

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Dakota Westmoreland Corporation
Revision No. 27, Permit KRSB-8603
Application

Case No. RC-13-70

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

May 28, 2014

Based on the application for **Revision No. 27 to Permit Number KRSB-8603** submitted by Dakota Westmoreland Corporation (DWC) for the Beulah Mine on January 31, 2013, and as revised through May 16, 2014, 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 permit 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)].

Revision No. 27 adds 892.2 acres to Permit KRSB-8603, revises mining and reclamation plans, and updates nearly all other sections of the permit with information for the added area. With the added acreage, Permit No. KRSB-8603 will total 3,558.3 acres. The acreage being added to the permit is directly south of the current permit boundary that is located on the west side of State Highway 49 and about five miles southwest of Beulah. Coal removal will occur from a portion of the additional acreage and other areas will be used for soil stockpiles, sedimentation ponds, haul roads and other associated disturbances.

The applicant verified that all information included in the application is true and correct to the best of their knowledge. Commission staff conducted completeness and technical reviews to ensure that the required information was provided and mining and reclamation plans meet all applicable requirements. The Reclamation Division sent completeness and technical review letters to the applicant on March 1, 2013, January 6, 2014, January 29, 2014, March 25, 2014, April 24, 2014 and May 13, 2014. Responses to each letter were reviewed and changes to the application were made to address the concerns that were noted. The Commission concludes that this significant revision application is now accurate and complete. The applicant published the required notices in newspapers and the Commission sent notices to all surface owners of the lands being added to the permit area and to numerous local, state and federal agencies. Advisory committee members also reviewed portions of the application and comments were

received from several agencies. No objections or requests for an informal conference were received on this application.

Much of the land being added to Permit KRSB-8603 with Revision No. 27 contains federally owned coal and DWC plans to mine a portion of the federal coal. The leased federal coal tracts that will be mined as proposed by this revision are located in the N $\frac{1}{2}$ of the S $\frac{1}{2}$ of Section 20 and the S $\frac{1}{2}$ of Section 22, both in T143N, R88W. Federal Coal Lease NDM 041765 was modified by the Bureau of Land Management (within the U.S. Department of the Interior) on December 1, 2013 to add the S $\frac{1}{2}$ of Section 22 to the existing lease (NDM 041765). The N $\frac{1}{2}$ of the S $\frac{1}{2}$ of Section 20 was added to this lease earlier. DWC either owns the surface or has the appropriate surface leases to conduct surface coal mining activities on these federal coal tracts. Therefore, the applicant currently has the legal right to disturb the surface of the federal coal tracts to the extent necessary for conducting mining operations on the adjoining tracts where the coal is privately owned.

On February 25, 2014, the Office of Surface Mining (OSM) determined that the mining of additional federal coal as proposed by Revision 27 constitutes a mine plan modification that needs to be approved by the Department of the Interior. The Bureau of Land Management approved a modification of the Logical Mining Unit on March 11, 2014 and the Resource Recovery and Protection Plan for the additional federal coal tracts was approved on May 5, 2014.

However, before overburden and coal removal is allowed to begin on the federal coal tracts located in the N $\frac{1}{2}$ of the S $\frac{1}{2}$ of Section 20 and the S $\frac{1}{2}$ of Section 22, the Department of the Interior will need to approve the mining plan modification covering all of the federal coal tracts as required by 30 CFR 746.11. This federal regulation states no person shall conduct surface coal mining and reclamation operations on lands containing leased federal coal until the Secretary has approved the mining plans. Condition No. 1 attached to the Commission's approval of Revision No. 27 prohibits any overburden and coal removal from the federal coal tracts as described above until the applicant receives approval of federal mining plan modification from the Department of the Interior. Until that mining plan is approved, surface disturbances on the federal coal tracts will be limited to those activities that are needed for carrying out mining on the adjoining federal coal tracts previously approved for mining or where the coal is private and state owned.

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 revised permit application [NDCC 38-14.1-21(3)(b)].

Revision No. 27 adds 892.2 acres to the permit, revises mining and reclamation plans, and updates nearly all other sections of the permit accordingly. Areas that are disturbed will be reclaimed using procedures that have been successful in the past and satisfy the requirements of the North Dakota law and rules.

