

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Falkirk Mining Company
Revision No. 20, Permit NAFK-9503
Application

Case No. RC-10-579

**REVISION OF PERMIT TO ENGAGE IN SURFACE COAL
MINING AND RECLAMATION OPERATIONS**

July 27, 2011

Based on the application for **Revision Number 20 to Surface Coal Mining Permit NAFK-9503** submitted by the Falkirk Mining Company on September 9, 2010, and revised through July 14, 2011, and all information and documentation contained therein, the North Dakota Public Service Commission (Commission) finds that the application meets all applicable requirements of Chapter 38-14.1 of the North Dakota Century Code (NDCC) and Article 69-05.2 of the North Dakota Administrative Code (NDAC). On the basis of the information set forth in the application or from that otherwise available and known by the applicant, the Commission finds that:

Finding No. 1. The revision application is accurate and complete and complies with the requirements of NDCC Chapter 38-14.1 and NDAC Article 69-05.2. [NDCC 38-14.1-21(3)(a)].

The applicant verified that all information included in the revision application to add 16,924.1 acres to the permit is true and correct to the best of his knowledge. Commission staff conducted completeness and technical reviews to ensure that the required information was provided and the mining and reclamation plans meet all applicable requirements. The Reclamation Division sent completeness deficiency letters to the applicant on October 7, 2010, November 19, 2010 and December 9 2010; and technical deficiency letters were sent March 3, 2011, June 10, 2011, and July 13, 2011. Responses to each letter were filed and changes to the application were made to address the concerns that were noted. The Commission concludes that the application is now accurate and complete. The applicant published the required notices in the Underwood News, McLean County Independent, Washburn Leader News, and Bismarck Tribune in December of 2010 and January of 2011 and the Commission sent notices to all surface owners in the permit area, numerous local, state and federal agencies on December 15, 2010. Advisory committee members also reviewed portions of the application during the review period. Comments from advisory committee members were included with deficiency letters that were sent to the applicant.

One surface owner filed an objection to the application indicating that he objected to the terms of his surface and coal lease and that the lease would expire prior to the land being mined and that he was not willing to extend the coal lease. The applicant filed documentation indicating that their right to mine was valid as according to a ruling by the South Central Judicial District Court. No other objections were received and no one requested an informal conference on the application.

Finding No. 2. The applicant has demonstrated that reclamation as required by NDCC Chapter 38-14.1 and NDAC Article 69-05.2 can be accomplished under the reclamation plan contained in the permit application. [NDCC 38-14.1-21(3)(b)].

Revision No. 20 adds 16,924.1 acres to the permit area of Surface Coal Mining Permit NAFK-9503. With the approval of this revision, the total acreage in the permit will total 29,310.45 acres. Actual coal mining will occur on much of this area and haulroads, overburden and soil stockpiles, sedimentation ponds, pit water ponds and pipelines, and other associated disturbances will occur in other parts of the area being added to the permit. Reclamation of the disturbed acreage will be carried out using reclamation procedures that have been successful in the past and satisfy the requirements of the North Dakota law and rules. The applicant's reclamation practices have proven effective in the past.

The applicant has demonstrated that sufficient soil materials are available to meet the soil redistribution requirements of NDAC 69-05.2-15 and the revegetation requirements of NDAC 69-05.2-22. The postmining topography proposed by the applicant meets the requirement of NDCC 38-14.1-24(3) and NDAC 69-05.2-21-02. The average proposed postmining slope is less than the average premine slope. No thin overburden exists within this permit area. The reclaimed land will be capable of supporting premine uses, or higher or better uses, that existed prior to mining. The predominant premining land uses in the entire permit area consist of cropland and native grassland. Over 72% of the total permit area has been used as cropland, including hayland and lands enrolled in the Conservation Reserve Program; and about 18% is native grasslands. Other premine land uses include tame pastureland, farmsteads, shelterbelts, woodlands, fish and wildlife habitat (wetlands), public roads, and industrial/commercial. With regard to postmining land uses, no significant changes are proposed from those present prior to mining. However, there will be some decreases in the following premine land use acreages: tame pastureland (140 acres), shelterbelts (16 acres), and farmsteads (130 acres).

