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**PUBLIC SERVICE COMMISSION**

North Dakota Public Service Commission  
Darrell Nitschke  
Executive Secretary  
600 E. Boulevard Avenue Dept. 408  
Bismarck, ND 58505-0489

Re: Case No. PU-08-843 Contract No. PU-599-10  
Whiting Oil and Gas Corporation- 6" NG pipeline

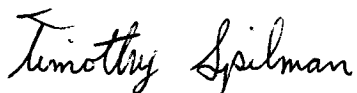
Dear Mr. Nitschke,

The State of North Dakota, acting through its North Dakota Public Service Commission (NDPSC), Division of Public Utilities, has engaged Keitu Engineers & Consultants, Inc. to perform consulting services for post-construction siting inspections. A final report was sent to you electronically via email. Enclosed is an original and copy of the final report for the post-construction inspection of Case No. PU-08-843.

The Executive Summary identifies items that still need attention by the Commission staff and siting applicant to ensure that the facilities for the project have been constructed in compliance with items identified by the ND Public Service Commission. Once these items are addressed, the Commission can act on final closeout of the construction phase of the project.

Should Commission staff or the NDPSC have any questions, please contact me for assistance.

Sincerely,



Timothy Spilman  
Project Manager

Enclosures

**45** **PU-08-843** Filed: 10/17/2011 Pages: 20  
**Final report for post-construction inspection**



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## Whiting Oil and Gas Corporation (Whiting) Post-Construction Inspection 6-inch Natural Gas Line/ Mountrail County

Prepared by Timothy Spilman, Project Manager, Keitu Engineering & Consultants, Inc.  
Final Report

### Executive Summary

Whiting Oil and Gas Corporation (Whiting) constructed a 16-mile, six-inch natural gas pipeline (Pipeline) from its Robinson Lake Gas Processing Plant to an interconnection with Williston Basin Interstate Pipeline Company's (WBI) interstate transmission line in Mountrail County, ND. Construction of the 6-inch natural gas pipeline occurred between June and August of 2008. The application was filed after construction.

In reviewing the route, two utility highway crossing permits were required from the ND Dept. of Transportation for crossing Highway 8. No Highway permits were found in Case file No. PU-08-843. These utility highway crossing permits were required prior to construction of the natural gas pipeline. Whiting should supply copies of these permits for the case file to complete Order #6.

No records were found in the Commission's files about a preconstruction meeting. The application was filed, and the Corridor Certificate and Route Permit were issued after the pipeline was constructed. A preconstruction meeting was not possible due filing after the fact. Order #7 cannot be completed.

No weekly construction reports and a date of completion could be found in the case file. In the application for the Corridor Certificate and Route Permit (Docket #24) page 8/307 of the application, it said the pipeline was in service but did not give a date. Whiting should provide weekly construction reports, date of completion, and date in service to complete Orders #8 and 9.

No information was found in the case file about reporting of any critical habitat during construction. Not enough information was found in the case file to make a determination that Order #13 was followed.

The USFWS letter September 30<sup>th</sup> was authored after construction had occurred on this pipeline. The September 30<sup>th</sup>, 2008 letter addressed the construction of the crude oil pipeline Case No. PU-08-844 and did discuss the services concern about disruption of waterfowl or other wildlife during breeding season. Order #14 required Whiting to comply with measures set by the USFWS. Construction occurred between May and August of 2008. Wildlife breeding season is February



1<sup>st</sup> through July 15<sup>th</sup>. Construction occurred during two to two and one-half months of wildlife breeding season. No record of a qualified biologist being on site during breeding season while construction occurred was found in the case file. Whiting should provide a record of the biologist being on site during breeding season construction or correspondence stating Whiting followed the Endangered Species Act, Migratory Bird Treaty Act, and the Fish and Wildlife Coordination Act during the construction of this pipeline to complete Order # 14.

No record of a test to establish Maximum Operating Pressure was found in the Commission's file. Passing the pressure test insures that no irreparable damage occurred on the pipeline during construction. Whiting should provide a written record of all pressure tests for the pipeline to complete Order #9 and #15.

Whiting conducted a cultural resource desk study of the corridor prior to pipeline construction. In December of 2008 (Docket 24, Exhibit 3), it was determined construction of the natural gas pipeline impacted three sites, 32MN762, 32MN763 and 32MN764 that are potentially eligible for listing on the National Register of Historic Places. No correspondence was found in the case file of SHPO agreement of the cultural resource mitigation plan after the pipeline was constructed. Whiting should provide correspondence to the Commission of discussion with SHPO about the impact to the three cultural sites that occurred due to the natural gas pipeline being constructed. This would provide information for completion of Order # 16. This would also assist with verifying Order # 17 was completed.

No construction cultural resource, paleontological site, archeological site, historical site, or grave site records were found in the case file. Whiting should provide the Commission a letter stating that they did not discover any cultural resource, paleontological site, archeological site, historical site, or grave site during construction of the pipeline to complete Order #17. If any of these items or sites were found during construction, Whiting should provide documentation to the Commission that Order #17 was followed during construction.

The construction right of way for the natural gas pipeline overlaps the oil pipeline ROW for Case No. PU-08-844. The natural gas pipeline is positioned on the west side of the oil pipeline. No documentation identifying the actual number, variety, type, location, and date of the replacement planting was given in the case file. No documentation was found in the case file that yearly inspections for 3 years of replacement tree and shrubs occurred. Tree and shrub documentation, its Commission's approval, and completion of the plan are still required for completion of Order #22.

