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November 18, 2013

North Dakota Public Service Commission  
600 E. Boulevard, Dept. 408  
Bismarck, ND 58505-0480

Attn: Ms. Sara Cardwell



**Post Construction Inspection Report  
PU-11-066  
Keitu Project #569-203  
Garden Creek to Riverview Natural Gas Liquids Pipeline**

In accordance with your request, Keitu Engineers & Consultants, Inc. (Keitu) is pleased to submit for your use two hardcopies and one electronic copy of the Garden Creek to Riverview Natural Gas Liquids Pipeline post construction report.

Keitu appreciates the opportunity to work with you on this project and I hope this plan meets with your complete approval. If you have questions or comments, please contact me at the phone number above or via email at [ngaffrey@keitu.com](mailto:ngaffrey@keitu.com).

Sincerely,

Nathan J. Gaffrey, PE  
Project Engineer

*Enclosure:* Post Construction Reports  
CD-ROM copy of associated files

Garden Creek to Riverview Natural Gas Liquids Pipeline  
Bear Paw Energy, LLC  
*ND PSC Case No. PU-11-66*

Post-Construction Inspection Report

*November 2013*



Prepared By:  
Keitu Engineers & Consultants, Inc.  
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**Bear Paw Energy, LLC**  
**Garden Creek to Riverview NGL Pipeline**  
**(McKenzie County, ND)**

Prepared by Keitu Engineers & Consultants, Inc.

**Executive Summary**

The State of North Dakota, acting through its North Dakota Public Service Commission (PSC), Division of Public Utilities, has contracted Keitu Engineers & Consultants, Inc. (Keitu) to perform consulting services for post-construction siting inspections. This report addresses the Orders established by the PSC and issues established in File No. PU-11-66. The Garden Creek to Riverview NGL Pipeline is located in McKenzie County, ND. The NGL pipeline is owned and operated by Bear Paw Energy, LLC (Bear Paw). Construction for the Project began in September 2011 and was completed in December 2011. The purpose of the construction inspection was to ensure the Project was constructed in compliance with the siting laws, rules, and the applicable PSC Order for the Project. Prior to the construction inspection, Keitu reviewed all Project documents to identify any and all aspects requiring site verification.

The site was visually inspected on November 7, 2013 by Keitu staff. Overall, the project was very well-maintained and in good condition. It appeared to be constructed as planned with numerous efforts to minimize impacts. Overall, the Project appeared to be constructed as designed with minimal impacts to the surrounding natural and human environment. The Project site was in good condition and well maintained. Keitu recommends that the PSC request the following from the company: yearly follow-up documentation for the Tree and Shrub Mitigation plan.

The PSC will need to decide whether this recommendations are necessary to fulfill Project obligations. Keitu expects follow-up action taken by Bear Paw to address these particular issues can be corroborated in writing.

## **Introduction**

The construction of the Garden Creek to Riverview NGL Pipeline (Project) was completed in winter of 2011. The Project is operated by Bear Paw Energy, LLC (Bear Paw). The Project comprises approximately 54.2 miles of 10-inch natural gas liquids pipeline beginning at Bear Paw's Garden Creek Gas Plant near Watford City, ND and extending to a point on the North Dakota/Montana border and continues to Bear Paw's Riverview Rail Terminal in Richland County, Montana. The Project is under the jurisdiction of the North Dakota Public Service Commission (PSC), which issued its Findings of Fact, Conclusions of Law, and Order on Case No. PU-11-66 on December 2, 2011, granting a First Amended Certificate of Corridor Compatibility No. 122 and Route Permit No. 131 for the Project.

## **Purpose and Scope of Inspection**

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service Commission to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and welfare of the citizens of North Dakota. Construction inspections ensure the Project is constructed in compliance with siting laws, rules, and the applicable Commission Findings of Fact, Conclusions of Law, and Order (Order).

The North Dakota PSC retained Keitu Engineers & Consultants, Inc. (Keitu) to complete a post-construction inspection of the Project. The inspection process included a review of the Application for Corridor Compatibility and Route Permit, Order, and other applicable documents to determine Project-specific siting and construction requirements; a site visit and inspection of facilities; documentation of compliance; and a report summarizing findings. This report includes, but is not limited to, site visit observations, documentation of compliance deficiencies, and a summary of issues that should be addressed for the Project to be considered complete and in full compliance.

