

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE)
APPLICATION OF DAKOTA) HP14-002
ACCESS, LLC FOR AN ENERGY)
FACILITY PERMIT TO CONSTRUCT)
THE DAKOTA ACCESS PIPELINE)
PROJECT)

DIRECT TESTIMONY OF

JOHN H. EDWARDS “JACK”

ON BEHALF OF

DAKOTA ACCESS, LLC

DAKOTA ACCESS EXHIBIT 5

July 6, 2015

1 **Q. Please state your name and business address for the record.**

2 A. John H. Edwards “Jack”, 4401 S. Technology Dr., South Suite, Sioux Falls, South
3 Dakota, 57106

4 **Q. Can you briefly describe your education and experience?**

5 A. I graduated High School, with college engineering courses. I have over 35 years of work
6 experience in the pipeline industry and held positions in both operations/maintenance and new
7 pipeline and facility construction. Some of the positions I held are Construction Manager, on
8 maintenance and new pipeline construction projects and Project Manager, on new pipeline
9 projects.

10 **Q. Which sections of the application are you responsible for?**

11 A. I am responsible for construction related sections of the application including sections:
12 19. Local Land Use Controls; 22. Time Schedule; 23.5. Forecast of Impact on Transportation;
13 24. Employment Estimates; 25. Future Additions and Modifications;

14 **Q. Can you briefly describe construction of the pipeline facilities?**

15 A. Construction of the new pipeline will require a typical construction ROW width of 125
16 feet in uplands, 100 feet in non-forested wetlands, 85 feet in forested areas (wetlands and
17 uplands), and up to 150 feet in agricultural areas. Following construction, a 50-foot wide
18 permanent easement will be retained along the pipeline. There will be one full Pipeline Spread in
19 South Dakota and two partial Spreads. Each pipeline construction Spread will have
20 approximately 900 personnel including sub-contractors and approximately 100 Inspection staff
21 which includes Right of Way representatives and administration staff. The typical pipeline
22 construction sequence is: (i) Survey and staking of workspace; (ii) Clearing and Grading,
23 construction crews will clear trees, install temporary bridges to cross small water bodies, and

24 install temporary gates in existing fences; (iii) Right of Way grading, workspace will be leveled
25 to make a safe work area, top soils will be separated as per DAPL Agricultural Impact Mitigation
26 Plan; (iv) Stringing of pipe, pipe is trucked from the pipe storage yards and laid adjacent to
27 pipeline ditch area; (v) Bending of pipe, using a bending machine pipe is bent so pipe can be
28 installed at different elevation as required; (vi) Welding, pipe is welded into long sections; (vii)
29 Non Destructive Examination (NDE), all welds are inspected to ensure their integrity; (viii)
30 Trenching, pipe ditch is dug to required depth; (ix) Pipe Lowering, pipe is lowered into ditch in
31 long sections; (x) Backfill, pipe ditch is backfilled; (xi) Rough Grade, the remaining subsoil and
32 top soils are placed over workspace; (xii) Hydro Testing, pipe sections will be filled with water
33 and pressure test to 1.25 times maximum operating pressure (MOP); (xiii) Final Clean-up, (xiv)
34 Full Restoration, workspace is leveled to preconstruction condition, grasses planted, fences
35 repaired, pipeline warning signs placed along easement.

36 **Q. What is the construction and operating timeline?**

37 A. Dakota Access anticipates starting construction within South Dakota in 2015 as soon as
38 applicable permits and approvals have been issued. Commissioning of the facilities should occur
39 in August 2016 for in-service in October 2016. Restoration activities will continue as necessary
40 to ensure proper restoration of the disturbed areas.

41 **Q. Can you describe the typical drawings included in Exhibit B?**

42 A. DAPL filed five Typical Right of Way Configurations for construction of the pipeline.
43 During construction of the pipeline, the contractor will prepare work space following these
44 Typical Right of Way Configurations. Each typical is designed to ensure topsoil is protected
45 from mixing with subsoil.

46 Those five typical are as follows:

47 1. Agricultural-Full top Soil Segregation w/ Drain Tiles (P12-54-SD) illustrates
48 topsoil to be stripped and segregated for the entire width of work space, 125 feet wide, with an
49 additional 25 feet for top soil storage. Also, illustrates pipeline being installed with 2 feet
50 separation from drain tiles. Depth of topsoil segregation is maximum 18 inches or minimum
51 actual depth.

52 2. Upland Construction Full Top Soil Segregation (P12-55-SD) illustrates top soil to
53 be stripped and segregated for the entire width of work space, 125 feet wide, with an additional
54 25 feet for top soil storage. Topsoil could be stored on either side of the workspace. Depth of
55 topsoil segregation is maximum 18 inches or minimum actual depth.

