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October 5, 2020

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE, Room 1A  
Washington, D.C. 20426

Re: OEP/DG2E/Gas Branch 1  
WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000  
§ 375.308(x)

Dear Ms. Bose:

WBI Energy Transmission, Inc. (WBI Energy), herewith submits responses to the environmental information requests of the Office of Energy Projects of the Federal Energy Regulatory Commission (Commission) received on September 25, 2020 in the above referenced docket.

The filing includes the following volumes:

Volume I – contains all responses to the environmental information requests with the exception of sensitive information included in the response to Request No. 1 described below. The information contained in Volume I is public.

Volume II – General Request No. 1 Attachment to the response to Request No. 1 contains sensitive information. Pursuant to 18 CFR §388.112, and consistent with the Commission’s precedent and other applicable regulations with respect to sensitive information, WBI Energy requests privileged and confidential treatment of this information, which is labeled: “CUI//PRIV – DO NOT RELEASE.”

Pursuant to 18 CFR § 385.2010 of the Commission’s regulations, copies of responses are being served to each person whose name appears on the official service list for this proceeding.

Any questions regarding this filing should be addressed to the undersigned at (701) 530-1563.

Sincerely,

/s/ Lori Myerchin

Lori Myerchin  
Director, Regulatory Affairs and  
Transportation Services

Attachments

cc: via email  
Dawn Ramsey, FERC Environmental Project Manager  
Shannon Crosley, FERC Environmental Deputy Project Manager  
Official Service List

**CERTIFICATE OF SERVICE**

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated this 5<sup>th</sup> day of October 2020.

By /s/ Lori Myerchin  
Lori Myerchin  
Director, Regulatory Affairs and  
Transportation Services  
WBI Energy Transmission, Inc.  
1250 West Century Avenue  
Bismarck, ND 58503  
Telephone: (701) 530-1563

STATE OF NORTH DAKOTA     )  
COUNTY OF BURLEIGH     )

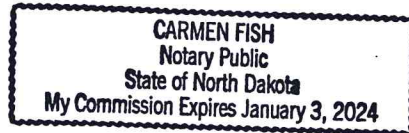
I, Lori Myerchin, being first duly sworn, do hereby depose and say that I am the Director, Regulatory Affairs and Transportation Services for WBI Energy Transmission, Inc.; that I have read the foregoing document; that I know the contents thereof; that I am authorized to execute such document; and that all such statements and matters set forth therein are true and correct to the best of my knowledge, information and belief.

Dated this 5<sup>th</sup> day of October 2020.

By *Lori Myerchin*  
Lori Myerchin  
Director, Regulatory Affairs and  
Transportation Services

Subscribed and sworn to before me this 5<sup>th</sup> day of October 2020.

*Carmen Fish*  
Carmen Fish, Notary Public  
Burleigh County, North Dakota  
My Commission Expires: 1/3/2024





**WBI ENERGY TRANSMISSION, INC.**

**North Bakken Expansion Project**

**FERC Docket No. CP20-52-000**

**RESPONSES TO THE SEPTEMBER 25, 2020  
ENVIRONMENTAL INFORMATION REQUESTS**

**October 5, 2020**

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**FEDERAL ENERGY REGULATORY COMMISSION**

**General – Request No. 1**

Provide redlined Project maps and alignment sheets that exhibit both the old and new reroutes and any changes to Project facilities for FERC’s analysis and review.

**Response:**

Based on a previous discussion with Federal Energy Regulatory Commission (FERC) staff, a detailed North Bakken Expansion Project (Project) map set showing both the old and new reroutes and any changes to Project facilities would be acceptable in lieu of providing redlined alignment sheets. A Project map set showing the Project changes that occurred between WBI Energy Transmission, Inc.’s (WBI Energy) February 14, 2020 FERC Application and its September 11, 2020 supplemental filing is included as an attachment to this filing (see General Request No. 1 Attachment). Project routes/workspaces that were revised as of the supplemental filing are shown in green and the associated original routes/workspaces that are no longer a part of the Project are shown in red. The map set also includes wetland and waterbody data, Dakota skipper reproductive habitat, and sensitive cultural stone feature sites and has been filed under separate cover as Controlled Unclassified Information/Privileged and Confidential (CUI//PRIV) in Volume II and marked as “CUI//PRIV – DO NOT RELEASE”.

**Attachment:**

General Request No. 1 Attachment – Project Map Set Depicting Alignment and Workspace Changes Between the February 14, 2020 FERC Application and September 11, 2020 Supplemental Filing (“CUI//PRIV – DO NOT RELEASE”).

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**General – Request No. 2**

The initial application filed by WBI Energy stated that the Northern Border Interconnect facilities would be on an approximately 1.0-acre parcel of land while the amended application states that the facilities would be constructed on an approximately 3.2-acre parcel of land. However, based on FERC's review of associated mapping, the footprint does not appear to have been modified. Revise alignment sheets accordingly.

**Response:**

Both the alignment sheet for the Northern Border Interconnect, included as the last page of the appendix 1B alignment sheets included in WBI Energy's September 11, 2020 supplemental filing, and the Northern Border Interconnect plot plan provided in appendix 1E of the supplemental filing show a revised 3.2-acre site for the Northern Border Interconnect facility. The map set provided in response to General Request No. 1 shows the change in workspace configuration between WBI Energy's February 14, 2020 FERC Application and the September 11, 2020 supplemental filing (see General Request No. 1 Attachment page number 27 [filed under separate cover as CUI//PRIV]).

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**General – Request No. 3**

In the supplemental filing WBI Energy filed on September 11, 2020, the terms “engineering adjustments,” “engineering concerns,” “engineering constraints,” and “engineering refinement” were used with regard to Project reroutes. Define the terms and be more specific as to the meaning.

**Response:**

The terms “engineering concerns” and “engineering constraints” were used to refer to existing conditions that would preclude construction of the pipeline or facilities in their original configuration including the presence of existing utilities. The term “engineering adjustment” was used to refer to minor changes in the pipeline route, workspace, bore designs, or access roads in response to site conditions or constructability issues (e.g., reconfiguration of pipeline route or workspace based on construction needs, access road extension to reach revised workspace). The term “engineering refinement” was used to refer to slight changes in a facility configuration based on site conditions/reconnaissance (e.g., minor change in access road width but not the access road length or path, slight shift in location of a workspace in response to site conditions).



WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 1 – Request No. 1**

Revise appendix 1J to include cumulative impacts from non-jurisdictional tap installation at the Norse Transfer Station and Northern Border Interconnect, and for the 900-foot-long Hess lateral.

**Response:**

A revised appendix 1J that includes cumulative impacts from the non-jurisdictional tap installation at the Norse Transfer Station and Northern Border Interconnect, and the 900-foot-long Hess lateral is provided as an attachment to this filing (see Resource Report 1 Request No. 1 Attachment). Changes to appendix 1J since WBI Energy's September 11, 2020 supplemental filing are highlighted in yellow.

**Attachment:**

Resource Report 1 Request No. 1 Attachment – Revised Appendix 1J, Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 1 – Request No. 2**

Based on comments from the U.S. Army Corps of Engineers (USACE), disposal of excess drilling fluid by land spreading in agricultural areas for beneficial reuse requires completion of an application for the beneficial use of inert waste to the North Dakota Department of Environmental Quality. Include this authorization, as applicable, in table 1.8-1.

**Response:**

Based on current consultations with the North Dakota Department of Environmental Quality, Division of Waste Management, the Inert Waste Beneficial Use Application (SFN 58980) is not required for the disposal of drilling fluid by land farming. We have added a row to table 1.8-1 for continued consultations with the North Dakota Department of Environmental Quality, Division of Waste Management as WBI Energy continues to plan for the disposal of the drilling fluid from the Lake Sakakawea horizontal directional drill (HDD).

**Attachment:**

Resource Report 1 Request No. 2 Attachment – Revised Table 1.8-1, Environmental Permits, Approvals, and Consultations

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 1 – Request No. 3**

Based on comments from the USACE, describe WBI Energy’s intention to use turbidity curtains during the horizontal direction drill (HDD) under Lake Sakakawea to detect and monitor for inadvertent returns. As applicable, discuss the impact that turbidity curtain use would have on recreational boat traffic.

**Response:**

Based on comments received from the USACE on the section 408 permit documents, the factor of safety for the HDD is high enough that turbidity curtains will not be required during construction, therefore no impacts on recreational boat traffic would occur. See Resource Report 1 Request No. 3 Attachment for a copy of correspondence with the USACE.

