (SMAC) Leadership Development Program Coordinator
- TREK Wilderness Orientation Climbing Leader

Middle School Science Olympiad Program

- Coolidge Middle School Science Olympiad Team, Volunteered over 850 hours as event coach, 2009 – 2013
- Parker Middle School Science Olympiad Team, Co-Founded and led the team, 2012 – 2013

Boy Scouts of America, 2006-2013

- Eagle Scout, May 2013
- National Youth Leadership Training Program, July 2011

CERTIFICATIONS

- Certified Single Pitch Instructor, American Mountain Guides Association, May 2015
- Wilderness First Aid Certified, Solo Institute for Wilderness Medicine, April 2014

TECHNICAL SKILLS

- Proficient operation of both Microsoft and Macintosh operating Systems
- Proficient operation of Microsoft Office Suite and Adobe Photoshop Lightroom
- Advanced social media and marketing skills specializing in MailChimp, Blogger, WordPress, Facebook and Instagram
- Working knowledge of Adobe Photoshop, Illustrator, InDesign and Dreamweaver
- Working knowledge of Geographic Information Systems, particularly ArcGIS
- Working knowledge of Computer Aided Design, including SolidWorks, AutoCAD, and ProEngineer
- Working knowledge of programming languages HTML, Java, Python, C# and Matlab

Jenna Nash

31 Hungerford Terrace, Burlington, VT 05401
(814) 602-0297 || jnash1@uvm.edu 4550
Scott Road, East Springfield, PA 16411

Education

University of Vermont, Burlington, VT
Bachelor of Science Degree majoring in Environmental Science, anticipated December 2016 Honors:
Presidential Scholarship, Dean's List 2012–2013
Cumulative GPA: 3.15

Experience

VHB Environmental Services Intern, June 2016-present

- Regularly assists in the field performing wetland and water delineations, wildlife and vegetation surveys, invasive species monitoring, and other environmental assessments
- Performs data entry and analysis to assist in the completion of project deliverables including ArcGIS mapping, United States Army Corps of Engineers wetland determination data forms, floristic inventories, and delineated waters summary tables

Gap Inc. Sales associate, hired May 2014

- Excels in having full knowledge of product and brand
- Development of merchandising skills, visual presentation of product, and customer service skills

UVM Dining Services Waterman Manor Server and bartender, hired July 2015

- Excels in maintaining organization and performing all duties in a fast-paced and continually changing environment while providing excellent customer service
- Works individually and as a part of a team to serve a range of small dinner parties to upscale banquets
- Certified alcohol server

Technical Skills

Proficient using ArcGIS, Microsoft Office, and AutoCAD with a working knowledge of Matlab and Stella Systems Modeling

Leadership Experience

Panhellenic President, *UVM Panhellenic Council Executive Board,* 2016

- Head of the executive board that governs UVM's largest women's organization
- Development of skills in time management, delegation, collaboration, public speaking, and problem solving

Vice President of Standards, *UVM Panhellenic Council Executive Board,* 2015

- Developed skills and exceled in problem solving, conflict resolution, mediation, and crisis/risk management
- Head of the Judicial Board, edited UVM's Panhellenic Constitution and Bylaws and wrote a Code of Ethics
- Collaborated in planning and led an orientation for the 200+ new members of the Greek community

Active Member, *Kappa Alpha Theta Women's Fraternity – Lambda Chapter,* joined November 2012

- **Event Director,** Fall 2013–Spring 2014
  Organized and worked with local businesses in the planning of events for 100+ chapter members, leader of the chapter's risk management team, developed programming to improve the safety of members
- **Member Development Committee** Class representative, 2013
  Served on the five-person committee to ensure the well-being, safety, and morale of the entire chapter as well as every individual member
- **2013 Emerging Leader's Institute,** Lambda Chapter delegate

Vice President of Public Relations and Marketing, *UVM Jews in Greek Life,* 2013

Community Service and Philanthropy

Philanthropy Committee Member, *Kappa Alpha Theta – Lambda Chapter*

- Aid in the organization, planning, and execution of annual events including a Thanksgiving dinner and talent show to benefit the Court Appointed Special Advocates (CASA)

Event Aide, *UVM Rallython*

- Assist in the running of Rallython and performing any required tasks
- Serve as the liaison between the UVM Panhellenic Council and the Rallython Executive Board

Animal caretaker and socializer, *All Breed Animal Rescue*

Challah baker, *UVM Challah for Hunger*

- Baking and selling challah in order to benefit the Chittenden Emergency Food Shelf and the American Jewish World Service in an effort to end world hunger

Michael Ingram

Environmental Scientist

Education

MS, Geology, University of Vermont, 2015

BS, Geology, University of Vermont, 2011

Mike is an Environmental Scientist position in VHB's South Burlington, Vermont, office. He works as a Construction Inspector, Environmental Monitor, and Environmental Scientist, employing a diverse set of skills including field observations and reporting, GIS mapping, plan reading, and working on multiple projects simultaneously, as well as trouble shooting and solving time sensitive issues.

5 years of professional experience

Vermont Gas Systems – Addison Natural Gas Project Construction Phase

Mike is the environmental scientist/Erosion Prevention and Sediment Control ("EPSC") Specialist for this natural gas pipeline construction project that includes transmission mainline and access routes, laydown/staging areas, gate stations, mainline valve sites, Vergennes distribution mainline, and Middlebury distribution mainline. He provides Environmental permit compliance monitoring and assistance to the construction team regarding environmental permit compliance, as well as on-going coordination with the project environmental team regarding environmental permit conditions and compliance, environmental training for contractors, and general coordination with Vermont Department of Environmental Conservation ("DEC") and US Army Corps of Engineers ("USACE").

Vermont Gas Systems – Gauthier Wetland Fill Removal

Mike provided EPSC recommendations to stabilize a site of wetland fill during the winter of 2016 and provided oversight of the installation of the EPSC measures. In the spring of 2016 he worked directly with the contractor by providing oversight of the wetland fill removal and restoration to ensure additional impacts to the wetland were minimized and that restoration efforts would result in a revitalized wetland. He also screened the removed soils with a Photo Ionization Detector ("PID") to determine if any contamination was present.

National Grid – Harriman Station 8 Substation

Mike fulfilled the role of Environmental and EPSC Inspector on this substation expansion project located near the Deerfield River in southern Vermont. He conducted weekly site visits and provided recommendations to the client to maintain compliance with DEC and USACE permits.

Vermont Rail Systems – Shelburne Transload Facility

Mike provides on-going support and recommendations with respect to the EPSC Plan and DEC permits. He also developed the Stormwater Pollution Prevention Plan ("SWPPP") for future obtainment of a Multisector General Permit ("MSGP"). Developing the SWPPP involved identifying potential pollutant sources and working closely with the client and stormwater design engineers to ensure the operational facility adheres to local and regional environmental regulations.