## **Methods**

Keitu reviewed North Dakota siting laws and rules, the Application for Certificate of Corridor Compatibility and Route Permit (Application), and the Order for the Project to identify what Project-specific documentation was required for compliance. Keitu then reviewed Project documents in the PSC Online Case Search to identify those siting laws, rules, and Application and Order assertions that already had written verification, those that still required documentation, and those that required physical site verification.

Nathan Gaffrey, Project Engineer, and Jeremiah Trnka, Staff Engineer, of Keitu visited the Project area on November 7, 2013. The site was visually inspected along portions of the pipeline

route by accessing as many points as feasible where road access was available. The inspection began at the Garden Creek Gas Plant near Watford City, ND and followed the pipeline to its intersection with the North Dakota/Montana border. Digital photographs were taken showing typical project infrastructure and documenting problem areas (Appendix A). Geographic coordinates were recorded at observation points or potential problem areas using a handheld Global Positioning System (GPS) (Trimble GeoExplorer 6000 series). A map showing the location of the observation points is attached as Figure 1 in Appendix B.

## **Observations/Findings of Commission Orders**

The following section includes discussion of a list of components of the Project that were asserted in the Application and Order which could be documented during the post-construction inspection to verify compliance with siting laws, rules and the Order for the Project, via either written documentation or physical site verification. Included are detailed findings and observations from Keitu personnel involved in the post-construction inspection for Bear Paw's Garden Creek to Riverview NGL Pipeline project.

- 1. Any Certificate of Corridor Compatibility or Route Permit issued by the Commission will be subject to the conditions and criteria set forth in Chapter 49-22 of the North Dakota Century Code and Chapter 69-06-08 of the North Dakota Administrative Code, and Bear Paw shall be responsible for compliance with this order and conditions and criteria set forth in the applicable laws and rules.**

In a July 27, 2011 motion (Docket #11), CAM moved the Commission to deem the applications complete and issue a Notice of Filing and Notice of Hearing in the applications of Bear Paw for a waiver of procedures and time schedules, a corridor certificate and a route permit to construct approximately 54.2 miles of 10-inch natural gas liquids pipeline within a facility corridor proposed in McKenzie County, North Dakota, Case No. PU-11-66. Order #1 is complete.

- 2. Bear Paw shall conduct a preconstruction conference prior to commencement of any construction, which must include a Bear Paw representative, its construction supervisor, and a representative of Commission staff to ensure that Bear Paw fully understands the conditions set forth in this Order.**

A preconstruction meeting was held to ensure all contractors fully understand the conditions set forth in the Order.

The preconstruction conference (Docket #38) was held on September 8<sup>th</sup>, 2011. In attendance was Patrick Fahn and Chris Marohl, representing the PSC, as well as representatives from Bear Paw and E-3 (Bear Paw's contractor).

The conference included a review of the conditions in the Order in detail. In addition to the conditions of the order, Bear Paw must abide by the conditions of any other permits or approvals,

including the United States Forest Service (USFS) Record of Decision (ROD). Bear Paw provided weekly reports detailing construction activities. Order #2 is complete.

- 3. Bear Paw shall comply with the rules and regulations of all other agencies having jurisdiction over any phase of the transmission facility, including all city, township, and county zoning regulations.**

From Docket #17, provided by SWCA Environmental Consultants, studies were completed to address U.S. Forest Service Environmental Assessment. Also included was a Biological Assessment and Evaluation for Wildlife Species and Sensitive Plant Species. Order #3 is complete.

- 4. Prior to commencing construction of any phase of the proposed project, Bear Paw shall obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission prior to construction activity associated with the transmission facility that requires said license or permit.**

State and Federal agencies are entitled to notice of Bear Paw's Siting Application. According to information listed in the Application (Docket #4), the following agencies were made aware of the project and included throughout the development of the design:

1. U.S Fish and Wildlife Service.
2. U.S. Forest Service.
3. North Dakota Parks and Recreation.
4. North Dakota School Trust.
5. North Dakota State Land Trust.

Order #4 is complete.

- 5. Bear Paw shall inform the Commission of their intent to start construction on the transmission facility prior to the commencement of construction, and, once construction has started, Bear Paw shall keep the Commission updated of construction activities on a weekly basis.**

Bear Paw informed the Commission of their intent to start on February 15, 2011 (Docket #1) prior to the commencement of construction. Once construction started, Bear Paw submitted Weekly Progress reports of construction to the Commission from September 20<sup>th</sup> 2011 through December 27, 2011. Order #5 is complete.