The Whiting still needs to provide the Commission an as-built hard copy, electronic copy, and data files of the as-built line that can be imported into ESRI GIS mapping software. A date in service was not given in the Commission's file. However, the pipeline was placed into operations by the February 25th, 2009 based on #3 in the Finding of Facts in the Order granting Corridor Certificate and Route Permit (Docket #33). Therefore, as built diagrams and the 3 month deadline was not met. Order #24 was not followed.

Whiting Oil and Gas Corporation (Whiting) LLC has complied with all other Order requests of the Commission.



On May 17, 2010 the Commission received a letter from Whiting Oil and Gas Corporation that they were going to have an operational change, and de-regulation, of Whiting's six inch gas transmission line (Docket #30). The Commission may choose to modify the corridor certificate and route permit when Whiting notifies the Commission of a market change from WBI to Pecan if deemed necessary to protect the public or the environment. A modification of the Certificate of Corridor Compatibility Number 108 and Route Permit Number 118 may be necessary in the near future as part of Order 4 due to the May 17, 2010 letter.

### **Preliminary Statement**

Whiting in its October 27, 2008 letter to the Commission (Docket #1) stated that it did not believe that siting was required for the gas pipeline because it is not a transmission line as that term was commonly understood in the oil and gas industry, but is rather either a component of the Plant or incidental gathering. Whiting understood that the Commission or its staff concluded that the pipeline may constitute a "transmission line" within the historical practices of the Commission. It therefore, submitted an application for a corridor certificate and route permit after construction occurred.

On November 17, 2008, Whiting Oil and Gas Corporation (Whiting) filed an application to site a 16-mile, six-inch natural gas pipeline (Pipeline) from its Robinson Lake Gas Processing Plant to an interconnection with Williston Basin Interstate Pipeline Company's (WBI) interstate transmission line southeast of the town of Stanley, North Dakota, all in Mountrail County. Construction of the 6-inch natural gas pipeline occurred between June and August of 2008.

The State of North Dakota, acting through its North Dakota Public Service Commission (NDPSC), Division of Public Utilities, has engaged Keitu Engineers & Consultants, Inc. to perform consulting services for post-construction siting inspections. This report only addresses the Orders established by the NDPSC and issues established in File No. PU-08-843.

### **The Commission Orders:**

#### **1. Whiting Oil and Gas Corporation's application for a waiver of procedures and time schedules is granted.**

Whiting Oil and Gas Corporation notified the Commission of its intent to file for a waiver of procedures and time schedules in the application for a certificate of Corridor Compatibility and Route Permit (Docket # 1). The PSC granted waiver of time scheduled and allow waiver of procedures with the issuing of the Certificate of Corridor Compatibility and the Route Permit on February 25, 2009 as long as state and federal agencies with jurisdiction approved the procedures (Docket #033-040.pdf, Order #1). Order #1 was granted.



- 2. Certificate of Corridor Compatibility Number 108 is issued to Whiting, designating a corridor for its proposed pipeline project.**

In the Order Granting Corridor Certificate and Route Permit (Docket #33) filed on 2/25/2009, Whiting had constructed the pipeline and had placed it into service based on the Finding of Facts # 3. Construction occurred within the corridor because the NG pipeline was constructed prior to the Certificate of Corridor Compatibility being issued. The corridor was based on where the pipeline was constructed. Order #2 is completed.

- 3. Route Permit Number 118 is issued to Whiting, granting authority to construct and operate a 6-inch natural gas pipeline in Mountrail County.**

The Route was followed as described in the application (Docket #24). The 6-inch pipeline was construction prior to the route permit being issued. The Commission issued a route permit knowing that construction had already occurred. Order #3 is completed.

- 4. The Certificate of Corridor Compatibility Number 108 and Route Permit Number 118 are effective for the life of the pipeline, but are subject to modification by order of the Commission if deemed necessary to further protect the public or the environment.**

A modification will be required at the request of the pipeline company.

On May 17, 2010 the Commission received a letter from Whiting Oil and Gas Corporation (Whiting) that they were going to have an operational change, and de-regulation, of Whiting's six inch gas transmission line (Docket #30). Whiting is to change its gas market from WBI to Pecan's Prairie Rose Pipeline approximately in early-July, 2010. The gas will be processed to a level acceptable for Pecan and not to end-use consumer quality gas. Pecan requested and received a jurisdictional determination from the Public Service Commission of their system, which was determined to be non-jurisdictional gathering. Whiting then will build a 10 inch line that will tie to Pecan. Once the 10 inch line is constructed, Whiting will then switch the gas going from Robinson Lake Gas Plant to Pecan into the new 10 inch line. Then, Whiting will change the gas flow direction of the six inch line and tie it in to the gas gathering system feeding to Robinson Lake Gas Plant. These changes prompted Whiting to request and receive a de-regulation order from FERC on the Robinson Lake Gas Pipeline in an "Order Approving Abandonment" dated March 9, 2010. Whiting is to de-regulation of the six inch gas transmission line when the change of gas flow direction of the 6 inch line is complete and tied the gas gathering system feeding the Robinson Lake Gas Plant. Whiting is to notify the PSC within 10 days following the change in market from WBI to Pecan. No records are in Case File No. PU-08-843 that says the market change from WBI to Pecan has occurred. Whiting wants the PSC to temporarily suspend the use of Route Permit #118 and Certificate of Corridor Compatibility #108. They also do not wish to abandon the route Permit and Certificate of Corridor compatibility currently in order to keep future operating scenarios open.



The Commission may choose to modify the corridor certificate and route permit when Whiting notifies the Commission of a market change from WBI to Pecan if deemed necessary to protect the public or the environment.