The proposed postmining topography meets the approximate original contour requirements of NDCC 38.1-14.1-24 (3) and NDAC 69-05.2-21-02. The average postmining slopes of the Silver, Gold and Iron Pit areas are less than that which existed prior to mining as detailed in Section 3.5 of the permit. 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 reclaimed land will be capable of supporting the uses, or higher or better uses, that were

capable prior to mining. Native grassland (406.4 acres) and cropland (356.7 acres) are the predominant pre-mining and post-mining land use for the acreage being added with Revision No. 27 to the permit. Native grassland is the predominant pre-mining and post-mining land use for the entire permit area. Other pre-mining and post-mining land uses occurring in the permit area include hayland, tame pastureland, woodlands, farmsteads, roads, wetlands and developed water resources. Although there are some acreage adjustments, all of these other pre-mining land uses, with the exception of farmsteads, are also proposed after mining.

With regard to the reclamation schedule, DWC has requested additional variances from the contemporaneous reclamation requirements that normally require rough grading to be completed within 180 days of coal removal, NDAC 69-05.2-21-01(2), and that all reclamation efforts through the initial seeding be completed within three years of completion of mining activities, NDCC 38-14.1-24(14). These variance areas and the rationale for them, which are related to final mine closure, are described and justified in the revision application. Variances from the 180 day grading and 3 year seeding requirements were previously granted for portions of the permit area as allowed by NDAC 69-05.2-21-01(2) and NDCC 38-14.1-24(14) and the Commission is approving the additional variances as proposed by Revision No. 27.

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 and water availability within or adjacent to the permit area. The original cumulative hydrologic impact assessment (CHIA) for Permit KRSB-8603 was completed in July 1986 and significant updates to the CHIA were incorporated into the document in September 2005 with Revision No. 16 to the permit. Additional updates to the CHIA were for areas added to the permit with Revisions No. 19 and 22. The CHIA was again updated on May 9, 2014 to reflect the addition of 892.2 acres being added to the permit with Revision No. 27. This acreage is contiguous to and directly south of the current mining operations at the Beulah Mine.

Finding No. 4. Lands being added to the permit area 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 land being added to the permit area has 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 subirrigated 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, vegetation, landuse, irrigation potential, and the water quality and quantity of streams occurring within and adjacent to the lands being added to the permit area, it has been determined that no alluvial valley floors exist within or adjacent to this area. It was previously determined that Brush Creek, located east of the permit area does not meet the criteria of an alluvial floor and it was also determined that Coyote Creek, located south and west of the permit area, does not meet the criteria of an alluvial valley floor. Otter Creek and the Knife River, located east and north of the permit area respectively, were previously identified as potential alluvial valley floors; however, it was determined that DWC's mining operations will not adversely affect the availability or quality of surface and ground water in these drainage systems.

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)].

For the areas being added to the permit, the applicant included certified copies of leases and other documents in the 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 application was filed with the Commission.

Finding No. 7. Lands being added to the permit area are not within areas subject to the prohibitions or limitations of NDCC 38-14.1-07 unless such areas meet the application review procedures of NDAC 69-05.2-04-01[NDAC 69-05.2-10-03(6)(a)].

Lands being added to the permit area 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. UNDAR-WEST and other cultural resource contractors completed several inventories and cultural resource surveys of the areas being added to the permit between 1980 and 2014. The Class III Cultural Resource Inventory was recently completed for areas in the S½ of the S½ of Section 21 that are being added to the permit with Revision No. 27. Several cultural resource sites were identified within the addition area, and all but two were deemed 'insignificant' in terms of National Register Criteria by the North Dakota State Historic Preservation Officer (SHPO). One site was deemed potentially significant by the SHPO. It is identified as cultural resource site 32ME2232 and is located in the SE¼ of Section 20. This site location will be appropriately fenced with a minimum 75-foot setback to ensure avoidance and protection. The other cultural resource site, 32ME2522 has not yet been evaluated for significance and is located on an area that will not be affected by mining activities. The applicant made a commitment to not disturb this site prior to the SHPO making a significance determination. The applicant has also committed to informing the proper authorities

in the event that any previously unrecorded archeological, cultural, or historic materials are discovered.

- d. Within 100 feet of the outside right-of-way of several public roads under Mercer County's jurisdiction. However, in January of 2014, the Mercer County Commissioners approved the temporary closure of the section line common to Sections 22 and 23, excluding the north 1400 feet. The road closure process included the publication of a hearing notice and the Mercer County Commission held a public hearing on the matter. Written findings were issued that found the interests of the public and affected landowners would be protected. This section line closure does not deprive adjacent landowner's access to their property. The section lines between Sections 20 and 21 and 21 and 22 were previously closed by Mercer County with Revision 22.
- e. Not within 300 feet of any public building, school, church, community, or institutional buildings, nor will mining operations be conducted within 500 feet of any occupied dwelling. The coal removal area does not come within 500 feet of any occupied or utilized farm building.