- 6. The pipeline shall be buried to a minimum depth from the ground surface to the top of the pipe of 48 inches in rangeland, 48 inches for cultivated land, 48 inches at the bottom of the ditch for road crossings, and 72 inches across undeveloped section lines.**

No exposed piping existed along the route or at road crossings at the post-construction site observation points. Potholing to find the exact depth of pipe was not performed during post-construction inspection. Order #6 is complete.

- 7. The corridor certificate and route permit are subject to suspension or revocation and may, after hearing, be suspended or revoked for failure to comply with the Commission's order, requirements of the One-Call Excavation Notice System under North Dakota Century Code Chapter 49-23, the conditions and criteria of the certificate or permit or subsequent modification, or failure to comply with applicable statutes, or rules, regulations, standards, and permits of other state or federal agencies.**

A PSC Online Case Search yielded no deviances from the One-Call Excavation Notice System. From the project site observation, all the pipeline markers are clearly labeled with the One-Call number to contact before excavation in the area of the buried pipeline. Order #7 is complete.

- 8. Bear Paw shall maintain records that demonstrate that it has complied with the requirements of the Commission's order issuing a Certificate of Corridor Compatibility or Route Permit, and that it will preserve these records for Commission inspection at any reasonable time upon reasonable notice.**

Bear Paw provided weekly progress reports to the Commission stating construction progress. The weekly progress reports starting with Docket #39 (as an example). From a PSC Online Case Search, it appears that no modifications to the proposed route were submitted to the Commission suggesting that the route was not modified from the original proposal. Order #8 is complete.

- 9. Bear Paw shall construct and operate the transmission facility in the manner described in its Application, in any late filed exhibits and supplemental materials, and in accordance with all applicable safety requirements.**

Bear Paw constructed the transmission line in accordance with the Application. The proposed Plan & Profile Drawings for the Project appeared to match the map route from the as-built shape files that were presented to Keitu from the Commission with the exception of the changes approved by Commission staff during the construction phase of the project. Based on transmission drawings, Plan and Profile drawings, and site inspection the pipeline was constructed as proposed to the Commission. Order #9 is complete.

- 10. Bear Paw shall promptly report to the Commission the presence in the permit area of any critical habitat or threatened species, endangered species, bald eagles, or golden eagles of which Bear Paw becomes aware of and which were not previously reported to the Commission.**

Impacts from construction included the displacement of wildlife near the project site and direct mortality of some individuals. Larger or more mobile wildlife, such as birds and large mammals, if in the area likely left the project area during construction and relocate to similar habitats

nearby. Some smaller, less mobile wildlife, such as small mammals, reptiles, and amphibians could have been crushed by construction equipment or trapped in construction areas. These effects, however, would be minimal and wildlife could return to the adjacent, undisturbed habitats after construction is completed.

A review of the weekly construction progress reports (Docket #'s 39-40, 42-43, 45-46, 48, 55-56, 62, 67, 70-73) did not note any critical habitat in the area during construction. No report of any critical habitat of threatened or endangered species, or of bald or golden eagle's notification to the Commission was found in Case File No. PU-11-66. Order #10 is complete.

**11. All cultural resource mitigation plans must be submitted to the North Dakota State Historic Preservation Office and approved prior to the start of any fieldwork and construction activity in the affected area.**

The State Historical Society of North Dakota issued a Letter Concurrence with Cultural Resources Monitoring and Discovery Plan (Docket #37) on September 9, 2011. Order #11 is complete.

**12. If any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made and a report of such examination is filed with the Commission and the State Historical Society and clearance to proceed is given by the Commission.**

A Class I files and records search, and also a Class III pedestrian survey of the entire proposed route for archeological and cultural resources was done by SWCA, Inc. (SWCA). These surveys supported a finding of "no historic properties effected" and "no significant sites" was recommended by SWCA. The North Dakota State Historical Society issued a concurrence in Docket #9 and Docket #41.

No cultural resource, paleontological site, archeological site, historical site, or grave site was discovered during construction. This is based on review of weekly construction progress reports and verification that no correspondence was identified in the Commission's file. Order #12 is complete.

**13. All buried facility crossings of graded roads must be bored unless the responsible governing agency specifically permits Bear Paw to open cut the road.**

From the post-construction site observation points it appears that all pipe crossings were bored. The roads over the pipe crossings appeared undisturbed and to grade. Order #13 is complete.

- 14. All pre-existing township and county roads and lanes used during construction must be restored to a condition that is equal to or better than the condition prior to the construction of the transmission facility and that will accommodate their previous use, and areas used as temporary roads or working areas during construction must be restored to their original condition.**

Existing roads and trails were to be left in a comparable or better condition than what existed before construction.