With regard to the reclamation schedule for the new mine area that will start in 2014 as proposed by Revision No. 20, the applicant has demonstrated the need for variances from the contemporaneous reclamation requirement that normally requires rough grading be completed within 180 days of coal removal, and from the requirement that normally requires initial planting to be completed within three years of the completion of coal mining operations. Variances from these requirements are allowed by NDAC 69-05.2-21-02 and NDCC 38-14.1-24(14), respectively. A new variance area involves the proposed pit sequence where the initial east-west oriented truck/shovel pits will shift to a north-south orientation for a dragline operation that will begin in 2021. Also, certain previously approved variances will extend into other lands as mining progresses into other areas added to the permit with Revision No. 20. The requests for these variances from the contemporaneous reclamation requirement have been justified and the Commission is approving them as described in the reclamation schedule.

The area being added to permit contains several tracts of unleased federal coal. As required by the Cooperative Agreement that the Commission has with the U.S. Department of the Interior, the Bureau of Land Management was consulted to ensure that mining and reclamation plans in this revision do not result in substantial or adverse affects to the federal mineral estate. The applicant has proposed placing a portion of a large overburden stockpile over the unleased federal coal tract located in SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 12, T145N, R84W. The placement of an overburden stockpile on this tract could

adversely affect the mining of coal on this tract in the future. Therefore, Condition No. 1 is being attached to the approval of this revision that prohibits the placement of overburden stockpiles on unleased federal coal tracts containing minable coal unless such stockpiles are specifically authorized by the Bureau of Land Management.

Finding No. 3. Based on the assessment of the probable cumulative impact of all anticipated mining in the area, the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. [NDCC 38-14.1-21(3)(c)].

An assessment of the probable cumulative hydrologic impact of all anticipated mining in the area has been made as required by NDCC 38-14.1-14(1)(o). The Commission finds that the proposed operation has been designed to maintain the quantity, quality, and hydrologic regime of surface and ground water systems in the area. The cumulative effects of all existing and proposed mining operations should not damage the hydrologic balance outside the permit area. The detailed cumulative hydrologic impact assessment that was updated for this revision is filed with Permit No. NAFK-9503 in the Commission's offices.

Finding No. 4. Lands within the areas being added to the permit are not within an area designated unsuitable for surface coal mining operations, nor within areas under study or administrative proceedings under a petition to have an area designated as unsuitable for surface coal mining operations. [NDCC 38-14.1-21(3)(d)].

None of the lands within the areas being added to the permit have been designated unsuitable for surface coal mining operations pursuant to NDCC 38-14.1-05, nor are they within an area under study or administrative proceedings under a petition to have an area designated as unsuitable for surface coal mining operations.

Finding No. 5. The proposed mining operation will not interrupt, discontinue, or preclude farming on alluvial valley floors that are irrigated or naturally sub-irrigated or materially damage the quantity or quality of water in surface or underground water systems that supply these alluvial valley floors. [NDCC 38-14.1-21(3)(e)].

Based on an examination of the geologic and geomorphic characteristics, soils, land use, and the water quality and quantity of streams within or adjacent to the permit area, some areas identified as the Missouri River alluvial valley floor (AVF) are located near the permit area. None of these areas are within the permit area and the proposed mining activities are not expected to affect this AVF because surface water levels and corresponding ground water levels are controlled by releases from Garrison Dam. However, the applicant has committed to conducting long-term monitoring of the AVF by use of aerial imagery or photography, periodic on the ground observations to check for land use practices, or non-mining influences that may affect the AVF, and monitoring of landowner perceptions through their landowner relations program of conditions on the AVF. Should changes occur on the AVF that may be influenced by mining, the applicant is committed to taking additional monitoring and/or hydrologic reclamation steps as required to address any issues. Reporting of AVF monitoring results will be submitted to the Commission on an annual basis.

Finding No. 6. In cases where the mineral estate has been severed from the surface estate, the applicant complied with the requirements of NDCC 38-18 [NDCC 38-14.1-21(3)(f)].

The applicant included leases and other documents in the revision application demonstrating compliance with the North Dakota Surface Owners Protection Act, NDCC 38-18. This documentation included the notice that was given to all surface owners before the revision was filed with the Commission.

