STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Andeavor Field Services LLC **Case No. PU-18-072**
8" & 6" NGL Pipelines – McKenzie, Billings, Stark
Siting Application

Late-Filed Exhibit 2
Water Well Information

A hearing was held on May 14, 2018, on the application of Andeavor Field Services LLC ("Andeavor") for a Certificate of Corridor Compatibility and Route Permit for the Y-Grade Hub Pipeline Project ("Project"). During the hearing, the North Dakota Public Service Commission ("Commission") requested additional information from Andeavor regarding water wells near the Project route, as depicted in Exhibit 1, Appendix A.

For example, the Commission inquired as to how near the Project various water wells are as depicted on North Segment Siting Criteria Aerial Photography Map 2 of 5 and South Segment Siting Criteria Aerial Photography Map 4 of 6. Upon closer review of these areas, the wells depicted on the map are merely observation/monitoring wells and do not depict the existence of actual domestic water wells. Accordingly, no impacts to these areas are expected.

However, in the event domestic water wells are drilled in these areas in the future, Andeavor will implement the following integrity program measures to avoid impacts:

Prevention

- External Corrosion Control—install cathodic protection on all pipeline segments.
- Internal Corrosion Control—implement various internal corrosion mitigation programs (e.g., maintenance pigging, corrosion inhibitors, etc.) based on corrosivity of the product.
- Damage Prevention Programs—1) ensure all pipeline segments are in the state One Call system, 2) implement public awareness programs for affected public, excavators, public officials, and emergency responders, 3) monitor and maintain adequate cover on pipelines, and 4) monitor and maintain adequate line markers.
- Implement comprehensive preventative maintenance and inspection programs for pipeline equipment and facilities (e.g., valve maintenance, tank inspection, pressure relief valve inspections, etc.).
- Annually review integrity threats to pipeline, and take preventative action as needed.

Monitoring

- Cathodic Protection—implement annual monitoring (i.e., pipe-to-soil potential surveys) and close interval surveys at intervals not to exceed 5 years to ensure effectiveness of cathodic protection.
- Internal Corrosion—conduct periodic sampling of product to monitor corrosivity, and take appropriate action as needed.

- In-line inspection—run "smart" tools at maximum intervals of 5 year to evaluate integrity of pipeline.
- Implement continuous leak detection.

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