**Attachment:**

Resource Report 1 Request No. 3 Attachment – Correspondence with the USACE on Turbidity Curtains

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 3 – Request No. 1**

Given that the updated biological assessment (BA) has been marked as "draft," confirm that WBI Energy has addressed all other agencies' comments in the revised BA filed on September 11, 2020. Discuss any comments that have not been addressed (if any).

**Response:**

In agency comments received on March 31, 2020, the U.S. Forest Service (USFS) requested that WBI Energy mark the Biological Assessment as "Draft." However, all agency comments on the Biological Assessment have been addressed, including U.S. Fish and Wildlife Service comments received February 4, 2020; USFS comments received March 31, 2020; and FERC comments received January 17, March 31, and July 13, 2020.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 4 – Request No. 1**

File results from any outstanding supplemental cultural resources investigations, including archaeological and ethnographic/tribal heritage survey reports. File comments from participating agencies and tribes, as well as comments from the North Dakota State Historic Preservation Officer (SHPO).

**Response:**

**Reports by Environmental Resources Management (ERM):**

WBI Energy filed an updated Class III inventory and testing report in its September 11, 2020 supplemental filing. This report presents survey and testing results from the 2019 and 2020 field seasons and addresses agency comments on a previous draft. WBI Energy sent copies of the report to the USACE, USFS, Bureau of Land Management (BLM), State Historical Society of North Dakota (SHSND), and 13 tribes for review and comment. To date, only the BLM has provided comments on the report; WBI Energy's responses to these comments are provided in the BLM comment section of the supplemental filing. WBI Energy will file comments from the other agencies and tribes, if any, once received.

Site testing at 32WI976 and survey of minor Project changes are ongoing. WBI Energy anticipates filing an addendum Class III report describing the results of this work in November 2020. Copies of the report also will be provided to the USACE, USFS, BLM, SHSND, and 13 tribes for review and comment. WBI Energy will file comments from the agencies and tribes, if any, once received.

**Reports by Beaver Creek Archaeology (BCA):**

WBI Energy filed a Class III inventory report (prepared by BCA) for approximately 1.2 miles of the Tioga-Elkhorn Creek Pipeline in its September 11, 2020 supplemental filing. WBI Energy provided copies of the report to the USACE, USFS, BLM, SHSND, and 13 tribes for review and comment. To date, none of the agencies or tribes have commented on the report. WBI Energy will file comments from the agencies and tribes, if any, once received.

WBI Energy anticipates filing an ethnographic/cultural heritage report in November 2020. Copies of the report also will be provided to the USACE, USFS, BLM, SHSND, and 13 tribes for review and comment. WBI Energy will file comments from the agencies and tribes, if any, once received.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 4 – Request No. 2**

File previously unfiled correspondence with Native American tribes, including information on tribal participation during cultural resources investigations in 2020. Ensure that tribes requesting additional information receive it.

**Response:**

WBI Energy provided previously unfiled correspondence with Native American tribes, including information on tribal participation during cultural resources investigations, in a supplemental filing on September 28, 2020. There are no new updates at this time. WBI Energy will file copies of future correspondence with tribes when available.

WBI Energy's supplemental filing on September 11, 2020 included a summary describing tribal participation in field surveys in 2019 and 2020.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 4 – Request No. 3**

Provide previously unfiled correspondence with the SHPO and file the SHPO's concurrence on the finding of effect for the proposed Project.

**Response:**

WBI Energy provided previously unfiled correspondence with the SHSND in a supplemental filing on September 28, 2020. There are no new updates at this time. WBI Energy will file copies of future correspondence with the SHSND when available.

As noted above, comments from the SHSND on the Class III reports prepared by ERM and BCA are pending. WBI Energy will file comments from the SHSND on each report when available.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 4 – Request No. 4**

Provide previously unfiled correspondence with the Bureau of Land Management (BLM), USACE, and the U.S. Forest Service.

**Response:**

WBI Energy provided copies of all previously unfiled correspondence with the BLM, USACE, and USFS in a supplemental filing on September 28, 2020. There are no new updates at this time. WBI Energy will file copies of future correspondence with these agencies, when available.



WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 6 – Request No. 1**

Provide a revised figure 6.2-1 which depicts milepost information consistently with other application material (i.e., alignment sheets).

**Response:**

Figure 6.2-1 has been revised to depict the elevation profiles by current Project mileposting (see Resource Report 6 Request No. 1 Attachment).

**Attachment:**

Resource Report 6 Request No. 1 Attachment – Revised Figure 6.2-1, Elevation Profile

WBI Energy Transmission, Inc.  
 North Bakken Expansion Project  
 Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 6 – Request No. 2**

For non-fuel mineral resources listed in table 6.3-2 that are reported as being less than 0.1 mile from the Project area, provide the approximate distance from the Project area in feet.

**Response:**

Table 6.3-2b below provides the distances in feet for any non-fuel mineral resources located within 0.1 mile of the Project area as indicated in table 6.3-2 of WBI Energy’s September 11, 2020 supplemental filing.

REVISED TABLE 6.3-2b			
<b>North Bakken Expansion Project Non-Fuel Mineral Resources Within 0.1 Mile of the Project Area <sup>a</sup></b>			
Facility/Milepost <sup>b</sup>	Distance (feet)/ Direction from Project	Mine Type	Mine Status <sup>c</sup>
<b>PIPELINE FACILITIES</b>			
<b>Tioga-Elkhorn Creek</b>			
19.1	220/South	Quality Coal Company Mine	Abandoned Subsurface
38.5	312/East	Scoria Pit	Inactive
38.6	200/East	Mine Shaft or Drift/Scoria Pit	Inactive
38.6	350/West <sup>d</sup>	Skogheim Coal Mine	Abandoned Surface
39.5	390/East	Gravel Pit	Inactive
39.7	290/North	Gravel Pit	Inactive
<b>ABOVEGROUND FACILITIES</b>			
<b>Elkhorn Creek Compressor Station</b>			
NA	0.0	Scoria Pit	Inactive
<sup>a</sup>	Sourced from USGS, 2019b; ESRI, 2019; North Dakota Department of Transportation, 2019; NDPSC, 2019		
<sup>b</sup>	Mileposts are inserted as approximate reference points.		
<sup>c</sup>	Mine status was determined based on observations of the mine sites using available aerial photography.		
<sup>d</sup>	The NDPSC maps the Skogheim Coal Mine feature about 350 feet west of the Project; however, a pond feature was identified in available imagery about 930 feet east of the pipeline route and may have been associated with the mine.		

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 6 – Request No. 3**

WBI Energy states that there are no active coal or salt mining operations “in the vicinity of” the Project. Confirm that there are no active, inactive, abandoned, or proposed surface or subsurface coal or salt mines within 0.25 mile of any Project area or identify any such features.

**Response:**

Based on review of available aerial imagery, U.S. Geological Survey (USGS) topographic maps and Mineral Resources Data System (MRDS), and mines mapped by the North Dakota Department of Transportation and North Dakota Public Services Commission (NDPSC), the active, inactive, abandoned, or prospective non-fuel mineral resources located within 0.25 mile of the Project are included in table 6.3-2 (Non-Fuel Mineral Resources Within 0.5 Mile of the Project Area) of WBI Energy’s September 11, 2020 supplemental filing. As reported in table 6.3-2, there are three abandoned surface coal mines (Wold Coal Mine, Skogheim Coal Mine, and John Gustafson Mine) and one abandoned subsurface coal mine (Quality Coal Company Mine) within 0.5 mile of the Project. There are no active or inactive coal mines within 0.5 mile of the Project.

Based on publicly available information from the NDPSC, no formal notices for proposed coal mines have been filed in counties that the Project will cross as of the date of this submittal. In addition, based on review of the USGS MRDS, no active, inactive, abandoned, or proposed salt mines are located within 0.25 mile of the Project area.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 6 – Request No. 4**

Based on an absence of reported information about the composition of the product, an absence of reported information on the ecotoxicity of the product, or reported ecotoxicity information that indicates that the product could be hazardous to aquatic or non-aquatic organisms in the event of a spill or inadvertent return, for the proposed drilling fluid additives Torqmaster and Torq Breaker, provide additional information on product composition and ecotoxicity; remove the product from the intended list of drilling fluid additives; or clarify in detail why the use of the product is necessary and could not be substituted for a different product.

**Response:**

Torqmaster and Torq Breaker have been removed from the list of potential drilling fluid additives included in Appendix 1F-8, Revised Horizontal Directorial Drill/Guided Bore Drilling Fluid Monitoring and Operational Plan in WBI Energy's supplemental filing on September 11, 2020 (see attachment Resource Report 6 No. 4 Attachment – Drilling Additives / LCMs For Approval).

