



HORIZONTAL DIRECTIONAL DRILL (HDD) & GUIDED AUGER BORE (GAB)

PROJECT HISTORY REPORT

1. Poway, California – GAB – 130' of 16" – San Diego Gas & Electric
Completed January 2022
2. Arlington, Washington – HDD – 2,800' of 6" – Cascade Natural Gas
Completed December 2021
3. Junction City, Oregon – HDD – 1,270' of 12" – Kinder Morgan
Completed December 2021
4. Brentwood, California – HDD – 2,036' of 24" – Pacific Gas and Electric
Completed November 2021
5. Merced, California – GAB – 85' of 6" – Pacific Gas and Electric
Completed October 2021
6. Eureka, California – GAB – 260' of 4" – Pacific Gas and Electric
Completed July 2021
7. Fresno, California – GAB – 200' of 18" – Kinder Morgan
Completed July 2021
8. Chowchilla, California – GAB – 227' of 12" – Pacific Gas and Electric
Completed April 2021
9. Patterson, California – HDD – 7,215' of 24" – Pacific Gas and Electric
Completed February 2021
10. Bakersfield, California – GAB – 240' of 12" – Pacific Gas and Electric
Completed February 2021
11. Bakersfield, California – GAB – 280' of 12" – Pacific Gas and Electric
Completed January 2021
12. Reedsport, Oregon - HDD - 4,340' of 5.5" - Zayo Group
Completed December 2020
13. Florence, Oregon - HDD - 2,005' of 5.5" - Zayo Group
Completed December 2020
14. Clackamas, Oregon - HDD - 1,400' of 12" - NW Natural
Completed October 2020
15. Kelso, Washington - HDD - 800' of 4" - Cascade Natural Gas
Completed October 2020
16. Kalama, Washington - HDD - 2,400' of 4" - Cascade Natural Gas
Completed October 2020
17. Sandy, Oregon - HDD - 10,500' of 8" - Multiple Bores (14 Total) - NW Natural
Completed September 2020
18. Hillsboro, Oregon - HDD - 1,400' of 8" - NW Natural
Completed September 2020

19. Ukiah, California - HDD - 800' of 8" - Pacific Gas and Electric
Completed August 2020
20. Chandler, Oklahoma - HDD - 3,750' of 24" - Plains All American
Completed July 2020
21. Lodi, California - HDD - 1,011' of 4" - Pacific Gas and Electric
Completed July 2020
22. Chino, California - HDD - 1,600' of 36" - So Cal Gas
Completed April 2020
23. Santa Margarita, California - HDD - 620' & 700' of 10" - So Cal Gas
Completed April 2020
24. Santa Margarita, California - GAB - 160' of 16" - So Cal Gas
Completed April 2020
25. Bakersfield, California - HDD - 200' of 12" - So Cal Gas
Completed February 2020
26. California - HDD - Beach Approach - Approximately 4,000'
Completed January 2020
27. San Luis Obispo, California - GAB - 40' of 10" - So Cal Gas
Completed January 2020
28. Fort Lupton, Colorado - HDD - Multiple Bores (15 total) Ranging From 444' to 1,185' of 4"
Completed December 2019
29. Enumclaw, Washington - HDD - 1,525' of 6" - City of Enumclaw
Completed December 2019
30. Salinas, California – HDD – 1,206' of 12" – Pacific Gas and Electric
Completed October 2019
31. Pueblo, Colorado – HDD – 1,332' of 4" – Xcel Energy
Completed October 2019
32. American Canyon, California – GAB – 160' & 350' of 24" – Pacific Gas and Electric
Completed August 2019
33. Santa Margarita, California – HDD – 1,391' of 16" – So Cal Gas
Completed August 2019
34. Wasco, California – HDD – 1,848' & 2,661' of 8" - California Rail Builders
Completed August 2019
35. Willows, California – GAB – 130' of 4" – Pacific Gas and Electric
Completed June 2019
36. Hawaii – HDD – Beach Approach (6 total) – Ranging from 3,000' to 6,500'
June 2018 - May 2019