**5. Whiting must obtain approval from the Commission prior to any changes in the facility route or structure locations.**

The Route was followed as described in the application (Docket #24). The 6-inch pipeline was construction prior to the route permit being issued. The Commission issued a route permit knowing that construction had already occurred.

**6. Whiting shall comply with the rules and regulations of all other agencies having jurisdiction over any phase of the proposed pipeline, shall obtain all other necessary licenses and permits, and shall provide copies of all licenses and permits to the Commission.**

The application for the corridor certificate and route permit for the pipeline identified correspondence and conditional approvals of the US Army Corp of Engineers (COE), US Fish and Wildlife Service (FWS), ND Natural Conservation Service, NDSHPO, ND Game and Fish Department, ND Parks and Recreation Department, ND lands Department, and ND Health Department. The COE did not identify any specific wetland concerns with the project provided best management practices were implemented during construction.

The FWS responded on September 30, 2008, stating they concurred with Whiting's assessment that the project will not affect federally-listed species. No waterfowl production lands were crossed by the gas pipeline. These items were addressed and were part of the order granting of corridor certificate and route permit.

The ND Department of Health (Docket #14) letter of December 15, 2008 reviewed the information concerning this project with respect to possible environmental impacts. They issued the following comments with respect to construction. A post construction discussion follows each item:

1. All necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.

The weather conditions during construction were wet which reduced dust emissions. No complaints were issued in the case file documentation. This condition was met.

2. Care is to be taken during construction activity near any water of the state to minimize adverse effects on a water body. This includes minimal disturbance of stream beds and banks to prevent excess siltation, and the replacement and revegetation of any disturbed area as soon as possible after work has been completed. Caution must also be taken to



prevent spills of oil and grease that may reach the receiving water from equipment maintenance, and/or the handling of fuels on the site.

Based on the construction of a paralleling oil pipeline, Whiting probably bored all wetland during construction. Whiting followed mitigation measures to minimize impacts on wetlands:

- Strip the existing amount of topsoil, up to a maximum depth of 6 inches, from over the trench in unsaturated wetlands (where there is less than 6 inches of topsoil strip the existing amount); and
- In unsaturated wetlands, store topsoil and subsoil in a manner that kept them separate and restored the land as close as practical to its original condition. Seeding of wetland was done in a timely fashion.

Whiting's Construction Superintendent was responsible for overseeing the contractor's compliance with environmental requirements and permits during construction. The Construction Superintendent recommended corrective measures if non-compliance was observed. If environmental damage was imminent, the Construction Superintendent would stop the activity in question until the concern was resolved.

No record of spills of oil and grease was found in Case No. PU-08-843. Construction Storm Water General Permit NDR10-2146 (Docket #24-040 pages 144-155) spelled out the use of a 500 gallon diesel fuel tank on site. The permit said the tank was bermed and spill prevention methods were identified. The permit also documented that employees had been trained to prevent spills during fueling process and to contact management if a spill occurred.

3. Oil and gas related construction activities disturbing five or more acres are required to have a permit to discharge storm water runoff until the site is stabilized by the reestablishment of vegetation or other permanent cover. Further information on the storm water permit may be obtained from the Department's website or by calling the Division of Water Quality (701-328-5210). Also, cities or counties may impose additional requirements and/or specific best management practices for construction affecting their storm drainage system. Check with the local officials to be sure any local storm water management considerations are addressed.

A storm water permit was required prior to the start of construction. An April 17, 2008 letter from the ND Department of Health to Whiting (Docket 024-040 page 147-155/310) granted storm water permit NDR10-2146 for the plant and the gas pipeline. Sediment Logs/Bio-rolls and temporary drain berming (topsoil on edge of ROW) were to be used according to the permit. Temporary seeding and permanent seed were to be used if necessary.

4. Noise from construction activities may have adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise effects



can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours.

Noise sensitive land uses include locations that require a serene environment as part of the overall facility or residential experience, such as a school, hospital, church or residence. The project is located in a rural, agricultural setting with very few noise sensitive receptors located along the proposed route corridor. No schools or hospitals are located within the proposed route corridor. Two churches and eleven residences are located within the proposed route corridor, but are more than 500 feet away from the proposed pipeline route. Noise sensitive receptors close to construction were exposed to temporary increases in noise from the operation of heavy equipment. The effects of construction noise were less noticeable along much of the proposed pipeline route that runs parallel and adjacent to Highway 8 where these areas already experience increased noise levels from highway vehicular traffic. Nighttime and weekend noise levels were unaffected by construction, as most construction was during daylight hours on weekdays. The only permanent noise impact from the project is near the Plant where oil pumping and transportation facilities would be located. No residences are located within the proposed route corridor near the Plant, and therefore the noise impact did not affect any residents. No noise complaint was found in Case No. PU-08-843.

The ND Department of Health (Docket #14) also established Construction and Environmental Disturbance requirements. These represent the minimum requirements of the North Dakota Department of Health. They ensure that minimal environmental degradation occurs as a result of construction or related work which has the potential to affect the waters of the State of North Dakota. This project is to be designed and implemented to restrict the losses or disturbances of soil, vegetative cover, and pollutants (chemical or biological) from a site. The following were the requirements and post construction discussion for the ND Dept of Health:

#### **Soils**

Prevent the erosion of exposed soil surfaces and trapping sediments being transported. Examples include, but are not restricted to, sediment dams or berms, diversion dikes, hay bales as erosion checks, riprap, mesh or burlap blankets to hold soil during construction, and immediately establishing vegetative cover on disturbed areas after construction is completed. Fragile and sensitive areas such as wetlands, riparian zones, delicate flora, or land resources will be protected against compaction, vegetation loss, and unnecessary damage.