No public buildings, schools, churches, or community or institutional buildings are within 300 feet of the area being added to the permit with Revision No. 27. Abandoned farmstead buildings in previously permitted areas are located in the NE $\frac{1}{4}$ of Section 20 and NW $\frac{1}{4}$ of Section 21 and the area being added includes another abandoned farmstead in the SW $\frac{1}{4}$ of Section 21. The applicant owns the abandoned farmstead located in Section 20 and all structures associated with this farmstead will be removed. Additional coal removal is not planned on the abandoned farmstead in the NW $\frac{1}{4}$ of Section 21 but some of these buildings may be affected by a mine haul road. The abandoned buildings located in the SW $\frac{1}{4}$ of Section 21 will not be affected by mining activities but a haul road will be constructed nearby. No coal removal is proposed within 500 feet of two nearby farmsteads that are located outside of the permit area.

- f. Not within 100 feet of any cemetery. The Emmaus cemetery is located in the northeast corner of Section 29 adjacent to the permit area and is approximately 400 feet southeast of the final pit planned in the southeast corner of Section 20. County Road 16th Street SW is located along the north side of this cemetery and no disturbances will occur within 100 feet of this road.

Finding No. 8. With respect to prime farmland, the post-mining land use of the reclaimed prime farmland will be cropland, the reclamation plan was reviewed by the Natural Resources Conservation Service and their suggestions were considered, and operations will be conducted in compliance with NDAC 69-05.2-26 and NDCC38-14.1. 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)].

A total of 23.6 acres of prime farmland has been identified within the area being added to the permit with Revision 27. Of this total, 2.1 acres located in the S $\frac{1}{2}$ of Section 22, T143N, R88W, will be disturbed by mining activities. This acreage is located near 2.8 acres of prime farmland already in the permit that will be disturbed by mining activities. No disturbance is planned on the prime farmland acreage located in the S $\frac{1}{2}$ of Section 21. The applicant has included a prime farmland reclamation plan for the prime farmland 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 Natural Resources 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 by the applicant have proven to be successful in the past, therefore, the Commission finds that the applicant has the technological capability to restore the productivity of the reclaimed land to a level that is equal to or greater than the non-mined prime farmland in the surrounding area under equivalent management practices. The applicant will segregate prime and non-prime farmland topsoil for stockpile or immediate redistribution, but mix prime and non-prime subsoil as allowed by NDAC 69-05.2-09-15(5). Each landowner will receive the same acreage of reclaimed prime farmland as was present prior to mining and the post-mine land use of the reclaimed prime farmland will be cropland.

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)].

Surface coal mining and reclamation activities will not adversely affect the continued existence of threatened or endangered species or result in the destruction or adverse modification of their critical habitats. No federal threatened or endangered species or designated critical habitats were observed within or contiguous to the areas being added to the permit area.

The permit area is located in the primary whooping crane (a listed species) migration corridor where mining and reclamation activities “may affect, but are not likely to adversely affect” this species. The likelihood of whooping cranes occurring in the study area is very low because desirable habitat does not exist. There are 11 acres of linear wetlands present in drainages within the permit addition area but these types of wetlands are not desirable whooping crane habitat. Based on the small wetland acreage that is not desirable whooping crane habitat, the Commission finds that there is no suitable stop-over habitat for whooping cranes within the permit area. The permit and adjacent area do not contain habitat for other listed species including the Black-footed Ferret, Pallid Sturgeon, Least Tern, Piping Plover or Western Prairie Fringed Orchid. The Gray Wolf could conceivably be an occasional migrant visitor to North Dakota and the permit area.

The permit addition area does not contain high quality habitat for any of the six species listed as Candidate species to the threatened and endangered species act, of which four have been proposed to be officially added as Threatened and Endangered species. Suitable habitat does not exist in or adjacent the permit area for three of these species, Greater Sage Grouse, Rufa Red Knot and Powershiek Skipperling. A Dakota Skipper butterfly survey was completed for the areas being added to the permit area in 2006 and no Dakota Skippers were observed. The survey report concluded that insufficient intact habitat existed for prairie specialist butterflies. Sprague Pipit sightings occurred in 1980 in the wildlife study area but none have been observed since that time. The size and fragmented nature of the tracts of native grassland in the addition area does not provide for desirable habitat for this species. The permit and immediate adjacent area do not contain caves or underground abandoned mines which may function as suitable habitat for the Northern Long-Eared Bat.