Finding No. 7. Except for public roads, lands being added to the permit are not within areas subject to the prohibitions or limitations of NDCC 38-14.1-07. With regard to public roads, the applicant has committed to complying with the review and approval procedures under NDAC 69-05.2-04-01.1 [NDAC 69-05.2-10-03(6)(a)].

Lands within the areas being added to the permit are:

- a. Not on any lands within the boundaries of units of the North Dakota Park System, the National Park System, the National Wildlife Refuge Systems, the National System of Trails, the National Wilderness Preservation System, the National Wild and Scenic Rivers System, including study rivers designated under Section 5(a) of the Wild and Scenic Rivers Act, and national recreation areas.
- b. Not on any federal lands within the boundaries of any national forest.
- c. Not within 300 feet of any publicly owned park or places included in the State Historic Sites Registry or the National Register of Historic Places.

A cultural resource survey and inventory of the areas being added to the existing permit was conducted (James Strait, 2008 and Boughton, Wagers, and Peterson, 2007). The Weller Slough tract (400-acre area) yielded no eligible historic properties. The survey of the remaining area indicated 84 cultural properties; 33 prehistoric and 51 historic in origin. The survey report recommended that 29 prehistoric sites be tested for eligibility and that two historic farmstead sites contained buildings eligible for National Register of Historic Places listing. The State Historic Preservation Officer (SHPO) concurred with these results. Of the 29 sites tested in 2008, 12 were recommended as eligible and in need of recovery because of potential disturbance. A recovery plan was developed and approved in September 2009 by the North Dakota SHPO. The two eligible historic properties, 32ML1122 and 32ML1113, the Thyberg and Swante Swanson farmsteads, were mitigated for potential mining disturbance by conducting recordation procedures on each in accordance with standards of the Historic American Building Survey. Separate reports have been provided to the landowners and are on file with the SHPO historic archives.

The applicant has committed to reporting, testing and mitigating, if necessary, any previously unrecorded archeological, cultural, or historical materials that may be discovered as a result of mining related activities.

- d. Within 100 feet of the outside right-of-way line of a public road. However, the applicant has stated that no disturbance will occur within 100 feet of the outside edge of the existing public road right-of-ways until the appropriate road authority approves mining disturbance within 100 feet of the right-of-way or until the road authority closes the roads.

The applicant has committed to provide the Commission with documentation of additional McLean County approvals before any disturbance occurs within 100 feet of the outside edge of any public road right-of-way. The county approval process includes public notice with the opportunity for a hearing. The Commission finds that

this approval process will provide for a mechanism for protecting the interests of the landowners and public similar to that provided by NDCC 38-14.1-07(4) and NDAC 69-05.2-04-01.3. In addition, the applicant plans to petition McLean County to close certain section line roads. The county road closure process also provides for public notice and opportunity for hearing and the applicant will forward copies of those documents to the Commission as well.

- e. Not within 300 feet of any public building, school, church, community, or institutional building.
- f. Contains occupied dwellings and active farmsteads. However, the applicant has stated that no mining operations will be conducted within 500 feet of any occupied dwelling. In addition, the applicant states no mining activities will be conducted within 500 feet of any farm building that is currently being used. These 500 foot setback areas are depicted on the Pit Layout and Facilities Map, Section 3.1.5 and are considered as no disturbance areas. However, it is understood that the applicant may purchase the land where an occupied dwelling or active farm building is located, or otherwise obtain a waiver from the owner of the structure.
- g. Not within 100 feet of any cemetery.

Finding No. 8. With respect to prime farmland, the postmining land use of reclaimed prime farmland will be cropland, the reclamation plan was reviewed by the Natural Resource Conservation Service, and operations will be conducted in compliance with NDAC 69-05.2-26 and NDCC 38-14.1. The applicant has the technological capability to restore the productivity on reclaimed prime farmlands. [NDAC 69-05.2-10-03(6)(c) and NDCC 38-14.1-21(6)].