Whiting's storm water general construction permit NDR10-2146 spelled out soil prevention techniques. Sediment Logs/Bio-rolls and temporary drain berming (topsoil on edge of ROW) were to be used. Temporary seeding and permanent seed were to be used if necessary.

Whiting construction methods with the topsoil being graded to the edges of the right of way (ROW) helped keep erosion within the ROW area. Whiting installed and maintain appropriate erosion control measures to reduce sedimentation and water quality degradation of wetlands and streams. Silt fences were used for erosion control during construction. The construction storm water general permit NDR10-2146 spelled out prevention methods that were used during construction. Case No. PU-08-843 natural gas pipeline ROW overlaps the right of way of oil



pipeline Case No. PU-08-844. Pictures of fences were submitted with progress reports (PU-08-844 Docket #48-010 pages 7, 8, and 9). Adequate erosion control was maintained based on evaluating the pipeline route on Google Earth 2010 using the June 23, 2009 view.

### **Surface Waters**

All construction which directly or indirectly impacts aquatic systems were to be managed to minimize impacts. All attempts will be made to prevent the contamination of water at construction sites from fuel spillage, lubricants, and chemicals, by following safe storage and handling procedures. Stream bank and stream bed disturbances will be controlled to minimize and/or prevent silt movement, nutrient upsurges, plant dislocation, and any physical, chemical, or biological disruption. The use of pesticides or herbicides in or near these systems is forbidden without approval from this Department.

Construction was managed to minimize impacts to surface waters. Whiting's storm water general construction permit NDR10-2146 spelled out surface waters prevention techniques. The permit identified best practices for erosion and sedimentation control. Temporary drain diversion and berming was used to control sedimentation entering surface waters.

### **Fill Material**

Any fill material placed below the high water mark must be free of top soils, decomposable materials, and persistent synthetic organic compounds (in toxic concentrations).

Whiting's storm water general construction permit NDR10-2146 spelled out fill material if it was required. Whiting did not use any fill material on the project. Existing soil was put back in place (Subsoil first then topsoil across the surface) after construction and reclaimed to original condition.

In reviewing the route, two utility highway crossing permits were required from the ND Dept. of Transportation for crossing Highway 8. No Highway permits were found in Case file No. PU-08-843. These utility highway crossing permits were required prior to construction of the natural gas pipeline. Whiting should provide copies of these permits to the Commission for the case file to complete Order #6.

- 7. Whiting shall conduct a preconstruction conference prior to the commencement of any further construction, which must include a Whiting representative, its construction supervisor, and a representative of Commission staff to ensure that Whiting fully understands the conditions set forth in the Commission's order.**

Construction of the 6-inch natural gas pipeline occurred between May and August of 2008. Letter of Intent (Docket #1) was filed on October 27, 2008. The application for the Corridor Certificate and Route Permit (Docket #33) was filed on November 11, 2008. The Order Granting Corridor Certificate and Route Permit (Docket #33) occurred on February 25, 2009. The pipeline was installed in the ground prior to Corridor Certificate and Route Permit. No records were found in the case file about a preconstruction meeting. The application was filed, and the Corridor



Certificate and Route Permit were issued after the pipeline was constructed. A preconstruction meeting was not possible due filing after the fact. Order #7 cannot be completed.

Whiting constructed an oil pipeline (Case No. PU-08-844) after this natural gas pipeline within the same construction ROW. A preconstruction conference was held on June 23, 2009 for the oil pipeline. Brent Miller (Whiting's Operations Manager), Steve Meagher (Whiting's Construction Superintendent), Bill Regan (Environmental Consultant from Merjent) and Pat Fahn (PSC) were in attendance. Since the 6" NG pipeline and the 8" crude oil pipeline were separated by approximately 15 feet, the two lines share most regulatory issues. Whiting testified at a hearing for the 6-inch NG pipeline it would follow the regulatory issue set for this pipeline. Cleanup, tree mitigation, and reclamation are required by both pipelines.

**8. Whiting shall inform the Commission of its intent to start any further construction on the pipeline prior to the commencement of construction, report to the Commission on the date construction has started, and once construction has started, it shall keep the Commission updated on construction activities on a weekly basis.**

Construction of the 6-inch natural gas pipeline occurred between May and August of 2008. On October 27, 2008 the Commission received the Letter of Intent (Docket #1) for this 6-inch NG pipeline. Under item #3 of the letter of intent, Whiting informed the Commission that the construction of the gas pipeline was substantially complete. Whiting was flaring residue gas into the environment at the time and informed the Commission it was going to start operating the pipeline while the siting process was to be concluded. No weekly construction reports were found in Case file No. PU-08-843.

A date of completion was not be found in the case file. In the application for the Corridor Certificate and Route Permit (Docket#24) page 8/307 of the application, it said the pipeline was in service but did not give a date.

The construction right of way for the natural gas pipeline overlaps the ROW for the oil pipeline Case file No. PU-08-844. Final restoration and cleanup for the ROW began August 19, 2009 (PU-08-844, Docket #27) and finished on September 21, 2009 (PU-08-844, Docket #52).

Whiting should provide weekly construction reports, date of completion, and date in service to the Commission to complete Order #8.