The fish and wildlife monitoring plan in the permit includes continued surveys for threatened and endangered species. Also, NDAC 69-05.2-13-08(2) requires the permittee to promptly report to the Commission the presence of any threatened and

endangered species and the Commission must then consult with the USFWS and NDGF department to decide whether and under what conditions the operator may proceed. Therefore, this action will not likely adversely affect listed species or designated critical habitat.

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

DWC has paid all reclamation fees required by 30 CFR subchapter R. Records maintained by the Office of Surface Mining's Applicant Violator System show that all fees have been paid.

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

The applicant has satisfied the requirements for approval of a cropland post-mining land use under NDAC 69-05.2-22-01 for the areas being added to the permit with Revision No. 27. Areas reclaimed to cropland will be seeded to a tame grass/legume pre-cropland mixture before the stand is broke and used for annual crops commonly grown in the area. Approximately 54 acres of pre-mine cropland located in the S½ of the S½ of Section 20 will be reclaimed to hayland, a subcategory of cropland as per the landowner's request. The pre-mine capabilities of all cropland that will be reclaimed to hayland will be restored. The balance of the pre-mine cropland located in the S½ of Sections 21 and 22 will be returned to cropland production. The soils are suitable for cropland in areas that are dedicated to that post-mining land use.

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

No existing structures in the areas being added to the permit will be used to support mining activities. However, haul roads and other facilities within previously permitted areas of Permits KRSB-8603 and KRSB-8802 will support mining in the area being added to the permit. These previously permitted structures have been found to meet the applicable design and performance standards of NDCC Section 38-14.1-24 and NDAC Article 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 hole, borehole, or well 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 areas being added to the permit 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 one hundred feet of any perennial stream. However, mining activities will occur within and

near intermittent streams, but these activities will not violate applicable water quality standards or adversely affect the quantity and quality of the water and other environmental resources of the streams [NDAC 69-05.2-16-20].

As proposed by Revision No. 27, the applicant does not propose to conduct any mining related activities within one hundred feet of any perennial stream. However, mining activities are proposed within or near streams that have been identified as intermittent streams. An additional segment of the intermittent stream (approximately 200 feet in length) in the SW¼ of Section 22 will be mined through. In addition, water management structures (sedimentation ponds and a diversion) and a haul road will be constructed within 100 feet of the intermittent stream in the SE¼ of Section 20. No disturbances are planned within 100 feet of the streams that are identified as intermittent in the SE¼ of Section 22, SW¼ of Section 21, and SW¼ of Section 20.

The Commission sent a copy of the revision application to the State Engineer and North Dakota Department of Health on February 10, 2014 for review and comment. Operations plans in the permit specifically discuss intermittent stream buffer disturbances and the affected areas are depicted on the pit layout and facilities map. The Commission finds that the proposed disturbances will not cause or contribute to the violation of applicable state or federal water quality standards and will not adversely affect the water quantity and quality of these intermittent streams. All runoff from disturbances planned within 100 feet of an intermittent stream will be controlled through the use of water management structures and best management practices. Areas of intermittent streams that will not be disturbed or affected will be designated buffer zones and marked to exclude mining related disturbance.

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 revision 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 (AVS), 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.

An AVS compliance history report that was obtained when this revision application was deemed complete, February 3, 2014, identified 18 outstanding violations that were associated with Mr. Robert P. King. Mr. King has held three positions with Westmoreland Coal Company, the parent company of the applicant, since March of 2012. AVS did not identify the relationships between Mr. King and any of the four companies listed on his history report. An explanation from the AVS office revealed that all violations linked to Mr. King have been settled. The violations linked to Mr. King occurred decades prior due to his association with another company. Commission staff

confirmed that all violations were resolved to the satisfaction of the state regulatory authority.

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. On May 13, 2014, staff at the North Dakota Department of Health verified that the applicant has no unabated violations with regard to air and water environmental protection standards.

Finding No. 19. A performance bond in the amount of \$8,168,895 is sufficient for the proposed surface coal mining operations in this permit area for the Beulah Mine [NDAC 69-05.2-12-07].

An updated worst-case reclamation cost estimate for this permit was prepared with Revision No. 27 and that estimate totals \$7,932,555. However, an earlier worst-case reclamation cost estimate included in Revision No. 26 resulted in a determination that a bond amount of \$8,168,895 was sufficient to perform the required reclamation, restoration, and abatement work in the permit area. Therefore, the current surety bond in the amount of \$8,168,895 remains sufficient for the permit area. However, the applicant filed a stipulation to increase the surety bond area to add the 892.2 acres that is being added by Revision No. 27 to Permit No. KRSB-8603.