During the site visit on November 7, 2013, no access roads to the pipeline were noted. Access roads to Garden Creek Gas Plant appeared to be well maintained. No existing roads were noted to be in unfavorable condition. Order #14 was followed.

- 15. Construction must be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures approved by the Commission are taken.**

Based on review of the progress reports, weather conditions were never such that construction should not occur over the life of Project construction. Order #15 was followed.

- 16. All topsoil, up to 12 inches, or topsoil to the depth of cultivation, whichever is greater, over and along trench areas where cuts will be made, must be stripped and segregated from the subsoil. Except along segments of the line using the double ditching method, any area on which excavated subsoil will be placed must be must also be stripped of topsoil. After backfilling is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after subsoil is replaced.**

It is difficult from a post-construction site observation to determine if this method of construction took place where topsoil was segregated from other soil; however, the vegetation along the pipeline route was in favorable condition. Order #16 is deemed complete.

- 17. Reclamation, fertilization and reseeding is to be done according to the Natural Resource Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.**

Construction activities disturbed soils and vegetation to an extent that would require some reseeding following completion of operations. The ground was re-graded to the approximate original contour and re-vegetated (rangeland) or tilled (cropland) when the work was completed. Soils were smoothed to the natural contours of the surrounding areas. Reseeding with native perennial species compatible with the surrounding vegetation appeared too occurred. If surface disturbance did not significantly impact nearby vegetation, plants regenerated or sprouted from onsite existing propagates.

Clean up of the pipeline line, including removing and disposing of debris occurred. All temporary facilities were removed, and the staging and laydown areas were cleaned up. Reclamation along the right-of-way was continuous and coordinated with construction.

*Documentation of re-vegetation surveys and noxious weed surveys will be required for Order #17 to be complete.*

**18. Bear Paw's obligation for reclamation and maintenance of the right-of-way shall continue throughout the life of the transmission facility.**

Regular maintenance and inspections are performed during the life of the facility to ensure its continued integrity. Inspections are limited to the right-of-way. When problems are found, repairs will be scheduled. If damages to crops occurred during maintenance and repairs, reimbursement is to be made to the landowner, consistent with the terms of the easement.

Based on a post construction inspection, Bear Paw has performed reclamation and maintenance of the right-of way has continued since the facilities have been energized. Order #18 has been followed to date.

**19. Bear Paw's obligation for reclamation and maintenance of the transmission facility, associated facilities, and roadways will continue throughout the life of the transmission facility.**

Based on a post construction inspection, Bear Paw has performed reclamation and maintenance of the roadways has continued since the facilities have been in use. Order #19 has been followed to date.

**20. Bear Paw shall comply with the Tree and Shrub Mitigation Specifications attached to the Order.**

The tree and shrub plans was proposed in (Docket #76) that was prepared by SWCA Environmental Consultants, approximately 140 trees and shrubs were removed during the construction of the transmission line. Both trees and shrubs were required to be replaced on a two for one basis. This required 280 trees and shrubs be planted and that those have a 75% survival rate for a total of 210 trees and shrubs.

No 2013 report is documented to date as being submitted to the Commission regarding follow-up with the affected land owners on whether the replanting of trees and shrubs survived by the pipeline contractor on a yearly basis. *Order #20 is deemed incomplete until documentation can be provided to the Commission indicating survival rates or replanting of trees and shrubs as needed on a yearly basis for 3 years following replanting.*

**21. Bear Paw shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the transmission facility.**

There is one occupied residence within 500 feet of the route as noted in Docket #22. The landowners signed off on construction of the pipeline to be within 500 feet of the residence. There is no record of television or residential radio interference were found in the Commission's file. Order #21 is complete.

**22. Bear Paw shall repair or replace all fences and gates removed or damaged during all phases of construction and operation of the transmission facility.**

Gates were installed or replaced where fences cross the ROW. Locks were installed at the landowner's request. Gates not in use were closed, but not locked, unless requested by the landowner.

Initially, Bear Paw sent out a land agent (landman) to discuss the proposed project and obtain permission to obtain access to a landowner's property for preliminary surveys of the proposed route and corridor. Once a proposed route is identified the land agent obtains an easement to construct a facility. After the easement is signed along with other proper paperwork and resources are in place, construction can begin. Part of the proper paperwork and resources are mitigation measures to reduce adverse impact. Once construction is complete, the land agent meets with the landowners to identify any damages or concerns that they may have and for Bear Paw to repair the damages or compensate for these damages to maintain good landowner relationships. Most easement have a damage clause for damage mitigation measures.