**9. Whiting shall construct and operate the pipeline in the manner described in its application, in any late filed exhibits and supplemental materials, and in accordance with all applicable safety requirements.**

Construction of the 6-inch natural gas pipeline occurred between May and August of 2008. On October 27, 2008 the Commission received the Letter of Intent (Docket #1) for this 6-inch NG pipeline. Under item #3 of the letter of intent, Whiting informed the Commission that the construction of the gas pipeline was substantially complete. Whiting was flaring residue gas into



the environment at the time and informed the Commission it was going to start operating the pipeline while the siting process was to be concluded.

In the application, design was to occur in accordance with US Department of Transportation Regulations prescribed under Part 192 of Title 49 of the Code of Federal Regulations, Transportation of Hazardous Liquids by Pipelines. The maximum operating pressure (MOP) was to be 720 psig. The maximum flow is to be 20 million cubic feet per day. The pipe is 6-inch nominal size, grade X52/X42, 0.280 inch thickness. No pressure test record verifying the 720 psig was found to verify MOP.

A date of completion was not be found in the Case No. PU-08-843 Commission file. In the application for the Corridor Certificate and Route Permit (Docket#24) page 8 of 307 the application said the pipeline was in service but did not give a date.

No weekly construction reports were found in case file. The post construction field survey verified the design information in the application and pipeline operation. Therefore, the pipeline was constructed and is operating in the manner described in the application.

Whiting should provide weekly construction reports, pressure test records, and the date of completion to complete Order #9.

**10. 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, and 48 inches at the bottom of the ditch for road crossings. For any further construction, 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.**

During the post inspection, Keitu verified a pipe has a minimum depth of 55 inches with a locator for rangeland and cultivated land, and the bottom of road ditches. A section crossing at 52<sup>nd</sup> Street Northwest was the only undeveloped section line. Minimum depth from ground surface to the top of the pipe was maintained at random areas spot checks during the post construction field inspection. Order #10 is complete.

**11. All crossings of graded roads shall be bored unless the responsible governing agency specifically permits Whiting to open cut the road.**

Using Google Earth 2010 the route has 15 road bores. Fourteen were street bores (46<sup>th</sup> St. NW, two Highway 8 crossings, 47<sup>th</sup> St. NW, 48<sup>th</sup> St. NW, 49<sup>th</sup> St. NW, 51<sup>st</sup> St. NW, 54<sup>th</sup> St. NW, 55<sup>th</sup> St. NW, 56<sup>th</sup> St. NW, 57<sup>th</sup> St. NW, 58<sup>th</sup> St. NW, 59<sup>th</sup> St. NW, and 61<sup>st</sup> St. NW) and one was a service road bore on the north end of the project. Using the aerial view of Google Earth (June 23, 2009 aerial view) each road bore was identified. During the post construction field inspection, a field inspection occurred to verify these roads were bored. Therefore, all road crossings were bored. Order #11 was followed and is complete.



**12. The width of clear cuts through any wooded areas and shelterbelts shall be kept at a maximum of 50 feet where possible.**

The application for the Corridor certificate and route permit (Docket #24, Page 23 of 307) identified four locations as part of shelter belts. Google Earth 2010 (June 23, 2009 aerial view) was used to review the pipeline path for shelter belts. Using the distance tool, a north/south shelter belt about halfway between 55<sup>th</sup> St. NW and 56<sup>th</sup> St. NW had a width of 48.6 feet parallel to the pipeline. An additional shelter belt with three rows is located about 1300 feet north of 54<sup>th</sup> St. NW. Based on the aerial view of these shelter belts, all three rows were bored. These were the only four rows of shelter belt trees along the pipeline. Therefore, the shelterbelts kept under the maximum of 50 feet.

Two wooded areas were located in the area of 60<sup>th</sup> St NW. Google Earth distance tool was again used. North of 60<sup>th</sup> St NW the width was 46.5 feet and south of 60<sup>th</sup> St. NW the width was 48.5 feet. One more additional woodland area is located just south of the south Hwy 8 road crossing. The width through this site was 50 feet. Therefore, all wooded areas were cleared to a width of 50 feet or less. Order #12 was followed and is complete.

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

In the application (Docket 24, page 9 of 307), six listed species were identified in Mountrail County; including four endangered species, one threatened species (with designated critical habitat), and one candidate species. The identified species include:

Gray wolf (*Canis lupus*) - federally endangered;  
Interior least tern (*Sterna antillarum*) - federally endangered;  
Pallid sturgeon (*Scaphirhynchus albus*) - federally endangered;  
Piping plover (*Charadrius melodus*) - federally threatened with designated critical habitat in Mountrail County;  
Whooping crane (*Grus Americana*) - federally endangered; 264 in state of ND, and  
Dakota skipper (*Hesperis dacotae*) - federal candidate species.

The Fish and Wildlife Service responded on September 30, 2008, stating they concurred with Whiting's assessment that the project will not affect federally-listed species. Construction of the 6-inch natural gas pipeline occurred between May and August of 2008. No Weekly Construction Reports were found in Case File PU-08-843. Weekly Construction Reports should be reviewed to verify no record of siting any habitat of threatened species, endangered species, bald eagles, or golden eagles during construction were found. No information was found in the Commission's file about reporting of any critical habitat during construction. Not enough information was found in the Case file to make a determination that Order #13 was followed.



- 14. Whiting shall comply with the measures set forth in the U.S. Fish and Wildlife Service's February 11, 2009 and September 30, 2008 letters, including the conduct of a field survey by a qualified biologist if construction occurs during the February 1 and July 15 breeding season, and shall provide copies of any notifications to the Fish and Wildlife Service to the Commission.**

The following items were issue in September 30<sup>th</sup>, 2008 letter and there project post construction evaluations with post construction comments:

- a) Schedule concerns about construction during breeding season.