56 3. Upland Construction Ditch Line Only Soil Segregation (P12-56-SD) illustrates
57 topsoil segregation ditch line and ditch spoils storage, 125 feet wide work area. Depth of top soil
58 segregation is maximum 18 inches or minimum actual depth.

59 4. Emergent Non-Saturated Wetlands and Heavily Forested Lands (P12-57-SD),
60 illustrates topsoil to be stripped and segregated for ditch line and ditch spoil storage area, 100
61 feet work wide. Depth of topsoil segregation is maximum 18 inches or minimum actual depth.

62 5. Forested and Scrub Shrub Saturated Wetlands (P12-58_SD), illustrates topsoil to
63 be stripped and segregated for the entire width of work space, 85 feet wide of work area.
64 Although not illustrated on typical drawing, the contractor may choose to place timber mat in
65 working area instead of stripping top soil. Timber mat will allow equipment to travel work area
66 without mixing of topsoil with subsoil.

67 **Q. Are there plans for the valve sites?**

68 A. Typical Piping and Plan Elevation, 30 inch Mainline Valve Pipeline (P12-48) illustrates
69 the 50 feet by 75 feet area required for the Mainline Block Valves. Block Valve will be installed

70 aboveground and area will be fence with a 6 feet chainlink fence.

71 **Q. Are there pump station plans?**

72 A. Pump Station Site Typical, illustrates the 9 plus acres purchased in fee by DAPL, with
73 the pipeline launcher/receiver with pump station tie-in piping. Additionally, this Typical
74 illustrate basic pump station layout.

75 **Q. Please describe the additional temporary work space requirements of the pipeline?**

76 A. Where necessary, Dakota Access will utilize additional temporary workspace (ATWS)
77 outside of the construction ROW to facilitate specialized construction procedures, such as
78 horizontal directional drills (HDDs); railroad, road, wetland, waterbody, and foreign utility line
79 crossings; tie-ins with existing pipeline facilities; areas with steep side slopes; and pipeline
80 crossovers. These ATWS will be allowed to revert to pre-existing conditions following
81 construction activities, so there will be no permanent impacts on these areas.

82 **Q. Will restoration be required?**

83 A. Yes. Final restoration of pipeline easement and temporary work space shall be completed
84 once pipeline is installed. All restoration shall be completed in accordance with the Agricultural
85 Mitigation Plan, landowner and Permit requirement.

86 **Q. Where will the project store pipe and other equipment necessary for construction?**

87 A. During construction of the pipeline, the contractor will require off ROW areas for the
88 storage of pipe and equipment necessary for the construction of the Project facilities. These
89 staging/contractor yards will be located near the Project at locations with convenient and safe
90 access to the Project areas. Efforts will be made to select contractor yards that have been
91 previously disturbed by human activity but do not have an ongoing land use that will preclude
92 Project usage. These areas will also be restored to preconstruction conditions or as otherwise

93 directed by the landowner.

94 **Q. How will the project access work space to construct the pipeline?**

95 A. Dakota Access will utilize existing public and private roads to access the pipeline ROW
96 and aboveground facilities to the extent practicable. Existing roads utilized will include paved,
97 gravel, or pasture roads, and other conveyances. Some roads will require modification or
98 improvement to facilitate safe access for construction equipment and personnel. The Project
99 may require construction of new temporary and permanent roads to provide access to the new
100 pipeline both during construction and for future pipeline maintenance activities. Access roads
101 have not been thoroughly defined during this early design phase. Dakota Access will seek and
102 enter into road use agreements with all affected units of government and private landowners

103 **Q. Will the pipeline require the use of water during construction?**

104 A. Yes, there are two types of water uses required for the construction of the pipeline.
105 Water is necessary for horizontal directional drilling (HDD) and hydrostatic testing the pipeline
106 to insure the integrity.

107 Water for the HDD operation is used to mix with bentonite for drilling operation lubrication,
108 hole stability and to remove drill cuttings from the hole.

109 Water required for hydrostat testing is temporarily used. Hydrostatic testing shall be conducted
110 to verify the integrity of the newly installed pipeline, and will be conducted in accordance with
111 the requirements of PHMSA pipeline safety regulations (49 Code of Federal Regulations [CFR]
112 Part 195), Dakota Access testing specifications, and applicable permits. Dakota Access will
113 develop a hydrostatic test plan, following completion of survey and design, and in coordination
114 with the selected contractor.