General mitigation measures of Bear Paw were part of the Application for the Route Permit. This is also an item that help reduce damage measures.

Based on the fact that no landowner complaint documentation was found in Case File No. PU-11-066, Order #22 is complete.

**23. Bear Paw shall repair or replace all broken or damaged drainage tile during all phases of construction and operation of the transmission facility.**

From the post-construction site observation, it appears that no drainage tiles were damaged or broken. Order #23 is deemed complete.

**24. All staging areas or equipment shall not be located on land owned by a person other than Bear Paw unless otherwise negotiated with landowners.**

From the post-construction site observation, it appears that staging areas where they may have existed were vegetated and blended in with the surroundings. Order #24 is complete.

- 25. Bear Paw shall remove all waste that is a product of construction and operation, restoration, and maintenance of the site, and properly dispose of it on a regular basis.**

From the post-construction site observation, pipeline route was free of construction debris. Order #25 is deemed complete.

- 26. Bear Paw shall, as soon as practical upon the completion of the construction of the transmission facility, restore the area affected by the activities to as near as practicable to the condition as it existed prior to the beginning of construction.**

From the post-construction site observation, it appears affected areas were vegetated and blended in with the surroundings. Order #26 is complete.

- 27. Bear Paw shall provide any necessary safety measures for traffic control or to restrict public access to the transmission facility.**

From a post-construction site observation and a PSC Online Case Search it is not possible to determine whether safety measures for traffic took place. However, there were not any items listed in the PSC Online Case search that would indicate otherwise. Order #27 is complete.

- 28. Bear Paw shall advise the Commission of any extraordinary events which take place at the site of the transmission facility, including injuries to any person, or the death of any threatened or endangered species on the site within five business days of such event.**

From a post-construction site observation, it is not possible to determine any injuries to construction personnel or deaths to. However, there were not items listed in the PSC Online Case Search that would indicate any injuries or death of endangered species happened while the pipeline was under construction to indicate otherwise. Order #28 is complete.

- 29. Bear Paw shall implement a procedure for how complaints concerning the transmission facility will be handled by Bear Paw.**

No official complaints were documented in the PSC Online Case Search performed. Order #29 is complete.

- 30. Bear Paw shall provide the Commission with engineering design drawings of the transmission facility prior to construction upon request.**

There is no Docket indicating that the Commission received the engineering design drawings before the project was constructed. Docket #79, the as-built drawings, were issued after the final project progress report Docket #73 was issued. The associated as-built CAD drawings were issued to Keitu prior to the post-construction and converted into a shape file format. This file was downloaded to a handheld GPS unit for pipeline route verification. Order #30 is considered complete.

- 31. Bear Paw shall inform the Commission in writing of any plans to modify the transmission facility or of any plans to modify the site plan for the transmission facility. Bear Paw shall obtain written approval from the Commission prior to any modifications to the site plan or the transmission facility, with approval being granted after notice and opportunity for hearing.**

Docket #47 indicated a slight modification to the pipeline route and was submitted to PSC on October 21, 2011. A request for hearing was established in Docket #50 dated November 2, 2011 and signed off by the Commission members. A motion was moved in Docket #65 and then signed/ approved by the Commission in Docket #66. Bear Paw took the appropriate steps to make sure the amended pipeline route went through the proper procedures. Order #31 is complete.

- 32. Bear Paw shall provide the Commission with both an electronic and a paper copy of the corridor approved by the Commission, and will provide this information within three months of the Commission order approving the corridor. Bear Paw also agrees to provide an electronic version of the approved corridor that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAD 83) UTM Zone 13N or 14N feet (NAD 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed.**

Docket #27 moved that the Commission adopt the Certificate of Corridor Compatibility on September 7, 2011. Docket #28 was then approved by the Commission to adopt the Certificate of Corridor Compatibility. It is inferred that the Commission had access to an electronic copy and paper copy of the project at that time. Order #32 is complete.

- 33. Bear Paw shall provide the Commission with both an electronic and a paper copy of the design specifications for the construction of the transmission facility showing the location of the transmission facility as built, and shall provide this information within three months of the completion of construction. Bear Paw also agrees to provide an electronic version of the approved corridor that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAD 83) UTM Zone 13N or 14N feet (NAD 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed.**

Please refer explanation to item #32 above. Order #33 is complete.