VTrans, State Roads and Highways, Vermont

While employed at another firm, Mike performed environmental services for the Vermont Agency of Transportation (VTrans). He performed watershed delineation using ArcGIS for culverts and bridges requiring replacement or repair on VTrans road

projects; developed data management protocols for receiving field data and sending watershed basin characteristic data; and reviewed technical reporting for culvert design and AOP recommendations.

Burke Mountain Resort, Permitting & Mapping
While employed at another firm, Mike worked on a mountain development. He carried out Act 250 permitting for trail lighting; Act 250 permitting for 8 miles of mountain bike trails, 9 wooden bridge stream crossings, and 22 wooden/dirt features; and Act 250 permitting for trail re-grading and the construction of a new pump house. He created/compiled maps into Google Earth of the wastewater system; compiled Act 250 permit conditions from 1971 until current and created a compliance checklist for the mountain operations. Mike also mapped the boundaries and centerlines of all ski and mountain bike trails by GPS and GIS to quantify acres and miles of recreation.

Newport State Airport
Prior to joining VHB, Mike worked on a $7M airport development as Environmental Monitor for 76 acres of logging in forested wetlands to ensure compliance with project plans and USACE, DEC and Act 250 permits. He also performed tracking of logging progress, disturbed areas, locations of primary and secondary haul roads, and EPSC measures with GIS maps.

Waterbury Contaminated Soils
Prior to joining VHB, Mike worked on the repair and upgrade of town storm water system and response to a spill at the Waterbury Fire Department. He delineated the extent of petroleum contaminated soils and performed removal oversight; coordinated with state and local officials on the degree of contamination and removal process; and submitted summary reports and site maps to the DEC.

Milton I-89 and Windsor I-91 Design Build Projects
Prior to joining VHB, Mike was a Construction Inspector on a two interstate bridge replacement projects. He reviewed and performed inspection of erosion prevention and sediment control (EPSC) measures; performed dry swale with permeable soil inspection; and inspected all construction activities for conformance to the plans and project specifications. He performed elevation and location surveys included subgrades, forms, drainage structures, bearing seats, and beam camber profiles. Mike performed material tracking, sample scheduling, and material certifications verification. He also reviewed and inspected access roads, including road grade survey, erosion control procedures and bank stabilization, as well as inspected cofferdam installation, dewatering and water filtration systems.

462 Shelburne Road Construction
Prior to joining VHB, Mike performed construction services for a commercial development that included the demo of a 60 unit motel complex and office buildings, excavation of foundations, and grading of a 100 space parking lot. Mike also installed and maintained site wide EPSC measures.

Joshua L. Sky, GISP

Senior Scientist/GIS Manager

Education

MS, Forestry, University of Vermont, 2005

BS, Environmental Science, Principia College, 1996

Registrations

Geographic Information System Professional (GISP)

Josh is a Senior Scientist focusing on energy projects and is also the GIS Manager at VHB Vermont. He specializes in obtaining natural resource based permits for large and small scale energy projects from pipelines to renewables. Permit experience includes Vermont Act 250, Section 248, Vermont DEC program permits, US Army Corps Section 404 and 10 permits, FEMA, and NEPA. In addition to his project work he oversees the use of GIS in the Vermont office including cartography, spatial analytical problem solving, hydrologic model support, database development, and custom model development. Josh supervises a small team of full-time GIS technician/staff scientists and provides support for other GIS users in the office, as well as supervises mobile data collection.

16 years of professional experience

Vermont Gas Systems, Addison Rutland Natural Gas Project – Phase 1, Chittenden and Addison Counties, VT

Josh is the assistant project manager for the proposed Vermont Gas Systems – Addison Natural Gas Project (ANGP Phase 1), which includes 42 miles of 12-inch transmission pipeline, 3 metering and regulation stations, 5 miles of distribution mainline, and local distribution networks in Vergennes and Middlebury, Vermont. Mr. Sky worked closely with VGS to obtain the necessary permits including a Certificate of Public Good from the VT Public Service Board, an individual Vermont Wetland Permit, a construction stormwater permit, stream alteration permit, section 401 water quality certification, and USACE Section 404 and Section 10 permit under an aggressive schedule and the Project is currently under construction.

TDI-NE, New England Clean Power Link (NECPL) Electric Transmission Line, Grand Isle and Rutland Counties, VT

TDI-NE, a privately held company, is developing the New England Clean Power Link (NECPL) project to deliver 1,000 megawatts (MW) of hydro-electric power generated in Canada to the United States. Jesse is serving as the Data Manager for the GIS/CAD data for the project. Josh provides regulatory support an coordination between the GIS team members.

Lamoille Valley Rail Trail, Lamoille Valley, VT

For the Vermont Association of Snow Travelers (VAST), Josh served as the Environmental Task Manager for an ambitious project to convert a 93-mile rail corridor across northern Vermont to a four-season multi-use trail traversing 17 communities, from St. Johnsbury to Swanton. He prepared environmental and cultural documentation along the entire corridor to support the VTrans Local Transportation Facilities process in anticipation of obtaining a Categorical Exclusion approval. Josh was also responsible for the management of field data collection, resource data management and resource mapping for this project that included rehabilitation or replacement of more than 80 bridges and public outreach and close coordination with the permitting agencies.

Stratton Mountain Resort, Water Quality Remediation Plan, Stratton, VT

Josh has been the primary author and guide for the SWQRP since 2007 and has worked closely with Stratton to present base flow and event-based water quality sampling, monitoring, and reporting, and data compilation of streams at Stratton Mountain Resort as part of the resort-wide water quality remediation plan. Stratton is currently entering into the final phase of the SWQRP with all but one stream in compliance with Vermont water quality standards.

Sheffield Wind Project, Sheffield, VT

Josh provided assistance for construction and operational phase stormwater permitting to First Wind (formerly UPC Wind Management, LLC) for a proposed wind farm project in Sheffield, Vermont, consisting of 16 turbines with a project capacity of 40 MW. The applicant modified the project through the course of Section 248 review, and VHB was tasked with evaluating changes in potential project impacts to meet Vermont Department of Environmental Conservation permitting requirements. VHB completed a detailed field reconnaissance and initial watershed resources assessment, utilizing existing information and available GIS mapping to prepare an extensive resource base map. Josh led the resource flagging effort with supervision of field crew and oversight of data collection, as well as oversight of all mapping used for documentation and exhibits in the Vermont 248 process and subsequent appeal. In August 2007, a Certificate of Public Good (CPG) was issued approving the project.

National Grid, GP33 Improvement Project Natural Resources Survey, New Hampshire and Vermont

On behalf of National Grid, VHB conducted a natural resources assessment for the G-33 Line Improvement Project. Within the existing G-33 69 kV transmission line right-of-way (ROW), along proposed off-ROW access routes, construction staging areas, and log drop sites beginning at the hydrostation in Bellows Falls, Vermont and terminating at the Vernon hydrostation in Vernon, Vermont. The entire ROW is approximately 30-miles long, with approximately 10-miles located in New Hampshire and 20-miles in Vermont. The assessment included a wetland and stream survey, wetland functions and values assessment, a Rare, Threatened, and Endangered (RTE) plant species survey, and survey for potential Rare Irreplaceable Natural Areas (RINA). A natural resource report was prepared for permitting effort. For this project, Josh provided data analysis, management, and associated mapping for permitting and reporting.