**Attachment(s):**

Resource Report 6 Request No. 4 Attachment – Drilling Additives / LCMs For Approval

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 6 – Request No. 5**

WBI Energy’s HDD Design Report notes that drilling fluids may be contaminated downhole due to the presence of coal seams and that “facility disposal should be expected.” Explicitly state how WBI Energy would identify, temporarily store, and dispose of contaminated drilling fluid at the Lake Sakakawea HDD.

**Response:**

The HDD Design Report prepared by CCI & Associates, Inc. (Attachment B to Appendix 1F-8 provided with WBI Energy’s September 11, 2020 supplemental filing) references additional plans that will be developed prior to construction that inform site-specific procedures related to storage and management of drilling fluid (or drilling mud) during the HDD. These plans include a Lake Sakakawea crossing-specific *Engineered Drilling Fluid Plan* and a *Water Management and Drilling Fluid Disposal Plan*. Per the HDD Design Report, the HDD contractor will plan to provide sufficient on-site storage to contain the anticipated volume of drilling fluid and implement an adequate drilling fluid recycling setup, as operations allow, to minimize the total generated volume of drilling fluid that will need to be disposed.

As indicated in the HDD Design Report, drilling fluid may become contaminated due to contact with subsurface coal seams present at depth along the bore path. Coal is a solid and will be separated from the fluid portion of the drilling mud as part of the mud recycling process outlined in the Michels Directional Crossings (Michels) *Horizontal Directional Drilling Installation Plan Attachment - Drilling Fluid Recycling Mud Cleaning Equipment* (included as part of Attachment A to Appendix 1F-8 provided with WBI Energy’s September 11, 2020 supplemental filing).

In the event it is determined that coal is an unacceptable contaminant for land-farming/beneficial reuse, WBI Energy inspectors, with the aid of Michels personnel, will identify when coal appears in the cuttings as solid drilling waste. When coal is identified in the solids, it will be trucked to a state-approved disposal facility instead of being disposed of via land farming/beneficial reuse. An example of such a facility in the Project area is the Indian Hills Disposal, Inc. facility located in Williston, North Dakota.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Resource Report 10 – Request No. 1**

Section 10.6.2 indicates that “The pipeline would have to be extended from its current interconnect with Northern Border at Spring Creek to the Elkhorn Creek Compressor Station” for the minor reroute alternative of replacing an existing pipeline that extends east of Watford City and ties into Northern Border. Provide the length of additional pipe required for this extension.

**Response:**

The existing North Badlands sub-system/Northern Border interconnect is located about 3.0 miles northwest of the proposed Elkhorn Creek Compressor Station along Northern Border’s pipeline, which would require the construction, at a minimum, of an additional 3.0 miles of pipeline extension from the existing interconnect to the Elkhorn Creek Compressor Station.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**U.S. BUREAU OF LAND MANAGEMENT (BLM)**

**Cultural Resources Survey Reports – Request No. 1**

The minimum avoidance distance for stone feature sites recommended by the BLM is 100 feet.

**Response:**

WBI Energy adopted a 50-foot buffer as a minimum standard for avoiding sites recommended as eligible for listing in the National Register of Historic Places (NRHP) or sites where the NRHP eligibility is undetermined (such as prehistoric stone feature sites). WBI Energy believes this standard, along with its commitment to fence off and monitor certain sites, will ensure that prehistoric stone feature sites are adequately protected during Project construction. As of this filing, all of the prehistoric stone feature sites identified along the current Project routes (as described in the updated Class III survey and testing report provided with WBI Energy's September 11, 2020 supplemental filing) have been avoided with a minimum buffer of 50 feet (as measured from the site boundary to the nearest construction workspace for the Project).

WBI Energy additionally notes the following:

- Under an interagency agreement, FERC is the lead agency for compliance with the National Historic Preservation Act on projects subject to its jurisdiction. For the North Bakken Expansion Project, the BLM's role is to coordinate National Environmental Policy Act review by the affected federal land managing agencies and issue the right-of-grant for crossings of federal lands along the proposed Tioga-Elkhorn Creek pipeline route.
- The Project does not cross BLM-managed lands. The only federal lands that will be affected by the Project are administered by the USACE (in the Garrison District) and the USFS (in the Missouri National Grassland). To date, neither the USACE nor the USFS have requested a 100-foot buffer for avoiding stone feature sites.
- The State Historical Society of North Dakota (SHSND) has consistently recommended a 50-foot buffer for avoiding NRHP-eligible and unevaluated sites. The SHSND has advised WBI Energy that it generally can concur with a finding of no effect for such sites with a buffer of 50 feet and a commitment to fence and monitor the site(s) during construction. See the following previously filed communications from/with the SHSND:
  - Call log from March 3, 2020 (filed on April 20, 2020);
  - Call log from March 19, 2020 (filed on April 20, 2020);
  - Letter dated April 15, 2020 (commenting on a previous draft of the Class III inventory report) (filed on July 8, 2020);
  - Meeting minutes from April 28, 2020 (filed on July 8, 2020);
  - Email from June 3, 2020 (concurring with the Class III Archaeological Inventory Report: Response to Comments, Select Site Avoidance Plans, and Site Testing Plans) (filed on July 8, 2020);

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

- Meeting minutes from August 14, 2020 (filed on September 28, 2020); and
- Call log from August 26, 2020 (filed on September 28, 2020).
- In an interagency teleconference on May 14, 2020, WBI Energy provided an update on its efforts to avoid prehistoric stone feature sites with a 50-foot buffer. Representatives of the FERC, BLM, USFS, USACE, SHSND, Beaver Creek Archaeology, and ERM participated in the call. ERM noted that most of the stone feature sites identified in 2019 had been avoided with a 50-foot buffer through a combination of route changes or workspace modifications and reiterated WBI Energy's commitment to avoid a majority of, if not all, stone feature sites with a minimum 50-foot buffer. None of the agencies on the call objected to the 50-foot buffer. WBI Energy filed meeting minutes from the call with FERC on June 16, 2020.
- The survey methodologies used to document and delineate sites were approved by the SHSND, USACE, and USFS. Tribal cultural specialists representing five tribes monitored ERM's site delineations (for sites documented in 2020) or revisited sites to review findings with ERM archaeologists (for sites previously documented in 2019 and earlier in 2020). In many cases, site boundaries were adjusted based on input from the tribal cultural specialists.
- When delineating sites, ERM added a buffer (generally a minimum of 5 meters) around the perimeter of identified surface features to define boundaries. Therefore, the distance between any given surface feature and the nearest Project workspace is 5 meters (or greater) than the distance between the site boundary and the nearest workspace.
- Approximately 47 percent of the combined length of the proposed pipeline routes is collocated with existing linear corridors (pipelines, utilities, or roads). In other areas, there are existing pipelines, well pads, or other developments in the vicinity of sites, as noted in ERM's updated Class III inventory and testing report.
- On USFS lands, it is not reasonably feasible to avoid all sites with a 100-foot buffer given the density of sites (as documented in the updated Class III inventory and testing report) and other constraints present in the area, including Dakota skipper habitat, a deeply incised tributary to Tobacco Garden Creek, and other ongoing and planned projects, such as the Gunslinger Federal and Gladstone Oil and Gas Wells and associated facilities (are described in WBI Energy's cumulative impacts analysis in Resource Report 1). ERM surveyed multiple corridors across USFS lands (in one spot measuring up to 400 meters wide) in an effort to find a viable route that avoids unevaluated archaeological sites with a minimum 50 -foot buffer and avoids or resolves issues associated with other routing constraints. The current proposed route meets these objectives.
- USFS staff participated in virtual route review calls and on-site field meetings with WBI Energy to identify a route for the Tioga-Elkhorn Creek pipeline. These calls and meetings reviewed the constraints associated the existing and planned development within the utility corridor associated with the Gunslinger Federal and Gladstone Oil and Gas Wells, Dakota skipper habitat, and sensitive stone feature sites.



WBI Energy Transmission, Inc.  
 North Bakken Expansion Project  
 Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

- In addition to the minimum 50-foot buffer, WBI Energy has committed to fencing and monitoring unevaluated sites located between 50 and 100 feet from the Project workspace in accordance with a monitoring plan to be developed for the Project.

Focusing specifically on federal lands, ERM identified or revisited 2 and 23 sites on USACE- and USFS-managed lands, respectively. Of these 25 sites, 1 unevaluated site (32WI976) is crossed by the proposed pipeline and 7 unevaluated sites are located between 50 and 100 feet of Project workspace. Table 1 below provides summary information on these sites. The remaining 17 sites on federal lands are either recommended not eligible for listing in the NRHP or located 100 feet or more from Project workspace. All of the sites identified or revisited on federal lands are described in the updated Class III inventory report.