115 All applicable laws, rules and permits will be followed throughout this process.

116 **Q. Will water be discharged after its use?**

117 A. Yes, water will be discharged as a result of these two types of uses. Hydrostatic testing
118 discharge water is filtered and discharged back to water sources in accordance Landowner and
119 permit requirements, utilizing applicable BMPs (SWPPP, Exhibit D to the Application) to reduce
120 the rate of water flow and prevent scouring from runoff. Based on the implementation of these
121 measures, no impacts to local hydrology are anticipated and all applicable laws, rules and
122 permits to do so will be obtained and followed.

123 **Q. How else will hydrology be affected?**

124 A. In addition, trench dewatering will occur on an intermittent basis along the Project ROW
125 dependent on site conditions and weather during the construction period. During construction,
126 open trenches may accumulate water from groundwater seepage or precipitation. Under these
127 circumstances, trench dewatering will be used to pump accumulated water from the trench, away
128 from nearby waterbodies, and into vegetated upland areas. Water pumped out of trenches will be
129 discharged in strict compliance with DAPL Agricultural Impact Mitigation Plan and Landowner
130 requirements, utilizing applicable BMPs to reduce the rate of water flow and prevent scouring
131 from runoff.

132 **Q. Will the pipeline utilize deep well injection?**

133 A. Dakota Access does not anticipate utilization of deep well injection for this Project.

134 **Q. Are any homes displaced along the project route?**

135 A. The Project does not displace any homes.

136 **Q. What effects are anticipated on surrounding land from operation or construction of
137 the pipeline?**

138 A. Permanent effects on surrounding land uses are not anticipated since the pipeline is

139 primarily a below ground structure with little land use conversion.

140 **Q. Did the project prepare an agricultural impact mitigation document?**

141 A. Yes. It was attached as Exhibit D.

142 **Q. Please describe the agricultural impact mitigation document.**

143 A. Construction activities will temporarily disturb the land uses within both the construction
144 and permanent ROW. Following construction, these areas will be re-contoured to previous
145 conditions, reseeded and/or return to previous agricultural uses. Drainage systems such as
146 roadway ditches or drainage tile crossed and disturbed by the pipeline during construction will be
147 restored in accordance with permits and landowner agreements. Dakota Access will take
148 appropriate measures to protect land uses used for livestock production (pastureland/rangeland,
149 undisturbed native prairie, row-crop agriculture) during construction. Project contractors will
150 coordinate with landowners to provide passage for livestock and will provide temporary fencing
151 and gates where required to protect livestock from construction-related hazards. Following
152 construction, fences and gates are rebuilt to original condition. Direct impacts to the public,
153 commercial, and institutional land use will be minimized through construction design measures.

154 **Q. What are the impacts to roads?**

155 A. Most roadways will be bored underneath during construction eliminating direct
156 disturbance to the roadway and vegetation. Indirect impacts include temporary road closures or
157 traffic delays during construction for equipment crossing. After construction, roadways will
158 resume normal traffic conditions in the Project ROW. Potential traffic impacts are discussed
159 further within Community Impact Section 23.1– Forecast of Impact on Community.
160 After construction, impacts to land uses along the pipeline will be negligible. Operations and
161 maintenance activities may be needed but will be isolated and infrequent. As per the negotiated

162 ROW agreements, no structures will be allowed within the permanent ROW, but overall land use
163 will be allowed to revert to pre-construction conditions.

164 **Q. What are the permanent impacts to land use?**

165 A. Permanent impacts to land use will occur at the aboveground facilities associated with the
166 Project. The frequency of aboveground facilities is low (40 MLVs, two L/Rs, and one pump
167 station with L/R) and the majority of these sites are small in size; permanent impacts to the
168 surrounding land use will be minimal (0.2 percent of the Project footprint).

169 **Q Does the project cross South Dakota Rural Water Systems?**

170 A. Yes, see the chart below.

171

South Dakota Rural Water Systems Crossed by the Project	
Name	Approximate Miles Crossed
WEB	114.5
Mid Dakota	47.0
Kingbrook	50.0
Minnehaha	25.7
Lincoln	12.3
South Lincoln	12.8
Lewis and Clark	70.1
Source: South Dakota Rural Water Systems, 2014	

172 DAPL is in negotiation with all Rural Water System to lower any waterlines effected by the
173 crude oil pipeline.

174 **Q. How does Dakota Access address local land use controls?**

175 A. DAPL will design, construct, operate, and maintain the pipeline, pump stations, and valve
176 stations in compliance with applicable zoning and county permit requirements. DAPL may
177 request variances and/or special use permits, as necessary. DAPL recognizes the existence of
178 South Dakota Codified Law (SDCL) 49-41B-28, regarding local ordinances and their application
179 to the project, and reserves the right to request the Commission to invoke its provisions during
180 the proceedings in this application should the need present itself.

181

182 Dated this _____ day of July, 2015

183

184 _____

185 Jack Edwards