Deerfield Wind Project, Searsburg and Readsboro, VT

Josh managed the data collection effort and oversaw all mapping required for support of the Deerfield Wind Project, which represented a much-needed long-term source of power for Vermont and the region. VHB conducted an initial assessment of stormwater management approaches as part of the Section 248 Vermont Public Service Board review process for the client, Iberdrola Renewables. Specific activities involved an assessment and design of stormwater management practices for construction and operational phases of the project in order to meet Vermont Department of Environmental Conservation (DEC) permitting, planning, and design requirements.

Burlington Stormwater Utility, Burlington, VT

The City of Burlington established a Stormwater Utility in 2009 through a public ordinance. The utility collects a stormwater fee from property owners based on the

amount of impervious surface present on their property. VHB worked with the Stormwater Utility to establish continuity between the parcel-based impervious cover information and the assessor's database. Josh developed and implemented quality assurance and quality control procedures to ensure data continuity and accuracy. Josh provided the Stormwater Utility the updated information in time for the first billing cycle, as well as provided support for the Utility when individual property owners sought confirmation of the amount of impervious surface within their property

Stratton Mountain Resort, Styles Brook and Middle and East Branch of Tributary 1 to Stratton Lake Stream Geomorphic Assessment, Stratton Mountain, VT

Under the Stratton Water Quality Remediation Plan (SWQRP) Josh directed a Phase 2 SGA for Styles Brook and the Middle and East Branches of Tributary 1 to Stratton Lake. The Phase 2 SGA consisted of identifying bankfull features, conducting a partial pebble count, surveying cross sections, etc. As a result of the SGA and bridge/culvert assessments conducted by VHB, other problem areas contributing to the water quality impacts were identified. The results of the SGA survey were used to craft additional remedial measures designed to bring Styles Brook and Tributary 1 to Stratton Lake into compliance with VWQS including attainment of Class B Aquatic Life use support.

Adam R. Crary, PWS, PWD

Senior Wetland Scientist

Education

BS, Natural Resources and Natural History and Ecology, University of Maine, 2000

Registrations

Professional Wetland Scientist (SWS-PCP)

Professional Wetlands Delineator (VDPOR)

Approved Rare Plant Surveyor (USFWS), VA

OSHA 10 HR Construction Safety, Feb. 2008

Wilderness First Responder (former certification)

Affiliations/Memberships

Society of Wetland Scientists

Southern Appalachian Botanical Society

New England Wildflower Society

NEWFS Plant Conservation Volunteer

Adam has worked as a federal park ranger, a research assistant, a stream ecologist, a wetland ecologist, a botanist, and a project manager. He has performed ecological services in 12 states and one U.S. territory on both large- and small-scale public and private projects. Adam has worked on remote as well as urban sites, multi-state linear utility projects, as well as county-wide assessment initiatives. He is responsible for managing or providing oversight on projects focused on ecological resource inventory or involving federal or state environmental permitting, as well as managing wetland and ecological services and technical staff and providing expert natural resources testimony for energy projects primarily in Vermont and the northeast.

18 years of professional experience

Kingdom Community Wind Project, Lowell, Westfield, and Jay, VT

Adam served as the Project Manager for the natural resources assessments conducted by VHB in support of the Section 248 filing for a CPG from the VT PSB as well as collateral environmental permits. Field assessments included wetland/waters delineations and VWR classifications, wetland function and value assessments, rare flora and natural community surveys, vernal pool surveys, and mitigation site assessments. Assisted in the development of project testimony and preparations for PSB hearings. Permitting tasks included close coordination with the Project engineer, developer, VT ANR, USACE, and preparation of Individual Permit applications and mitigation packages. This project involved a 21 turbine wind farm on 4-miles of the Lowell Mountain ridge, with a 16+ mile transmission line upgrade, which was approved and began construction in less than 2 years from substantial resource assessment work.

VELCO, K41 Transmission Line, Irasburg to Highgate, VT

Adam served as overall Project Manager for a comprehensive natural resources survey for the approximately 51-mile Vermont Transco, LLC (VELCO) transmission line, which runs through numerous towns in northern Vermont. In addition to managing field staff, he also led rare, threatened, and endangered (RTE) plant and habitat assessment field surveys. He provided oversight, and prepared and provided QA/QC on technical documents submitted on behalf of VELCO summarizing the results of these surveys, in support of a Section 248 filing.

South Burlington Solar Farm, South Burlington, VT

Adam served as Task Manager and Lead Field Ecologist in conduct of first preliminary, then detailed natural resources assessments for the largest solar generation facility at the time in Vermont. Natural resources assessments included a delineation of wetlands and waters, detailed natural community mapping, vernal pool surveys, and development of a buffer vegetation management plan. Adam provided pre-filed testimony for the successful receipt of a Certificate of Public Good (CPG) from the VT Public Service Board, and oversaw the successful procuring of U.S. Army Corps of Engineers (USACE) Section 404 and VT Department of Environmental Conservation (DEC) Conditional Use Determination (CUD) permits. The project was approved and began construction less than nine months from inception.

AllEarth Renewables, VT B&GS Solar Projects, VT

Adam served as the Project manager and expert natural resources witness providing consulting, design, and permitting support as part of a Vermont Buildings and General Services contract to develop solar energy generation projects primarily on VBGS-owned lands across Vermont. The net-metered projects, with VBGS as the off-taker, range from 150 to 500kw in size. Due to the reduced project scale, Adam guided development of an innovative natural resource assessment method to streamline the site investigations and reporting while meeting VT Section 248 statutory requirements as well as Project schedules.

Green Mountain Power 3307 Line Replacement, Winooski, VT

Adam served as the Project Manager of the natural resources assessments and provided Vermont Agency of Natural Resources (ANR) coordination and expert testimony on the Section 248 Natural Resources criteria for the line segment re-aligned following 2011 Winooski River flood damage. Several natural resources are present in the study area in association with the Winooski River, and Adam worked with the Project Engineer to minimize natural resource impacts and concerns from the VT ANR, which included developing a unique approach to address RTE plants via a post-CPG permit condition.

VELCO Structure Condition Improvement Project, VT (throughout)

Adam served as the Project Manager for this Project which involved detailed natural resources inventory of existing transmission lines to support VELCO's permitting and project planning. The work involved inventory of wetland/water resources and significant natural communities as well as a structure flood risk assessment for approximately 107 miles of transmission line in 2013 and 85 miles in 2014, completed within strict schedule constraints.