TABLE 1					
<b>North Bakken Expansion Project</b>					
<b>Unevaluated Sites Crossed By or Within 100 Feet of Project Workspace</b>					
Site No.	Description	Distance from Site Boundary to Workspace (feet)	Distance from Nearest Feature to Workspace (feet)	Management Recommendations	Effect Assessment
32WI976	Prehistoric lithic scatter	N/A (crossed)	N/A (crossed)	TBD <sup>a</sup>	TBD <sup>a</sup>
32MZ3314	Prehistoric stone feature	51	74	Fence and monitor	No effect
32MZ3321	Historic homestead and a possible prehistoric stone feature	87	210	Fence and monitor	No effect
32MZ3322	Prehistoric stone features and lithic scatter / historic stone features and artifact scatter	58	88	Fence and monitor	No effect
32MZ3380	Prehistoric stone features	79	116	Fence and monitor	No effect
32MZ3383	Prehistoric stone features	51	90	Fence and monitor	No effect
32MZ3387	Prehistoric stone features	50	72	Fence and monitor	No effect
32MZ3389	Prehistoric stone features	88	110	Fence and monitor	No effect
<sup>a</sup>	Testing at this site is ongoing.				

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Cultural Resources Survey Reports – Request No. 2**

Provide locations for shovel tests performed within areas marked on the map as “pedestrian w/judgmental.”

**Response:**

ERM will revise the map set provided as Appendix B of the updated Class III report to depict locations of shovel tests excavated within areas marked on the map as “pedestrian w/ judgmental.” The revised map set will be included with a final version of the report pending receipt of comments from other agencies and tribes.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Cultural Resources Survey Reports – Request No. 3**

Provide a monitoring plan.

**Response:**

WBI Energy and its consultants acknowledge that a monitoring plan (including fencing plans for applicable sites) is required for the Project. WBI Energy anticipates filing its monitoring plan in conjunction with the addendum Class III report in November 2020. The plan also will be provided to the USACE, USFS, BLM, SHSND, and 13 tribes for review and comment. WBI Energy will file comments on the plan from the agencies and tribes, if any, once received.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Cultural Resources Survey Reports – Request No. 4**

In the footnote on page 553, an “off the record” discussion is described. Unless permission from the person(s) was obtained, that should not have been included in formal documentation.

**Response:**

This comment is in response to footnote 19 in the description of site 32MZ3383 provided in ERM’s updated Class III inventory and testing report, which WBI Energy filed on September 11, 2020. Some of the tribal cultural specialists participating in fieldwork objected to the documentation of features interpreted as archaeological by ERM at this site, instead concluding that the features are non-cultural. This resulted in comments from several Tribal Historic Preservation Officers (THPO), including requests for on-site meetings at this and other nearby sites to review features. ERM felt it was important to note in the report that not all of the tribal cultural specialists opposed the recordation of the features at site 32MZ3383, which was done in the footnote. The applicable tribal cultural specialists who concurred with the interpretation of the features as archaeological were not identified in the footnote.

Site visits to site 32MZ3383 were held on September 11, 2020 (with the THPO from the Assiniboine and Sioux Tribes) and September 17, 2020 (with the THPO from the Standing Rock Sioux Tribe and an archaeologist from the Rosebud Sioux Tribe) to review the features. Notes from these meetings were filed with FERC on September 28, 2020.

WBI Energy Transmission, Inc.  
North Bakken Expansion Project  
Docket No. CP20-52-000

Responses to Environmental Information Request on September 25, 2020

**Cultural Resources Survey Reports – Request No. 5**

Provide the basis for the identification of the Hartville Uplift and Sentinel Bluff lithic material types.

**Response:**

“Sentinel Bluff” should be “Sentinel Butte”. Identification of the Hartville Uplift and Sentinel Butte lithic material types were based on descriptions provided in Huckell et al. (2011), Murphy (2014), and Taylor (2006).

**References:**

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Murphy, E. 2014. Knife River Flint and Other Siliceous Rocks in Western North Dakota. Department of Mineral Resources. Available at: <https://www.semanticscholar.org/paper/Knife-River-Flint-and-Other-Siliceous-Rocks-in-Murphy/f91d762b5c2eed1602736efb6c5cc4b2a81f9b87?p2df>

Taylor, Jeb. 2006. *Projectile points of the High Plains: New Perspectives on Typology Based on Examinations of Original Type Site Specimens*. J. Taylor Artifacts.

**ENVIRONMENTAL INFORMATION REQUEST RESPONSE ATTACHMENTS**

**General Request No. 1 Attachment**

**Project Map Set Depicting Alignment and Workspace Changes Between the February 14, 2020  
FERC Application and September 11, 2020 Supplemental Filing**

**(Filed under separate cover as Controlled Unclassified Information/Privileged)**

**“CUI//PRIV – DO NOT RELEASE”**

**Resource Report 1 Request No. 1 Attachment**

**Revised Appendix 1J, Past, Present, and Reasonably Foreseeable Future Projects Evaluated for  
Potential Cumulative Impacts with the North Bakken Expansion Project**



APPENDIX 1J

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Montana-Dakota Utilities Transmission Line	Energy	Montana-Dakota Utilities is seeking to purchase a 50-foot-wide strip of land from Stenehjem Holdings for the purpose of constructing an overhead electric transmission line in or near Watford City.	Early permitting phases	Unknown	Unknown	Williams	4	0	WW, VG, WF, TE, SO, LU, VS	(Watford City Planning and Zoning Commission, 2015)
Aurora Wind Electric Transmission Line	Energy	The Aurora Wind electric transmission line is an approximately 20-mile-long 345-kilovolt aboveground transmission line. It would extend from the proposed Aurora Wind Project substation in Williams County to the existing Basin Electric Power Cooperative Tande Substation located in Mountrail County.	Under construction	3Q 2019	4Q 2020	Mountrail, Williams	0	<1	WW, VG, WF, TE, CR, GS, N-con, N-op, SO, LU, RS, VS	(Burns & McDonnell, 2018a; Aurora Wind Project, LLC, 2020)
Aurora Wind Project	Energy	The Aurora Wind Project is a proposed wind energy development that would generate up to 300 megawatts of electricity at rated capacity. It would include construction of up to 121 wind turbines located on a 48,000-acre site approximately 5 miles northwest of Tioga.	Under construction	3Q 2019	4Q 2020	Williams, Mountrail	5 [4 - Weflen Staging Yard]	0	N-op, SO, LU, VS	(Burns & McDonnell, 2018b; Aurora Wind Project, LLC, 2020)

APPENDIX 1J (cont'd)

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Demicks Lake Plant II	Energy	ONEOK is constructing the Demicks Lake Plant II, a 200-million cubic feet per day natural gas processing facility northeast of Watford City and about 14 miles east of the proposed Tioga-Elkhorn Creek pipeline MP 45.	Completed	3Q 2019	1Q 2020	McKenzie	14	0	AQ-op, SO	(ONEOK, 2019)
Nesson Gathering Gas Plant (LU-0036-19)	Energy	Nesson Gathering Inc. proposes to construct a natural gas gathering plant on 76 acres and located in the SE/4 of section 35, T154N R102W.	Permit obtained	Unknown	Unknown	Williams	33 [17 - Springbrook Plant Receipt Station]	0	AQ-op, SO	(Williams County Planning and Zoning Commission, 2019b)
Nesson Gathering Gas Plant (LU-0001-19)	Energy	Nesson Gathering Inc. proposes to construct a natural gas gathering plant on a 158 acre property, located NE/4 of Section 1, T153N R104W.	Permit obtained	Unknown	Unknown	Williams	40 [26 - Springbrook Plant Receipt Station]	0	AQ-op, SO	(Williams County Planning and Zoning Commission, 2019b)
Natural Gas Plant Expansion (LU-0191-18)	Energy	An existing gas plant located about 5 miles south-southwest of Tioga will expand to include additional laydown space. The property is 73 acres and located in NW/4 of Section 4.	Permit obtained	Unknown	Unknown	Williams	Under 1	0	WW, VG, SO	(Williams County Planning and Zoning Commission, 2019c)

APPENDIX 1J (cont'd)