The applicant has included a prime farmland reclamation plan for tracts subject to the special requirements that satisfies the requirements of NDAC 69-05.2-09-15 and the performance standards of NDAC Chapter 69-05.2-26. The postmining land use of the reclaimed prime farmland will be cropland and the total prime farmland acreage will not be decreased from that which existed prior to mining based on the cooperative soil survey for McLean County. The Natural Resource Conservation Service has reviewed the prime farmland reclamation plan and has determined that it is adequate to restore the productivity of the prime farmland. The reclamation methods that will be used have been proven to be successful in the past and the Commission finds that the applicant has the technological capability to restore the productivity of reclaimed land to a level that is equal to or greater than nonmined prime farmland in the surrounding area under equivalent management practices.

Finding No. 9. The operations will not affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitats. [NDAC 69-05.2-10-03(6)(d)].

No threatened or endangered species were observed within or contiguous to the areas being added to the permit with Revision 20. Surface coal mining and reclamation activities will not affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitats. The whooping crane, and gray wolf could occur as occasional migrants through the area. Habitats required for the black-footed ferret, least tern, pallid sturgeon, western prairie fringed orchid, and greater sage grouse (candidate species) were not found in or adjacent to the permit area. Piping plovers and the Dakota skipper butterfly (candidate species) are not

likely to occur in the area, as their natural habitat is not found in the pre-mine condition. However, mining and reclamation activities may create temporary habitat that is suitable for piping plovers. The Missouri River, which is designated critical habitat for the northern population of piping plovers, is within a few miles of the permit boundary. However, there is no designated critical piping plover habitat within or immediately adjacent the permit area. Sightings of Sprague's pipit (candidate species) in Sections 12 and 13, T145N, R84W were recorded during the fieldwork and wildlife surveys. However, based on observations within reclaimed lands in the area, the Sprague's pipit will likely find the reclaimed native grasslands as suitable habitat.

Finding No. 10. The applicant has submitted proof that all reclamation fees required by 30 CFR subchapter R have been paid. [NDAC 69-05.2-10-03(6)(e)].

The applicant has paid all reclamation fees required by 30 CFR subchapter R. The Office of Surface Mining's Applicant Violator System office was queried to verify that all fees have been paid.

Finding No. 11. The applicant has satisfied requirements for approving cropland as a postmining land use. [NDAC 69-05.2-10-03(6)(f)].

The applicant has satisfied the requirements for approval of a cropland postmining land use under NDAC 69-05.2-22-01. Areas reclaimed to cropland will either be seeded directly to crops commonly grown in the area or to a tame grass/legume pre-cropland mixture. The postmining topography and soils are suitable for cropland in the areas that will be cropped.

Finding No. 12. All existing structures that will be used to support mining activities within the permit area comply with the requirements of NDCC 38-14.1-24 and NDAC 69-05.2-09-04 [NDAC 69-05.2-10-04].

Existing structures currently in the permit area (such as haulroads and sedimentation ponds) will be used to support mining activities. In addition, some haulroads, sedimentation ponds, coal handling facilities and other facilities which are within Permit NAFK-8705 will support mining in this permit area. These previously permitted structures have been found to meet the applicable design and performance standards of NDCC 38-14.1-24 and NDAC 69-05.2.

Finding No. 13. No drill holes, boreholes or wells will be retained for other uses. [NDAC 69-05.2-14-03].

The applicant has not proposed to retain any drill holes, boreholes, or wells for other uses.

Finding No. 14. No spoil in the permit area is known to cause toxic mine drainage. [NDAC 69-05.2-16-11].

The chemical characteristics of the overburden materials in the permit area are such that they do not produce toxic mine drainage. The analysis of overburden samples included in the permit application do not reveal any substances that would cause any chemical reactions or physical effects that are likely to kill, injure, or impair biota commonly present in the area.

Finding No. 15. The applicant will not conduct mining activities within or near perennial and intermittent stream channels that violate applicable water quality standards or adversely affect the quantity and quality of the water and other environmental resources of the stream. [NDAC 69-05.2-16-20].

Several intermittent streams are located within areas being added to the permit with Revision No. 20. However, the applicant does not plan to conduct any mining related activities within 100 feet of any stream that has intermittent flow. The applicant will also mark the 100 foot buffer zone as required by NDAC 69-05.2-16-20 within one year of any mining related mining disturbances near a intermittent stream or before mining activities occur within one-half mile of the stream, whichever is sooner.