Other examples of Vermont Natural Resources and Environmental Permitting Projects

Transportation Infrastructure (VAST Lamoille Valley Rail Trail; VTrans bridge, culvert, and highway projects, Bennington Rail to Trail, Hinesburg Path, Colchester Double-Divergent Interchange)

Utility Infrastructure (VELCO transmission and substation projects, VELCO Statewide Radio, GMP Gorge Generating Station, GMP 3325 Line, CVPS Reconductoring projects, National Grid projects, Waitsfield Waterline, various VEC Substation Projects, VT Gas Addison Expansion project, TDI/NECPL ~150 mile new transmission line, National Grid 3315 Line Replacement Project, GMP White River Junction Substation/Transmission Line project, Canaan Water Line project

Renewable Energy (Beaver Wood Energy Pownal and North Springfield Projects, St. Albans Solar, IBM RTC Solar, EGPNA Sheldon Solar, AER VBGS statewide solar projects, Encore Redevelopment solar projects, VEC solar projects, SunEdison Champlain Valley Solar Farm)

Commercial/Res. Development (Moran Plan, Hannaford Hinesburg, Commonwealth Dairy, Quechee Lakes, South Burlington Market Street, Northfield Savings Bank Berlin, Halifax Quarry, South Burlington Trader Joes)

Adam R. Crary, PWS, PWD

Ski Resort Development (Jay Peak, Killington, Mt. Snow, Killington, Timber Creek at Okemo)

Carla A Fenner

Environmental Scientist

Education

BS, Natural Resource Management, University of Hawaii, 2008

Affiliations/Memberships

New England Wildflower Society, New England Plant Conservation Program, 2013

Society of Wetland Scientists, New England and Mid-Atlantic, 2014

New England Botanical Club, 2015

Carla is an Environmental Scientist with a focus on wetland delineation, plant ecology, and regulatory compliance. She frequently works on permit preparation, floristic inventories, threatened and endangered species field surveys, mitigation planning, vegetation management planning, and data analysis. Prior to joining VHB, Carla was a Soil Conservationist at the USDA Natural Resources Conservation Service. In this role Carla worked on comprehensive natural resource conservation plans and implementation oversight on projects across southern Vermont, Her responsibilities included delivery of federal conservation programs; a role that included complex technical biological work and contract administration on more than $1,000,000 of federal contracts. While Carla provides services in a broad range of natural resource management disciplines, the emphasis of her work focuses on wetland and botanical science as well as wildlife habitat management.

9 years of professional experience

Central Hudson Gas and Electric, H&SB Electric Transmission Lines Rebuild Project, Kingston to Greenport, NY

This project focused on obtaining a Certificate of Public Good for this existing overhead transmission line upgrade/maintenance from the North Catskill Substation approximately 23.1 miles south to the Hurley Avenue Substation. The project area included the 150-foot wide Right-of-Way (ROW) with additional adjacent investigation areas outside the 150-foot corridor. Carla facilitated data collection for the duration of the project, and as the wetland and stream delineations task leader, she oversaw the collection of field data and provided regular, detailed progress reports for delivery to the client. Subsequent to field work, Carla provided support to GPS data processing and technical analysis of field data to be developed into a vegetation management plan for the entire project area.

Mount Snow Master Plan – Phase I – Carinthia

In support of Phase I of a Master Plan to redevelop the Carinthia Base Area at Mount Snow Resort, Carla conducted wetland and stream delineations as well as detailed wildlife habitat surveys on tracts of land located at and adjacent to the Carinthia Base Area, associated with the construction of a new snowmaking pond referred to as West Lake, and for a feasibility study on approximately 60 acres in the vicinity of the resort. Carla also played a key role in the Act 250 process and collateral environmental permitting for Carinthia.

Village of Hyde Park Electric Department, Waterhouse Solar Project

Carla conducted wetland and stream delineations, floristic inventory and wildlife habitat assessments in support of the development of a solar project to benefit members of the Hyde Park Electric Department cooperative. In addition to wetland and other natural resources field assessments, Carla's responsibilities included development of a detailed vegetation management plan, agency coordination, natural resources reporting and testimony before the Public Service Board in support of a Certificate of Public Good, and a Vermont Individual Wetland Permit for the project.

Vermont Telecommunications Authority – Vermont Cellular Resiliency Project
The Cellular Resiliency Project was a statewide project implemented to establish disaster resilient, solar powered cellular and Wi-fi telecommunications infrastructure in 10 rural towns and along approximately 133 miles of underserved roadways. Carla completed field surveys for rare, threatened, and endangered species, wetlands, streams and floodplains, and ecologically significant natural communities for 7 of the 10 rural towns in the Project, as well as data collection along approximately 100 miles of the Project's resiliency corridors. Carla also supported this Project through extensive technical reporting, data management, coordination with state regulatory agencies, and the production of NEPA compliance documentation.

Green Mountain Power, Various Substation and Linear Reconductorig Projects

Carla has conducted numerous field studies, wetland delineations, rare flora surveys, natural resource reporting, wetland permitting, and development of resource mitigation and monitoring plans for substation reconstruction, decommissioning, and relocation projects as well as for linear reconductoring and other transmission and distribution line projects. Her work on GMP projects has been spread across many regions in Vermont and exceeding 10 miles of linear project distance.

Vermont Gas Systems, Addison Natural Gas Project Phase 1, Colchester to Middlebury, VT

In support of this 41 mile project, Carla provided wetland delineation, data management, and field survey and mapping of non-native invasive plant populations as well as rare plant surveys, which contributed to a comprehensive vegetation management plan. Carla's work on this project has also included the development of mitigation plans for rare, threatened, and endangered animal and plant species as well as agency coordination and permit development.

NRG Systems, Master Plan, Hinesburg, VT

Carla conducted stream delineations, natural community and upland wildlife habitat inventories, invasive plant surveys, and riparian zone vegetation assessments in support of a Master Plan on a large parcel of undeveloped land in Hinesburg, VT. Carla followed her field efforts with development of multiple technical memoranda that were submitted for review by state regulators, master plan developers, and the town planning board, and that discussed the presence and significance of natural resources as well as the permitting implications, development constraints, and opportunities for mitigation.

USDA Natural Resources Conservation Service, Soil Conservationist, Rutland, VT

Prior to joining VHB, Carla was a Soil Conservationist at the USDA Natural Resources Conservation Service. In this role Carla worked on comprehensive natural resource conservation plans, wetland delineation and functional assessments for regulatory compliance, and was responsible for the delivery of federal conservation programs in three Vermont counties; a role that included technical natural resource management planning and contract administration on more than $1,000,000 of federal contracts.