The USFWS letter September 30<sup>th</sup> was authored after construction had occurred on this pipeline. The September 30<sup>th</sup>, 2008 letter addressed the construction of the crude oil pipeline Case No. PU-08-844 and did discuss the services concern about disruption of waterfowl or other wildlife during breeding season. Construction occurred between May and August of 2008. Wildlife breeding season is February 1<sup>st</sup> though July 15<sup>th</sup>. Construction occurred during two to two and one-half months of wildlife breeding season. No record of a biologist was found in the case file.

- b) Make no stream channel alterations or change in drainage patterns.

Following the pipeline route on Google Earth 2010 comparing the June 23, 2009 aerial view to the historical September 23, 1997 aerial view, no stream channels alterations or changes in drainage were found.

- c) Locate construction to avoid placement of fill in wetlands along route.

Evaluating the pipeline route on Google Earth 2010 comparing the June 23, 2009 aerial view to the historical September 23, 1997 aerial view, no fill could be identified in wetland areas. Construction invoices for restoration of the NG pipeline were found in Case No. PU-08-844 Docket #41 through #52 invoices. The invoices did not document any fill as well. Therefore, placement of fill in wetlands was avoided.

- d) Replace unavoidable loss of wetlands with functionally equivalent wetlands.

Wetlands were bored or restore after construction. No replacement wetlands were required.

- e) Install and maintain appropriate erosion control measures to reduce sedimentation and water quality degradation of wetlands and streams.

Construction was completed prior to the USFWS letter. The right of way for the natural gas pipeline overlaps the ROW oil pipeline of Case No. PU-08-844. Silt fences were used for erosion control. Pictures of fences were submitted with progress reports (Case No. PU-08-844 Docket #48-010 pages 7, 8, and 9). These pictures verify that silt fences were



in place and used during the project. Adequate erosion control was maintained based on evaluating the pipeline route on Google Earth 2010 using the June 23, 2009 view and the storm water permit requirements that were issued for this project.

- f) Reseed disturbed areas with native plant species immediately after construction to reduce erosion.

Weekly progress reports (Case No. PU-08-884 Docket #47-52) identified reclamation and cleanup along the pipeline to 100% of the line. Looking at the pipeline from a June 23, 2009 aerial view on Google Earth 2010 shows vegetation growth along the right of way. Reseeding occurred immediately after construction occurred based on the weekly reports from the oil pipeline that parallels the NG pipeline.

February 11<sup>th</sup>, 2009 USFWS letter was an email requiring a qualified biologist if construction occurred during breeding season February 1<sup>st</sup> through July 15<sup>th</sup>. Construction of the 6-inch natural gas pipeline occurred between May and August of 2008 according to the PSC application. Construction occurred during two to two and one-half months of wildlife breeding season. The USFWS letter was authored after construction had occurred. No record of a qualified biologist being on site during breeding season while construction occurred was found in the case file. Whiting should provide a record of the biologist being on site during breeding season construction or a letter stating that they followed regulations to protect fish and animal life.

A February 6, 2009 (Docket #25) USFWS letter said that Whiting had worked with Doug Leschisin of the Lostwood Wetland Management District in Kenmare, ND with the construction of natural gas pipeline. This was acceptable to the USFWS for their requirements on avoiding or minimizing project impacts.

Whiting should provide a record of the biologist being on site during breeding season construction or correspondence stating Whiting followed the Endangered Species Act, Migratory Bird Treaty Act, and the Fish and Wildlife Coordination Act during the construction of this pipeline to complete Order # 14.

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

Construction of the 6-inch natural gas pipeline occurred between May and August of 2008 according to the PSC application. No records were found of suspended construction due to weather conditions in the case file.

No record of a test to establish Maximum Operating Pressure was found in the case file. Passing the pressure test insures that no irreparable damage occurred on the pipeline during construction. Whiting should provide a written record of all pressure tests on the pipeline to complete Order #15. A letter can be submitted with a summary of description what was tested, actual pressure,



length of time tests occurred, final pressure, and dates. The letter should state that all new materials and equipment was tested and has proper pressure rating.

**16. All cultural resource mitigation plans must be submitted to the North Dakota State Historic Preservation Office (SHPO) and approved prior to the start of any fieldwork and any further construction activity.**

Whiting Petroleum Company constructed a six-inch natural gas pipeline from its Robinson Lake Gas Processing Plant to an interconnection with Williston Basin Interstate Pipeline Company's (WBI) interstate transmission line southeast of the town of Stanley, ND, all in Mountrail County. In Whiting's letter of intent on October, 27, 2008 (Docket #1), Whiting said it had conducted a desk study of a corridor one mile in width, located one-half mile on each side of the route. However, because the pipeline had been constructed, Whiting had largely limited field studies to a corridor 120 foot in width, located 60 feet on either side of the route, except that to the extent the field studies identified the existence of any exclusion or avoidance areas or selection criteria within the 120-foot corridor, the corridor was widened as necessary to provide sufficient information to the Commission to fully assess the impact of such factors and any possible alternatives. This was the extent of the cultural resource mitigation plan for the natural gas pipeline prior to construction in May through August of 2008.

In the order granting Corridor Certificate and Route Permit (Docket #33) of February 25, 2009 item 7 of the Finding of Facts, subsequent to construction of the pipeline, Whiting retained Merjent, Inc. of Minneapolis, Minnesota, to coordinate environmental studies and reports. Merjent, Inc. retained Metcalf Archaeological Consultants to conduct a Class III cultural survey within 120-foot-wide corridor, 40 feet on the west side of the Pipeline and 80 feet on the east side of the Pipeline.