Finding No. 16. The applicant does not propose to use any experimental practices in the permit area. [NDAC 69-05.2-27-02].

There are no plans included in the permit application to use any experimental practices that may be allowed under NDAC 69-05.2-27-02.

Finding No. 17. The applicant does not control and has not controlled surface coal mining and reclamation operations with a demonstrated pattern of willful violations [NDAC 69-05.2-10-03(4)].

Commission records, and those in the Office of Surface Mining's Applicant Violator System, do not show that the applicant controls and has controlled surface coal mining and reclamation operations with a demonstrated pattern of willful violations of NDCC 38-14.1 or of other states' laws which are based on P.L. 95-87 (the Federal Surface Mining Control and Reclamation Act), of such nature, duration, and with such resulting irreparable damage to the environment as to indicate an intent not to comply with the provisions of these laws.

Finding No. 18. Neither the applicant, nor any affiliated companies, have unabated violations or unpaid civil penalties. [NDAC 69-05.2-10-03(1)].

Commission records, and those in the Office of Surface Mining's Applicant Violator System, do not indicate that the applicant, nor any affiliated companies, have any unpaid civil penalties or unabated violations of NDCC 38-14.1 or any other federal or state laws, rules, or regulations pertaining to air or water environmental protection. Also, the North Dakota Department of Health has not informed the Commission of any unabated violations that the applicant has with regard to air and water environmental protection standards.

Finding No. 19. A performance bond in the amount of \$60,214,264 is sufficient for the proposed surface coal mining operations in the consolidated bond area that includes this permit. [NDAC 69-05.2-12-07].

The Commission has determined that a total bond amount of \$60,214,264 is needed to perform the required reclamation, restoration, and abatement work in the consolidated bond area that includes Permit NAFK-9503. The Falkirk Mining Company has filed self and collateral bond documents that now total \$60,215,000 for the consolidated bond area that also includes Permits NAFK-8705 and NAFK-8405.

Subject to the right of any person with an interest that is or may be adversely affected to request a formal hearing under NDCC 38-14.1-30, **Revision Number 20 to Permit**

Number NAFK-9503 is hereby granted to the **Falkirk Mining Company** to engage in surface coal mining and reclamation operations on the following described areas subject to the requirements of Chapter 38-14.1 of the North Dakota Century Code, the rules promulgated thereunder, the original permit conditions, and plans in the approved revision application. (Also attached is a copy of the metes and bounds description of the areas being added to the permit.)

LOCATION

MINE	ADDRESS	Sec.	Twp.	Range	County	
The Falkirk Mining Company	Washburn, ND	29, 30, 31, 32	146N	83W	McLean	
		36	146N	84W	McLean	
		7	145N	82W	McLean	
		1, 2, 12, 13	145N	84W	McLean	
		4, 5, 6, 7, 8, 9, 12				
		16, 17, 18, 19, 20	145N	83W	McLean	
		21, 29, 32, 33				
		1, 2, 3, 10, 11 12	144N	84W	McLean	
6, 7	144N	83W	McLean			

16,924.1 TOTAL ACRES

PUBLIC SERVICE COMMISSION


Kevin Cramer
Commissioner


Tony Clark
Chairman


Brian P. Kalk
Commissioner

**RIVERDALE PERMIT NAFK-9503
WEST 4TH ADDITION, REVISION NO. 20**

Metes and Bounds

An area of land located in T144N-R83W, T144N-R84W, T145N-R83W, T145N-R84W, T146N-R83W, and T146N-R84W of the 5th P.M, McLean County, North Dakota having the bearings and distances based on the North Dakota State Plane Coordinate System, North Zone, 1927 N.A.D. Described as follows:

Beginning at the southeast corner of Section 7, T144N, R83W;
thence N 89°35'36" W a distance of 2656.00 feet to the south ¼ corner of said Section;
thence N 89°35'35" W a distance of 2625.44 feet to the southwest corner of said Section 7;
thence N 89°44'41" W a distance of 2644.14 feet to the south ¼ corner of Section 12, T144N, R84W;
thence N 88°49'38" W a distance of 2651.78 feet to the southwest corner of said Section;
thence N 88°34'04" W a distance of 2652.60 feet to the south ¼ corner of Section 11, T144N, R84W;
thence N 89°29'04" W a distance of 2644.77 feet to the southwest corner of said Section;
thence N 00°32'56" E a distance of 2639.68 feet to the west ¼ corner of said Section 11;
thence N 89°16'12" W a distance of 2653.98 feet to the center ¼ corner of Section 10, T144N, R84W;
thence N 00°20'55" E a distance of 2637.83 feet to the north ¼ corner of said Section;
thence N 00°36'12" E a distance of 4134.12 feet to the north ¼ corner of Section 3, T144N, R84W;
thence S 89°16'46" E a distance of 2065.44 feet to the south ¼ corner of Section 31, T145N, R83W;
thence S 89°17'14" E a distance of 569.46 feet to the northeast corner of Section 3, T144N, R84W;
thence S 89°17'14" E a distance of 2073.25 feet to the southeast corner of Section 31, T145N, R83W;
thence N 00°54'19" E a distance of 2635.01 feet to the east ¼ corner of said Section;
thence N 00°32'30" E a distance of 2644.26 feet to the northeast corner of said Section 31;
thence N 00°28'46" E a distance of 2644.25 feet to the east ¼ corner of Section 30, T145N, R83W;
thence S 89°29'59" E a distance of 2631.71 feet to the center ¼ corner of Section 29, T145N, R83W;
thence N 00°35'48" E a distance of 2644.19 feet to the north ¼ corner of said Section;
thence S 89°29'59" E a distance of 264.00 feet on the north line of said Section;
thence N 00°35'37" E a distance of 330.00 feet;
thence N 89°29'59" W a distance of 264.00 feet to the north-south ¼ line of Section 20, T145N, R83W;
thence S 00°35'37" W a distance of 330.00 feet to the north ¼ corner of said Section 29;
thence N 89°29'52" W a distance of 2637.11 feet to the northwest corner of said Section;
thence N 88°57'53" W a distance of 2641.85 feet to the south ¼ corner of Section 19, T145N, R83W;
thence N 00°42'38" E a distance of 5284.61 feet to the north ¼ corner of said Section;
thence N 89°07'14" W a distance of 2671.99 feet to the northwest corner of said Section 19;
thence N 89°14'42" W a distance of 2638.04 feet to the south ¼ corner of Section 13, T145N, R84W;
thence N 89°15'51" W a distance of 2627.20 feet to the southwest corner of said Section;
thence N 00°12'50" E a distance of 2645.67 feet to the west ¼ corner of said Section 13;