ROOT CAUSE ANALYSIS
ADDISON NATURAL GAS PIPELINE

INDUCED VOLTAGE –NOPV
INCIDENT – JUNE 7 TO JUNE 24, 2016

VERMONT GAS SYSTEMS, INC.
85 SWIFT STREET
SOUTH BURLINGTON, VT 05403

PREPARED BY: JOHN ST. HILAIRE
AUGUST 11, 2017

INTRODUCTION

The purpose of this Root Cause Analysis ("RCA") is to determine the causes that contributed to the violation of the Addison Natural Gas Pipeline ("ANGP") project Specification 130000 (attached), which was closed out with a memorandum of understanding ("MOU") dated November 9, 2016 between the Vermont Gas systems, Inc. ("VGS") and the Department of Public Service ("DPS") (also attached). The MOU states that VGS acknowledges the violation and promptly engaged in remedial action aimed at achieving compliance with Specification 130000. The MOU also recites that the violation posed no risk to the general public outside of the construction right of way, and did not result in any injuries to employees, contractors or members of the public. This RCA analyze the event; outline the remedial steps reflected in the DPS/VGS November 9, 2016 MOU closing out the violation; and explain why these steps are sufficient to prevent future occurrences.

EVENT DESCRIPTION

Vermont Gas contracted with Michels Corporation ("Michels") to undertake mainline construction in 2015 and 2016 for approximately 36 miles of the ANGP. For the 2016 construction year, Michels began construction work on approximately May 23 and completed construction activities on December 12, 2016. During the period between June 7, 2016 and June 24, 2016 Michels did not fully implement and follow the requirements of ANGP Project Specification 130000 titled "Minimum Requirements for Transmission Pipeline Construction Paralleling Overhead Electric Lines." This was noted by the Department of Public Service ("DPS") inspectors who were onsite during this time period while the ANGP was in progress. The purpose of Specification 130000 is to manage induced voltage generated by electric transmission lines on above ground steel pipe. The DPS asked VGS to address this issue on June 17, 2016. On August 6, 2016, the DPS initiated a notice of probable violation on the matter, noting that once informed, VGS promptly engaged in remedial actions toward achieving compliance. After review and further discussion with DPS, VGS and the DPS entered into an MOU, approved by the Public Utility Commission on December 8, 2016, to close out this event.

TIMELINE AND OBSERVATIONS

Events leading up to period of incident:

- Specification 130000 was made part of the ANGP document package during the RFP process and made available to all bidders.
- Michels was the successful bidder, was awarded the construction contract for 2015 & 2016 ANGP construction, and was aware of all project specifications set forth in the construction contract, including Specification 130000.
- Specification 130000 is intended to reduce the risk of induced voltage while constructing a transmission pipeline where electric safety risk may exist from overhead electric transmission lines.

- In March 2016, in preparation for the upcoming construction season, the VGS project manager sent an e-mail to Michels' General Manager noting Specification 130000 and the need to follow it during the upcoming construction season.
- Despite the contract specifications and follow up notice, Michels did not fully comply with Specification 130000.

Sequence of events and observations on days of incident:

- Between the period of June 7, 2016 and June 24, 2016, DPS inspectors noted during field visits that Michels employees were not fully complying with Specification 130000 and on June 17, 2016 notified the VGS construction management team.

Post Incident Immediate Actions:

- June 17, 2016, VGS immediately met with Michels construction management and electric safety teams to discuss their compliance with Specification 130000.
- June 18, 2016, VGS met with the Michels person in charge of electric safety to discuss compliance with specification 130000.
- Michels brought in additional personnel from their electric construction division and from a third-party contractor to assist the Michels team in meeting the requirements of Specification 130000.
- DPS acknowledged that after it informed VGS of the violations, VGS promptly engaged in remedial action to address the issue including bringing in additional expert resources to monitor throughout construction.
- The DPS also noted that this did not result in any injury to employees, contractors, or members of the public.

FINDINGS AND ROOT CAUSE

Contributing Factors:

- Specification 130000 is an important requirement to ensure safety within an electric transmission corridor. While it was properly included in the contract documents and pre-construction season communication from VGS to Michels, the specification itself was subject to more than one interpretation as written. The procedure called for "paralleling" overhead electric transmission lines, however the specification did not further define "paralleling," and different parties interpreted it in different ways, including:
    1) Paralleling anywhere within Velco ROW
    2) Paralleling anywhere within or abutting Velco ROW
    3) Paralleling no matter the distance to an electric transmission corridor

  The ambiguity of the terminology resulted in differences in opinion on where the procedure should be followed along the ANGP route.
- Until notified by the DPS, neither VGS nor Michels recognized the different interpretations for Specification 130000 that had been employed.
- Michels indicated that it had utilized its expertise gained with equipment and processes used on other projects elsewhere in the country to address induced

voltage safety, even though those were not found to be in compliance with Specification 130000.

Root Cause:

- Michels was not clear on terminology for Specification 130000 as set forth in this contract, and was not fully prepared to implement and follow Specification 130000 as written.
- VGS was not aware of this until notified by DPS and did not have a substantive walk through of the Specification 130000 compliance plan prior to that notification.

Root Cause Summary:

- While VGS notified its Contractor at the start of the applicable construction season of the Specification 130000 requirement, VGS and Michels did not come to a mutual understanding of how it would be implemented until after this event. Contractors should be prepared with knowledge of the required specifications, and applicable material, tools, and trained personnel to perform the work outlined for a given project. While Michels was fully aware of the existence of Specification 130000 and the need to follow it during construction, Michels did not do so during the time in question because VGS and Michels did not walk through what Specification 130000 in the ANGP contract required to identify any differing interpretations or lack of understanding.

CORRECTIVE ACTION

VGS worked with the DPS and Michels to determine a unified interpretation of Specification 130000. VGS requested Michels hire an additional resource to oversee the implementation of Specification 130000, and asked that it be vetted by ARK Engineering, the engineering firm that designed the cathotic protection and A/C mitigation systems on ANGP. The credentials of the person were shared with the DPS, which acknowledged that the individual was qualified to fulfill the duties under Specification 130000.

VGS and the DPS met weekly throughout the remainder of ANGP to discuss progress and continued compliance with Specification 130000.

On November 9, 2016, the DPS and VGS entered into a memorandum of understanding regarding the violation of Specification 130000 which outlining the following facts:

- The violation period was from June 7, 2016 to June 24, 2016.
- VGS acknowledged the violation and paid a fine.
- DPS acknowledged that after it informed VGS of the violations, VGS promptly engaged in remedial action aimed at achieving compliance with Specification 130000.
- VGS and DPS acknowledged that the violation did not result in any injuries to any employee, contractor or member to the public, and there was no risk to the general public outside of the construction right of way.

As part of the Memorandum of Understanding, VGS agreed to undertake several items. The items and their current status are shown below.

Incorporating VELCO's electrical safety onboarding training in VGS' onboarding process	Completed
VGS to hold annual induced voltage training for both new employees working on ANGP and returning contractors working on ANGP	Completed
VGS to develop an induced voltage procedure for the companies O&M manual	Completed
VGS to revise Specification 130000 to clarify its requirements	Completed
VGS to designate a point person for DPS and VGS correspondence	Completed
VGS to review its existing and future specifications for clarity,	Completed

CONCLUSION

Michels did not adequately follow VGS' procedure 130000 for the reasons stated above. No injuries or threat to the public occurred. This failure was identified early and remedied promptly. VGS acknowledged the violation and implemented corrective actions. The corrective actions were effective, as no other violations were noted during the remainder of the 2016 construction season.