- 34. The authorizations granted by the Corridor Certificate and Route Permit are subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.**

Should the Commission deem necessary in the future to modify the corridor certificate and route permit it can do so if deemed necessary to further protect the public or the environment. No other information was found in the case file to deem that the Commission should modify the Certificate of Corridor Compatibility (Number 107) and Route Permit (Number 117). Order #34 is complete.

- 35. In the event Bear Paw desires to construct, within any corridor granted by a Certificate of Corridor Compatibility in this proceeding, a transmission facility or energy conversion facility that was not included in Bear Paw's application in this proceeding, Bear Paw shall apply to the Commission for a Route Permit or Site Certificate for the facility.**

From a PSC Online Case Search performed, Bear Paw did not construct anything that was not included in this permit application. Order #35 is complete.

- 36. Bear Paw shall notify the Commission, as soon as reasonably possible, if any damage, as defined by North Dakota Century Code Chapter 49-23, occurs to underground facilities during construction conducted under the certificate or permit issued in this proceeding. In the event of any damage to underground facilities, Bear Paw shall suspend construction in the vicinity of the damage until compliance with One-Call Excavation Notice System requirements under North Dakota Century Code Chapter 49-23 has been determined and clearance to proceed has been given by the Commission or Commission staff.**

From a PSC Online Case Search performed, it appears that Bear Paw did not cause any damage to underground facilities during construction. Order #36 is complete.

- 37. The corridor certificate and route permit are subject to suspension or revocation and may, after hearing, be suspended or revoked for failure to comply with the Commission's order, requirements of the One-Call Excavation Notice System under North Dakota Century Code Chapter 49-23, the conditions and criteria of the certificate or permit or subsequent modification, or failure to comply with applicable statutes, or rules, regulations, standards, and permits of other state or federal agencies.**

From a PSC Online Case Search performed, it appears that Bear Paw did follow the One- Call Excavation Notice System. Order #37 is complete.

## Conclusions

Overall, the Project appeared to be constructed as designed with minimal impacts to the surrounding natural and human environment. The Project site was in good condition and well maintained. Keitu recommends that the PSC request the following from the company: yearly follow-up documentation for the Tree and Shrub Mitigation plan.

Documentation of re-vegetation surveys and noxious weed surveys will be required for Order #17 to be complete. Order #20 is deemed incomplete until documentation can be provided to the Commission indicating survival rates or replanting of trees and shrubs as needed on a yearly basis for 3 years following replanting. The PSC will need to decide whether these recommendations are necessary to fulfill Project obligations. Keitu expects follow-up action taken by Bear Paw to address these particular issues can be corroborated in writing to the Commission.



**Appendix A: Site Photos**



**Photo 1** – Direction: North – Garden Creek Gas Plant



**Photo 2** – Direction: Northeast – Garden Creek Gas Plant



**Photo 3** – Direction: East – Showing revegetation at ND Highway 1806 road crossing near pipeline mile marker 1.



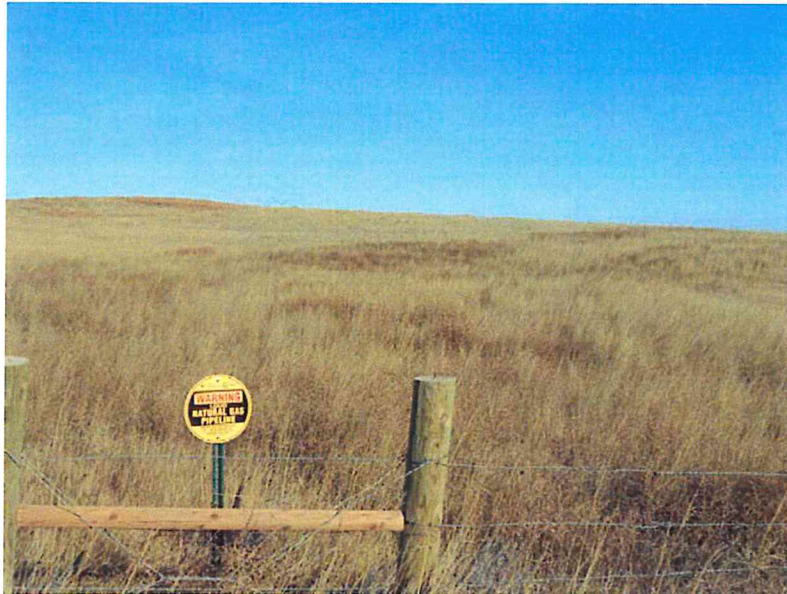
**Photo 4** – Direction: West – Showing revegetation at ND Highway 1806 road crossing near pipeline mile marker 1.