thence N 00°12'59" E a distance of 2661.19 feet to the southwest corner of Section 12, T145N, R84W;
thence N 00°37'08" E a distance of 2641.65 feet to the west ¼ corner of said Section;
thence N 00°35'09" E a distance of 2652.61 feet to the southwest corner of Section 1, T145N, R84W;
thence N 00°29'56" E a distance of 2610.67 feet to the west ¼ corner of said Section;
thence N 89°23'07" W a distance of 2652.42 feet to the center ¼ corner of Section 2, T145N, R84W;
thence N 00°45'40" E a distance of 2669.58 feet to the north ¼ corner of said Section;
thence S 89°16'03" E a distance of 2644.09 feet to the southwest corner of Section 36, T146N, R84W;
thence N 00°35'08" E a distance of 2667.51 feet to the west ¼ corner of said Section;
thence N 00°37'53" E a distance of 2625.71 feet to the northwest corner of said Section 36;
thence S 89°22'36" E a distance of 2630.59 feet to the north ¼ corner of said Section;
thence S 89°16'12" E a distance of 2642.16 feet to the northwest corner of Section 31, T146N, R83W;
thence S 89°10'44" E a distance of 2650.00 feet to the north ¼ corner of said Section;
thence N 00°40'31" E a distance of 2646.91 feet to the center ¼ corner of Section 30, T146N, R83W;
thence S 89°08'32" E a distance of 2643.01 feet to the east ¼ corner of said Section;
thence S 89°05'01" E a distance of 2645.32 feet to the center ¼ corner of Section 29, T146N, R83W;
thence S 00°39'06" W a distance of 2642.52 feet to the south ¼ corner of said Section;
thence S 89°08'31" E a distance of 2646.03 feet to the northeast corner of Section 32, T146N, R83W;
thence S 00°37'08" W a distance of 2639.84 feet to the east ¼ corner of said Section;
thence S 00°37'08" W a distance of 2135.78 feet on the east line of said Section 32;
thence N 89°08'38" W a distance of 355.14 feet;
thence S 57°16'04" W a distance of 101.16 feet;
thence N 89°34'18" W a distance of 173.33 feet;
thence S 01°52'59" E a distance of 449.41 feet to the south line of said Section 32;
thence S 89°20'46" E a distance of 593.34 feet to the northwest corner of Section 4, T145N, R83W;
thence S 89°20'45" E a distance of 2644.16 feet to the north ¼ corner of said Section;
thence S 00°30'10" W a distance of 5311.62 feet to the south ¼ corner of said Section 4;
thence S 88°58'49" E a distance of 2641.70 feet to the northeast corner of Section 9, T145N, R83W;
thence S 00°27'03" W a distance of 2634.76 feet to the east ¼ corner of said Section;
thence S 00°27'03" W a distance of 2634.76 feet to the northeast corner of Section 16, T145N, R83W;
thence S 00°27'34" W a distance of 2650.34 feet to the east ¼ corner of said Section;
thence S 00°27'34" W a distance of 2650.34 feet to the northeast corner of Section 21, T145N, R83W;
thence S 00°35'30" W a distance of 2642.94 feet to the east ¼ corner of said Section;
thence N 89°04'02" W a distance of 2649.46 feet to the center ¼ corner of said Section 21;
thence S 00°33'24" W a distance of 2643.57 feet to the south ¼ corner of said Section;
thence N 89°04'50" W a distance of 2647.84 feet to the northeast corner of Section 29, T145N, R83W;
thence S 00°42'51" W a distance of 2644.20 feet to the east ¼ corner of said Section;

thence S 00°42'51" W a distance of 2644.21 feet to the northeast corner of Section 32, T145N, R83W;
thence S 00°19'07" W a distance of 2644.20 feet to the east ¼ corner of said Section;
thence S 89°21'39" E a distance of 5296.88 feet to the east ¼ corner of Section 33, T145N, R83W;
thence S 00°31'03" W a distance of 2644.09 feet to the southeast corner of said Section;
thence S 89°22'36" E a distance of 591.24 feet to the north ¼ corner of Section 6, T144N, R83W;
thence S 89°22'36" E a distance of 2052.60 feet to the south ¼ corner of Section 34, T145N, R83W;
thence S 89°22'56" E a distance of 586.06 feet to the northeast corner of Section 6, T144N, R83W;
thence S 00°25'58" W a distance of 1519.69 feet to the east ¼ corner of said Section;
thence S 00°25'58" W a distance of 2637.26 feet to the northeast corner of Section 7, T144N, R83W;
thence S 00°26'44" W a distance of 2637.01 feet to the east ¼ corner of said Section;
thence S 00°26'48" W a distance of 2636.87 feet to the southeast corner of said Section 7, being also the Point of Beginning.

Said area of land contains 16,522.3 acres.

An area of land located in Section 12, T145N-R83W and Section 7, T145N-R82W of the 5th P.M, McLean County, North Dakota having the bearings and distances based on the North Dakota State Plane Coordinate System, North Zone, 1927 N.A.D. Described as follows:

Beginning at the southwest corner of Section 12, T145N, R83W;
thence N 00°25'39" E a distance of 2648.03 feet to the west ¼ corner of said Section;
thence S 89°24'42" E a distance of 5302.72 feet to the east ¼ corner of said Section 12;
thence S 89°32'28" E a distance of 1315.57 feet to the CW1/16 corner of Section 7, T145N, R82W;
thence S 00°34'42" W a distance of 2646.12 feet to the S1/16SW corner of said Section;
thence N 89°26'47" W a distance of 1314.25 feet to the southeast corner of Section 12, T145N, R83W;
thence N 89°27'21" W a distance of 2648.54 feet to the south ¼ corner of said Section;
thence N 89°27'21" W a distance of 2648.53 feet to the southwest corner of said Section 12, being also the Point of Beginning.

Said area of land contains 401.8 acres.