SECTION 130000 - MINIMUM REQUIREMENTS FOR PIPELINE CONSTRUCTION PARALLELING OVERHEAD ELECTRIC LINES

PART 1 – GENERAL

1.1 MINIMUM REQUIREMENTS FOR PIPELINE CONSTRUCTION PARALLELING OVERHEAD ELECTRIC LINES

A. VELCO requirements shall be maintained at all times. In the event of a conflict between this specification and VELCO requirements, VELCO shall govern.

B. This construction specification applies to pipeline construction that parallels overhead high voltage electric transmission lines and represents minimum requirements only.

C. The purpose of this specification is to cover the procedures and construction techniques which must be used during the construction period to reduce potentials on the pipe and construction equipment to a level less than 15 volts Root Mean Square (RMS) measured between the structure and ground with approved equipment. This is measured using a digital voltmeter.

D. This specification is not all inclusive and is intended to inform the installer of the potential hazards which may be associated with pipeline construction in the vicinity of induced voltage, fault current, and contact to high voltage electric transmission lines and structures.

E. The Contractor should review the project and initiate additional requirements deemed necessary to ensure the safety of persons and property affected thereby. The Contractor shall furnish any special materials required to comply with this section. Consult with the Electrical Transmission & Distribution Utility for specific applications and requirements.

1.2 REFERENCES

A. National Electric Code (NEC)

B. Occupational Safety and Health Administration (OSHA)

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 STEEL PIPE INSTALLATIONS PARALLELING HIGH VOLTAGE ELECTRIC LINES

A. When exposed metallic piping is installed parallel to overhead A.C. electric lines, the pipe is subject to induced voltages and currents that are the result of electromagnetic, electrostatic and resistive coupling.

B. Without proper grounding or AC mitigation, induced voltages and currents may cause pipe coating damage as well as damage to cathodic protection and electronic monitoring equipment.

C. Induced voltages and current can be hazardous to personnel working on the pipeline during the construction period when long sections of pipe are exposed above ground and insulated from ground on non-metallic skids. Lightning and faults on the transmission line can be especially dangerous.

3.2 ELECTRICAL SAFETY

A. The contractor will furnish a responsible person that can understand and follow the Technical Specifications and Electrical Safety required for the specific project. The responsible person for electrical safety must be approved by the Owner. This person is responsible for overseeing and delegating the tasks required by this specification**.**

1. The person in charge of electrical safety shall:

a. Assure that all electrical safety requirements and devices are fully understood by all members of the construction forces.

b. Be fully aware of proper grounding procedures and with the dangers associated with electromagnetic and electrostatic couplings, resistive coupling, ground fault current discharge, lightning, etc.

c. Know the proper OSHA and NEC safeguards for the construction equipment being used related to the Owner's "limit of approach" regulations to the specific overhead transmission circuits that will be paralleled.

d. Have the necessary instrumentation, equipment and authority to implement and maintain safe working conditions.

e. Assure all safety devices and practices are properly employed during all periods of construction activity in the proximity of electric overhead transmission systems. This includes the choice of the appropriate rubber gloves for the situation.

f. Communicate at least daily with the dispatcher controlling the involved electric lines to ascertain any scheduled changes in loading, outages and switching operations and to notify of work on their Right-of-Way.

g. Have stop work authority if conditions warrant the work as unsafe**.**

B. The Contractor shall adhere to all safety requirements of the electric utilities. This includes, but is not limited to, the following: training, safety certifications, daily reporting, and other applicable documentation as determined necessary by the electric utility.

3.3 EQUIPMENT SAFETY

A. Each piece of equipment utilized to handle pipe in any way such as unloading, picking up, transporting, bending or setting-in shall be grounded and shall be equipped with a cable assembly capable of grounding the sections of pipe to the piece of equipment handling that pipe.

B. Before any section of pipe is picked up or moved in any way, the ground shall be completed between the section of pipe and the equipment moving that pipe. "Setting-In" booms shall be equipped with ground cable and the ground must be maintained at least until the stringer bead is completed. The ground connection on cranes shall be also made to the upper rotating structure supporting the boom.

C. Pipe shall be unloaded from stringing trucks by a side boom/excavator equipped with grounding cable as described above. A ground shall be completed between all sections of pipe to be unloaded and the side boom/excavator before the unloading cables, slings, or vacuum lift are attached to the pipe.

3.4 GROUNDING

A. Each continuous segment of pipeline being worked on should be grounded to at least two separate points. This grounding should consist of one of the following alternatives:

B. Grounding should be established by driving one or more 1/2" minimum diameter ground rods placed in proximity to the pipe to at least a four-foot depth and connecting these ground rods to each other and the pipeline with a #2 A.W.G. coated stranded copper cable. Suitable connectors should be utilized to connect the #2 A.W.G. cable to the individual ground rods and to the pipeline. No ground connections should be removed without the knowledge and concurrence of the person responsible for electric safety.

C. Should sub-surface conditions prohibit the driving of ground rods, temporary grounding can be established with one or more ground rods, conduits of aluminum foil installed horizontally and covered with a minimum 4 inches of dirt. The segment of the pipeline being worked on should be bonded to the temporary grounding. This bond should consist of an insulated #2 A.W.G. jumper cable. The grounding cable should first be securely attached to the pipeline and then attached to the temporary ground. Removal should be in reverse order.

D. It is of the utmost importance that the person making or breaking the connection at the ground rod connection not "bridge the gap" between the ground rod and bond clamp.

E. When installing or removing a grounding or bonding facility, personnel shall wear the class of rubber insulating gloves selected by the person responsible for electrical safety. The following procedures for making and breaking grounding connections shall be strictly adhered to:

1. Using Jumper Cable with End Clamps

a. Making grounding connections

1) Establish temporary grounds (ground rods, bare casings, other appropriate ground).

2) Using jumper cable with end clamps, connect one end clamp to the pipeline while using rubber gloves.

3) Using rubber gloves, connect the other end clamp to the temporary ground.

b. Disconnecting grounding connections

1) Using rubber gloves, disconnect the clamp attached to the temporary ground.

2) While using rubber gloves, disconnect the clamp connected to the pipeline.

2. Using Clamp Around the Pipe and Jumper Cable with End Clamps

a. Making ground connections

1) Establish temporary ground (ground rods, bare casing, other appropriate ground).

2) Using rubber gloves, connect grounding clamp around the pipe.

3) While using rubber gloves, connect one end of the grounding cable to the grounding clamp around pipe.

4) Using rubber gloves, connect the other end of the grounding cable to the temporary ground.

b. Disconnecting grounding connections

1) Using rubber gloves, disconnect the grounding cable from the temporary ground.

2) Using rubber gloves, disconnect the grounding clamp around the pipe.

3) While using rubber gloves, disconnect the grounding cable from the grounding clamp around the pipe.

4) Proper work procedures related to electrical safety shall be established for all construction activities associated with this project.