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Kinder Morgan Roosevelt Gas Plant Expansion	Energy	The expansion would increase the capacity to process 150 million cubic feet per day; located about 7 miles south of Watford City and about 10 miles west of proposed project MP 37.	Approved by ND PSC 4Q 2018	Unknown	Unknown	McKenzie	27 [25 - Springbrook Plant Receipt Station]	0	WW, AQ-op, SO	(Hiland Partners, 2018a)
Arrow Bear Den Gas Processing Plant II	Energy	McKenzie Arrow Field Services, LLC proposes to construct the Arrow Bear Den Gas Processing Plant II, a 200mcf capacity processing plant. The proposed site is within 1 mile of MP 59 of the proposed Tioga-Elkhorn Creek pipeline.	Completed	1Q 2018	3Q 2019	McKenzie	Under 1	0	AQ-op, SO, LU, RS, VS	(Arrow Field Services, LLC, 2017, 2020)
Robinson Lake Gas Plant	Energy	The Robinson Lake Gas Plant Expansion is located 32 miles west of the proposed Tioga-Elkhorn Creek pipeline MP 30. This proposal is to increase the capacity of the existing plant from 97.5 to 110 million standard cubic feet per day.	Unknown	Unknown	Unknown	McKenzie	32 [16 - Robinson Lake Plant Receipt Station]	0	AQ-op, SO	(Whiting Oil and Gas Corporation, 2013 and PSC, 2019)
Demicks Lake - Cherry Creek Pipeline Project	Energy	WBI Energy's Demicks Lake - Cherry Creek Pipeline Project will carry gas from ONEOK Rockies Midstream LLC's Demicks Lake gas processing plant near Keene, North Dakota,	Completed	1Q 2019	3Q 2019	McKenzie	0	2	WW, VG, WF, TE, CR, SO, LU	(WBI Energy Transmission, Inc., 2018)

APPENDIX 1J (cont'd)

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Wild Basin to Sax Valve Looped Pipeline	Energy	to an interconnect with Northern Border Pipeline Co.'s mainline outside of Watford City, North Dakota. The proposed Tioga-Elkhorn Creek pipeline would cross the 12.2 mile pipeline near MP 47. WBI Energy's Wild Basin to Sax Valve Looped Pipeline consists of approximately 2 miles of 20-inch-diameter natural gas pipeline in McKenzie County, North Dakota. Project falls under WBI Energy's Blanket Authorization.	Completed	4Q 2019	1Q 2020	McKenzie	Under 1	0	WW, VG, WF, TE, CR, GS, SO, LU, VS	(WBI Energy Transmission, Inc., 2019)
Bakken Pipeline LLC	Energy	The ONEOK Bakken Pipeline Project is a 10.8-mile, 12-inch-diameter steel natural gas liquids pipeline that would originate at the Targa Badlands, LLC. Little Missouri Gas Processing Plant and terminate at an interconnection with ONEOK's Demicks Lake Plant. The Project would be located in McKenzie County, and is approximately 2 miles west of the proposed Tioga-	Completed	2Q 2019	4Q 2019	McKenzie, Richland	2	0	WW, VG, WF, TE, CR, GS, AR-con, N-con, SO	(ONEOK Bakken Pipeline, LLC, 2019a, 2019b)

APPENDIX 1J (cont'd)

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Bakken Missouri River Crossing Project	Energy	Elkhorn Creek pipeline MP 60. Kinder Morgan's Bakken Missouri River Crossing Project plans to connect the existing Kinder Morgan Brogger compressor station located in Williams County, North Dakota, to a Kinder Morgan natural gas gathering system located in McKenzie County, North Dakota. The project will include the installation of approximately 10 miles of 20-inch diameter pipeline between the Brogger compressor station and Kinder Morgan natural gas gathering system.	Unknown	2Q 2019	Unknown	Williams	7	0	SO	(Hiland Partners, 2018b)
Gunslinger Federal and Gladstone Oil and Gas Well Pads	Energy	The Gunslinger Federal well pad would have 10 wells and be operated by Slawson. The Gladstone well pad would have seven wells and be operated by Burlington. The proposed project also includes construction of a new access road and corridor for associated oil and gas equipment and utilities. The well pads would be constructed on the Little Missouri National	Decision Notice and Finding of No Significant Impacts received	Under Construction	Unknown	McKenzie	0	<1	WW, VG, WF, CR, LU	(U.S. Forest Service, 2019)

APPENDIX 1J (cont'd)

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Other Oil and Gas Well Developments (various)	Energy	Grasslands (LMNG), which are part of the Dakota Prairie Grasslands (DPG) managed by the USFS in the Tobacco Gardens Area of McKenzie County, North Dakota. Various oil and gas developments including well pads, directional drill (horizontal) wells, and access roads are planned throughout McKenzie county.	Analysis and document preparation	Unknown	Unknown	McKenzie	3 to 25	0	WW, VG, AQ-con, SO	(U.S. Bureau of Land Management, 2019)
Hess Non-jurisdictional Pipeline Lateral	Energy	Approximately 900 feet of 20-inch-diameter pipeline lateral from the existing Hess plant in Tioga, across 68th Street NW, to WBI Energy's proposed Tioga Plant Receipt Station.	Under Development	Spring/Summer 2021	November 2021	Williams	0	<1	AQ-con, GS; N-con, VG	N/A
North Bakken Expansion Project Customer Tie-In Facilities	Energy	Customer tie-in facilities at the proposed transfer/receipt/delivery stations that are part of the proposed North Bakken Expansion Project.	Under Development	2020-2021	2021	Various	0	Unknown	WW, VG, WF, CR, LU	N/A
Lower Sundhagen Scoria Mine Reclamation	Energy	Reclamation of scoria (clinker) pits in Williams County would require backfill of 6,300 cubic yards of soil and revegetation of 3 acres.	Decision and Appeal	Unknown	Unknown	Williams	4	0	N/A	(U.S. Bureau of Land Management, 2016)

APPENDIX 1J (cont'd)

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Williston Basin International Airport	Commercial	The Williston Basin International Airport will have 2 runways and 110,000 square foot terminal building and will be located about 10 miles NW of Williston.	Completed	2018	4Q 2019	Williams	32 [12 - Springbrook Plant Receipt Station]	0	AQ-op, N-op, SO	(KLJ, 2015)
Cenex Pipeline	Energy	Cenex Pipeline, LLC plans to construct a 10" refined fuels pipeline from Sidney, Montana, to Minot, North Dakota, to replace a portion of an existing 8-inch pipeline system, while adding throughput capacity. The proposed route is in the early permitting phase and would intersect the proposed Tioga-Elkhorn Creek pipeline near MP 10.	Under construction	2019	2020	Williams, Mountrail	0	<1	WW, VG, WF, CR, GS, N-con, SO, LU, RS, VS	(KLJ, 2017)
Norse Transfer Station non-jurisdictional third-party utility tap	Utilities (Non Energy)	A tap will be installed to connect the existing third-party utilities to the WBI Energy's proposed Norse Transfer Station	Under development	Summer/Fall 2021	November 2021	Burke	0	<1	GS, LU, VG, WF, N-con	N/A

APPENDIX 1J (cont'd)

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Northern Border Interconnect non-jurisdictional third-party utility tap	Utilities (Non Energy)	A tap will be installed to connect the existing third-party utilities to WBI Energy's proposed Northern Border Interconnect	Under development	Summer/Fall 2021	November 2021	McKenzie	0	<1	GS, LU, VG WF, N-con	N/A
Water transmission line in Watford City	Utilities (Non Energy)	A proposed water transmission line in Watford City pipeline would furnish water to "The Crossings at Watford City" and to support the oil industry.	Early permitting phases	Unknown	Unknown	McKenzie	1	0	WW, VG, WF, TE, CR, GS, AR-con, N-con, SO	(Watford City Planning and Zoning Commission, 2019)
Western Area Water Supply Project	Utilities (Non Energy)	The Western Area Water Supply Project (WAWSP) was developed to supply drinking water from the Missouri River supplemented with groundwater from the R&T Water Supply Commerce Authority (WSCA) to meet the municipal, rural, and industrial water needs for all or parts of McKenzie, Williams, Divide, Burke, and Mountrail Counties. Two of the development areas, East White Earth and System I Spring Creek, intersect the proposed Tioga-Elkhorn Creek pipeline near MP 61.9.	Under construction	Under construction	Unknown	Mountrail, McKenzie	0	Unknown – Exact locations of projects are not known, only the development areas	WW, VG, WF, TE, CR, GS, AR-con, N-con, SO, LU	(Western Area Water Supply Authority, 2019)



APPENDIX 1J (cont'd)