A Metcalf cultural resource inventory report in December of 2008 (Docket 24, Exhibit 3) resulted in the documentation of 17 sites, six isolated finds and the revisit of two previously documented sites. Construction of the natural gas pipeline impacted three sites, 32MN762, 32MN763 and 32MN764 that are potentially eligible for listing on the National Register of Historic Places. Sites 32MN762 and 32MN763 were fenced around and 32MN764 was route around during construction of the oil pipeline. The field survey for this report was designed to inventory a corridor that covered both pipelines.

The SHPO in a September 10, 2008 letter to Merjent, Inc., stated it received and reviewed Metcalf's cultural resource inventory correspondence and documentation of September 9 and found it acceptable. The SHPO concurred with the scope of identification efforts as proposed and recommended the proposed routing.

The Cultural Resource Inventory Report (Docket #24, Exhibit 3) was issued before the hearing. SHPO issued a December 15, 2008 letter that stated that they received, reviewed the correspondence, and found it acceptable.

The goals of the cultural resources investigation for the Robinson Lake Pipeline Project were to avoid or minimize the impacts to significant historic properties during construction of the oil



pipeline, and to assess the impacts to cultural resources. The project followed the SHPO Guidelines Manual for Cultural resource Inventory Projects (2006), and employed professionals that meet or exceed the relevant Secretary of the Interior's standards. This was done for the oil pipeline. However, Case No. PU-08-843 was a natural gas pipeline and cultural resource investigation field studies occurred after the NG pipeline was constructed.

All cultural resource mitigation plans were submitted to the SHPO with Whiting working with the NDSHPO after construction. No written document was found stating in the case file that Whiting conducted a cultural resource desk study of the corridor prior to pipeline construction. In December of 2008 (Docket 24, Exhibit 3), it was determined construction of the natural gas pipeline impacted three sites, 32MN762, 32MN763 and 32MN764 that are potentially eligible for listing on the National Register of Historic Places. No correspondence was found in the Commission's file that SHPO agreement of the cultural resource mitigation plan after the pipeline was constructed. Whiting should provide correspondence to the Commission of discussion with SHPO about the impact and affect to the three cultural sites that occurred due to the natural gas pipeline being constructed. This would provide information for completion of Order # 16.

**17. 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 by the State Historical Society, a report of such examination is filed with the Commission, and clearance to proceed is given by the SHPO and the Commission.**

No cultural resource, paleontological site, archeological site, historical site, or grave site during construction records were found in the case file. Whiting should provide the Commission a letter stating that they did not discover any cultural resource, paleontological site, archeological site, historical site, or grave site during construction of the pipeline to complete Order #17. If any of these items or sites were found during construction, Whiting should provide documentation to the Commission that Order #17 was followed during construction.

**18. In any further construction, at least 12 inches of topsoil where available 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 topsoil. Any area on which excavated subsoil will be placed must also be stripped of topsoil. After backfilling is completed, and 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 the subsoil is replaced.**

The right of way (ROW) for the natural gas pipeline overlaps the oil pipeline Case file No. PU-08-844. Construction pictures (Case No. PU-08-844, Docket #480-010 pages 4-20) showed the topsoil of the construction ROW pulled to the two side edges of the ROW. Top soil depths vary along the pipeline. Topsoil was pulled off to the edges to a depth of a maximum of 12". A grader is normally used to blade the topsoil to the edges. The excavated subsoil is placed 18 inches to the side or sides of the pipeline trench. The construction pictures also showed this. Should



topsoil be more than 12", the ditch line topsoil was kept separate than the subsoil. After pipe installation, the subsoil is placed back in the hole with proper compaction occurring using a track hole or a grader. A grader is used to distribute the top soil off the ROW edges and ditch line piles, and spread it back across the construction ROW to the existing topography. A site inspection verified that the top soil was spread to the topography and vegetation is growing again. Order # 18 was followed.

**19. Reclamation and clean up along the right-of-way must be continuous and coordinated with construction.**

The right of way for natural gas pipeline overlaps the oil pipeline of Case No. file PU-08-844. Weekly progress reports (Case No. PU-08-844, Docket #47-52) identified reclamation and cleanup along the pipeline to 100% of the line. Looking at the pipeline from a June 23, 2009 aerial view on Google Earth 2010 shows vegetation growth along the right of way. Reseeding occurred immediately after construction occurred based on the weekly reports. Order #19 was completed.

**20. All pre-existing roads and lanes used during any further construction must be restored to a condition that will accommodate their previous use, and areas used as temporary roads or working areas during construction must be restored to their original condition.**

To support construction activities, Whiting used property at its Plant for a contractor staging area and pipe storage area. Being the pipeline company owns the staging and storage area, this area is not required to be restored to a condition that accommodated its previous use. However, the staging/storage area was restored to a condition of its previous use.

Whiting used existing public roads to access the construction right-of-way and did not need to modify roads or create new access roads. No temporary roads were required. Original roads looked the same as prior to construction using aerial Google Earth. Order #20 was followed.

**21. Reclamation, fertilization, and reseeding are to be done by Whiting according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.**

The natural gas pipeline right of way overlaps the oil pipeline ROW for Case file No. PU-08-844. Weekly progress reports (Case No. PU-08-844, Docket #47-52) identified reclamation and cleanup along the pipeline to 100% of the line. Reseeding occurred immediately after construction occurred based on the weekly reports. Order # 21 was followed.