F. The person in charge of electrical safety or a person delegated by this person shall check the integrity of each connection by measuring the resistance from a near point on the copper cable to the ground rod or pipeline steel using a suitable Ohm Meter. A good electrical connection will have a resistance of 0.1 Ohm or less.

G. Pipe shall be hauled to the right-of-way and stored in stacks of ten sections or less. Stacks must maintain minimum separation of 10 feet from one another. Each section of pipe in the stack shall be grounded with a 1/2" min. diameter ground rod driven into the ground at least four (4) feet. All sections in one stack shall be grounded together. This ground shall be maintained until each individual section of pipe has been removed from the stack.

H. When grounding sections of pipe, the ground rod shall be driven and the grounding cable connected to the pipeline first. The grounding cable shall then be connected to the pipe ground rod. Cables used for temporary grounding attachments shall have good mechanical strength as well as high conductivity. The cable shall be single conductor #2 A.W.G. stranded copper, cable or equivalent. Cable attachments to temporary grounding systems shall be made by a method that assures good electrical contact while applying firm pressure to the pipe metal. If magnets are used as an attachment method, they must be attached to a flat, bare steel surface.

This method of attachment should have a current carrying capacity of at least 200 amperes. When removing grounding cable, the cable shall be removed from the pipe or equipment first and then from the ground rod.

I. All grounding attachments and removals shall be made by or under the direct supervision of the person responsible for electrical safety.

J. Temporary ground connections should be made by electrically connecting the pipeline to each casing. Prior to the installation of the cathodic protection test leads, a bond should be installed using an insulated #2 A.W.G. jumper cable with suitable clamps. Connection shall be made first to the pipeline and then to the casing. Removal of bond shall be made on reverse order.

K. If electrolytic grounding cells are to be installed between the pipe and casing as part of the final installation, the bonds shall not be removed until the grounding cells are installed.

L. Before any casing-pipeline temporary bond is removed, the person in charge of electrical safety shall determine that all permanent test wire connections to the pipeline and casing are intact. This shall be done by measuring the potential of the wire to a close copper-sulfate reference electrode using a suitable high resistance volt-meter. A wire connection with good metallic contact will show a potential of from 0.3 to 0.7 volt. A broken or disconnected wire connection will show a potential of 0.2 volt or less.

M. Insulating joints shall be installed with a bond cable shorting out the insulating material. This bond cable shall remain in place until the insulating joint has been welded into the pipeline and a grounding cell has been connected across the insulating flange. The grounding cell with test station must be in service and the bond cable removed before the insulating joint is buried.

1. Each person coming in contact with the pipeline during construction should do so only when:

a. Using rubber-insulating gloves. The person in charge of electrical safety should be in charge of insuring that all rubber-insulating gloves are kept in good insulating condition by following accepted test procedures. All gloves that are damaged (punctured, ripped, torn, etc.) shall be immediately replaced.

b. Standing on a grounding mat that is electrically connected to the pipeline at two separate locations. The grounding mat could consist of a copper weld wire mesh of #8 A.W.G. wire with a 4" x 4" mesh spacing. The mat should be electrically connected to the pipeline through a minimum #2 A.W.G. insulated jumper cables thermo welded to the mat and connected to the pipe using suitable clamps.

N. Temporary gradient control mats shall extend a minimum of 1 meter in all directions outside the work area. There shall be no contact between persons over the gradient mat and those not over the mat, including the handing over of tools, instruments or other materials.

1. Regardless of the approach selected, it is always advisable to handle the pipe (whenever possible) by the coated area of the pipe.

O. All piping at tie-ins shall be bonded across the gap. All piping at cut-outs shall be bonded across before the cut-out is started. Prior to installing the cable bond at tie-ins and prior to removing the cable bond across cut-outs, each side shall be properly grounded.

P. Whenever a section of pipe must be lifted free of the earth on a web sling or equivalent for transport, the pipe steel so lifted should be electrically connected to a metallic portion of the side boom/excavator doing the lifting and transporting.

Q. A grounding strap or chain shall be attached to each rubber tired vehicle with a secure electrical connection to provide a ground contact for the vehicle during both mobile and stationary operations. The vehicle strap/chain should have constant unobstructed contact with the ground when the vehicle comes to a stop within 200 feet from the centerline of high voltage electrical conductors. If terrain prevents this, an additional strap is recommended to be mounted to the vehicle at a different location.

R. If steel chain is used for the grounding connection, it shall be of a minimum 1/4" size. If a strap is used for the grounding connection, it must be approved by the Owner before utilization.

S. All bonding connections shall be made to driven ground rods as described above. Bonding connections shall not be made between the pipeline and the electric transmission line ground. Such a connection can result in high pipeline potentials during power line faults with current flow through the pipeline that could damage the steel as well as the coating.

T. The pipeline shall not be bonded or grounded to foreign structures without permission of the Owner of the foreign structure. If permission is not granted, the foreign structure shall be electrically isolated from the pipeline under construction.

U. Workers shall avoid at all times making simultaneous contact to a grounded and ungrounded structure.

V. Other grounding materials and suppliers can be used subject to approval by Owner. Examples of other cable jumpers that could be used are:

1. Cable jumpers using 50 lb. minimum pull magnet for connection to pipe, heavy equipment, fuel trucks and general use.

2. Standard welding or battery jumper clamps with well-insulated handles, and teeth to bite into the metal.

W. All grounding attachments and removals should be made by or under the direct supervision of the person in charge of electrical safety.

3.5 VOLTAGE MEASUREMENT

A. The voltage to ground measurement on exposed pipe that has been strung on the pipeline right of way on, under or adjacent to overhead high-voltage electric transmission lines should be measured for voltage before any handling of the exposed pipe. Voltage readings should be taken and recorded periodically (minimum twice a day) in active work areas between the pipe and a clean steel pin drivin into the ground surface.

B. If the A-C voltage exceeds 15 volts above ground, supplementary grounds must be used to reduce this voltage to less than 15 volts. In the event that measured A-C voltage above ground exceeds 15 volts, the person in charge of electrical safety shall issue appropriate warnings and all work on the pipe string shall be suspended until potential is reduced to less than 15 volts.

C. These grounds shall be maintained at all times. A record of a periodic measurement of induced voltage shall be obtained and the record of these readings maintained. The bonding entities shall be as widely separated as is possible. As the "still-above ground" portion of the construction advances, bonds should be kept close to the construction end. This may only be done by installation of a third or higher number bond near the "construction end" before removing a bond near the completed end.

3.6 VEHICLES

A. Rubber tired equipment parked for any appreciable time on a power line right-of-way can obtain a significant static charge. Vehicles should be parked no closer than 200 feet from the centerline of high voltage overhead conductors.