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Route 9 Reconstruction	Transportation	USACE has issued a permit for reconstruction of Route 9 approximately 6 miles east of the proposed Tioga-Elkhorn Creek pipeline MP 6.	Permit issued by USACE 4Q 2018	Unknown	Unknown	Mountrail	6	0	WW, TE	(U.S. Army Corps of Engineers, 2018)
DOT Road Improvements - Red Mike Area to County Road 42	Transportation	Improvements are planned along ND 1804 from Red Mike Area to CR 42 (Epping Road). Improvements include increasing structural capacity, widening the shoulders, improving the road surface and installing a stop light.	Unknown	2020	2020	Williams	2	0	WW, VG, AQ-op, SO, VS	(North Dakota Department of Transportation, 2019a)
US 85 – I-94 to Watford City Bypass	Transportation	The U.S. Highway 85 Project encompasses approximately 62 miles of roadway in Stark, Billings, and McKenzie counties, North Dakota. The project begins at the Interstate 94 (I-94) interchange and extends north to the Watford City Bypass (McKenzie County Road 30). The proposed action is to expand this segment of U.S. Highway 85 from a two-lane highway to a four-lane highway. The north end of the improvements are approximately 3 miles west of the south end of	Record of Decision 2Q 2019	2019	2020	McKenzie	3	0	WW, VG, WF, TE, AQ-op, SO, VS	(North Dakota Department of Transportation, 2019b)

APPENDIX 1J (cont'd)

**North Bakken Expansion Project  
Past, Present, and Reasonably Foreseeable Future Projects Evaluated for Potential Cumulative Impacts with the North Bakken Expansion Project <sup>a,b</sup>**

Project Name	Category	Project Description	Status	Construction Commences	Operation Commences	County(ies)	Distance from Pipeline [or Other Project Facility if Closer] (miles)	Approximate Acres of Overlap	Resources with Potential for Cumulative Impacts	Citation
Pine Ridge Development	Residential	the proposed Tioga-Elkhorn pipeline. The Pine Ridge Development would include curbs, gutters, paved streets, and the addition of single-family homes and additional duplexes and a four-plex in Tioga.	Unknown	Unknown	2019	Williams	Under 1	0	WW, VG, WF, TE, CR, GS, N-con, SO, VS	(Landgrid, 2016)
Homestead at Watford City First Addition	Residential	Homestead at Watford City First Addition is a development of six single family homes in Watford City.	Unknown	Unknown	Unknown	McKenzie	4	0	VG, SO	(Homestead at Watford City, 2015)
Aspen Heights Condominiums	Residential	Aspen Heights Condominiums would include 48 new apartment units at 1000 South Pheasant Ridge Street.	Early permitting phases	Unknown	Unknown	McKenzie	4	0	VG, SO	(Orange Property Management, 2019)
Elementary School	Government	McKenzie County School District is proposes to build a new elementary school in Watford City, in the Fox Hills Village Subdivision.	Rezoning process	Unknown	Unknown	McKenzie	3	0	WW, VG, CR, GS, N-con, VS	(McKenzie County, 2019)

AQ-con = air quality (construction); AQ-op = air quality (operations); CR = cultural resources; GS = geology and soils; LU = land use; N/A = Not available; N-con = noise (construction); N-op = noise (operation); RS = recreation and special interest areas; SO = socioeconomic; TE = threatened and endangered species; VG = vegetation; VS = visual resources; WF = wildlife, fish; WW = wetlands, water resources

<sup>a</sup> The impacts of past actions are expressed as the baseline environmental conditions and are not included in this table, although recent past actions that continue to contribute to discernable impacts on a resource are included.

<sup>b</sup> A description of the geographic and temporal scope of the analysis for each resource is provided tables 1.10-1 and 1.10-2 of Resource Report 1.

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**Resource Report 1 Request No. 2 Attachment**

**Revised Table 1.8-1, Environmental Permits, Approvals, and Consultations**

TABLE 1.8-1

**North Bakken Expansion Project  
Environmental Permits, Approvals, and Consultations**

Agency	Permit/Approval/Consultation	Anticipated Submittal Date	Anticipated Approval Date
<b>Federal</b>			
FERC	Certificate under Section 7(c) of the Natural Gas Act	February 2020	February/March 2021
U.S. Army Corps of Engineers – Omaha District	Issuance of a Section 404 permit for discharges of dredged or fill material into waters of the United States, including jurisdictional wetlands	Initial 408 and 404 Applications submitted February 2020	February/March 2021
and			
U.S. Army Corps of Engineers – Garrison Project Office	Issuance of a Section 408 permit for projects that impact (i.e., modify or occupy) any U.S. Army Corps of Engineers-constructed public works projects that include dams, basins, levees, channels, navigational channels, or other local flood protection works	Revised Applications August 2020 (408) and September 2020 (404)	
	Clearance to work on any U.S. Army Corps of Engineers-controlled property		
	Issuance of a Section 10 permit for structures or work in or affecting navigable Waters of the United States		
U.S. Fish and Wildlife Service – Region 6 – North Dakota Field Office	Consultations for impacts on federally listed threatened and endangered species and critical habitat under Section 7 of the Endangered Species Act, the Migratory Bird Treaty Act, the Bald and Gold Eagle Protection Act, and the Fish and Wildlife Coordination Act	Initial Application February 2020	December 2020
and		Revised Application September 2020	
U.S. Fish and Wildlife Service Crosby Wetland Management District	Consultation for impacts on federal conservation easements for grasslands and wetlands		
U.S. Department of the Interior, Bureau of Land Management - Eastern Montana/Dakotas District Office	Coordination of National Environmental Policy Act process when more than one federal land management agency's lands are crossed. The U.S. Bureau of Land Management is responsible for issuing right-of-way over lands managed by two or more federal agencies	Initial Application February 2020	February/March 2021
		Revised Application September 2020	
U.S. Forest Service – Dakota Prairie Grasslands Little Missouri National Grassland	Consultation to cross USFS Lands and issuance of a Special Use Permit through the U.S. Bureau of Land Management right-of-way process.	Initial Application February 2020	February/March 2021
		Revised Application September 2020	
U.S. Department of Agriculture, Natural Resources Conservation Service – North Dakota	Consultations regarding erosion and sedimentation controls and seed mixes, and Agricultural Conservation Easement Program	Ongoing	December 2020
Advisory Council on Historic Preservation	Consultation under Section 106 of the National Historic Preservation Act if the Project would affect historic properties	-	-

TABLE 1.8-1

**North Bakken Expansion Project  
Environmental Permits, Approvals, and Consultations**

Agency	Permit/Approval/Consultation	Anticipated Submittal Date	Anticipated Approval Date
<b>North Dakota</b>			
North Dakota Department of Health, Division of Air Quality	Permits to Construct an Air Contaminant Source –Tioga Compressor Station and Elkhorn Creek Compressor Station	Initial Applications February 2020	Permit to Construct for Elkhorn Compressor Station Received March 2020.
		Revised Application for Tioga Compressor Station July 2020	Anticipated permit for Tioga in November 2020
	Permits to Operate – Tioga Compressor Station and Elkhorn Creek Compressor Station	Between October 2021 and October 2022	Between January 2022 and January 2023
North Dakota Department of Health, Division of Water Quality	General Permit for Construction Stormwater Discharge under the National Pollutant Discharge Elimination System	October/November 2020	January 2021
	General Permit for Construction Dewatering and Discharge of Hydrostatic Test Water under the National Pollutant Discharge Elimination System		
	Water Quality Certificate under Section 401 of the Clean Water Act	Initial Application February 2020  Revised Application September 2020	February/March 2021
North Dakota Department of Environmental Quality, Division of Waste Management	Consultation for disposal of drilling fluid associated with the horizontal directional drill of Lake Sakakawea	December 2020	February 2021
North Dakota State Water Commission	Navigable Water Crossing Permit under North Dakota Century Code Chapter 61-33 (Sovereign Lands)	Initial Application February 2020	November 2020
		Revised Application August 2020	
	Temporary Water Permit – Water appropriation permit for withdrawals associated with hydrostatic test water and drilling mud	October/November 2020	January 2021
North Dakota Department of Game and Fish	Consultation for impacts on fisheries and wildlife	February 2020	March 2020
North Dakota Parks and Recreation Department	Consultation under the North Dakota Natural Heritage Program	June 2019	May 2020
State Historical Society of North Dakota	Consultation for impacts on historic properties under Section 106 of the National Historic Preservation Act	February 2020	January 2021
North Dakota State Lands Board	Right-of-Way Grant to cross state lands	November 2020	December 2020



**Resource Report 1 Request No. 3 Attachment**

**Correspondence with the U.S. Army Corps of Engineers on Turbidity Curtains**

## Andrea Thornton

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**From:** Nelson, Reece E CIV USARMY CENWO (USA) <Reece.E.Nelson@usace.army.mil>  
**Sent:** Monday, October 5, 2020 8:34 AM  
**To:** Andrea Thornton  
**Cc:** Thury, Jeremy J CIV USARMY CENWO (USA)  
**Subject:** FW: ProjNet Review - North Bakken Expansion

Andrea,

Thanks for the call. Please see email traffic below. In reference to Comment ID: 8839990, please reference any provided observation/safety measures in the comments.