**Photo 5** – Direction: East – Showing revegetation at McKenzie County Road 36 crossing near pipeline mile marker 4.



**Photo 6** – Direction: West – Showing revegetation at McKenzie County Road 36 crossing near pipeline mile marker 4.



**Photo 7** – Direction: North – Showing revegetation near pipeline mile marker 5.



**Photo 8** – Direction: South – Showing revegetation near pipeline mile marker 5.



**Photo 9** – Direction: East – Pipeline valve station near pipeline mile marker 6.5. McKenzie County Road 36 road crossing. Notice pipeline markers.



**Photo 10** – Direction: West – Pipeline valve station near pipeline mile marker 6.5. McKenzie County Road 36 road crossing. Notice pipeline markers.



**Photo 11** – Direction: North – Showing revegetation near pipeline mile marker 7.



**Photo 12** – Direction: South – Showing revegetation near pipeline mile marker 7.



**Photo 13** – Direction: Northeast – Showing revegetation near pipeline mile marker 8.5



**Photo 14** – Direction: Southwest – Showing revegetation near pipeline mile marker 8.5



**Photo 15** – Direction: East – Showing revegetation near pipeline mile marker 15



**Photo 16** – Direction: West – Showing revegetation near pipeline mile marker 15



**Photo 17** – Direction: East – Showing revegetation near pipeline mile marker 18.5



**Photo 18** – Direction: West – Showing revegetation near pipeline mile marker 18.5. Notice damaged pipeline marker.



**Photo 19** – Direction: East – Showing revegetation near pipeline mile marker 20.5. McKenzie County Road 27 road crossing. Notice new pipeline being installed adjacent to this pipeline.



**Photo 20** – Direction: West – Showing revegetation near pipeline mile marker 20.5. McKenzie County Road 27 road crossing. Notice new pipeline being installed adjacent to this pipeline.



**Photo 21** – Direction: East – Showing revegetation near pipeline mile marker 25.8.



**Photo 22** – Direction: West – Showing revegetation near pipeline mile marker 25.8.



**Photo 23** – Direction: North – Showing revegetation near pipeline mile marker 29



**Photo 24** – Direction: South – Showing revegetation near pipeline mile marker 29



**Photo 25** – Direction: Southeast – Pipeline valve station near pipeline mile marker 44. ND 16 Highway crossing.



**Photo 26** – Direction: Northwest – Showing revegetation near pipeline marker 44. ND 16 Highway crossing.



**Photo 27** – Direction: East – Showing revegetation near pipeline marker 45.5



**Photo 28** – Direction: West – East – Showing revegetation near pipeline marker 45.5. Notice that trees in the shelterbelt have been replanted.



**Photo 29** – Direction: East – Showing revegetation near pipeline mile marker 47.5



**Photo 30** – Direction: West – Showing revegetation near pipeline marker 47.5



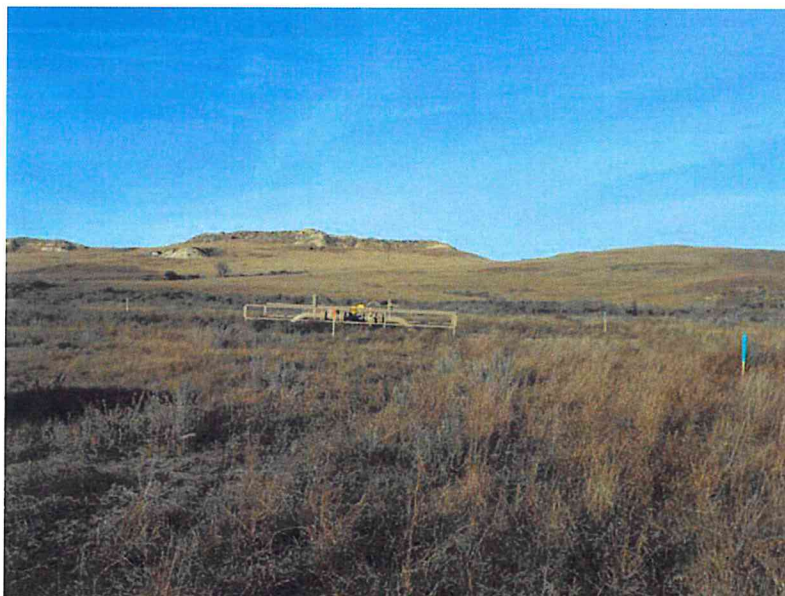
**Photo 31** – Direction: Southeast – Showing revegetation near pipeline mile marker 51.5