37. Victorville, California – HDD – 1,234' & 1,365' of 10" - Pacific Gas and Electric
Completed February 2019
38. California – HDD – Beach Approach – 4,000'
Completed February 2019
39. Fremont, California – HDD – 4,800' of 36" - Pacific Gas and Electric
Completed December 2018
40. Brighton, Colorado – HDD – 880' of 8" – Xcel Energy
Completed November 2018
41. Aurora, Colorado – HDD – 1,100' of 20" – Xcel Energy
Completed October 2018
42. Thornton, California – HDD – 3,000' of 24" – Pacific Gas and Electric
Completed October 2018
43. Thornton, California – GAB – 1,455' of 24" – Pacific Gas and Electric
Completed October 2018
44. San Mateo, California – HDD – 2,400' of 24" - Pacific Gas and Electric
Completed August 2018
45. San Mateo, California – HDD – 1,800' & 2,900' of 16" - Verizon
Completed August 2018
46. Puerto Rico – HDD – Beach Approach – 2,500'
Completed August 2018
47. Oregon – HDD – Beach Approach (2 total) – 5,500'
Completed July 2018
48. Burnsville-Black Dog, Minnesota – GAB – 150' of 16" – Xcel Energy
Completed March 2018
49. Barstow-Kramer Junction, California – GAB – 130' of 34" – Pacific Gas and Electric
Completed February 2018
50. Pueblo West, Colorado – HDD – 2,400' of 6" – Xcel Energy
Completed January 2018
51. Camas, Washington – HDD – 605' of 6" – NW Natural
Completed November 2017
52. Tracy, California – GAB – 150' of 20 – 380' of 36" – Shell
Completed October 2017
53. La Grande, Oregon – HDD – 1,300' of 6" – Avista Utilities
Completed September 2017
54. Tacoma, Washington – HDD – 13,000' of 16" – Puget Sound Energy
Completed September 2017

55. Turlock, California – HDD – 800' of 12" – Pacific Gas and Electric
Completed September 2017
56. Sacramento, California – HDD – 2,450' of 30" – Pacific Gas and Electric
Completed August 2017
57. Richland-Kennewick, Washington – HDD – 3,790' of 6" – Cascade Natural Gas
Completed – August 2017
58. The Dalles, Oregon – HDD – 677' of 6" – NW Natural Gas
Completed April 2017
59. Buttonwillow, California – HDD – 305' of 12" – SoCal Gas
Completed January 2017
60. Knappa, Oregon – HDD – 1,065' of 10" – NW Natural
Completed October 2016
61. Sonoma, California – HDD – 800' of 6" – Pacific Gas and Electric
Completed September 2016
62. Lemoore, California – HDD – 5,740' of 16" – SoCal Gas
Completed 2016
63. Lemoore, California – GAB – 116' of 16" – SoCal Gas
Completed 2016
64. Bakersfield, California – GAB – 1,054' of 12" – SoCal Gas
Completed 2016
65. Santa Clarita, California – HDD – 1900' of 14" – Plains Pipeline
Completed February 2016 – Various Sandstone Layers
66. Castaic, California – HDD – 2,148' of 14" – Plains Pipeline
Completed February 2016 – Various Sandstone Layers
67. Larkspur, California – HDD – 700' of 30" HDPE – City of Larkspur
Completed September 2015 - Fat Clay
68. Elk Grove, California – HDD – 3600' of 24" – Pacific Gas and Electric
Completed January 2015 - Soft\Fat Clay
69. Elk Grove, California – HDD – 2300' of 24" – Pacific Gas and Electric
Completed December 2014 - Soft\Fat Clay
70. Vacaville, California – HDD – 1708' of 42" – Pacific Gas and Electric
Completed November 2014 – Fat Clay under Wetland with Intersect
71. Roseville, California – HDD – 3300' of 16" – Pacific Gas and Electric
Completed September of 2014
72. Roseville, California – HDD – 3600' of 16" – Pacific Gas and Electric
Completed October of 2014

73. Albany, Oregon – HDD – 3200' of 30" HDPE – City of Albany
October 2012 – Solid Rock under Willamette and Calapooia River
74. Corvallis\Monmouth, Oregon – HDD – 1200',3400',4200',5200' of 12" – NW Natural Gas
Completed May 2012 - Fat Clay under City of Monmouth
75. Sunnyvale, California – HDD – 950' of 24" – Pacific Gas and Electric
Completed July 2012 Fat Clay – Bay Mud
76. Sunnyvale, California – HDD – 2800' of 24" – Pacific Gas and Electric
Completed August 2012 – Fat Clay – Bay Mud
77. Monmouth, Oregon – HDD – 4300' of 12" – NW Natural Gas
Completed April 2012 – Fat Clay under Environmentally Sensitive Farmland
78. Fresno, California – HDD – 2000' of 24" – Pacific Gas and Electric
Completed November 2012
79. Medford, Oregon – HDD – 2800' 12" – Avista Utilities
Completed November 2010 – Sandstone Intersect under Larson Creek
80. Grants Pass, Oregon – HDD – 3000' 6" HDPE – Avista Utilities
Completed November 2010 – Sandstone\Cobble under the Rogue River
81. Cranberry Township, Pennsylvania – HDD
3000' of 12" – Charles Machine Works / Ditch Witch
Completed February 2012 – Fractured Rock
82. Avon, Colorado 2800' of 16" – HDD – Xcel Energy
Completed December 2011 – Cemented Cobble – Emergency Bore