**22. Whiting shall comply with the Tree and Mitigation Specifications attached to this order.**

At the conclusion of the project, documentation identifying the actual number, variety, type, location, and date of the replacement plantings were to be filed with the Commission. The right of way for natural gas pipeline overlaps the oil pipeline ROW of Case No. PU-08-844. No documentation identifying the actual number, variety, type, location, and date of the replacement planting were given in the case file.

Tree and shrub replacements are to be inspected once a year for three years, on about the anniversary of the plantings, and, on or shortly before October 1 of each year, a report shall be submitted to the Commission documenting the condition of replacement planting and any woodlands work completed. If after three years from the anniversary of the plantings the survival rate is less than 75%, the Commission may order additional planting(s). No documentation was found in the case file that yearly inspections have occurred.

The width of clear cuts through windbreaks, shelterbelts and all other wooded areas shall be limited to 50 feet or less unless otherwise approved by the Commission. The application for the Corridor certificate and route permit (Docket #24) identified four locations as part of shelter belts. Google Earth 2010 (June 23, 2009 aerial view) was used to review the pipeline path for shelter belts. Using the distance tool, a north/south shelter belt about halfway between 55<sup>th</sup> St. NW and 56<sup>th</sup> St. NW had a width of 48.58 feet parallel to the pipeline. An additional shelter belt with three rows is located about 1300 feet north of 54<sup>th</sup> St. NW. Based on the aerial view of these shelter belts, all three rows were bored. These were the only four rows of shelter belt trees along the pipeline. Therefore, the shelterbelts kept under the maximum of 50 feet.

Two wooded areas were located in the area of 60<sup>th</sup> St NW. Google Earth distance tool was again used. North of 60<sup>th</sup> St NW the width was 46.5 feet and south of 60<sup>th</sup> St. NW the width was 48.5 feet. One more additional woodland area is located just south of the south Hwy 8 road crossing. The width through this site was 50 feet. Therefore, all wooded areas were cleared to a width of 50 feet or less.

Tree and shrub documentation, its Commission's approval, and completion of the plan are still required for completion of Order #22.

**23. Whiting shall work with landowners and residents to mitigate any increase in television and residential radio interference that results from the route of the pipeline.**

The project is located in a rural, agricultural setting with very few buildings with television or radio along the proposed route corridor. No schools or hospitals are located within the proposed route corridor. Two churches and eleven residences are located within the proposed route corridor, but are more than 500 feet away from the proposed pipeline route. No complaints were found in the case file. Order # 23 was followed.



- 24. Whiting shall provide the Commission with a hard copy of the facility alignment drawings with alignment data showing the facility as built (hardcopy and electronic versions), and an electronic version of the as-built facility that can be imported into ESRI GIS mapping software within 3 months of the date of this order.**

No documentation of supplemental information of as-built alignments was found in case file. The Whiting still needs to provide the Commission an as-built hard copy, electronic copy, and data files of the as-built line that can be imported into ESRI GIS mapping software. A date in service was not found in the case file. However, the pipeline was placed into operations by the February 25th, 2009 based on #3 in the Finding of Facts in the Order granting Corridor Certificate and Route Permit (Docket #33). Therefore, as built diagrams and the 3 month deadline was not met. Order #24 was not followed.

- 25. Whiting's obligation for reclamation and maintenance of the right-of-way will continue throughout the life of the pipeline.**

The post construction field inspection determined that additional pipelines exist in parallel to the natural gas pipeline. Line marker signs were installed at each section crossing and highway crossing. Cathodic protection reading posts exist along the line. The field inspection of September 15, 2011 also determined that the vegetation was satisfactory. Whiting's obligation for reclamation and maintenance was found satisfactory during the post construction field inspection. Order #25 has been followed.

During the September 15, 2011 post construction field inspection, Highway 8 road construction was occurring. The ditches of the pipeline highway crossings were being cut lower to use the soil for road widening fill. Whiting may want to verify that their pipeline depth below ground has sufficient soil cover after highway construction reclamation is complete.

- 26. 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. A modification will be required at the request of the pipeline company.

On May 17, 2010 the Commission received a letter from Whiting Oil and Gas Corporation (Whiting) that they were going to have an operational change, and de-regulation, of Whiting's six inch gas transmission line (Docket #30). Whiting is to change its gas market from WBI to Pecan's Prairie Rose Pipeline approximately in early-July, 2010. The gas will be processed to a level acceptable for Pecan and not to end-use consumer quality gas. Pecan requested and received a jurisdictional determination from the Public Service Commission of their system, which was determined to be non-jurisdictional gathering. Whiting then will build a 10 inch line that will tie to Pecan. Once the 10 inch line is constructed, Whiting will then switch the gas going from



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Robinson Lake Gas Plant to Pecan into the new 10 inch line. Then, Whiting will change the gas flow direction of the six inch line and tie it in to the gas gathering system feeding to Robinson Lake Gas Plant. These changes prompted Whiting to request and receive a de-regulation order from FERC on the Robinson Lake Gas Pipeline in an "Order Approving Abandonment" dated March 9, 2010. Whiting is to de-regulation of the six inch gas transmission line when the change of gas flow direction of the 6 inch line is complete and tied the gas gathering system feeding the Robinson Lake Gas Plant. Whiting is to notify the PSC within 10 days following the change in market from WBI to Pecan. No records are in case that the market change from WBI to Pecan has occurred. Whiting wants the PSC to temporarily suspend the use of Route Permit #118 and Certificate of Corridor Compatibility #108. They also do not wish to abandon the route Permit and Certificate of Corridor compatibility currently in order to keep future operating scenarios open.

The Commission may choose to modify the corridor certificate and route permit when Whiting notifies the Commission of a market change from WBI to Pecan if deemed necessary to protect the public or the environment.