**Photo 32** – Direction: Northwest – Showing revegetation near pipeline mile marker 51.5



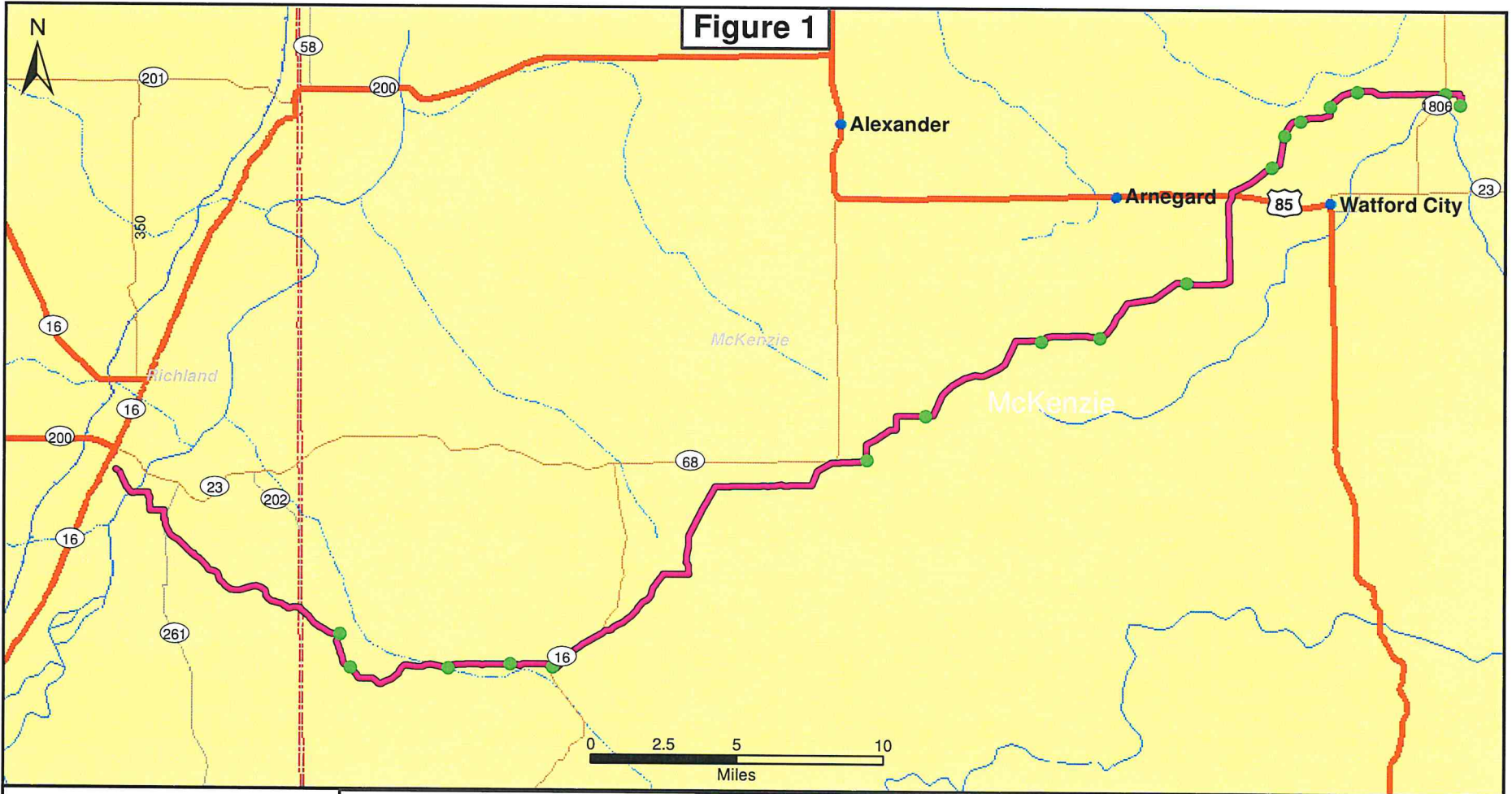
**Photo 33** – Direction: South – Showing revegetation near pipeline mile marker 53.



**Photo 34** – Direction: North – Showing revegetation near pipeline marker 53. Notice valve station in the background.



**Appendix B: Figures**



**ND PSC Case Number PU-11-066**  
**Bear Paw Energy, LLC**  
**Natural Gas Liquid Pipeline**  
 November 2013

- Legend**
- Pipeline Route
  - Observation Point
  - - - State Border