Due to the high factor of safety, USACE will not be requiring any extra mitigative measures for turbidity monitoring outside of the contractors standard operating procedures. If you have any questions, give Jeremy or me call.

Thanks,  
Reece Nelson  
Natural Resource Specialist  
Natural Resource Management Section  
US Army Corps of Engineers  
Omaha District Office  
1616 Capitol Ave, Omaha NE 68102  
Desk number: 402-995-2505  
Cell number: 785-213-1507

-----Original Message-----

**From:** Hargrave, John G CIV USARMY CENWO (USA)  
**Sent:** Wednesday, September 30, 2020 11:55 AM  
**To:** Thury, Jeremy J CIV USARMY CENWO (USA) <Jeremy.J.Thury@usace.army.mil>  
**Cc:** Nelson, Reece E CIV USARMY CENWO (USA) <Reece.E.Nelson@usace.army.mil>  
**Subject:** RE: ProjNet Review - North Bakken Expansion

Reece and Jeremy,

I looked this over and the factor of safety is high enough that Michels usual observation/safety measures should suffice.

John

-----Original Message-----

**From:** Hargrave, John G CIV USARMY CENWO (USA)  
**Sent:** Thursday, September 24, 2020 6:34 AM  
**To:** Nelson, Reece E CIV USARMY CENWO (USA) <Reece.E.Nelson@usace.army.mil>; Thury, Jeremy J CIV USARMY CENWO (USA) <Jeremy.J.Thury@usace.army.mil>; Stonesifer, Alfred C CIV USARMY CENWO (US) <Alfred.C.Stonesifer@usace.army.mil>  
**Cc:** Wagner, Jason L CIV USARMY CENWO (USA) <Jason.L.Wagner@usace.army.mil>  
**Subject:** RE: ProjNet Review - North Bakken Expansion

Reece is correct. The curtain was a response to a very low initial factor of safety. I have been TDY and have not had a chance to review the execution plan yet. I will be back in the office on Friday and I will have a look at it.

I think the appropriate way to approach turbidity monitoring and any turbidity curtains should be on a case by case basis. Companies aren't boring HDD lines in the exact same places and each one may have different risk factors based on local conditions.

John

Sent with BlackBerry Work

(<https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.blackberry.com%2F&data=02%7C01%7C%7C274640d878d54516263108d869442c36%7Cf2fe6bd39c4a485bae69e18820a88130%7C0%7C0%7C637375088821837453&sddata=cTddqyjF6%2FA6l3r0zTt11MGSa08OaypCDu1Oj7JVrBU%3D&reserved=0>)

From: Nelson, Reece E CIV USARMY CENWO (USA) <Reece.E.Nelson@usace.army.mil  
<mailto:Reece.E.Nelson@usace.army.mil> >  
Date: Wednesday, Sep 23, 2020, 8:39 PM  
To: Thury, Jeremy J CIV USARMY CENWO (USA) <Jeremy.J.Thury@usace.army.mil  
<mailto:Jeremy.J.Thury@usace.army.mil> >, Stonesifer, Alfred C CIV USARMY CENWO (US)  
<Alfred.C.Stonesifer@usace.army.mil <mailto:Alfred.C.Stonesifer@usace.army.mil> >  
Cc: Hargrave, John G CIV USARMY CENWO (USA) <John.G.Hargrave@usace.army.mil  
<mailto:John.G.Hargrave@usace.army.mil> >, Wagner, Jason L CIV USARMY CENWO (USA)  
<Jason.L.Wagner@usace.army.mil <mailto:Jason.L.Wagner@usace.army.mil> >  
Subject: RE: ProjNet Review - North Bakken Expansion

Form my recollection, the turbidity curtains associated were due to a dip in the Factor of Safety for that specific spot close to the shoreline.

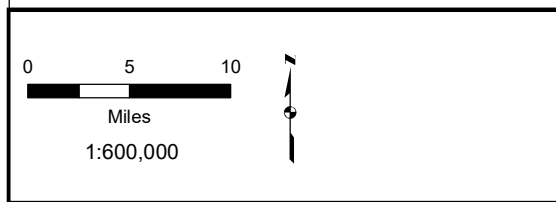
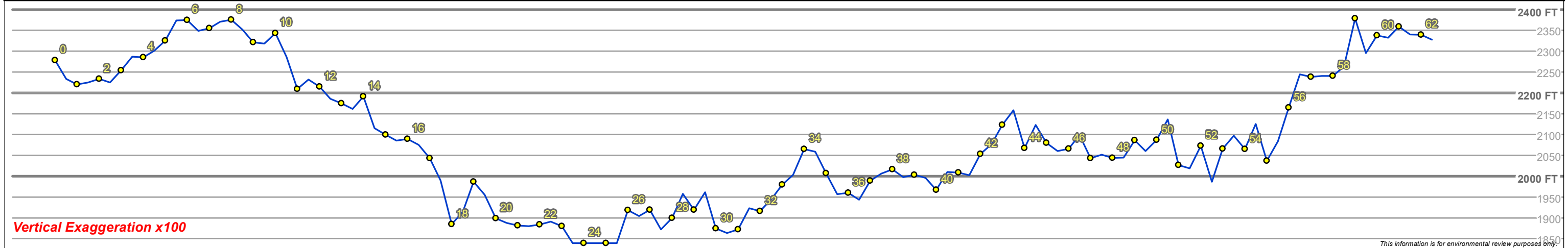
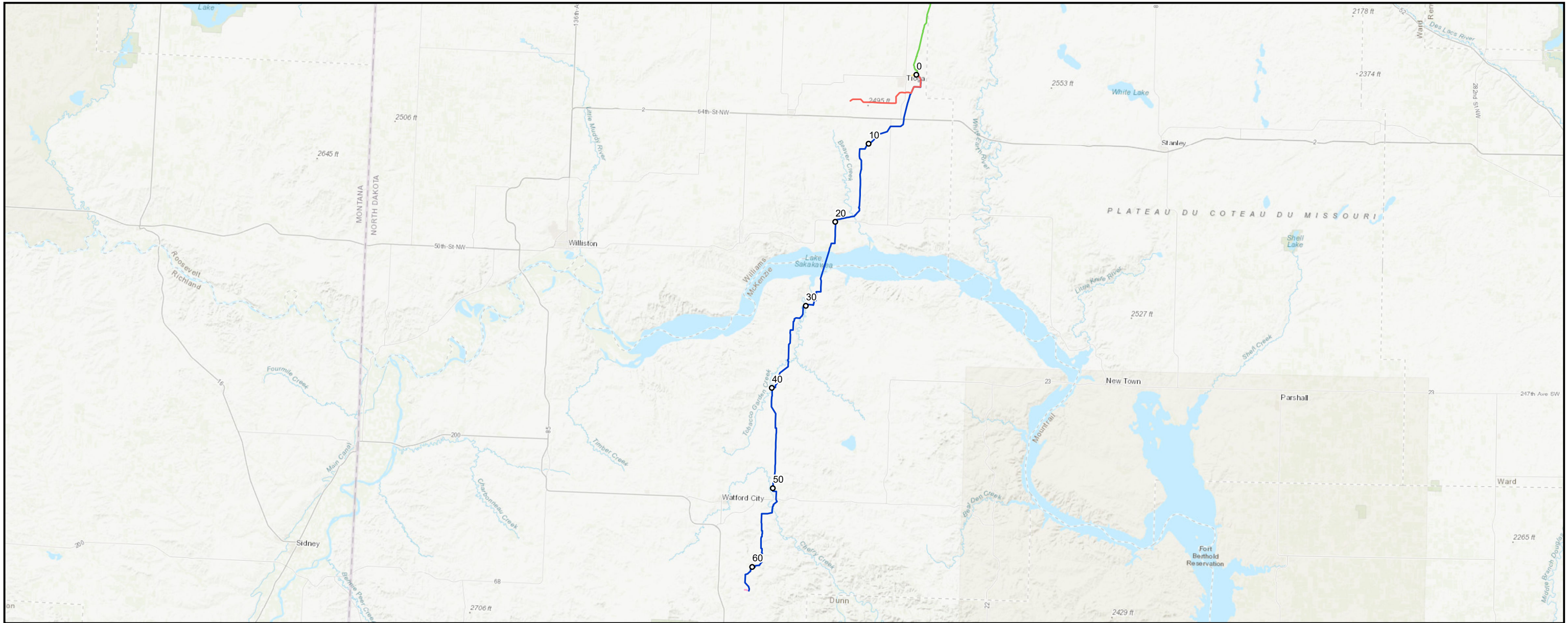
Jason/John, any input? I know you were a little late to this round of reviews Jason, but were either of you gentlemen able to take a peek at the Execution Plan yet?