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 No. 27 to Permit Number KRSB-8603** is hereby granted to **Dakota Westmoreland Corporation** to engage in surface coal mining and reclamation operations, on the following described areas subject to the applicable requirements of the original permit and conditions, Chapter 38-14.1 of the North Dakota Century Code, and the rules promulgated there under. (Attached is a copy of the metes and bounds description of lands being added to the permit area.)

LOCATION

| MINE | ADDRESS | ACRES | Sec. | Twp. | Range | County |
|---------------|-------------------|--------------|-----------------------|-------------|--------------|---------------|
| Beulah | Beulah, ND | 892.2 | 20, 21, 22, 23 | 143N | 88W | Mercer |

892.2 acres – Total Area Added

PUBLIC SERVICE COMMISSION



Randy Christmann
Commissioner



Brian P. Kalk
Chairman



Julie Fedorchak
Commissioner

Revision 27 to Permit KRSB-8603 – Metes and Bounds Description

A tract of land situated in Sections 20, 21, 22 and 23, T.143N., R.88W., Mercer County, North Dakota, being more particularly described as follows:

The first tract beginning at a point which is located and established by use of the Dakota Westmoreland Corporation coordinate system, such point also being the east quarter corner of Section 19 and having the coordinates: S 7,879.1 and W 21,024.4; such point also being designated as corner No. 680;

- thence S69°10'50"E a distance of 2,822.0 feet to corner No. 681;
- thence N89°59'55"E a distance of 2,645.6 feet to corner No. 682;
- thence N0°09'58"E a distance of 313.7 feet to corner No. 521;
- thence N 89° 49'41"E a distance of 1,000.0 feet to corner 520;
- thence N 0° 08'36"W a distance of 400.0 feet to corner 519;
- thence S 69° 46'28"E a distance of 482.8 feet to corner 518;
- thence N 89° 49'41"E a distance of 720.0 feet to corner 517;
- thence S 15° 35'16"E a distance of 240.4 feet to corner 516;
- thence N 89° 49'41"E a distance of 3,000.0 feet to corner 515;
- thence N 0° 00' 30"W a distance of 680.0 feet to corner 514;
- thence S 89° 38'50"E a distance of 5277.9 feet to corner 683;
- thence N 11° 23'53" W a distance of 1322.5 feet to corner 685;
- thence S 50° 30'23" E a distance of 2040.0 feet to corner 686;
- thence S 00°01'13" E a distance of 2643.5 feet to corner 687;
- thence N 89°58'25" W a distance of 1305.6 feet to corner 688, such point also being the East corner of section 22;
- thence N 89°41'49"W a distance of 2643.0 feet to corner 689, such point also being the South quarter corner of Section 22;
- thence N 89°42'00"W a distance of 2642.9 feet to corner 690, such point also being the SE corner of Section 21;
- thence S 89°54'44" W a distance of 2615.8 feet to corner 691, such point also being the South quarter corner of Section 21;
- thence S 89°54'44" W a distance of 2615.1 feet to corner 692, such point also being the SE corner of Section 20;
- thence N 89° 46'53" W a distance of 2646.8 feet to corner 693, such point also being the South quarter corner of Section 20; thence N 89° 46'40"W a distance of 2640.8 feet to corner 694, such point also being the South East Corner of Section 19;
- thence N 00° 00'20"W a distance of 2629.9 feet to corner 680, the original point of beginning.

The above tract of land contains 892.2 acres, more or less.

| CORNER NO. | LATITUDE | DEPARTURE |
|------------|------------|------------|
| 680 | S 7,879.1 | W 21,024.4 |
| 681 | S 8,882.1 | W 18,386.6 |
| 682 | S 8,882.0 | W 15,741.1 |
| 521 | S 8,568.3 | W 15,742.0 |
| 520 | S 8,565.3 | W 14,742.0 |
| 519 | S 8,165.3 | W 14,743.0 |
| 518 | S 8,332.2 | W 14,290.0 |
| 517 | S 8,330.04 | W 13,570.0 |
| 516 | S 8,561.6 | W 13,505.4 |
| 515 | S 8,552.6 | W 10,505.4 |
| 514 | S 7,872.6 | W 10,505.5 |
| 683 | S 7,905.1 | W 5,227.6 |