B. Refueling of any motor vehicles or construction equipment shall not be permitted within 300 feet of any electric overhead transmission facility unless right-of-way conditions are such that this distance is unobtainable, and the electric utility approves. If the 100 yards 300 feet minimum cannot be complied with, the maximum distance possible shall be obtained, then each fuel truck shall be grounded and shall be equipped with a cable assembly capable of completing an electrical bond between the truck and any piece of equipment to be fueled. This bond must be made each and every time the refueling takes place within 300 feet of any electric overhead transmission facility prior to any part of refueling operation. This bond shall not be removed until all refueling operations are completed. Care should be taken where the cable attachments are made so that good electrical continuity is established. No fueling operations shall be carried out within 50 feet of the power transmission line.

C. At all times during construction, care must be exercised to assure that booms, cables and other equipment are no closer than 25 feet (or greater if stated in OSHA requirements or by the electrical utility) from overhead power lines. Height of conductors above ground shall never be taken for granted but should be investigated in each case. Where operator of equipment is unable to personally assess that minimum distance is maintained, a second person shall be designated to guide the operator. Consideration must also be given to the possibilities of broken cables whip lashing close to power lines. It is recommended that each piece of equipment be positioned so that, should this occur, the cable would not come closer than 25 feet to a power line.

3.7 WEATHER LIMITATIONS

A. All construction work shall be suspended in the area of overhead high voltage power lines during any potential lightning activity.

3.8 WARNING SIGNS

A. The Contractor should post adequate signs warning of possible electrical hazards at each access to the right-of-way and any other measures required to prevent public access to temporary grounding installations.

B. Warning signs shall be posted on all cranes and other hoisting equipment at locations that will always be in plain view of the operator. Said signs shall state: "Danger, do not operate any part of this equipment within 25 feet of the High-Voltage Lines." Similar warning signs shall be posted on various parts of the equipment.

END OF SECTION

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 8814

Notice of Probable Violations re Construction of the)
Addison Natural Gas Project)

MEMORANDUM OF UNDERSTANDING BETWEEN THE VERMONT DEPARTMENT OF PUBLIC SERVICE AND VERMONT GAS SYSTEMS, INC.

This Memorandum of Understanding (this "MOU") dated as of November 9, 2016 sets forth the agreement of the Vermont Department of Public Service (the "Department") and Vermont Gas Systems, Inc. ("Vermont Gas") (collectively, the "Parties") regarding the above-captioned proceeding.

Introduction

1. Whereas the purpose of this MOU is to resolve the Notice of Probable Violations ("NOPV") relating to the Addison Natural Gas Project ("ANGP") issued by the Department on August 8, 2016.
2. Whereas Vermont Gas and the Department have engaged in extensive communications about the issues raised in the NOPV.
3. Whereas Vermont Gas and the Department desire that the ANGP be constructed and brought into service consistent with the plans approved by the Board.
4. Whereas Vermont Gas and the Department are committed to construction of the ANGP in a manner that provides a safe environment for employees, contractors and members of the public.

Agreement

1. With regard to alleged violation no. 1, Vermont Gas agrees that its mainline contractor, Michels, failed to fully comply with Section 130000 during June 7 through June 24, 2016.
2. The Department acknowledges that after it informed Vermont Gas of the violations, Vermont Gas promptly engaged in remedial action towards achieving compliance with Section 130000.
3. The Department acknowledges that the violation did not result in any injuries to any employee, contractor or member of the public, and there was no risk to the general public outside of the construction right of way.
4. With regard to alleged violation no. 2, the Department acknowledges that Vermont Gas responded within one business day to the Department's June 24, 2016 request for information.
5. Although the Department desired more information than provided by Vermont Gas, the Department agrees that Vermont Gas's response complied with the minimum requirements of Board Rule 6.102(B).
6. Vermont Gas agrees to pay a civil penalty of $95,000.
7. In addition to the remedial measures Vermont Gas has already implemented, including revisions to Section 130000 and Vermont Gas's use of VELCO's electrical safety onboarding for its employees and contractors working on the Project, Vermont Gas agrees to the following:
    a. Vermont Gas will adopt VELCO's electrical safety onboarding training and incorporate it into Vermont Gas's existing onboarding for new employees and all

new and returning contractors who will perform Operator Qualification tasks within Vermont Gas's transmission right of way or work within VGS's Operations department.

b. Vermont Gas will hold annual induced voltage training for its employees who perform Operator Qualification tasks within Vermont Gas's transmission right of way or work within VGS's Operations Department.

c. Vermont Gas will develop an induced voltage procedure for its O&M manual within 30 days of the entry of a Board Order approving this MOU.

d. Vermont Gas will revise Section 130000 and include in the induced voltage procedure of its O&M manual, a process for identifying sections of Vermont Gas's transmission right of way subject to the induced voltage procedure based on where electrical safety risks may exist while working in close proximity to electric transmission lines, within 30 days of the entry of a Board Order approving this MOU.

e. Vermont Gas will designate a point-of-contact for requests by the Department for information pursuant to Board Rule 6.102(B). Vermont Gas will make a good faith effort to respond to the Department's information requests in a manner that is responsive and complete.

f. Vermont Gas will ensure all of its existing and future written procedures and specifications are:

    i. feasible, effective for the task to be performed, and are able to be logically followed, prior to performing any future tasks under the respective procedures and specifications; and

ii. followed when performing tasks under the respective procedures and specifications.

8. Subject to approval by the Board, the Department and Vermont Gas agree that this MOU fully resolves the NOPV received by Vermont Gas on August 8, 2016 and any related potential violations that may have continued up to and including the date of this MOU.

Final Terms and Conditions

1. This MOU shall become effective upon the issuance of approval by the Board in the manner contemplated herein.
2. The Parties agree that this MOU relates only to these Parties and should not be construed by any party or tribunal as having precedential or any other impact on future proceedings involving the Parties, except as necessary to implement this MOU. The Parties reserve the right in future proceedings not referenced herein to advocate positions that differ from those set forth in this MOU, except as necessary to implement the Parties' rights and obligations under this MOU.
3. The Parties have made specific compromises to reach the agreements reflected in this MOU.
4. Except as otherwise provided for herein, the Parties agree that this MOU shall be effective, and shall bind the Parties hereto, only if the Board issues an order in this docket containing terms consistent with this MOU in all respects.
5. The Parties agree that should the Board reject or fail to approve the MOU in its entirety, the Parties' agreements set forth herein shall terminate if so requested by either Party, in which case Vermont Gas shall have the right to file a response to the NOPV. The

deadline for such response shall be 30 days after the Board's issuance of an order relating to adoption or rejection of the MOU.

6. The Department will support issuance of the orders and findings of the Board subject to the Department's obligations under Title 30 of the Vermont Statutes Annotated.
7. This MOU is governed by Vermont law and any disputes under this MOU shall be decided by the Board.

STATE OF VERMONT
DEPARTMENT OF PUBLIC SERVICE

By: Louise C. Porter
Louise C. Porter, Special Counsel

Dated: November 9, 2016 at Montpelier, Vermont

VERMONT GAS SYSTEMS, INC.

By: _____
John St. Hilaire
Vice President of Operations

Dated: November 9, 2016 at South Burlington, Vermont