-Reece

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**Resource Report 6 Request No. 1 Attachment**

**Revised Figure 6.2-1, Elevation Profile**



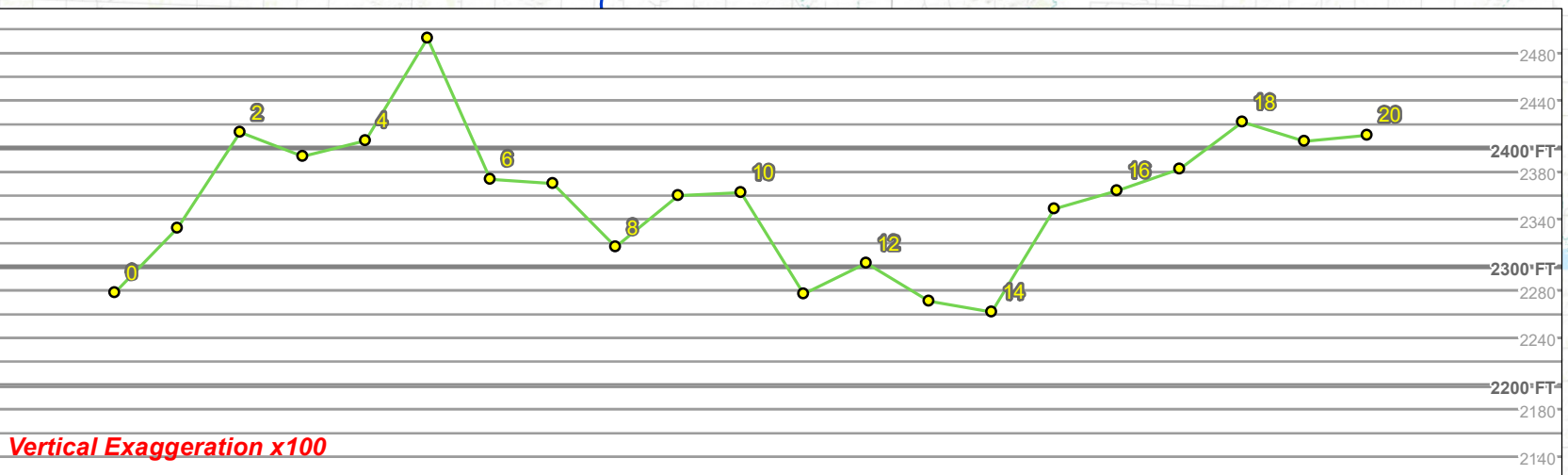
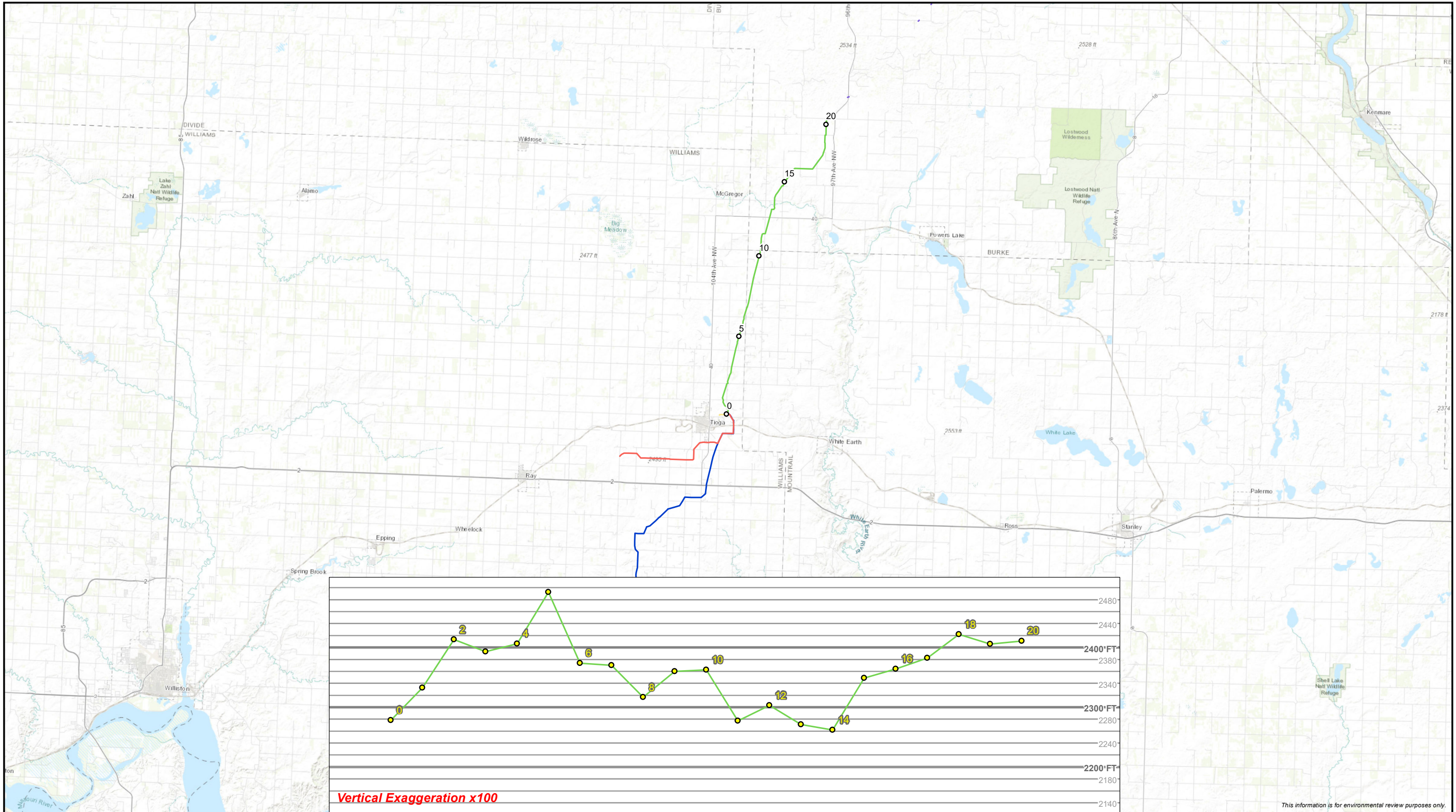
**Legend**

- Milepost
- Proposed Elkhorn Creek-Northern Border
- Proposed Tioga-Elkhorn Creek
- Proposed Tioga Compressor Lateral
- Proposed Line Section 30 Loop
- Proposed Line Section 25 Loop

Page 1 of 2

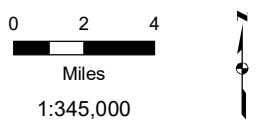
**Figure 6.2-1**  
**North Bakken Expansion Project**  
 Elevation Profile

DRAWN BY: SLB



Vertical Exaggeration x100

This information is for environmental review purposes only.



- Legend**
- Milepost
  - Proposed Uprate Bore Site
  - Proposed Line Section 30 Loop
  - Proposed Tioga-Elkhorn Creek
  - Proposed Tioga Compressor Lateral
  - Proposed Line Section 25 Loop



**Figure 6.2-1**  
North Bakken Expansion Project  
Elevation Profile



**Resource Report 6 Request No. 4 Attachment**

**Drilling Additives / LCMs For Approval**

# MICHELS®

Product Name	Manufacturer	Generic Name	Intended Use	NSF 60 APPROVED?
Platinum PAC	M I Swaco	PAC	Fluid Loss Inhibitor	YES
Platinum PAC UL	M I Swaco	PAC	Fluid Loss Inhibitor	YES
Ringfree	M I Swaco	Thinner	Drill Mud Thinner	YES
Plugz It	WyoBen, Inc.	Proprietary bentonite blend	Lost Circulation Material	YES
Clay Cutter	Cetco	Clay Inhibitor	Inhibit swelling of clay formations	NO
Clay Breaker	DCS Fluids	Clay Inhibitor	Inhibit swelling of clay formations	NO
Ball Buster	DCS Fluids	SAPP	Reduce bit / reamer balling	YES
Soda Ash	Various	pH Enhancement	Increase pH and reduce hardness of make up water	YES
Sodium Bicarbonate	Various	Calcium Control	Reduce calcium contamination of mud from drilling grout	YES
Citric Acid	Various	pH Reducer	Reduce pH when drilling grout	YES